DAB
WATER•TECHNOLOGY

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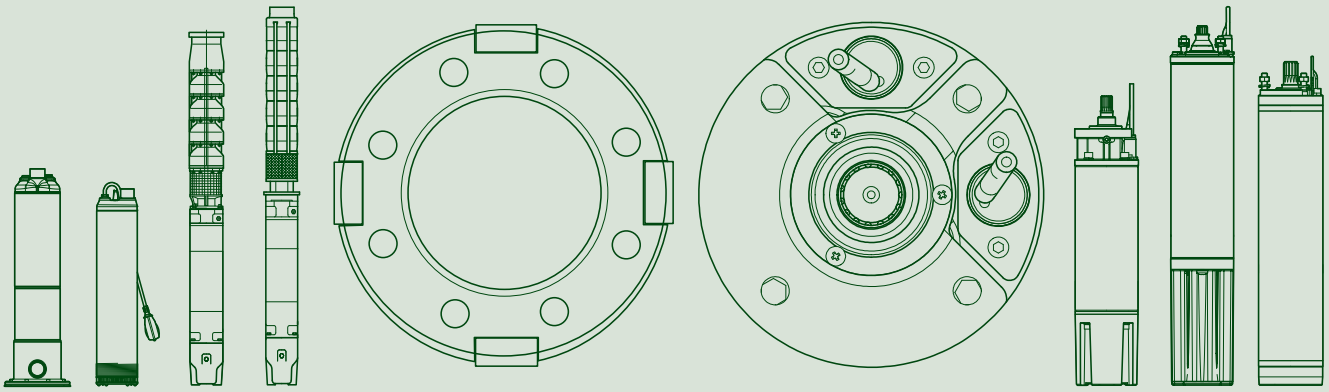
SUBMERSIBLE PUMPS AND MOTORS



TECHNICAL CATALOGUE

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and its partner
CISQ/IMQ-CSQ
hereby certify that the organization

DWT HOLDING SPA
VIA MARCO POLO 14 - 35035 MESTRINO (PD)
BRENDOLA (VI) - CASTELLO DI GODEGO (TV) - BIENTINA (PI) -
SAN GERMANO DEI BERICI (VI) - GESSATE (MI) -
PRC CHINA

for the following field of activities

Design, production, sale and assistance of components and electronic controls for pumps, electropumps, and pump sets for cold and hot water for civil, industrial and agricultural use

Refer to quality manual for details of applications to ISO 9001:2008 requirements

has implemented and maintains a
Quality Management System
which fulfills the requirements of the following standard

ISO 9001:2008

Issued on: 2013 - 09 - 23 Expiry date: 2015 - 06 - 15

Registration Number: IT - 824

Michael Drechsel
President of IQNET

Ing. Claudio Provetti
President of CISQ

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Ann. 1 of 1

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ALLEGATO CERTIFICATO n. **9101.COGE**
ANNEX CERTIFICATE

(*) Unità Operative:
(*) Operative Units:

DAB PUMPS SPA
VIA BONANNO PISANO 1 - 56031 BIENTINA (PI)

TESLA SRL
VIA DEL LAVORO 3 - 36040 SAN GERMANO DEI BERICI (VI)

TESLA SRL
VIA BERGAMO 2 - 20060 GESSATE (MI)

DAB PUMPS QINGDAO CO. LTD.
40 KAITUO ROAD, QINGDAO DEVELOPMENT ZONE - SHANGDONG PROVINCE, PRC CHINA

DATE:	PRIMA CERTIFICAZIONE *FIRST CERTIFICATION*	EMISSIONE CORRENTE *CURRENT ISSUE*	SCADENZA *EXPIRY*
	1995-07-17	2013-09-23	2015-06-15

IMQ S.p.A. - VIA QUINTILIANO, 43 - 20138 MILANO

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ACCREDIA
EA: 18, 19

La validità del certificato è subordinata a sorveglianza annuale e riesame completo del Sistema di Gestione con periodicità triennale
The validity of the certificate is submitted to annual audit and a reassessment of the entire Management System within three years

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CERTIFICATO N. **9101.COGE**
CERTIFICATE N.

SI CERTIFICA CHE IL SISTEMA QUALITA' DI
WE HEREBY CERTIFY THAT THE QUALITY SYSTEM OPERATED BY
DWT HOLDING SPA
VIA MARCO POLO 14 - 35035 MESTRINO (PD)

UNITA' OPERATIVE
OPERATIVE UNITS
DAB PUMPS
VIA MARCO POLO 14 - 35035 MESTRINO (PD)
DAB PUMPS
VIA EINAUDI 2 - 36040 BRENDOLA (VI)
DAB PUMPS
VIA E. FERMI 6-8-10 - 31030 CASTELLO DI GODEGO (TV)

Vedere gli Allegati per le altre Unità Operative (n° 1 pagina)
View the Annexes for the other Operative Units (n° 1 page)

E' CONFORME ALLA NORMA
IS IN COMPLIANCE WITH THE STANDARD
ISO 9001:2008

PER LE SEGUENTI ATTIVITA'
FOR THE FOLLOWING ACTIVITIES

Progettazione, produzione, vendita e assistenza di componenti e controlli elettronici per pompe, elettropompe e gruppi di pompaggio per acqua fredda e calda ad uso civile, industriale ed agricolo
Design, production, sale and assistance of components and electronic controls for pumps, electropumps, and pump sets for cold and hot water for civil, industrial and agricultural use

Riferirsi al manuale della qualità per l'applicabilità dei requisiti della norma ISO 9001:2008
Refer to quality manual for details of applications to ISO 9001:2008 requirements

IL PRESENTE CERTIFICATO E' SOGGETTO AL RISPETTO DEL REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI GESTIONE
THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE REQUIREMENTS OF THE RULES FOR CERTIFICATION OF MANAGEMENT SYSTEMS

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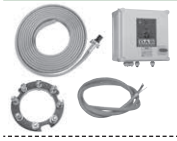


TECHNICAL APPENDIX

DAB complies with the EcoDesign Directive (ErP - *Energy related Products* - Directive, 2009/125/EC)
EC 547/2012 Regulation that requires:
FOR 4" AND 6" SUBMERSIBLE MULTISTAGE PUMPS (MSS)

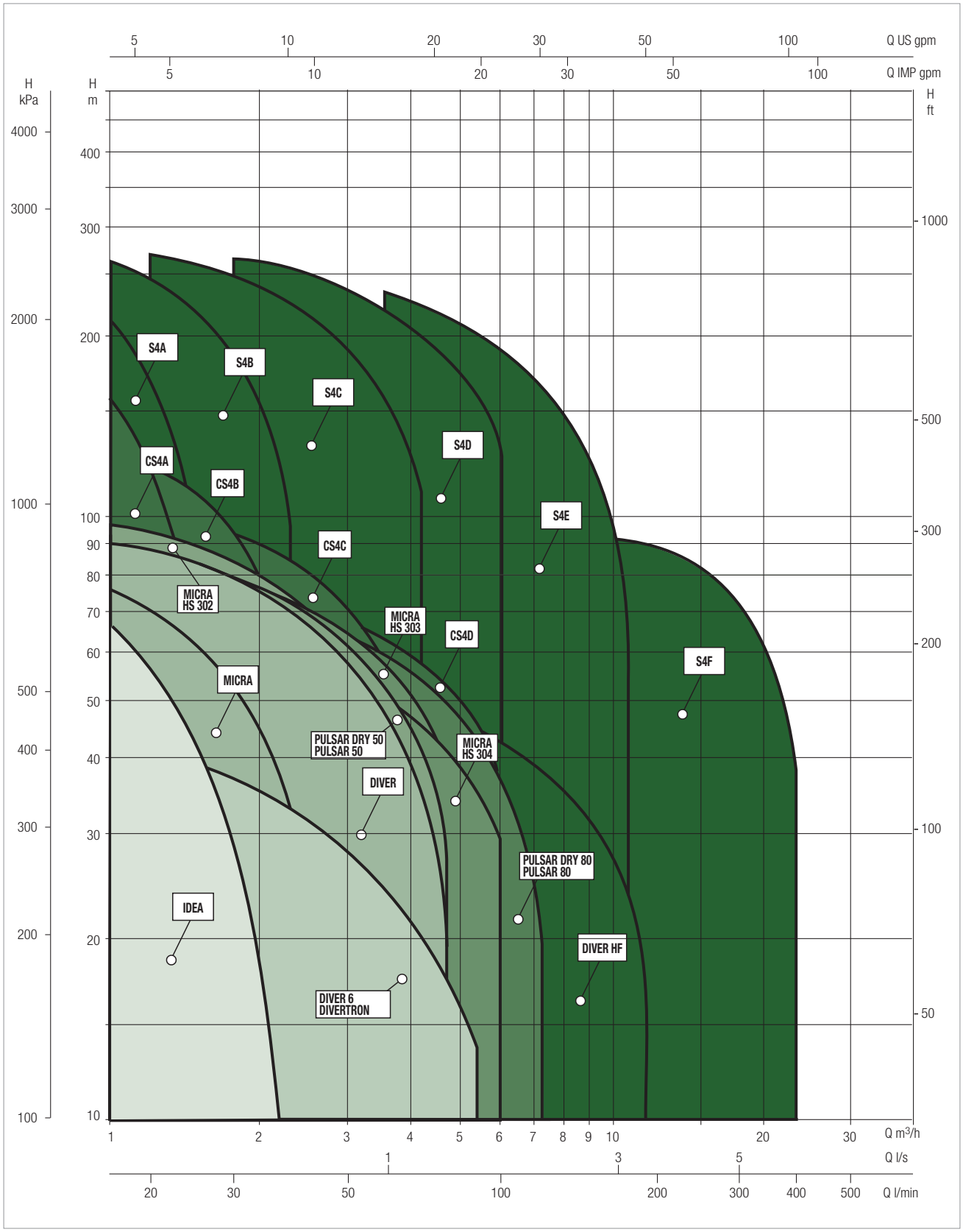
- starting from January 1st 2013 MEI $\geq$ 0,1
- starting from January 1st 2015 MEI $\geq$ 0,4

RANGE OF SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



IDEA

4" SUBMERSIBLE PERIPHERAL PUMPS

TECHNICAL DATA

Operating range: from 0,4 a 2,4 m^3/h with head of up to 52 metres.
Pumped liquid: clean, free of solids and abrasives, non-viscous, non crystallised and chemically neutral, with properties similar to water.
Liquid temperature range: from 0 °C to +35 °C.
Max. immersion depth: 20 m.
Discharge port diameter: 1**"** GAS.
Power supply tolerance: +6 % / -10 %.
Max. starts: 20/h.
Installation: in 4" wells or larger, tanks and cisterns, vertical position.
Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Single-impeller (version 75 and 100) or double-impeller (version 150) peripheral submersible pump for 4" wells, capable of providing high heads in limited power conditions. Suitable for water lifting and distribution applications in domestic systems, small agricultural concerns, pressurisation of pressure vessels and DIY uses.

CONSTRUCTION FEATURES OF THE PUMP

Pump body and motor support in cast iron.
Brass impeller.
Rotor shaft extension and strainer in stainless steel.

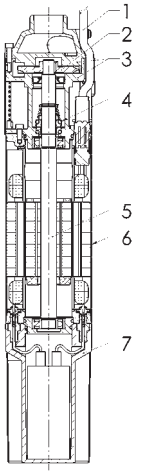
CONSTRUCTION FEATURES OF THE MOTOR

Submersible asynchronous two-pole motor, made entirely of stainless steel, dry design with external cooling by means of the pumped liquid. Canned-type AISI 304L stator.
Squirrel cage rotor running on ball bearings, oversized to ensure reliability and durability.
Graphite/alumina mechanical seal and lip seal.
In the single-phase version the start capacitor is enclosed in a sturdy, electrically insulated high-density plastic enclosure.
Overload protection to be provided by the user for the three-phase version.
Protection class: IP 68
Insulation class: F
Standard voltage: single-phase 230 V / 50 Hz
three-phase 400 V / 50 Hz
Power cable: Removable H07RN-F power cable, length 15 m.
Supplied with 15 m nylon rope

MATERIALS

N.	PART*	MATERIALS
1	CABLE	H07 RNF CEI 20-19
2	IMPELLER	BRASS PCuZn40Pb2 UNI 5705
3	SUPPORT	CAST IRON G20 UNI 5007 (Epoxy electrocoat)
4	MECHANICAL SEAL	GRAPHITE/ALUMINA
5	SHAFT WITH ROTOR	STAINLESS STEEL AISI 431 X17CrNi16 2 UNI 10088-3
6	MOTOR	STAINLESS STEEL AISI 304L X2CrNi19 11 UNI 10088-3
7	CAPACITOR CARTRIDGE	Noryl 20 % fibreglass

* In contact with the liquid.



IDEA

4" SUBMERSIBLE PERIPHERAL PUMPS

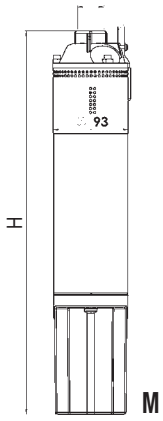
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA								
	P2 NOMINAL		Q=m³/h	0,4	0,6	0,9	1,2	1,5	1,8	2,1	2,4
	kW	HP	Q=l/min	7	10	15	20	25	30	35	40
IDEA 75 M	0,55	0,75	H (m)	39	37	32	27,6	22,5	17,6	12,2	6,8
IDEA 100 M	0,75	1		52	48,3	41,4	34,6	28	21,2	14,4	7,3
IDEA 150 M	1	1,5		90	81	70	60	48	35	22	10
IDEA 75 T	0,55	0,75		39	37	32	27,6	22,5	17,6	12,2	6,8
IDEA 100T	0,75	1		52	48,3	41,4	34,6	28	21,2	14,4	7,3
IDEA 150T	1	1,5		90	81	70	60	48	35	22	10

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA							Ø mm	H mm	PACKING DIMENSIONS			WEIGHT kg
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR				L/A	L/B	H	
			kW	HP		µF	Vc						
IDEA 75 M	1x230 V ~	0,8	0,55	0,75	4	16	450	93	482	630	265	125	10,5
IDEA 100 M	1x230 V ~	1,1	0,75	1	4,7	20	450	93	512	630	265	125	12
IDEA 150 M	1x230 V ~	2,2	1	1,5	10,5	35	450	93	602	630	265	125	15
IDEA 75 T	3x400 V~	0,65	0,55	0,75	1,5	–	–	93	353	420	310	118	10,2
IDEA 100T	3x400 V ~	1,1	0,75	1	2,3	–	–	93	383	420	310	118	11,7
IDEA 150T	3x400 V ~	2,5	1	1,5	4,3	–	–	93	475	630	265	125	14,6

DNM 1" GAS



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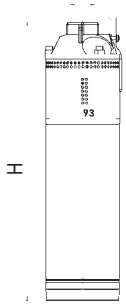
DNM 1" GAS



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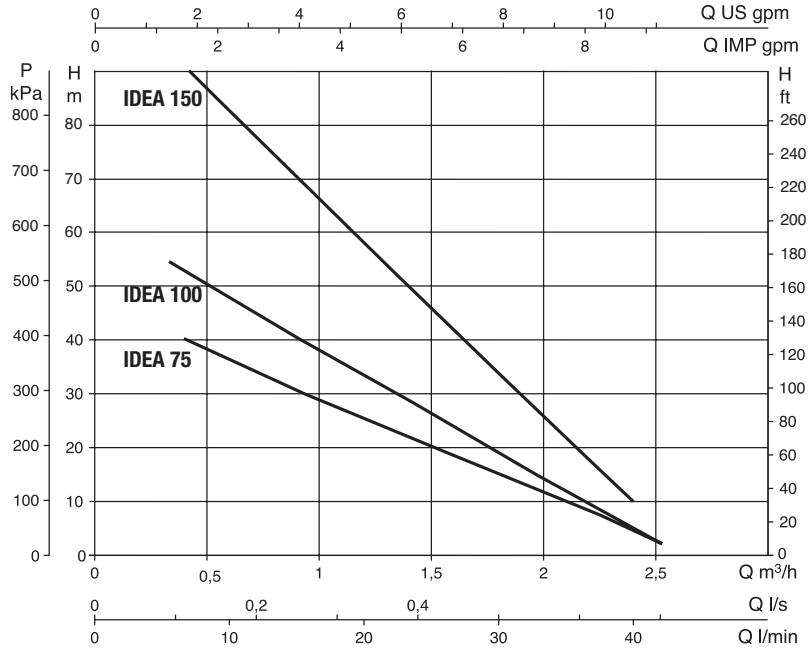


The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

DIVER - DIVER HF

5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

TECHNICAL DATA

Operating range: from 0,6 to 12 m^3/h with head up to 96 metres.
Pumped liquid: clean, free of solids and abrasives, non-aggressive.
Max percentage of sand in water: 50 g/m^3.
Liquid temperature range: from 0 °C to +35 °C.
Max. immersion depth: 20 m.
Discharge port diameter: 1" 1/4 GAS.
Power supply tolerance: +6 % / -10 %.
Max. starts: 20/h.
Motor protection class: IP 68.
Motor protection rating: F.
Installation: in wells, tanks and cisterns, vertical position.
Special executions on request:
alternative voltages and/or frequencies.
Automatic version available with float switch.

APPLICATIONS

DIVER electric pumps are utilised for lifting clear water from boreholes, first water collection tanks or cisterns, wells or water courses, and are capable of distributing pressurised water to domestic installations, small agricultural plants, and sprinkler systems for lawns and vegetable gardens.
The pump has a very silent operation, and can be installed inside boreholes and tanks, thus avoiding all the potential problems connected with suction and unpriming.

CONSTRUCTION FEATURES OF THE PUMP

Multistage monobloc submersible pump with hydraulic section below the motor, which is cooled by the pumped liquid. Impellers and diffusers made of fibreglass reinforced Noryl, with wear-resistant stainless steel thrust ring. Outer liner, stator sleeve, upper head with delivery connection and closing ring in AISI 304 stainless steel. Canned-type stator. Supports in cast iron. Rotor shaft extension in AISI 304 stainless steel. Lip seal on the motor side, and silicon carbide/silicon carbide seal on the pump side.

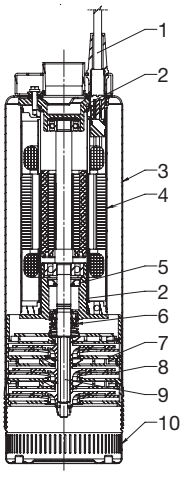
CONSTRUCTION FEATURES OF THE MOTOR

Submersible asynchronous two-pole motor, made entirely of stainless steel, dry design with external cooling by means of the pumped liquid. Canned-type AISI 304L stator.
Squirrel cage rotor running on ball bearings, oversized to ensure silent operation, reliability and durability.
The single-phase version can be supplied with CONTROL BOX on request.
Overload protection to be provided by the user for the three-phase version.
Automatic version available with float switch.
Available on request with support base and lateral suction (DRY).

Protection class: IP 68
Insulation class: F
Standard voltage: single-phase 230 V / 50 Hz.
three-phase 400 V / 50 Hz
Power cable: Removable H07RN-F power cable, length 10 m.

MATERIALS

N.	PART*	MATERIALS
1	CABLE	H07RN-F CEI 20-19
2	SUPPORT	BRASS PCuZn40Pb2 UNI 5705
3	OUTER LINER	AISI 304 STAINLESS STEEL X5CrNi1810 UNI 10088-3
4	STATOR	AISI 304 STAINLESS STEEL X5CrNi1810 UNI 10088-3
5	LIP SEAL	NBR 70
6	MECHANICAL SEAL	SiC/SiC
7	DIFFUSER	TECHNOPOLYMER
8	IMPELLER	TECHNOPOLYMER
9	SHAFT WITH ROTOR	AISI 304 STAINLESS STEEL X5CrNi1810 UNI 10088-3
10	STRAINER	AISI 304 STAINLESS STEEL X5CrNi1810 UNI 10088-3



DIVER

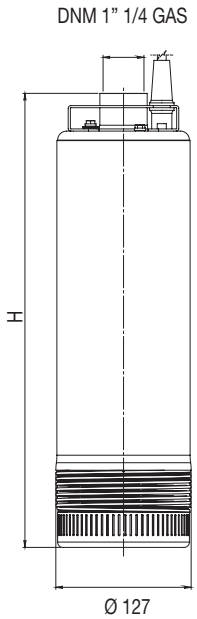
5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

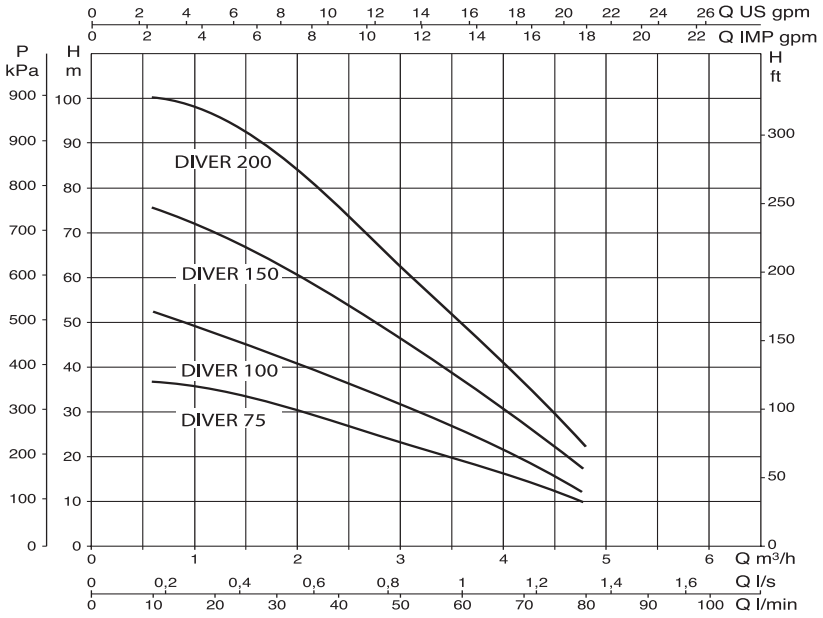
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA									
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,8	2,4	3	3,6	4,2	4,8
	kW	HP	Q=l/min	0	10	20	30	40	50	60	70	80
DIVER 75	0,55	0,75	H (m)	39	35	33	30	26	22	18	14	9
DIVER 100	0,75	1		55	50	45	41	35	30	25	18	11
DIVER 150	1	1,5		80	72	67	60	52	45	35	26	16
DIVER 200	1,5	2		101	96	90	85	70	60	47	35	21

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA							Ø mm	H mm	PACKING DIMENSIONS			VOLUME PACKING m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR				L/A	L/B	H			
			kW	HP		µF	Vc								
DIVER 75 M	1x230 V~	0,85	0,55	0,75	4,6	16	450	127	427	625	230	170	0,024	35	10
DIVER 75 T-NA	3x230 V~	0,8	0,55	0,75	2,9	-	-	127	427	625	230	170	0,024	35	10
DIVER 75 T-NA	3x400 V~	0,8	0,55	0,75	1,7	-	-	127	427	625	230	170	0,024	35	10
DIVER 100 M	1x230 V~	1,1	0,75	1	5,9	20	450	127	482	625	230	170	0,024	35	11,7
DIVER 100 T-NA	3x230 V~	1,2	0,75	1	4,2	-	-	127	482	625	230	170	0,024	35	11,7
DIVER 100 T-NA	3x400 V~	1,2	0,75	1	2,4	-	-	127	482	625	230	170	0,024	35	11,7
DIVER 150 M	1x230 V~	1,6	1	1,5	7,8	30	450	127	550	625	230	170	0,024	35	13,1
DIVER 150 T-NA	3x230 V~	1,55	1	1,5	5,7	-	-	127	550	625	230	170	0,024	35	13,1
DIVER 150 T-NA	3x400 V~	1,55	1	1,5	3,3	-	-	127	550	625	230	170	0,024	35	13,1
DIVER 200 M-A	1x230 V~	2,3	1,5	2	10,7	35	450	127	648	710	220	160	0,025	35	15,8
DIVER 200 T-NA	3x230 V~	2,15	1,5	2	8,5	-	-	127	648	710	220	160	0,025	35	15,8
DIVER 200 T-NA	3x400 V~	2,15	1,5	2	4,9	-	-	127	648	710	220	160	0,025	35	15,8





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

DIVER HF (HIGH FLOW)

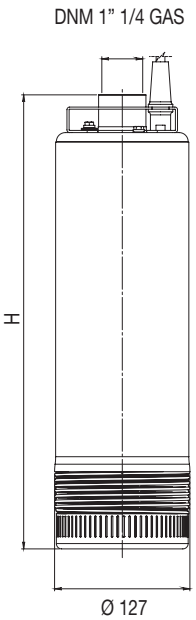
5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

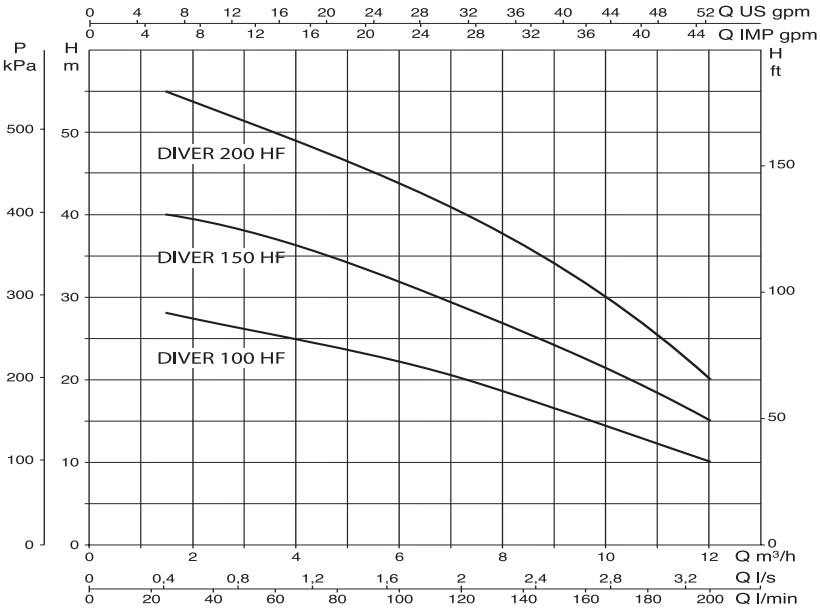
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA									
	P2 NOMINAL		Q=m³/h	0	1,5	3	4,5	6	7,5	9	10,5	12
	kW	HP	Q=l/min	0	25	50	75	100	125	150	175	200
DIVER 100 HF	0,75	1	H (m)	30	28	26	24	22	20	16	13	10
DIVER 150 HF	1	1,5	H (m)	42	40	38	35	32	28	24	20	15
DIVER 200 HF	1,5	2		59	55	51	48	44	39	34	28	20

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA							Ø mm	H mm	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A	CAPACITOR				L/A	L/B	H			
			kW	HP		µF	Vc								
DIVER 100 HF M	1x230 V~	1,1	0,75	1	6,2	20	450	127	459	625	230	170	0,024	35	11,5
DIVER 100 HF T-NA	3x230 V~	1,2	0,75	1	4,3	-	-	127	459	625	230	170	0,024	35	11,5
DIVER 100 HF T-NA	3x400 V~	1,2	0,75	1	2,5	-	-	127	459	625	230	170	0,024	35	11,5
DIVER 150 HF M	1x230 V~	1,7	1	1,5	8,1	30	450	127	523	625	230	170	0,024	35	13
DIVER 150 HF T-NA	3x230 V~	1,8	1	1,5	6	-	-	127	523	625	230	170	0,024	35	13
DIVER 150 HF T-NA	3x400 V~	1,8	1	1,5	3,5	-	-	127	523	625	230	170	0,024	35	13
DIVER 200 HF M	1x230 V~	2,15	1,5	2	10,8	35	450	127	608	710	220	160	0,025	35	15,5
DIVER 200 HF T-NA	3x230 V~	2,1	1,5	2	8,5	-	-	127	608	710	220	160	0,025	35	15,5
DIVER 200 HF T-NA	3x400 V~	2,1	1,5	2	4,9	-	-	127	608	710	220	160	0,025	35	15,5





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

PULSAR

5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

TECHNICAL DATA

Operating range: from 0,9 to 7,2 m^3/h with head up to 86 metres.
Pumped liquid: clean, free of solids and abrasives, non-aggressive.
Max percentage of sand in water: 50 g/m^3.
Liquid temperature range: from 0 °C to +40 °C.
Maximum immersion depth: 20 metres.
Motor protection class: IP 68.
Motor protection rating: F.
Installation: fixed or portable, vertical or horizontal position.
Operation: manual or automatic (continuous duty with totally submerged pump).
Discharge port diameter: 1"1/4 GAS.
Pump maximum diameter: 138 mm.

APPLICATIONS

PULSAR electric pumps are utilised for lifting clear water from boreholes, first water collection tanks or cisterns, wells or water courses, and are capable of distributing pressurised water to domestic installations, small agricultural plants, and sprinkler systems for lawns and vegetable gardens.
The pump has a very silent operation, and can be installed inside boreholes and tanks, thus avoiding all the potential problems connected with suction and unpriming.

CONSTRUCTION FEATURES OF THE PUMP

Multistage monobloc submersible pump with hydraulic section below the motor, which is cooled by the pumped liquid. Impellers, diffusers, strainer and oil sump in abrasion-proof thermoplastic material. Outer liner, stator sleeve, upper head with delivery connection and closing ring in AISI 304 stainless steel. Upper and lower bearing support in pressed anti-dezincification brass. Rotor shaft extension in AISI 304 stainless steel. Elastomers in NBR. Stainless steel screws. Double mechanical seal with interposed oil chamber, in ceramic/carbon on the motor side, and silicon carbide/silicon carbide on the pump side. The seal system adopted ensures watertight sealing of the motor and good performance of the mechanical seal even in the event of short term dry operation.

CONSTRUCTION FEATURES OF THE MOTOR

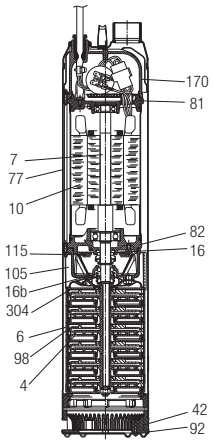
Submersible type continuous duty asynchronous motor. Stator enclosed in airtight casing made of AISI 304 stainless steel and covered by an outer protection that protects the wiring and the capacitor. Rotor running on ball bearings, oversized to ensure low noise and durability.
The single-phase version has built-in thermal-amperometric protection and permanently connected capacitor. For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations. Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

Motor protection class: IP 68
Insulation class: F
Standard voltages: Single-phase 220/240 V - 50 Hz.
Three-phase 400 V - 50 Hz.
Standard cables: 20 m cable type H07 RN-F; single-phase version complete with SCHUKO CEE 7-VII-UNEL 47166-68 plug.
The single-phase version can be supplied with or without float switches for automatic operation.

MATERIALS

N.	PART*	MATERIALS
4*	IMPELLER	TECHNOPOLYMER
6*	DIFFUSER	TECHNOPOLYMER
7*	SHAFT WITH ROTOR	AISI 304 (part in contact with the pumped liquid)
10*	MOTOR CASING WITH WOUND STATOR	AISI 304
16*	COMPLETE UPPER MECHANICAL SEAL	NBR/CERAMIC/CARBON
16b	COMPLETE LOWER MECHANICAL SEAL	NBR/SILICON/CARBON
42*	SUCTION STRAINER	TECHNOPOLYMER
77*	OUTER LINER	AISI 304
81*	UPPER BEARING SUPPORT	PRESSED BRASS
82*	LOWER BEARING SUPPORT	PRESSED BRASS
92*	STRAINER COVER	AISI 304
98*	DIFFUSER HOUSING	TECHNOPOLYMER
105*115	SUMP	TECHNOPOLYMER
170*	SEAL LUBRICATION FLUID	ESSO MARCOL 172 OIL
304*	WIRING COMPARTMENT COVER	TECHNOPOLYMER
	REAR DISC	TECHNOPOLYMER

* In contact with the pumped liquid.



PULSAR 50

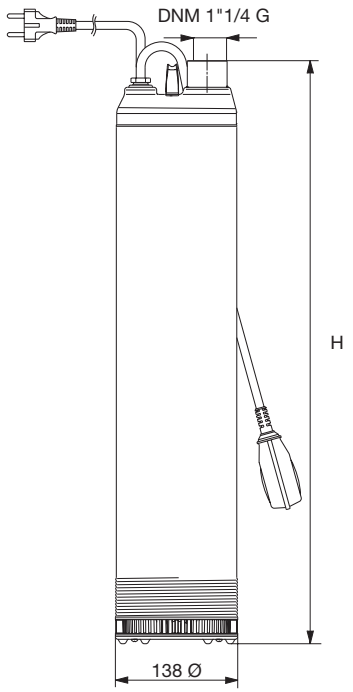
5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

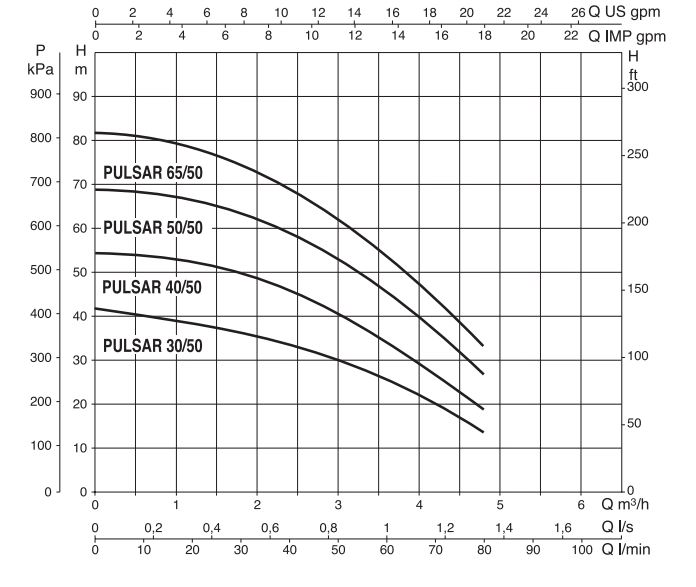
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA							
	P2 NOMINAL		Q=m³/h	0	1,2	2,4	3,6	4,8	6	7,2
	kW	HP	Q=l/min	0	20	40	60	80	100	120
PULSAR 30/50	0,55	0,75	H (m)	42	38,2	33,8	24,8	13,5	-	-
PULSAR 40/50	0,75	1		56	51	45	33	18	-	-
PULSAR 50/50	1	1,36		72	65,5	58	43,6	24,5	-	-
PULSAR 65/50	1,2	1,6		86	78,5	70	52,8	29	-	-

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA							H mm	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A	CAPACITOR			L/A	L/B	H			
			kW	HP		µF	Vc							
PULSAR 30/50 M	1x230 V~	0,94	0,55	0,75	4,5	16	450	562	690	220	165	0,037	20	17,3
PULSAR 30/50 T-NA	3x230 V~	0,87	0,55	0,75	2,85	-	-	562	690	220	165	0,037	20	17,3
PULSAR 30/50 T-NA	3x400 V~	0,87	0,55	0,75	1,65	-	-	562	690	220	165	0,037	20	17,3
PULSAR 40/50 M	1x230 V~	1,12	0,75	1	5,2	16	450	562	690	220	165	0,037	20	17,5
PULSAR 40/50 T-NA	3x230 V~	1,03	0,75	1	3,2	-	-	562	690	220	165	0,037	20	17,5
PULSAR 40/50 T-NA	3x400 V~	1,03	0,75	1	1,85	-	-	562	690	220	165	0,037	20	17,5
PULSAR 50/50 M	1x230 V~	1,45	1	1,36	6,5	25	450	630	690	220	165	0,037	20	18,5
PULSAR 50/50 T-NA	3x230 V~	1,35	1	1,36	4,15	-	-	630	690	220	165	0,037	20	18,5
PULSAR 50/50 T-NA	3x400 V~	1,35	1	1,36	2,4	-	-	630	690	220	165	0,037	20	18,5
PULSAR 65/50 M	1x230 V~	1,70	1,2	1,6	7,8	30	450	657	690	220	165	0,037	20	19,5
PULSAR 65/50 T-NA	3x230 V~	1,60	1,2	1,6	5	-	-	657	690	220	165	0,037	20	19,5
PULSAR 65/50 T-NA	3x400 V~	1,60	1,2	1,6	2,9	-	-	657	690	220	165	0,037	20	19,5





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

PULSAR 80

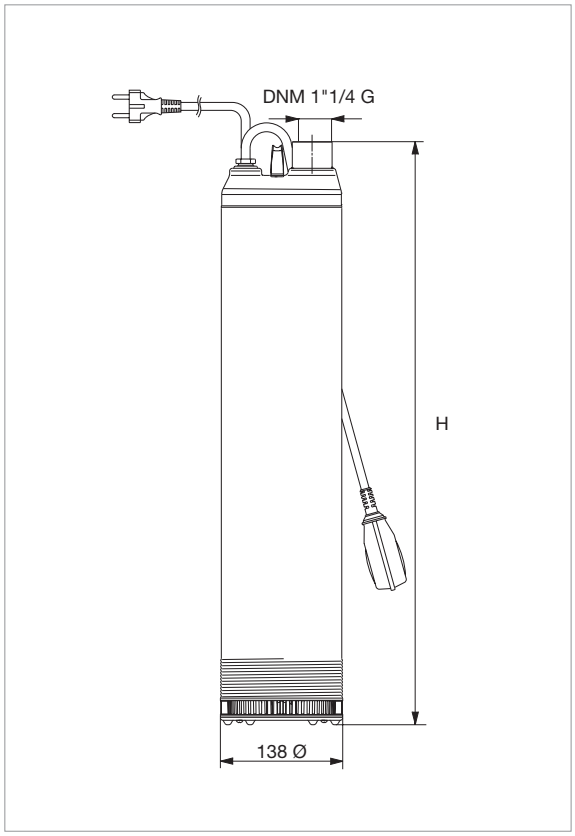
5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

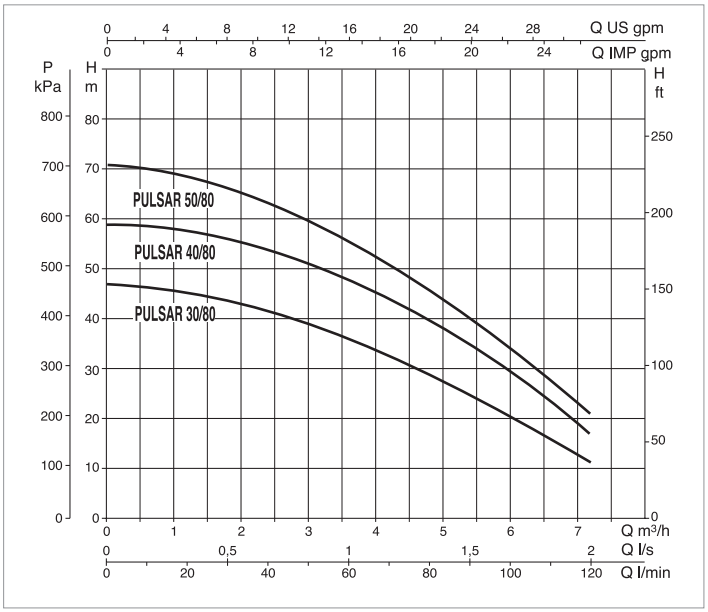
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA							
	P2 NOMINAL		Q=m³/h	0	1,2	2,4	3,6	4,8	6	7,2
	kW	HP	Q=l/min	0	20	40	60	80	100	120
PULSAR 30/80	0,75	1	H (m)	51	48,2	44,8	39,2	32,4	23,5	13
PULSAR 40/80	1	1,36		64	61	56,8	50	41,5	30,5	16,2
PULSAR 50/80	1,2	1,6		77	73,2	68	60	50	37	19,6

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA							H mm	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A	CAPACITOR			L/A	L/B	H			
			kW	HP		µF	Vc							
PULSAR 30/80 M	1x230 V~	1,12	0,75	1	5,2	16	450	562	690	220	165	0,037	20	17,5
PULSAR 30/80 T-NA	3x230 V~	1,03	0,75	1	3,2	-	-	562	690	220	165	0,037	20	17,5
PULSAR 30/80 T-NA	3x400 V~	1,03	0,75	1	1,85	-	-	562	690	220	165	0,037	20	17,5
PULSAR 40/80 M	1x230 V~	1,45	1	1,36	6,5	25	450	630	690	220	165	0,037	20	18,5
PULSAR 40/80 T-NA	3x230 V~	1,35	1	1,36	4,15	-	-	630	690	220	165	0,037	20	18,5
PULSAR 40/80 T-NA	3x400 V~	1,35	1	1,36	2,4	-	-	630	690	220	165	0,037	20	18,5
PULSAR 50/80 M	1x230 V~	1,70	1,2	1,6	7,8	30	450	657	690	220	165	0,037	20	19,5
PULSAR 50/80 T-NA	3x230 V~	1,60	1,2	1,6	5	-	-	657	690	220	165	0,037	20	19,5
PULSAR 50/80 T-NA	3x400 V~	1,60	1,2	1,6	2,9	-	-	657	690	220	165	0,037	20	19,5





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

PULSAR DRY

5” SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

TECHNICAL DATA

Operating range: from 0,9 to 7,2 m^3/h with head of up to 86 metres.
Pumped liquid: clean, free of solids and abrasives, non-aggressive.
Max percentage of sand in water: 50 g/m^3.
Liquid temperature range: from 0 °C to +40 °C.
Maximum immersion depth: 20 metres.
Motor protection class: IP 68.
Motor protection rating: F.
Maximum working pressure: 10 bar.
Installation: fixed or portable, vertical or horizontal position.
Operation: manual or automatic
(continuous duty with totally submerged pump).
Discharge and suction port diameters: 1”1/4 GAS.
Pump maximum diameter: 138 mm.

APPLICATIONS

PULSAR DRY electric pumps are utilised for lifting and pressurizing clear water from first water collection tanks or cisterns, and are capable of distributing pressurised water to domestic installations, small agricultural plants, and sprinkler systems for lawns and vegetable gardens. Thanks to its particularly silent operation, the pump is suitable for the creation of pressurization assemblies for installation in environments without aeration or prone to flooding.

CONSTRUCTION FEATURES OF THE PUMP

Multistage monobloc submersible or surface pump with hydraulic section below the motor, which is cooled by the pumped liquid. Impellers, diffusers, strainer and oil sump in abrasion-proof thermoplastic material. Outer liner, pump body, stator sleeve, upper head with delivery connection and closing ring in AISI 304 stainless steel. Upper and lower bearing support in pressed anti-dezincification brass. Rotor shaft extension in AISI 304 stainless steel. Elastomers in NBR. Stainless steel screws. Double mechanical seal with interposed oil chamber, in ceramic/carbon on the motor side, and silicon carbide/silicon carbide on the pump side. The seal system adopted ensures watertight sealing of the motor and good performance of the mechanical seal even in the event of short term dry operation.

CONSTRUCTION FEATURES OF THE MOTOR

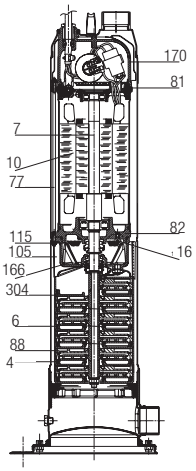
Submersible type continuous duty asynchronous motor. Stator enclosed in airtight casing made of AISI 304 stainless steel and covered by an outer protection that protects the wiring and the capacitor. Rotor running on ball bearings, oversized to ensure low noise and durability. The single-phase version has built-in thermal-amperometric protection and permanently connected capacitor. For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations. Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

Motor protection class: IP 68
Insulation class: F
Standard voltages: Single-phase 220/240 V - 50 Hz.
Three-phase 400 V - 50 Hz.
Standard cables: 15 m cable type H07 RN-F; single-phase version complete with SCHUKO CEE 7-VII-UNEL 47166-68 plug.
The single-phase version can be supplied with or without float switches for automatic operation.

MATERIALS

N.	PART*	MATERIALS
4*	IMPELLER	TECHNOPOLYMER
6*	DIFFUSER	TECHNOPOLYMER
7*	SHAFT WITH ROTOR	AISI 304 (part in contact with the pumped liquid)
10*	MOTOR CASING WITH WOUND STATOR	AISI 304
16*	COMPLETE UPPER MECHANICAL SEAL	NBR/CERAMIC/CARBON
16b	COMPLETE LOWER MECHANICAL SEAL	NBR/SILICON/CARBON
77*	OUTER LINER	AISI 304
81*	UPPER BEARING SUPPORT	PRESSED BRASS
82*	LOWER BEARING SUPPORT	PRESSED BRASS
98*	DIFFUSER HOUSING	TECHNOPOLYMER
105*115	SUMP	TECHNOPOLYMER
170*	SEAL LUBRICATION FLUID	ESSO MARCOL 172 OIL
304*	WIRING COMPARTMENT COVER	TECHNOPOLYMER
	REAR DISC	TECHNOPOLYMER

* In contact with the pumped liquid.



PULSAR DRY

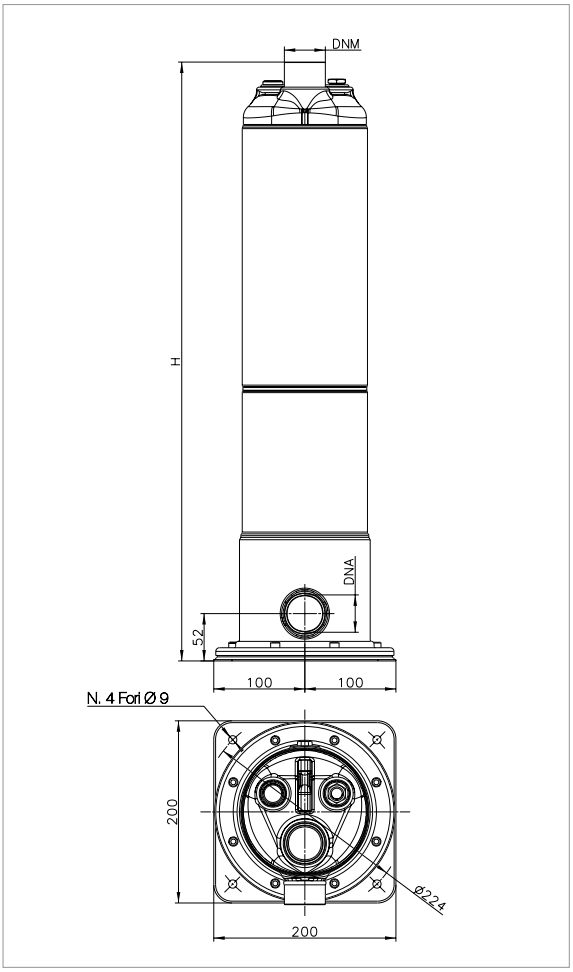
5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

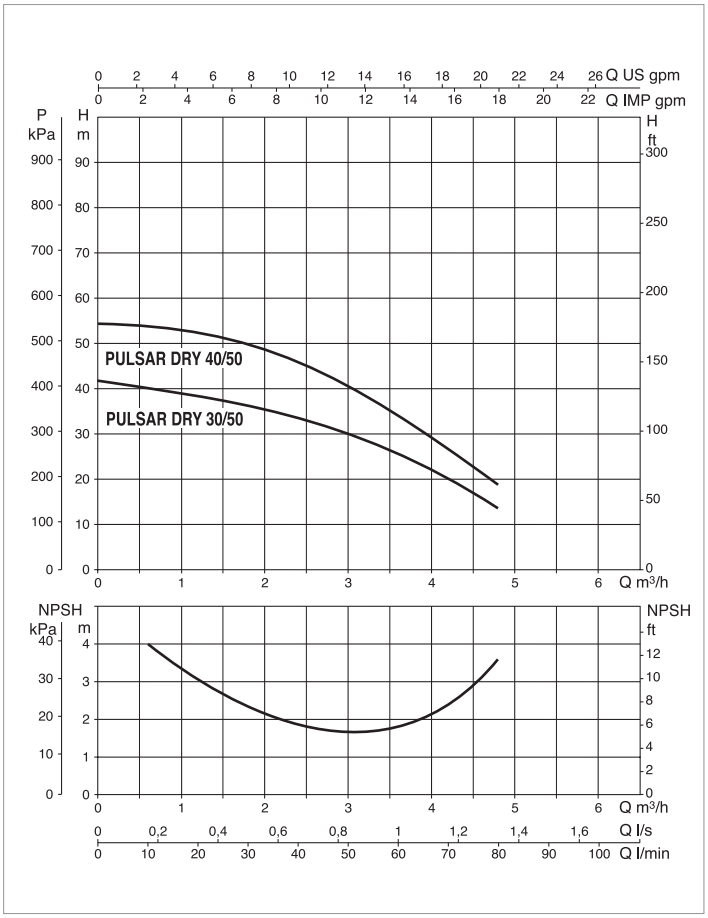
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA							
	P2 NOMINAL		Q=m³/h	0	1,2	2,4	3,6	4,8	6	7,2
	kW	HP	Q=l/min	0	20	40	60	80	100	120
PULSAR DRY 30/50	0,55	0,75	H (m)	42	38,2	33,8	24,8	13,5	-	-
PULSAR DRY 40/50	0,75	1		56	51	45	33	18	-	-

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA					H mm	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A		L/A	L/B	H			
			kW	HP								
PULSAR DRY 30/50 M-NA	1x230 V~	0,94	0,55	0,75	4,4	562	690	220	165	0,037	20	16,7
PULSAR DRY 30/50 T-NA	3x230 V~	0,87	0,55	0,75	2,85	562	690	220	165	0,037	20	17,3
PULSAR DRY 30/50 T-NA	3x400 V~	0,87	0,55	0,75	1,65	562	690	220	165	0,037	20	17,3
PULSAR DRY 40/50 M-NA	1x230 V~	1,12	0,75	1	5,2	562	690	220	165	0,037	20	17
PULSAR DRY 40/50 T-NA	3x230 V~	1,03	0,75	1	3,2	562	690	220	165	0,037	20	17,5
PULSAR DRY 40/50 T-NA	3x400 V~	1,03	0,75	1	1,85	562	690	220	165	0,037	20	17,5





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

PULSAR DRY

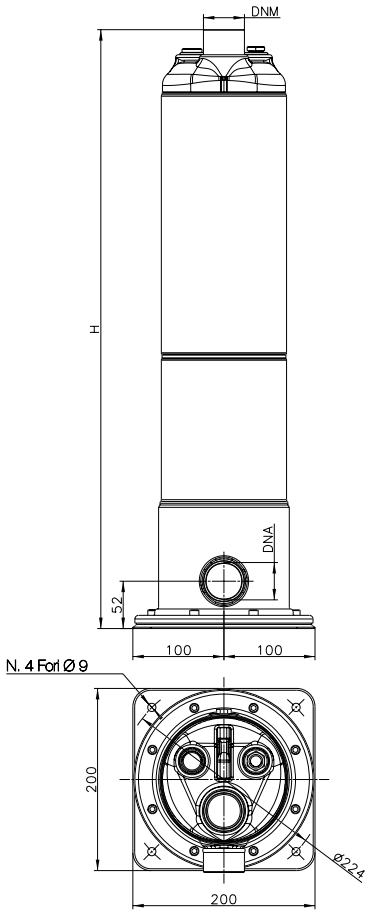
5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

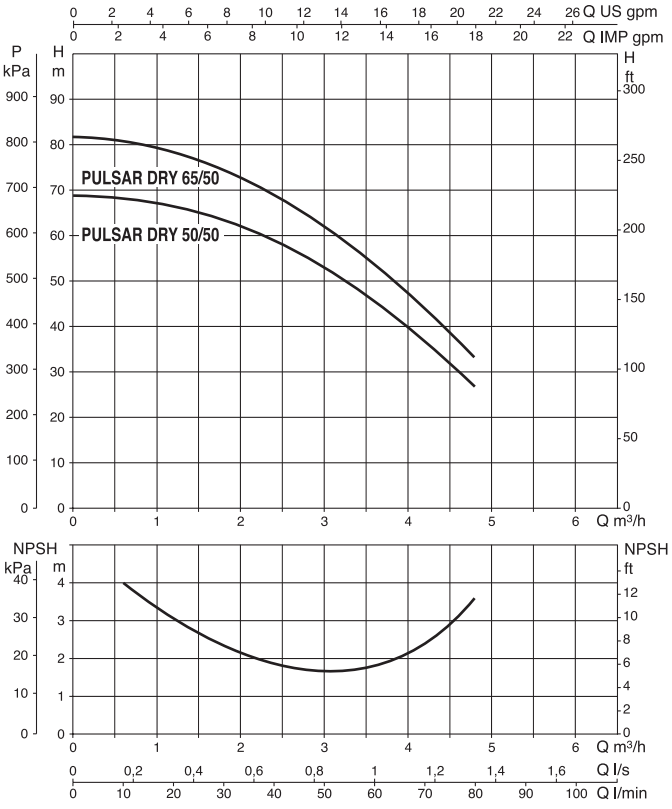
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA							
	P2 NOMINAL		Q=m³/h	0	1,2	2,4	3,6	4,8	6	7,2
	kW	HP	Q=l/min	0	20	40	60	80	100	120
PULSAR DRY 50/50	1	1,36	H (m)	72	65,5	58	43,6	24,5	-	-
PULSAR DRY 65/50	1,2	1,6		86	78,5	70	52,8	29	-	-

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA					H mm	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A		L/A	L/B	H			
			kW	HP								
PULSAR DRY 50/50 M-NA	1x230 V~	1,45	1	1,36	6,5	630	690	220	165	0,037	20	18
PULSAR DRY 50/50 T-NA	3x230 V~	1,35	1	1,36	4,15	630	690	220	165	0,037	20	18,5
PULSAR DRY 50/50 T-NA	3x400 V~	1,35	1	1,36	2,4	630	690	220	165	0,037	20	18,5
PULSAR DRY 65/50 M-NA	1x230 V~	1,70	1,2	1,6	7,8	657	690	220	165	0,037	9	19
PULSAR DRY 65/50 T-NA	3x230 V~	1,60	1,2	1,6	5	657	690	220	165	0,037	9	19,5
PULSAR DRY 65/50 T-NA	3x400 V~	1,60	1,2	1,6	2,9	657	690	220	165	0,037	9	19,5





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

PULSAR DRY

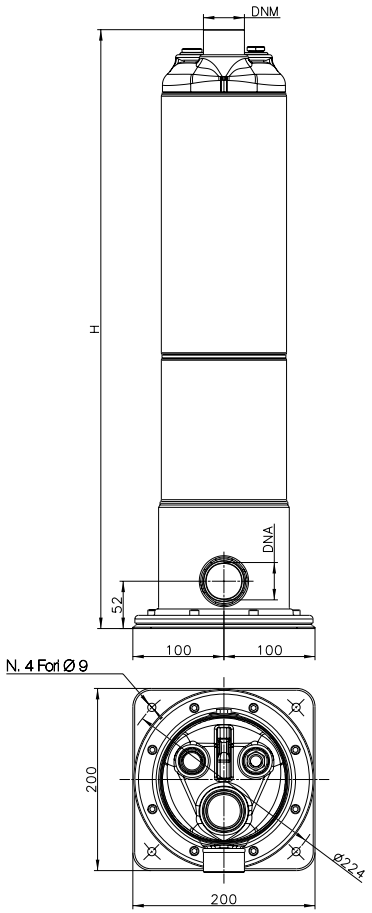
5" SUBMERSIBLE MONOBLOC MULTISTAGE PUMPS

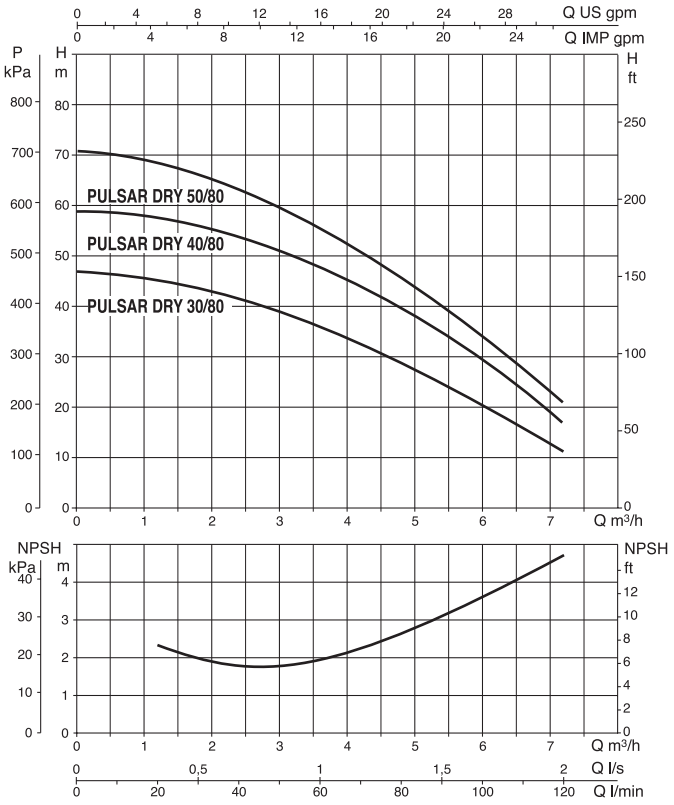
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA							
	P2 NOMINAL		Q=m³/h	0	1,2	2,4	3,6	4,8	6	7,2
	kW	HP	Q=l/min	0	20	40	60	80	100	120
PULSAR DRY 30/80	0,75	1	H (m)	51	48,2	44,8	39,2	32,4	23,5	13
PULSAR DRY 40/80	1	1,36		64	61	56,8	50	41,5	30,5	16,2
PULSAR DRY 50/80	1,2	1,6		77	73,2	68	60	50	37	19,6

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA					H mm	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A		L/A	L/B	H			
			kW	HP								
PULSAR DRY 30/80 M-NA	1x230 V~	1,12	0,75	1	5,2	562	690	220	165	0,037	20	17
PULSAR DRY 30/80 T-NA	3x230 V~	1,03	0,75	1	3,2	562	690	220	165	0,037	20	17,5
PULSAR DRY 30/80 T-NA	3x400 V~	1,03	0,75	1	1,85	562	690	220	165	0,037	20	17,5
PULSAR DRY 40/80 M-NA	1x230 V~	0,78	1	1,36	6,5	630	690	220	165	0,037	20	18
PULSAR DRY 40/80 T-NA	3x230 V~	0,60	1	1,36	4,15	630	690	220	165	0,037	20	18,5
PULSAR DRY 40/80 T-NA	3x400 V~	0,60	1	1,36	2,4	630	690	220	165	0,037	20	18,5
PULSAR DRY 50/80 M-NA	1x230 V~	0,94	1,2	1,6	7,8	657	690	220	165	0,037	9	19
PULSAR DRY 50/80 T-NA	3x230 V~	0,87	1,2	1,6	5	657	690	220	165	0,037	9	19,5
PULSAR DRY 50/80 T-NA	3x400 V~	0,87	1,2	1,6	2,9	657	690	220	165	0,037	9	19,5





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

DIVER 6

6” MULTI-IMPELLER SUBMERSIBLE PUMPS

TECHNICAL DATA

Operating range: from 1 to 5,4 m^3/h with head up to 46 metres.
Pumped liquid: clean, free of solids and abrasives, non-aggressive.
Liquid temperature range: from 0 °C to +35 °C.
Max. immersion depth: 12 metres.
Motor protection class: IP 68.
Motor protection rating: F.
Installation: fixed or portable, vertical position.
Operation: manual or automatic with float switch (continuous duty with totally submerged pump).
Discharge port diameter: 1”.
Pump maximum diameter: 150 mm.

APPLICATIONS

Multi-impeller submersible pumps ideal for use in rain water systems and watering networks, to pump water from cisterns, ponds, and wells, and for other applications requiring high pressure. Available with 2, 3, or 4 impellers.
Suitable for pumping clean waters.
Very efficient motor cooling, allowing the pump to also be used only partially submerged. Automatic version with float switch for automatic pump start and stop. Fitted with power supply cable with plug, non return valve and 4-level connector.

CONSTRUCTION FEATURES OF THE PUMP

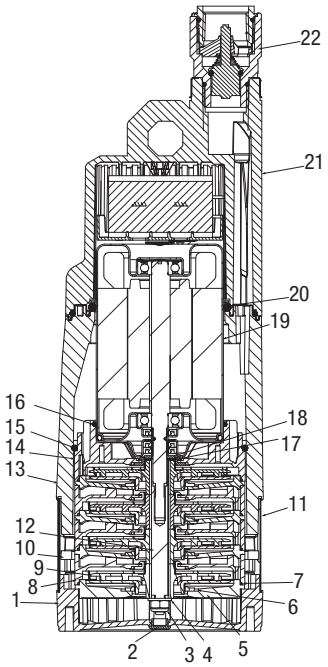
Corrosion and oxidation resistant material. Stainless steel debris strainer.

CONSTRUCTION FEATURES OF THE MOTOR

Submersible type continuous duty asynchronous motor.
Thermal overheating protection.
Wear-resistant motor shaft.

MATERIALS

N.	PARTS		MATERIALS
1	BASE		TECHNOPOLYMER
2	PLUG		TECHNOPOLYMER
3	NUT		A2 UNI 7474 STAINLESS STEEL
4	WASHER		A2 STAINLESS STEEL
5	FINAL DIFFUSER CAP		TECHNOPOLYMER
6	THRUST RING		TECHNOPOLYMER
7	OR RING		NBR
8	DIFFUSER		TECHNOPOLYMER
9	IMPELLER		TECHNOPOLYMER/AISI 304 STAINLESS STEEL
10	SPACER		TECHNOPOLYMER
11	STRAINER RING		AISI 304 STAINLESS STEEL
12	SHAFT		AISI 303 STAINLESS STEEL
13	BODY		TECHNOPOLYMER
14	DIFFUSER SUPPORT		TECHNOPOLYMER
15	OR RING		NBR
16	OR RING		NBR
17	WASHER		A2 STAINLESS STEEL
18	WASHER		A2 STAINLESS STEEL
19	MOTOR	CASE	ALUMINIUM
		ROTOR SHAFT	AISI 416 STAINLESS STEEL
20	OR RING		NBR
21	COVER		TECHNOPOLYMER
22	NON-RETURN VALVE		TECHNOPOLYMER/NBR/AISI 302 STAINLESS STEEL



DIVER 6

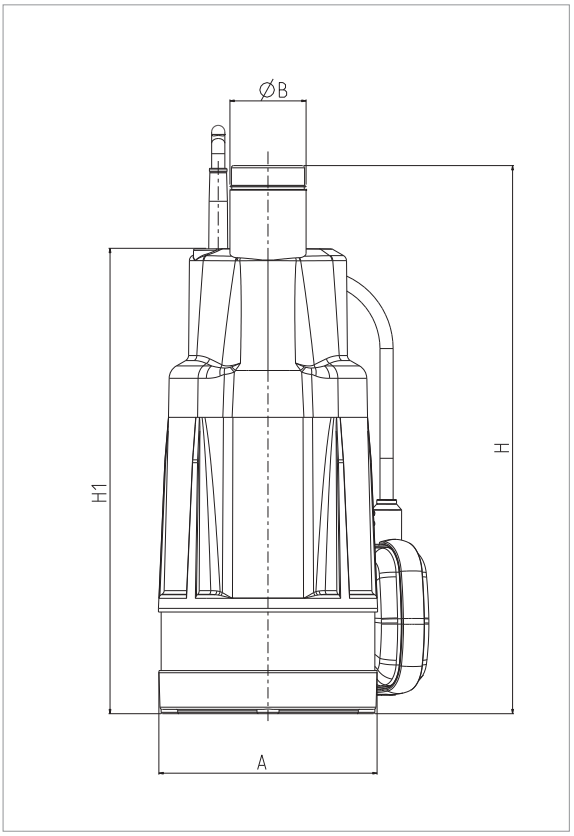
6" MULTI-IMPELLER SUBMERSIBLE PUMPS

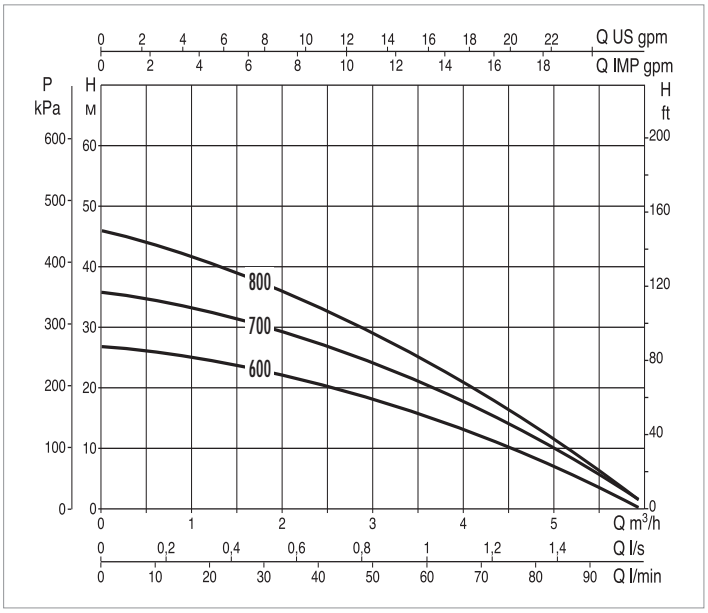
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA								
	P2 NOMINAL		Q=m³/h	0	0,9	1,8	2,7	3,6	4,5	5,1	5,4
	kW	HP	Q=l/min	0	15	30	45	60	75	85	90
DIVER 6 - 600 M-A	0,55	0,75	H (m)	24	22	19,5	16,2	12,5	7,5	3,7	1,5
DIVER 6 - 700 M-A	0,65	0,88		36	32,6	28,5	23,6	17	9,5	4,6	1,8
DIVER 6 - 800 M-A	0,75	1		46	41	35,5	29,2	21,8	13,5	7,8	3,5

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA					A	Ø B	H	H1	Ø	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A						L/A	L/B	H			
			kW	HP												
DIVER 6 - 600 M-A	1x230 V~	750	0,55	0,75	3	150	52	350	293	1"	232	192	456	0,02	40	7,5
DIVER 6 - 700 M-A	1x230 V~	900	0,65	0,88	3,8	150	52	375	318	1"	232	192	456	0,02	40	8,7
DIVER 6 - 800 M-A	1x230 V~	1100	0,75	1	4,8	150	52	400	343	1"	232	192	456	0,02	40	9





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

DIVERTRON

6” ELECTRONIC MULTI-IMPELLER PUMP

TECHNICAL DATA

Operating range: from 1 to 5,4 m^3/h with head up to 46 metres.
Pumped liquid: clean, free of solids and abrasives, non-aggressive.
Liquid temperature range: from 0 °C to +35 °C.
Max. immersion depth: 12 metres.
Motor protection class: IP 68.
Motor protection rating: F.
Installation: fixed or portable, vertical position.
Operation: Manual or automatic with electronic ON/OFF (continuous duty with totally submerged pump).
Discharge port diameter: 1”.
Pump maximum diameter: 150 mm.

APPLICATIONS

Multi-impeller submersible pump with integrated electronics for automatic switching on and off. Ideal for use in rain water systems and watering networks, to pump water from cisterns, ponds, and wells, and for other applications requiring high pressure. Available with 3 or 4 impellers. Built-in pressure switch, control circuit board and sensor. Dry run protection. Built-in non-return valve at the delivery. Easy to use and highly reliable.
Suitable for pumping clean waters. Very efficient motor cooling, allowing the pump to also be used only partially submerged. Supplied with stainless steel suction filter or stainless steel connection fitting for use with suction kits, particularly suitable for tanks with debris or dirt lying at the bottom. A version complete with suction kit is also available.

CONSTRUCTION FEATURES OF THE PUMP

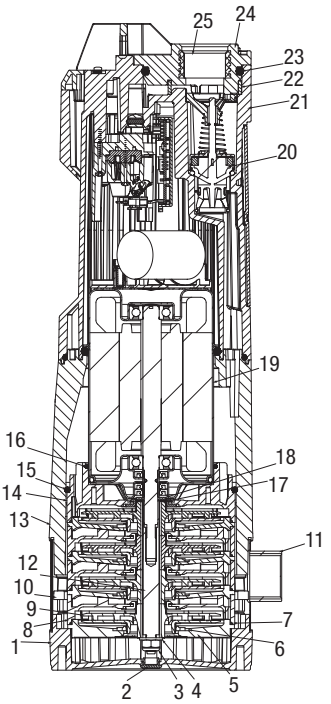
Corrosion and oxidation resistant material. Stainless steel debris strainer.

CONSTRUCTION FEATURES OF THE MOTOR

Submersible type continuous duty asynchronous motor. Thermal overheating protection. Wear-resistant motor shaft.

MATERIALS

N.	PARTS		MATERIALS
1	BASE		TECHNOPOLYMER
2	PLUG		TECHNOPOLYMER
3	NUT		A2 UNI 7474 STAINLESS STEEL
4	WASHER		A2 STAINLESS STEEL
5	FINAL DIFFUSER CAP		TECHNOPOLYMER
6	THRUST RING		TECHNOPOLYMER
7	OR RING		NBR
8	DIFFUSER		TECHNOPOLYMER
9	IMPELLER		TECHNOPOLYMER/AISI 304 STAINLESS STEEL
10	SPACER		TECHNOPOLYMER
11	STRAINER RING		AISI 304 STAINLESS STEEL
12	SHAFT		AISI 303 STAINLESS STEEL
13	BODY		TECHNOPOLYMER
14	DIFFUSER SUPPORT		TECHNOPOLYMER
15	OR RING		NBR
16	OR RING		NBR
17	WASHER		A2 STAINLESS STEEL
18	WASHER		A2 STAINLESS STEEL
19	MOTOR	CASE	ALUMINIUM
		ROTOR SHAFT	AISI 416 STAINLESS STEEL
20	NON-RETURN VALVE		TECHNOPOLYMER/NBR/SILOPREN FERRIMAX/AISI 302
21	COVER		TECHNOPOLYMER
22	SAND STRAINER		TECHNOPOLYMER
23	OR RING		NBR
24	DELIVERY COVER		TECHNOPOLYMER
25	INSERT		NICKEL PLATED BRASS



DIVERTRON

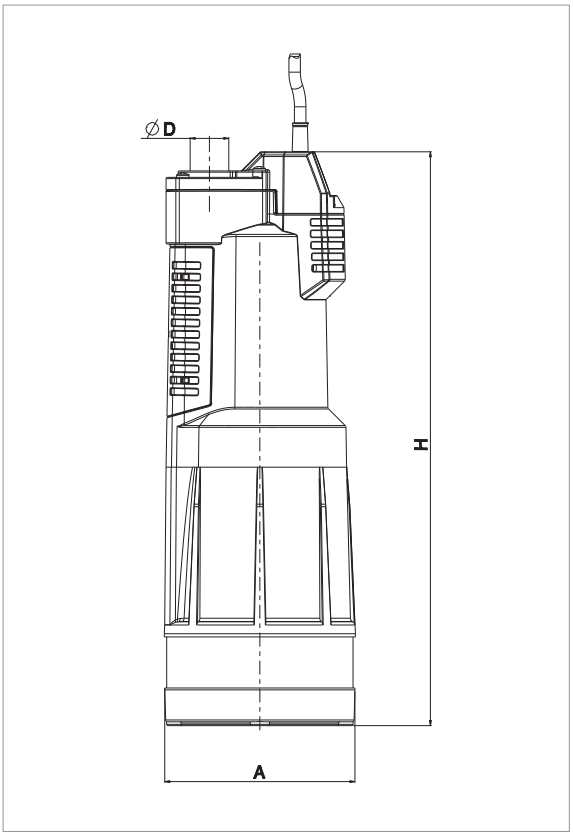
6" ELECTRONIC MULTI-IMPELLER PUMP

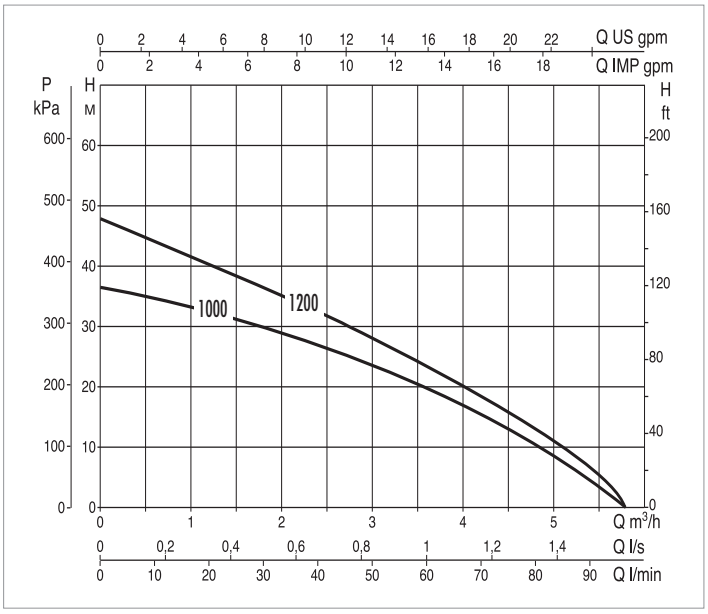
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA								
	P2 NOMINAL		Q=m³/h	0	0,9	1,8	2,7	3,6	4,5	5,1	5,4
	kW	HP	Q=l/min	0	15	30	45	60	75	85	90
DIVERTRON 1000 M	0,65	0,88	H (m)	36	32,6	28,5	23,6	17	9,5	4,6	1,8
DIVERTRON X 1000 M	0,65	0,88		36	32,6	28,5	23,6	17	9,5	4,6	1,8
DIVERTRON 1200 M	0,75	1		46	41	35,5	29,2	21,8	13,5	7,8	3,5
DIVERTRON X 1200 M	0,75	1		46	41	35,5	29,2	21,8	13,5	7,8	3,5

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA					A	Ø D	H	DNM	PACKING DIMENSIONS			PACKING VOLUME m³	Q.TY X PALLET	WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A					L/A	L/B	H			
			kW	HP											
DIVERTRON 1000 M	1x230 V~	900	0,65	0,88	3,8	150	30	450	1"	230	190	500	0,02	40	11
DIVERTRON X 1000 M	1x230 V~	900	0,65	0,88	3,8	150	30	450	1"	230	190	500	0,02	40	11
DIVERTRON 1200 M	1x230 V~	1100	0,75	1	4,8	150	30	480	1"	230	190	500	0,02	40	11
DIVERTRON X 1200 M	1x230 V~	1100	0,75	1	4,8	150	30	480	1"	230	190	500	0,02	40	11





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

MICRA HS

3" HIGH SPEED MULTISTAGE SUBMERSIBLE PUMP

ACTIVE DRIVER included.

TECHNICAL DATA

Operating range: from 1 to 5,5 m^3/h.
Maximum head: up to 90 metres.
Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, and chemically neutral, with properties similar to water.
Liquid temperature range: from 0 °C to +35 °C.
Maximum permitted amount of sand: 30 g/m^3.
Discharge port diameter: 1" GAS.
Inverter supply tolerance: +10 % / -20 %.
Max. starts: 20/h.
Maximum motor supply frequency: 110 Hz (~6300 r.p.m.)
Installation: in 3" wells or larger, tanks and cisterns, vertical position. In case of horizontal installation, ensure a minimum load on the thrust assembly.
Special executions on request: 30 m shielded cable.
Motor power cable: 1,4 m.

APPLICATIONS

Submersible electric pumps for 3" wells or larger.
These units have a very extensive range of applications for lifting and distribution in civil and industrial water systems, filling of pressure vessels and tanks, pressurization and irrigation systems.

CONSTRUCTION FEATURES OF THE PUMP

Multistage centrifugal type. Pump and motor directly coupled with rigid coupling. Impellers and thrust rings in Noryl and diffusers in self-lubricating polyacetyl. Pump liner, shaft and coupling, strainer and cable sheath in stainless steel.
Base support and head in brass, with check valve incorporated in the head.

CONSTRUCTION FEATURES OF THE MOTOR

Submersible asynchronous two-pole motor made entirely of AISI 304 stainless steel, with brass bearings. Copper squirrel cage rotor mounted on Kingsbury thrust block. Cooling of the thrust bearing assembly and the bushings is provided by water, thereby eliminating the risk of contamination. Canned-type stator in an airtight casing made of AISI 304L stainless steel.

CONSTRUCTION FEATURES OF THE INVERTER

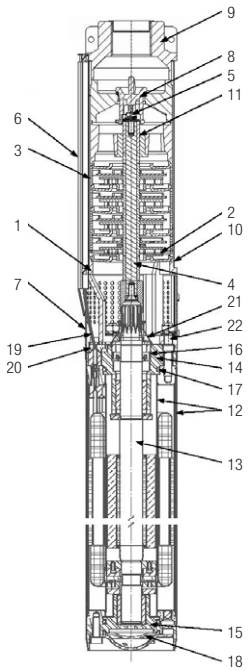
Active Driver is an electric pump inverter that keeps a constant pressure even in case of variation of the flow, by adjusting the speed of the pump. The inverter is fitted with internal pressure switch and flow sensor, which ensure continuous monitoring of system conditions.
The inverter is configured by default at a maximum operating frequency of 110 Hz.

MATERIALS

N.	PART*	MATERIALS
	PUMP	
1	BASE SUPPORT	BRASS OT58
2	IMPELLER	NORYL GFN2
3	DIFFUSER	POLYACETYL
4	SHAFT WITH COUPLING	AISI 430F
5	LOCKING NUT	AISI 304
6	CABLE SHEATH	AISI 430
7	STRAINER	AISI 430
8	VALVE	POLYACETYL
9	DELIVERY BODY	BRASS OT58
10	PUMP LINER	AISI 304
11	BUSHES	AISI 316L

N.	PART*	MATERIALS
	MOTOR	
12	INTERNAL AND OUTER LINER	AISI 304
13	SHAFT	AISI 431
14	UPPER SUPPORT	BRASS OT58
15	LOWER SUPPORT	BRASS OT58
16	LIP SEAL	NBR
17	GASKETS	NBR
18	BELLOW SEAL	EPDM
19	CABLE	EPDM
20	CONNECTOR PLUG	AISI 304
21	SAND GUARD	NBR
22	SCREWS	AISI 304

* In contact with the liquid.

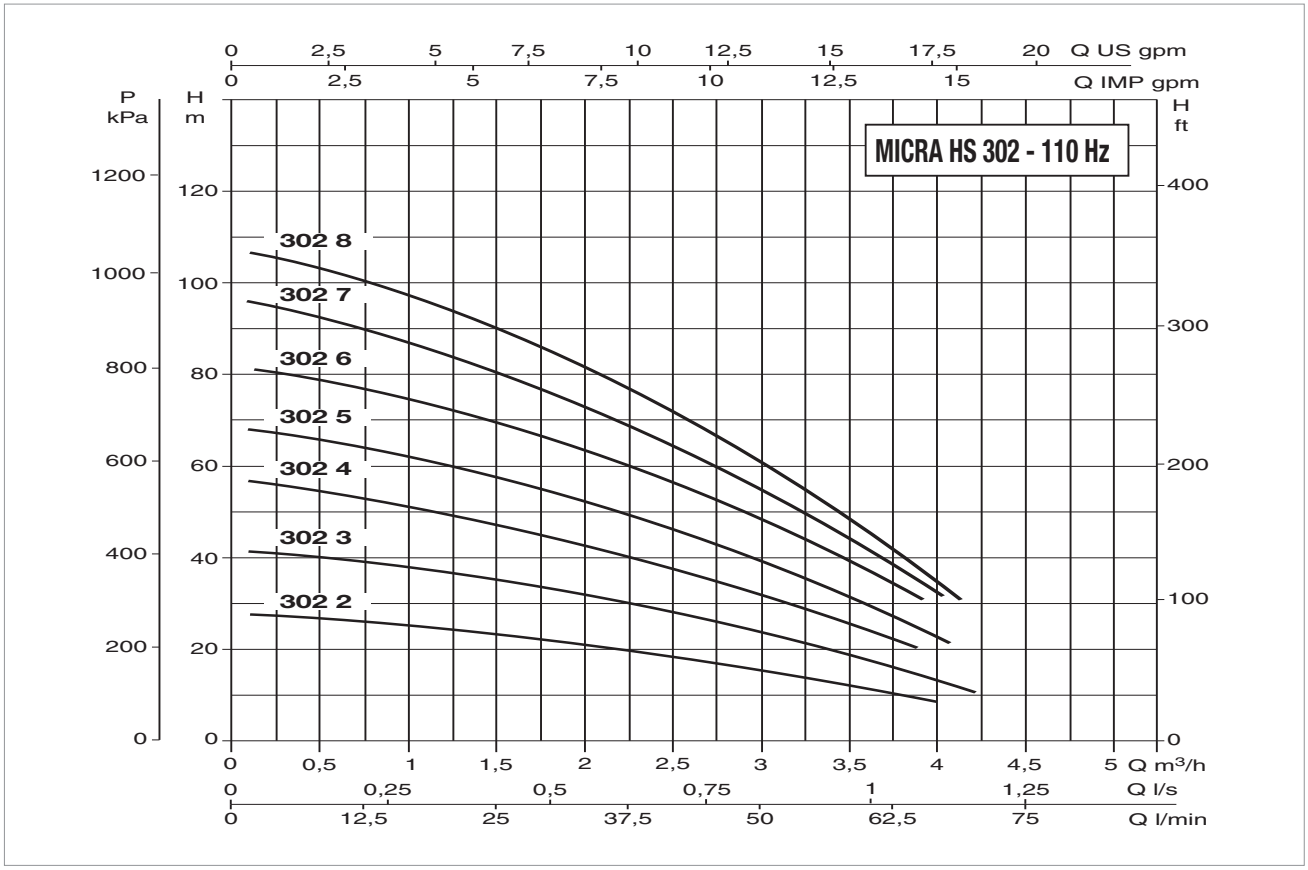


MICRA HS

3" HIGH SPEED MULTISTAGE SUBMERSIBLE PUMP

ELECTRICAL DATA AND PERFORMANCE AT 110 Hz

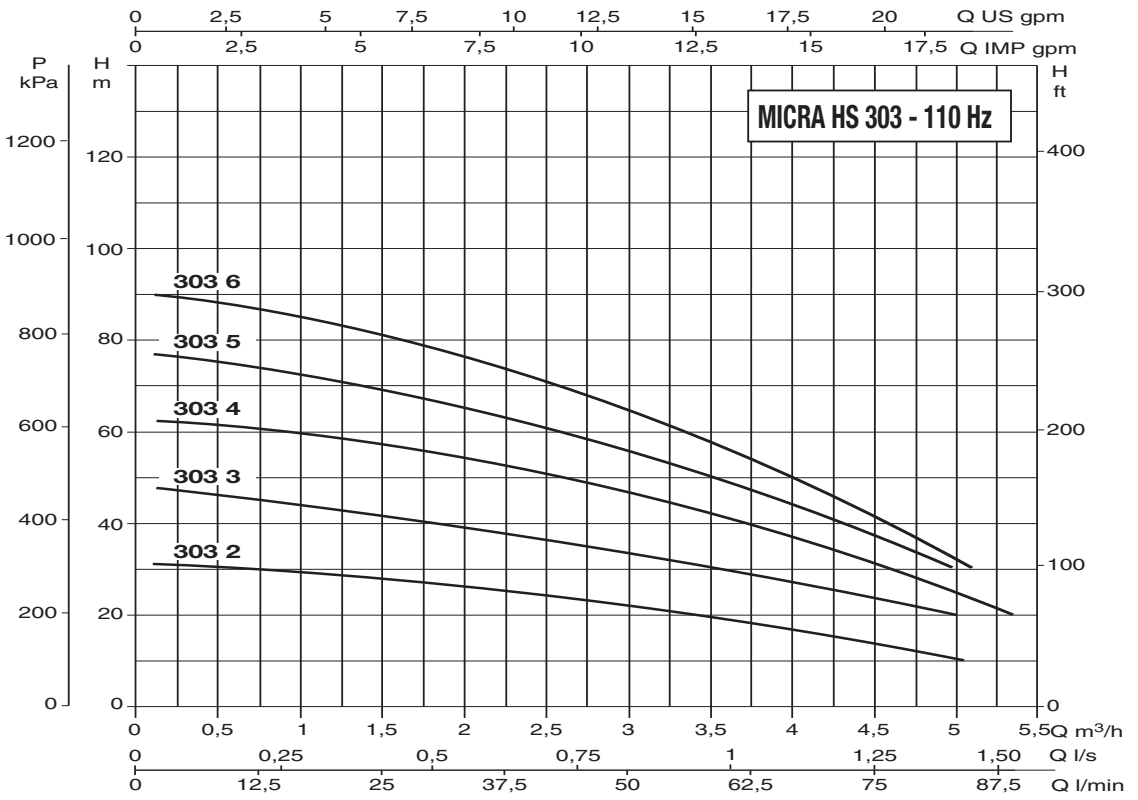
MODEL	ELECTRICAL DATA					HYDRAULIC DATA										
	INVERTER POWER INPUT	ELECTRIC PUMP POWER INPUT	P1 MAX kW	In MAX A	MINIMUM FREQUENCY Hz	Q=m³/h	1	1.5	2	2.5	3	3.5	4	4.5	5	5,5
						Q=l/min	17	25	33	42	50	58	67	75	84	92
MICRA HS 302 - 2	1x230 V ~	3x230 V~	1	5,3	90		24	21	19	16	13	10	6			
MICRA HS 302 - 3	1x230 V ~	3x230 V ~	1.1	5,4	80		35	31	29	25	20	15	10			
MICRA HS 302 - 4	1x230 V ~	3x230 V ~	1.2	5,7	70		45	42	40	32	28	20	12			
MICRA HS 302 - 5	1x230 V ~	3x230 V ~	1.5	5,5	70		62	57	52	45	39	30	20			
MICRA HS 302 - 6	1x230 V ~	3x230 V ~	1.6	5,7	60		70	65	60	50	40	30	20			
MICRA HS 302 - 7	1x230 V ~	3x230 V ~	1.8	6,5	60		80	75	68	55	47	35	22			
MICRA HS 302 - 8	1x230 V ~	3x230 V ~	2	6,5	60	H (m)	90	82	79	63	55	40	23			
MICRA HS 303 - 2	1x230 V ~	3x230 V ~	1.1	5,5	90		30	27	26	24	22	20	16	13		
MICRA HS 303 - 3	1x230 V ~	3x230 V ~	1.3	5,5	80		45	42	40	36	33	30	25	20		
MICRA HS 303 - 4	1x230 V ~	3x230 V ~	1.6	5,6	70		60	57	54	50	47	41	37	30		
MICRA HS 303 - 5	1x230 V ~	3x230 V ~	1.9	6,2	70		72	70	65	61	56	50	44	36		
MICRA HS 303 - 6	1x230 V ~	3x230 V ~	2.2	7,1	60		85	81	77	71	65	58	50	40		
MICRA HS 304 - 3	1x230 V ~	3x230 V ~	1.8	5,8	80		48	45	43	41	39	37	33	30	28	25
MICRA HS 304 - 4	1x230 V ~	3x230 V ~	2.1	6,6	70		65	63	61	58	55	51	47	42	38	32



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

MICRA HS

3" HIGH SPEED MULTISTAGE SUBMERSIBLE PUMP



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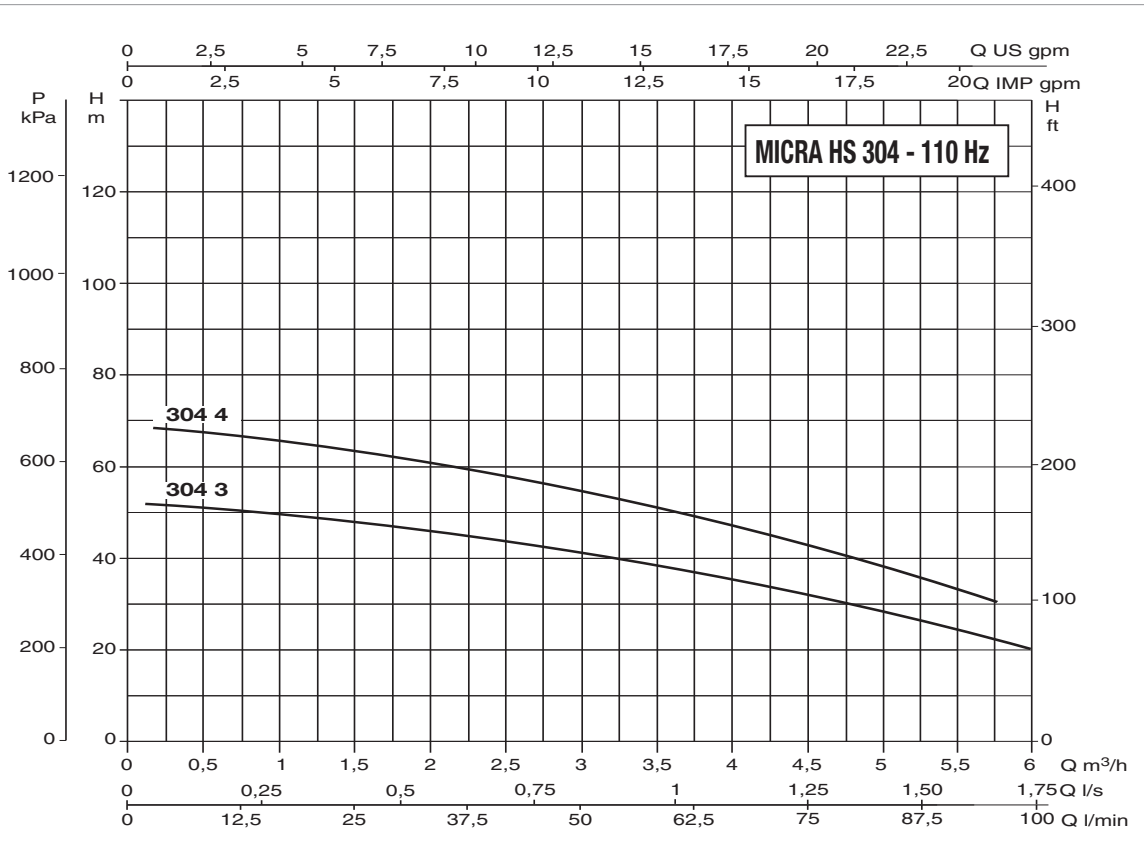
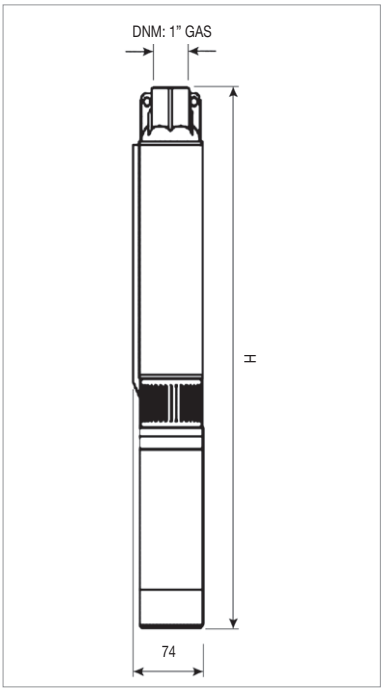


The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

MICRA HS

3" HIGH SPEED MULTISTAGE SUBMERSIBLE PUMP



DIMENSIONAL DATA

MODEL	Ø	H	DNM G	PACK DIMENSIONS (mm)		
				L/A	L/B	H
MICRA HS 302 - 2	74	580	1"	320	1300	275
MICRA HS 302 - 3	74	605	1"	320	1300	275
MICRA HS 302 - 4	74	630	1"	320	1300	275
MICRA HS 302 - 5	74	655	1"	320	1300	275
MICRA HS 302 - 6	74	680	1"	320	1300	275
MICRA HS 302 - 7	74	705	1"	320	1300	275
MICRA HS 302 - 8	74	730	1"	320	1300	275
MICRA HS 303 - 2	74	580	1"	320	1300	275
MICRA HS 303 - 3	74	605	1"	320	1300	275
MICRA HS 303 - 4	74	630	1"	320	1300	275
MICRA HS 303 - 5	74	655	1"	320	1300	275
MICRA HS 303 - 6	74	680	1"	320	1300	275
MICRA HS 304 - 3	74	605	1"	320	1300	275
MICRA HS 304 - 4	74	630	1"	320	1300	275

ACTIVE SHIELD

Electronic in/out filter for connection to an Active Driver. To be used in installations where electromagnetic emissions and compatibilities may be a problem.

MODEL	MAXIMUM MOTOR CURRENT A	TO BE USED WITH
ACTIVE SHIELD	14	Active Driver M/M Active Driver M/T

MICRA HS OPTIONAL VERSION WITH ADAC - EXAMPLE OF INSTALLATION

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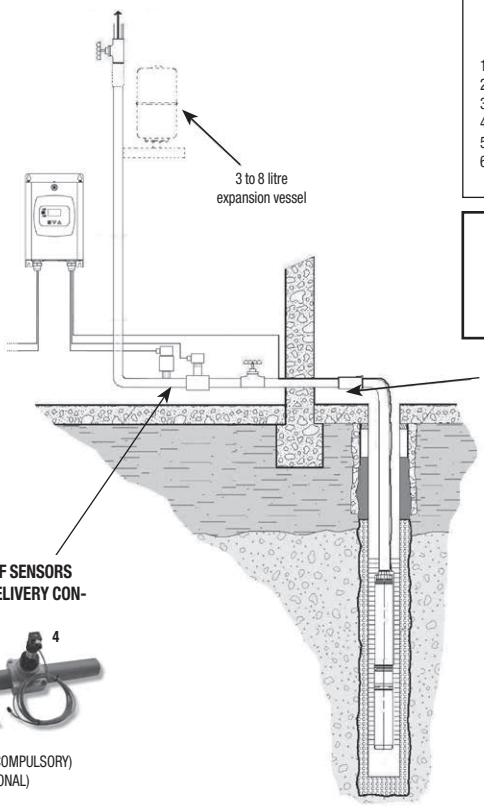
DELIVERY



INSTALLATION OF SENSORS ON THE PUMP DELIVERY CONNECTOR

3. Pressure sensor (COMPULSORY)
4. Flow sensor (OPTIONAL)

NECESSARY COMPONENTS FOR THE INSTALLATION OF THE SYSTEM

1. Submersible pump
2. ADAC inverter
3. Pressure sensor (COMPULSORY)
4. Flow sensor (OPTIONAL)
5. Non-return valve
6. Expansion vessel

WARNING

The ADAC must be configured for operation at a maximum frequency of 110 Hz

SUGGESTION

In some systems, we recommend that a filter is installed upstream the sensors, to prevent them from getting damaged.

MICRA

3" MULTISTAGE SUBMERSIBLE ELECTRIC PUMP

CB for single-phase versions only.

TECHNICAL DATA

Operating range: from 0,3 to 2,7 m^3/h.
Maximum head: up to 90 metres.
Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, and chemically neutral, with properties similar to water.
Liquid temperature range: from 0 °C to +35 °C.
Maximum permitted amount of sand: 40 g/m^3.
Discharge port diameter: 1" GAS.
Power supply tolerance: +6 % / -10 %.
Max. starts: 20/h.
Installation: in 3" wells or larger, tanks and cisterns, vertical position. In case of horizontal installation, ensure a minimum load on the thrust assembly.
Special executions on requests: alternative voltages and frequencies.
Power cable: Micra 50 – 1 m.
Micra 75 – 1,2m
Micra 100 – 1,4m
The single-phase version can be supplied with CONTROL BOX on request.

APPLICATIONS

Submersible electric pumps for 3" wells or larger.
These units have a very extensive range of applications for lifting and distribution in civil and industrial water systems, filling of pressure vessels and tanks, pressurization and irrigation systems.

CONSTRUCTION FEATURES OF THE PUMP

Multistage centrifugal type. Pump and motor directly coupled with rigid coupling. Impellers and thrust rings in Noryl and diffusers in self-lubricating polyacetyl. Pump liner, shaft and coupling, strainer and cable sheath in stainless steel.
Base support and head in brass, with check valve incorporated in the head.

CONSTRUCTION FEATURES OF THE MOTOR

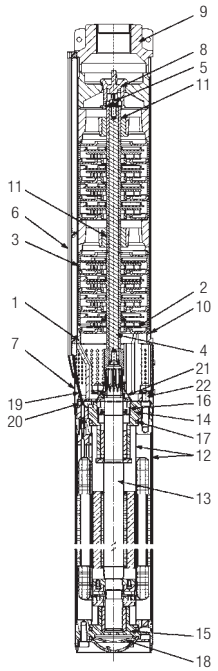
Submersible asynchronous two-pole motor made entirely of AISI 304 stainless steel
with brass bearings. Copper squirrel cage rotor mounted on Kingsbury thrust block.
Cooling of the thrust bearing assembly and the bushings is provided by water, thereby eliminating the risk of contamination. Canned-type stator in an airtight casing made of AISI 304L stainless steel. The thermal protector with automatic reset is included with the motor.
Protection class: IP68
Insulation class: F
Supply voltage: single-phase 230 V / 50 Hz.
three-phase 400 V / 50 Hz
three-phase 230 V / 50 Hz

MATERIALS

N.	PART*	MATERIALS
	PUMP	
1	BASE SUPPORT	BRASS OT58
2	IMPELLER	NORYL GFN2
3	DIFFUSER	POLYACETYL
4	SHAFT WITH COUPLING	AISI 430F
5	LOCKING NUT	AISI 304
6	CABLE SHEATH	AISI 430
7	STRAINER	AISI 430
8	VALVE	POLYACETYL
9	DELIVERY BODY	BRASS OT58
10	PUMP LINER	AISI 304
11	BUSHES	AISI 316L

N.	PART*	MATERIALS
	MOTOR	
12	INTERNAL AND OUTER LINER	AISI 304
13	SHAFT	AISI 431
14	UPPER SUPPORT	BRASS OT58
15	LOWER SUPPORT	BRASS OT58
16	LIP SEAL	NBR
17	GASKETS	NBR
18	BELLOW SEAL	EPDM
19	CABLE	EPDM
20	CONNECTOR PLUG	AISI 304
21	SAND GUARD	NBR
22	SCREWS	AISI 304

* In contact with the liquid.



MICRA

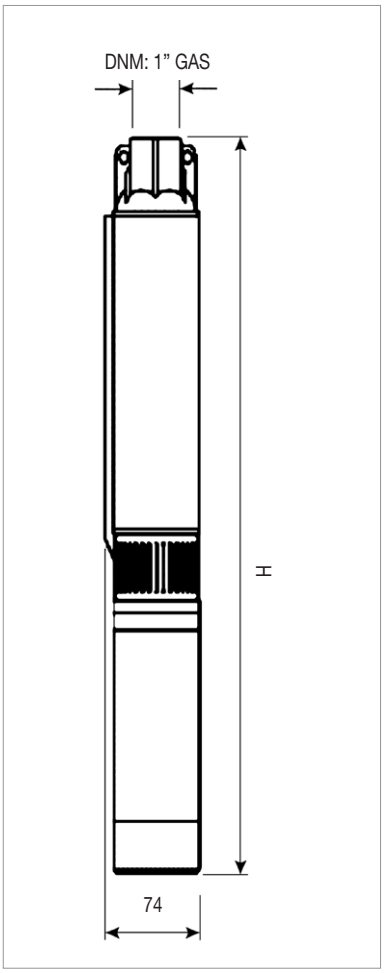
3" MULTISTAGE SUBMERSIBLE ELECTRIC PUMP

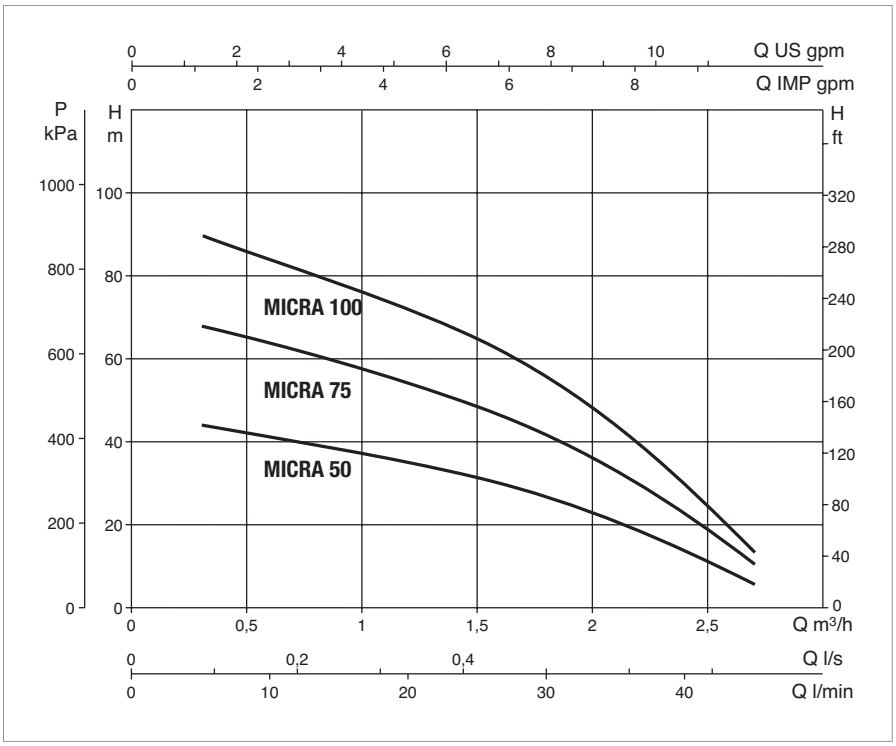
PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA									
	P2 NOMINAL		Q=m³/h	0,3	0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7
	kW	HP	Q=l/min	5	10	15	20	25	30	35	40	45
MICRA 50 M	0,37	0,5	H (m)	45	41	38	35	31	27	21	14	6
MICRA 75 M	0,55	0,75		68	64	59	54	48	42	33	23	11
MICRA 75 T	0,55	0,75		68	64	59	54	48	42	33	23	11
MICRA 100 M	0,75	1		90	84	78	72	65	56	44	30	14
MICRA 100 T	0,75	1		90	84	78	72	65	56	44	30	14

ELECTRICAL DATA AND DIMENSIONS

MODEL	ELECTRICAL DATA							Ø mm	H mm	PACKING DIMENSIONS		WEIGHT kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A	CAPACITOR				Ø	H	
			kW	HP		µF	Vc					
MICRA 50 M	1x230 V ~	0,65	0,37	0,5	3,3	12	450	74	930	86	1150	9
MICRA 75 M	1x230 V ~	0,95	0,55	0,75	5,1	16	450	74	1145	86	1350	10,2
MICRA 75 T	3x400 V ~	0,9	0,55	0,75	1,9	-	-	74	1145	86	1350	10,2
MICRA 100 M	1x230 V ~	1,2	0,75	1	6,1	20	450	74	1390	86	1600	13,6
MICRA 100 T	3x400 V ~	1,15	0,75	1	2,4	-	-	74	1390	86	1600	13,6





The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

SUN4WELL

SOLAR 4” SUBMERSIBLE ELECTRIC PUMPS

TECHNICAL DATA

Operating range: from 0,6 to 9 m^3/h.
Maximum head: up to 110 metres.
Pumped liquid: clean, free of solids and abrasives, chemically neutral, with properties similar to water.
Liquid temperature range: from 0 °C to +40 °C.
Maximum permitted amount of sand: 120 g/m^3.
Installation: in 4” wells or larger, tanks and cisterns, vertical or horizontal position.
Starts/hour: managed by the dedicated inverter control board.
Cooling flow: 0,3 m/s @ 35 °C.

Sun4Well is the new DAB system for the supply of drinking water based on the most widely available renewable energy, the sun.
The most common applications of this product are the collection of water for irrigation, animal farming, and direct consumption.
Thanks to the electric power supplied by a number of photovoltaic panels, and by exploiting the combination of a 4” submersible pump and an inverter type regulator (control board), the system can ensure continuous extraction of water from the subsoil irrespective of variations in the strength of the sun rays. The permanent magnet motor technology ensures high system efficiency, resulting in a lower number of photovoltaic panels required to ensure operation. Conceived for ease of use, and not requiring any maintenance, this is the ideal solution for the supply of water in remote areas, where the standard supply of energy to the electricity network is inconsistent or totally non-existent.

ADVANTAGES OF THE PRODUCT

Easy to install and use.
The controller does not require configuration.
Fully automated system.
No batteries required.
High efficiency of the motor and the whole system.

CHARACTERISTICS OF THE HYDRAULIC SECTION

AISI 304 stainless steel upper head and base support.
Noryl impellers and diffusers.
Sand resistant (maximum content 120 g/m^3).
Five models available (maximum pressure 110 m, maximum flow 9 m^3/h).

MOTOR CHARACTERISTICS

4” submersible motor in oil bath.
Brushless type with permanent magnet rotor.
Three-phase configuration - 8 poles.
Power supply voltage: 56 V.

CONTROL PANEL CHARACTERISTICS

DC (solar panel) / AC (motor) conversion
Integrated MPPT algorithm.
Sensorless position control.
Motor soft start.
Overload protection.
Overvoltage and undervoltage protection.
High temperature protection.
Dry operation protection
(through capacitive sensor, supplied as standard).
Input voltage: 25 V - 80 V DC.
Maximum input current: 10 A.
Maximum power supplied: 800 W.

EXAMPLES OF INSTALLATION

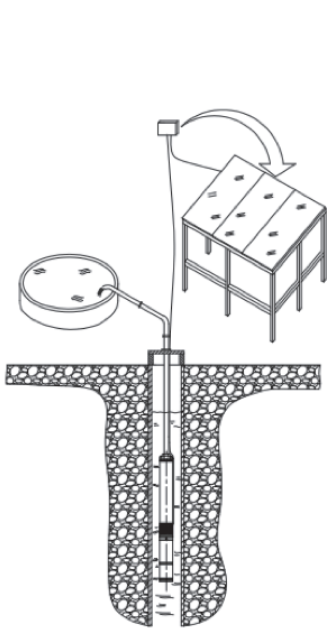


Fig. 1

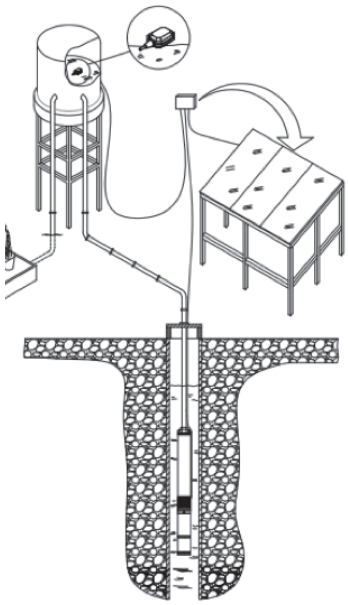


Fig. 2

Sun4”Well gives the possibility of directly turning solar energy into water, which is then stored in tanks or cisterns, without using batteries. Examples of installation with water collected in a tank and dry operation prevention control in the well (fig. 1), or installation with water collected in an raised cistern, dry operation prevention control in the well, and control float switch in the cistern (fig. 2).

SUN4WELL

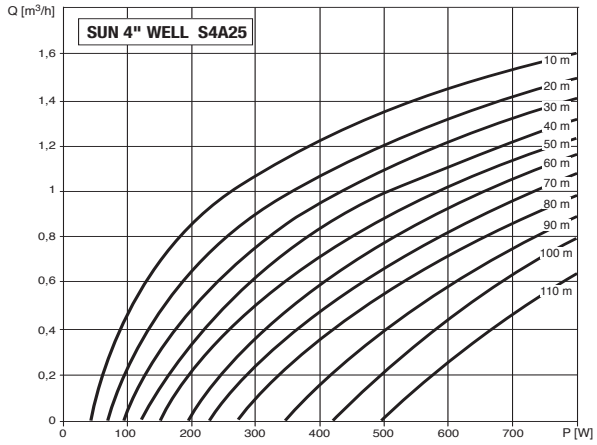
SOLAR 4” SUBMERSIBLE ELECTRIC PUMPS

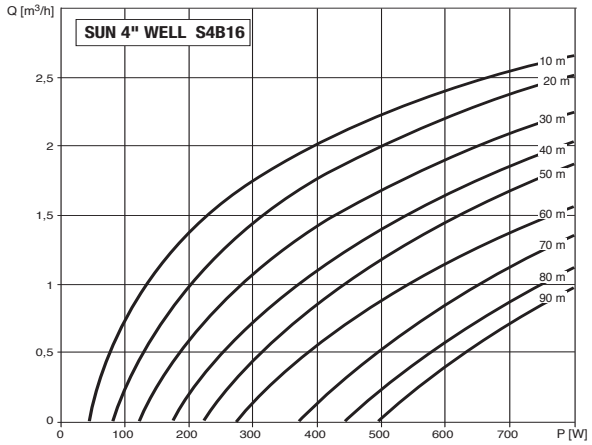
PERFORMANCE AT MAXIMUM POWER

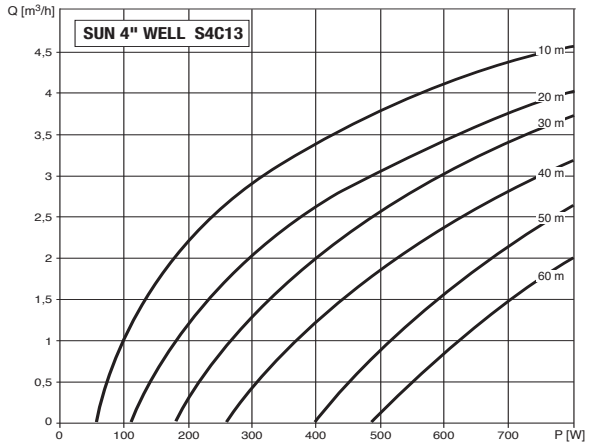
MODEL	P2 NOMINAL W	HYDRAULIC DATA											
		Q=m³/h	0	0,6	1,2	1,5	18	2,4	3	4,2	4,8	6	9	11,4
		Q=l/min	0	10	20	25	30	40	50	70	80	100	150	190
S4A 25	800	H (m)	159,4	138,7	83,7	42,7								
S4B 16	800		99,2	95,7	83	72,5	61	32						
S4C 13	800		71,5		68,9	66,4	63,7	57,2	49,2	28,6				
S4D 8	800		48				46	44	42	36	32,5	22,4		
S4E 6	800		40,5							31,5	30	27	17,6	7,7

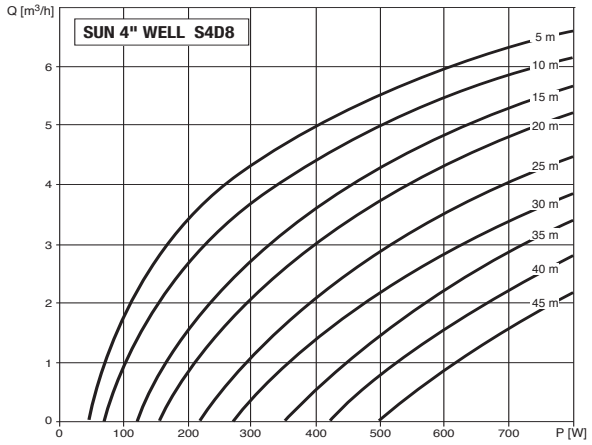
PERFORMANCES IN RELATION TO POWER CHANGES

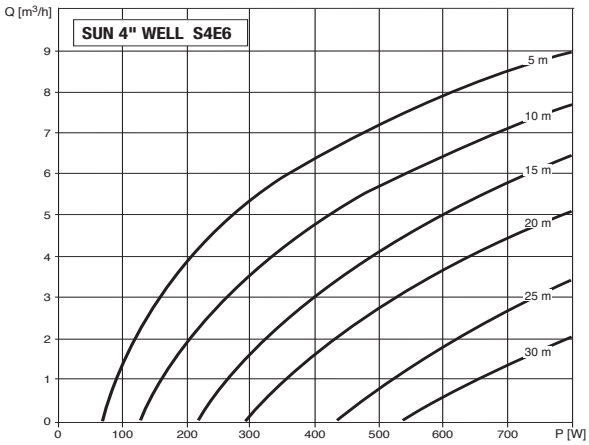
Below are the constant pressure curves H [m] for the various models: the X-axis shows the available power [W], and the Y-axis the flow Q [m³/h]











The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Curve tolerance according to ISO 9906.

CS4

4" SUBMERSIBLE ELECTRIC PUMPS

(Control Box for single-phase versions only).

TECHNICAL DATA

Operating range: from 0,24 to 6 m^3/h.
Maximum head: up to 230 metres.
Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.
Liquid temperature range: from 0 °C to +40 °C.
Installation: in 4" wells or larger, tanks and cisterns, vertical position.
Starts/hour: max 20.
Cooling flow: 8 cm/s.
Maximum permitted amount of sand: 120 g/m^3.
Special executions on request: alternative voltages and/or frequencies.

On request, the single-phase version can be supplied with **CONTROL BOX BOOSTER** for the increase of the starting torque.

Electric pumps complying with the 2009/125/EC Directive (EcoDesign - ErP)
M.E.I. $\geq$ 0.4

APPLICATIONS

Submersible electric pumps for 4" wells or larger, capable of generating a wide range of flows and heads. These units have a very extensive range of applications for lifting, distribution, and pressurisation in civil and industrial water systems, filling of pressure vessels and tanks, fire-fighting systems and washing of irrigation systems.

CONSTRUCTION FEATURES OF THE PUMP

Multistage centrifugal type with radial impellers. Pump and motor directly coupled with rigid coupling. Technopolymer impellers with stainless steel wearing parts, fitted on floating clearance rings made of synthetic low abrasion material, and technopolymer diffusers that impart significant wear resistance to the pump. Pump liner, shaft and coupling in stainless steel. Base support (with built-in filter) and upper head (with built-in check valve) in technopolymer. Plastic cable sheath. The pumps comply with the European Community Directives.

CONSTRUCTION FEATURES OF THE MOTOR

Submersible asynchronous two-pole motor with the parts in contact with water made of AISI 304 stainless steel.
Squirrel cage rotor mounted on self-centring thrust block designed to withstand significant axial loads. Cooling of the bearing assembly and the bushings is provided by water, thereby eliminating the risk of contamination. Canned-type stator installed inside an airtight casing made of stainless steel.
Capacitor and manual reset ampere protection in the control board supplied as standard with the single-phase version.
Overload protection to be provided by the user for the three-phase version.
Flanging: NEMA-4"
Protection class: IP 68
Insulation class: F

Supply voltage:	single-phase	230 V / 50 Hz.
	three-phase	400 V / 50 Hz.
	three-phase	230 V / 50 Hz.

Electric pump with 4OL motor in oil bath available on request.

SUPPLY

CS4 submersible electric pumps in the three-phase version are supplied as a pump and motor kit.
The single-phase version kit includes pump, motor and control box.

Standard power supply cable and nylon cord:

15 metre length:	CS4A-8 / CS4A-12 / CS4B-5 / CS4B-8 / CS4B-12
	CS4C-6 / CS4C-9 / CS4D-4 / CS4D-6 / CS4D-8
30 metre length:	CS4A-18 / CS4A-25 / CS4A-36 / CS4B-16
	CS4B-24 / CS4C-13 / CS4C-19 / CS4D-13

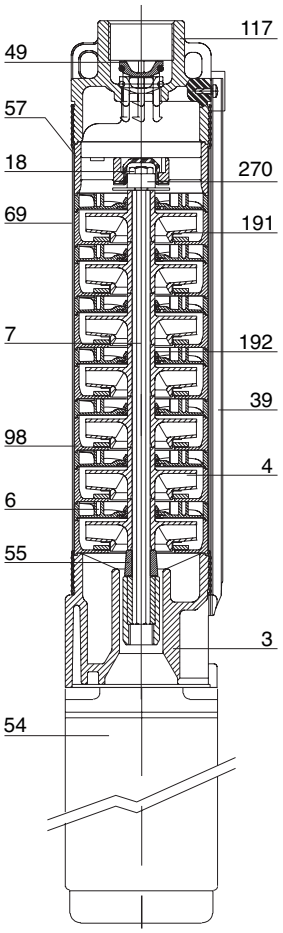
CS4

4" SUBMERSIBLE ELECTRIC PUMPS

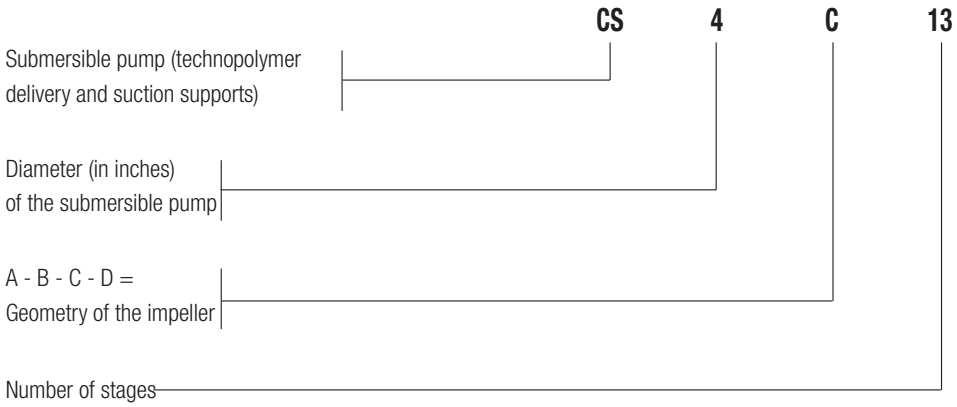
MATERIALS

N.	PART*	MATERIALS
3	BASE SUPPORT	TECHNOPOLYMER A
4	IMPELLER	TECHNOPOLYMER A with thrust in STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
6	DIFFUSER	TECHNOPOLYMER A
7	SHAFT WITH COUPLING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
18	LOCKING NUT	STAINLESS STEEL
39	CABLE SHEATH	PLASTIC MATERIAL
49	VALVE	ACETAL RESIN
54	MOTOR	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
55	SPACER	TECHNOPOLYMER A
57	SUPPORT	TECHNOPOLYMER A
69	PUMP LINER	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER A
117	UPPER HEAD	TECHNOPOLYMER A
191	FRONT THRUST RING	SYNTHETIC ABRASION-PROOF MATERIAL
192	REAR THRUST RING	SYNTHETIC ABRASION-PROOF MATERIAL
270	UPPER SHAFT GUIDE BUSH	RUBBER

* In contact with the liquid.



– Legend:
(example)



CS4 A

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100
CS4A-8	0,37	0,5	H (m)	51	44,4	26,8	13,7	-	-	-	-	-	-
CS4A-12	0,37	0,5		76,5	66,6	40,2	20,5	-	-	-	-	-	-
CS4A-18	0,55	0,75		114,8	99,8	60,3	30,8	-	-	-	-	-	-
CS4A-25	0,75	1		159,4	138,7	83,7	42,7	-	-	-	-	-	-
CS4A-36	1,1	1,5		229,5	200	120,6	61,6	-	-	-	-	-	-

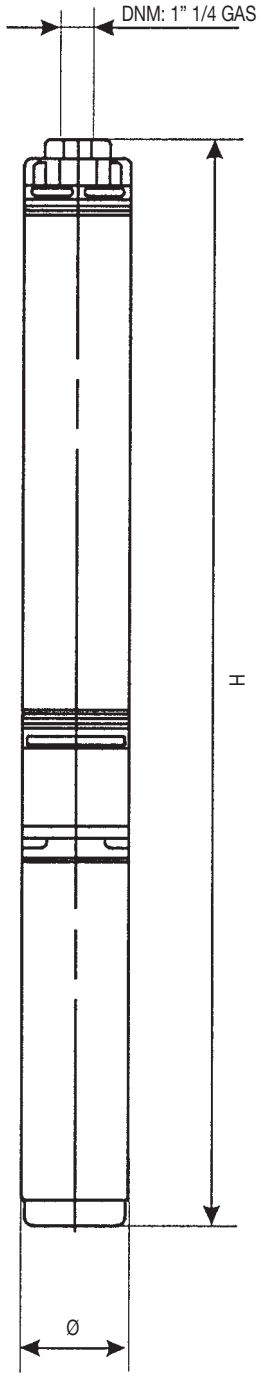
ELECTRICAL DATA AND DIMENSIONS

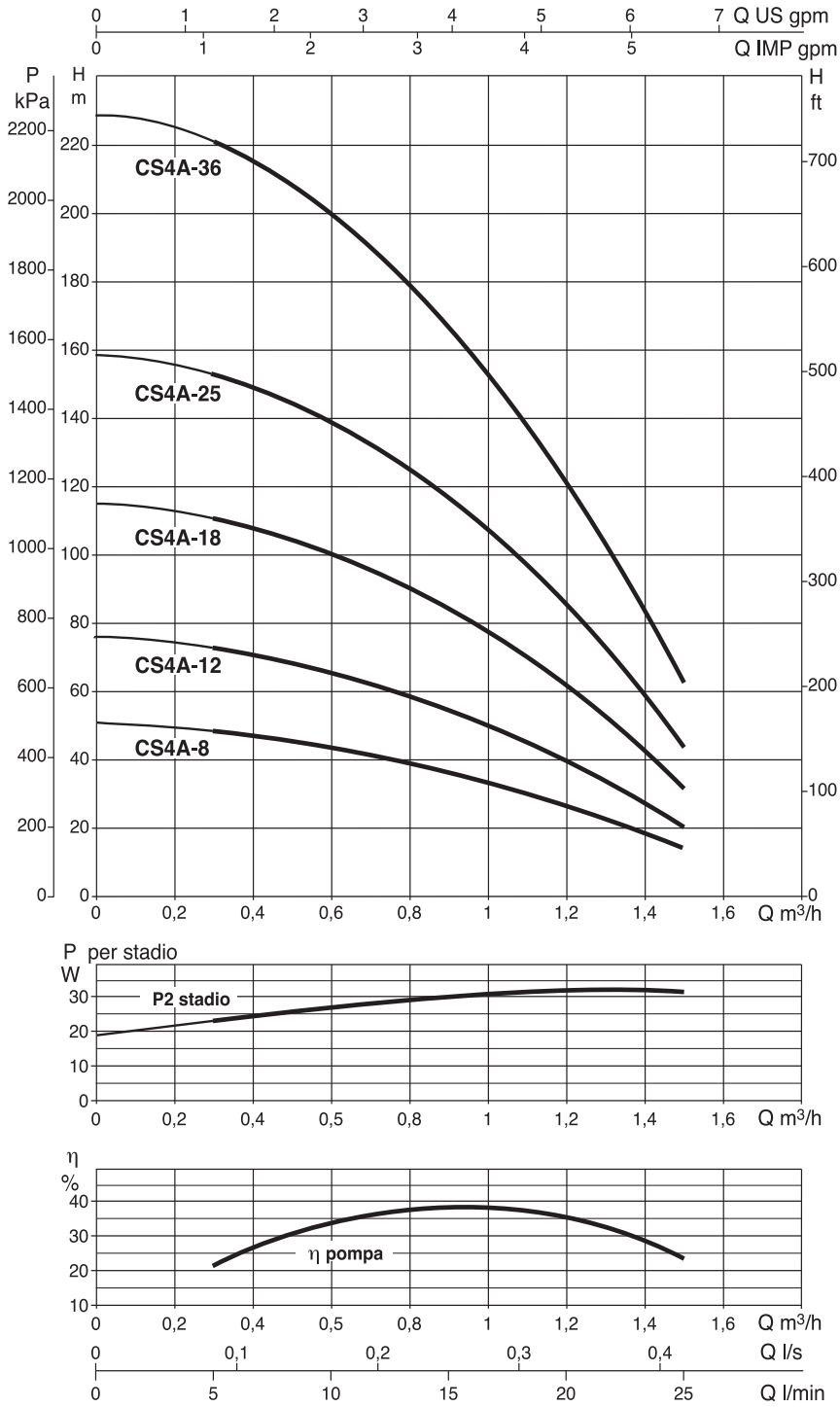
MODEL	ELECTRICAL DATA				Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	CABLE LENGTH m	Q.TY X PALLET	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H				
		kW	HP											
CS4A-8	4GG M	0,37	0,5	1x230 V ~	3,3	97	591	400	110	720	0,032	15	27	13
	4OL M	0,37	0,5	1x230 V ~	3,5	97	640	400	110	720	0,032	15	27	12,6
CS4A-12	4GG M	0,37	0,5	1x230 V ~	3,3	97	671	400	110	720	0,032	15	27	14,7
	4OL M	0,37	0,5	1x230 V ~	3,5	97	720	400	110	720	0,032	15	27	14,3
CS4A-12	4GG T	0,37	0,5	3x400 V ~	1,6	97	651	400	110	720	0,032	15	27	12,9
	4OL T	0,37	0,5	3x400 V ~	1,6	97	720	400	110	720	0,032	15	27	13,2
CS4A-18	4GG M	0,55	0,75	1x230 V ~	4,6	97	821	360	110	920	0,036	30	18	18,3
	4OL T	0,55	0,75	3x400 V ~	2,2	97	860	360	110	1120	0,044	30	18	17,6
CS4A-18	4GG T	0,55	0,75	3x400 V ~	1,9	97	791	360	110	920	0,036	30	18	17,2
	4OL T	0,55	0,75	3x400 V ~	2,2	97	840	360	110	920	0,036	30	18	16,8
CS4A-25	4GG M	0,75	1	1x230 V ~	6,2	97	981	360	110	1120	0,044	30	18	22
	4OL M	0,75	1	1x230 V ~	6,3	97	1030	360	110	1120	0,044	30	18	21,6
CS4A-25	4GG T	0,75	1	3x400 V ~	2,4	97	961	360	110	1120	0,044	30	18	19,4
	4OL T	0,75	1	3x400 V ~	2,6	97	1000	360	110	1120	0,044	30	18	18,7
CS4A-36	4GG M	1,1	1,5	1x230 V ~	8,6	97	1278,5	360	110	1335	0,053	30	18	25
	4OL M	1,1	1,5	1x230 V ~	8,5	97	1302,5	360	110	1335	0,053	30	18	23,7
CS4A-36	4GG T	1,1	1,5	3x400 V ~	3,4	97	1233,5	360	110	1335	0,053	30	18	22,6
	4OL T	1,1	1,5	3x400 V ~	3,6	97	1282,5	360	110	1335	0,053	30	18	21,3

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

CS4 A

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

CS4 B

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100
CS4B-5	0,25	0,33	H (m)	31	30	26	22,6	19	10	-	-	-	-
CS4B-8	0,37	0,5		49,6	47,8	41,5	36,2	30,6	16	-	-	-	-
CS4B-12	0,55	0,75		74,4	71,8	62,3	54,4	45,8	24	-	-	-	-
CS4B-16	0,75	1		99,2	95,7	83	72,5	61	32	-	-	-	-
CS4B-24	1,1	1,5		148,8	143,5	124,6	108,7	91,7	48	-	-	-	-

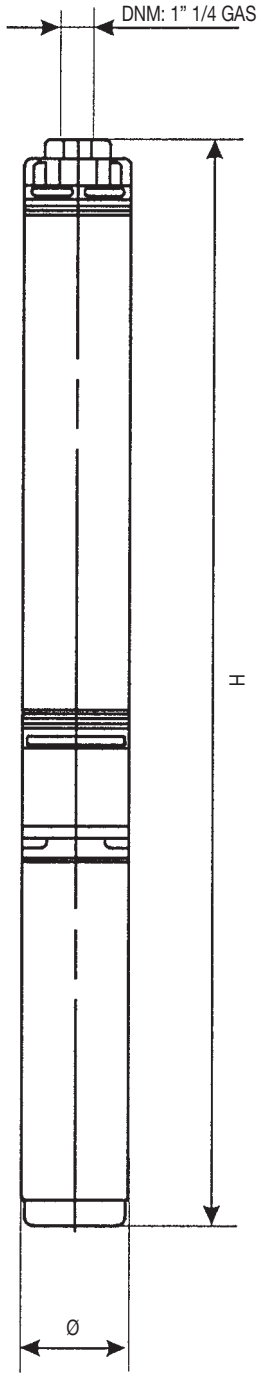
ELECTRICAL DATA AND DIMENSIONS

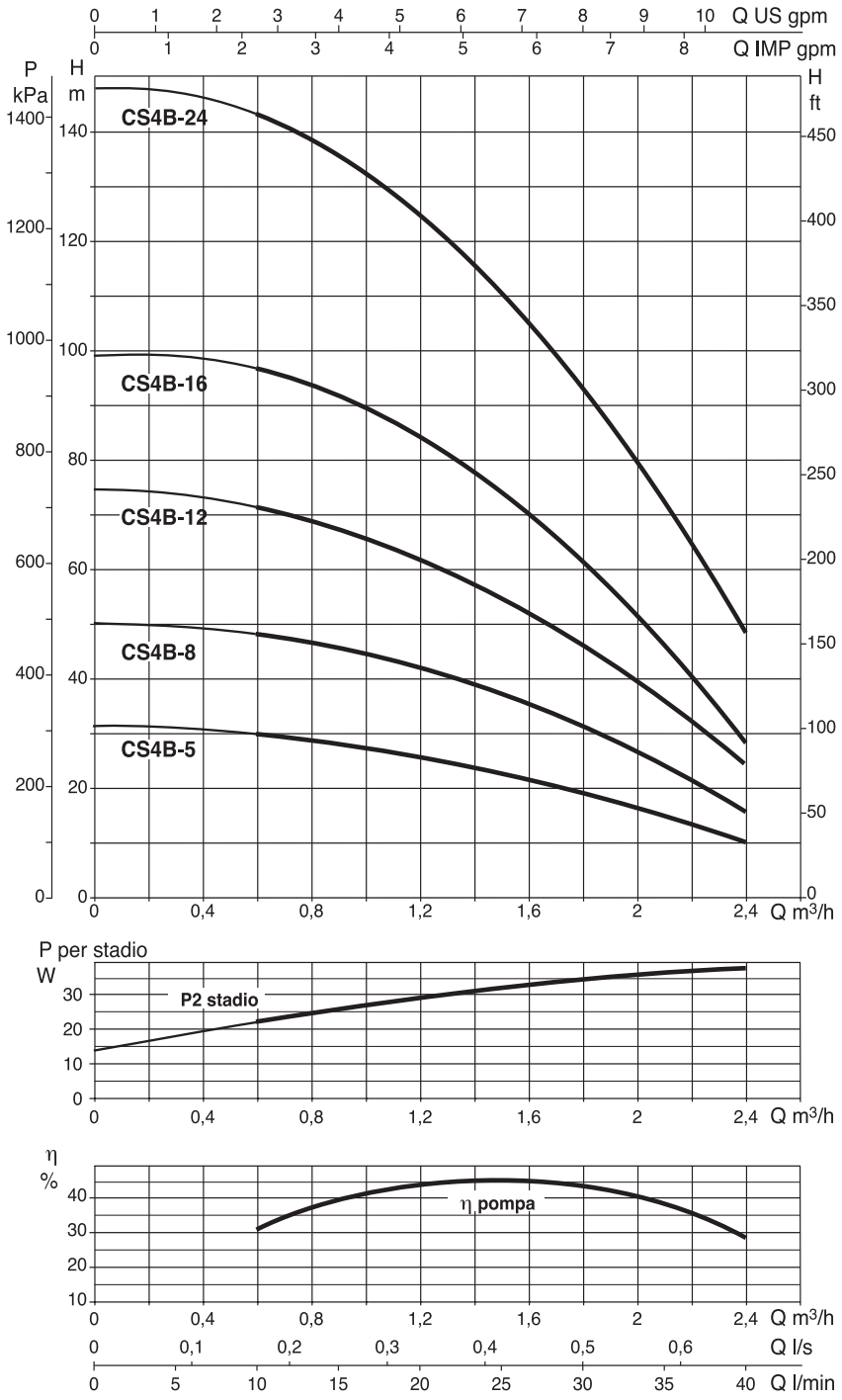
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	LENGTH CABLE m	Q.TY X PALLET	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H				
		kW	HP											
CS4B-5	4GG M	0,37	0,5	1x230 V ~	3,3	97	543,5	400	110	720	0,032	15	27	12,5
	4OL M	0,37	0,5	1x230 V ~	3,5	97	592,5	400	110	720	0,032	15	27	12,1
CS4B-8	4GG M	0,37	0,5	1x230 V ~	3,3	97	611	400	110	720	0,032	15	27	14
	4OL M	0,37	0,5	1x230 V ~	3,5	97	660	360	110	920	0,036	15	18	13,6
CS4B-8	4GG T	0,37	0,5	3x400 V ~	1,6	97	591	400	110	720	0,032	15	27	12,2
	4OL T	0,37	0,5	3x400 V ~	1,6	97	660	360	110	920	0,036	15	18	12,5
CS4B-12	4GG M	0,55	0,75	1x230 V ~	4,6	97	731	360	110	920	0,036	15	18	15,9
	4OL M	0,55	0,75	1x230 V ~	4,5	97	770	360	110	920	0,036	15	18	15,2
CS4B-12	4GG T	0,55	0,75	3x400 V ~	1,9	97	701	360	110	920	0,036	15	18	13,5
	4OL T	0,55	0,75	3x400 V ~	2,2	97	750	360	110	920	0,036	15	18	13,1
CS4B-16	4GG M	0,75	1	1x230 V ~	6,2	97	841	360	110	920	0,036	30	18	20
	4OL M	0,75	1	1x230 V ~	6,3	97	890	360	110	1120	0,044	30	18	19,6
CS4B-16	4GG T	0,75	1	3x400 V ~	2,4	97	821	360	110	920	0,036	30	18	18,4
	4OL T	0,75	1	3x400 V ~	2,6	97	860	360	110	1120	0,044	30	18	17,7
CS4B-24	4GG M	1,1	1,5	1x230 V ~	8,6	97	1066	360	110	1120	0,044	30	18	25
	4OL M	1,1	1,5	1x230 V ~	8,5	97	1090	360	110	1335	0,053	30	18	23,7
CS4B-24	4GG T	1,1	1,5	3x400 V ~	3,4	97	1021	360	110	1120	0,044	30	18	21
	4OL T	1,1	1,5	3x400 V ~	3,6	97	1070	360	110	1335	0,053	30	18	20,5

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

CS4 B

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm^2/s and density equal to 1000 kg/m^3. Curve tolerance according to ISO 9906.

CS4 C

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100
CS4C-6	0,37	0,5	H (m)	33	-	31,8	30,7	29,4	26,4	22,7	13,2	-	-
CS4C-9	0,55	0,75		49,5	-	47,7	46	44	39,6	34	19,8	-	-
CS4C-13	0,75	1		71,5	-	68,9	66,4	63,7	57,2	49,2	28,6	-	-
CS4C-19	1,1	1,5		104,5	-	100,7	97	93	83,6	71,8	41,8	-	-

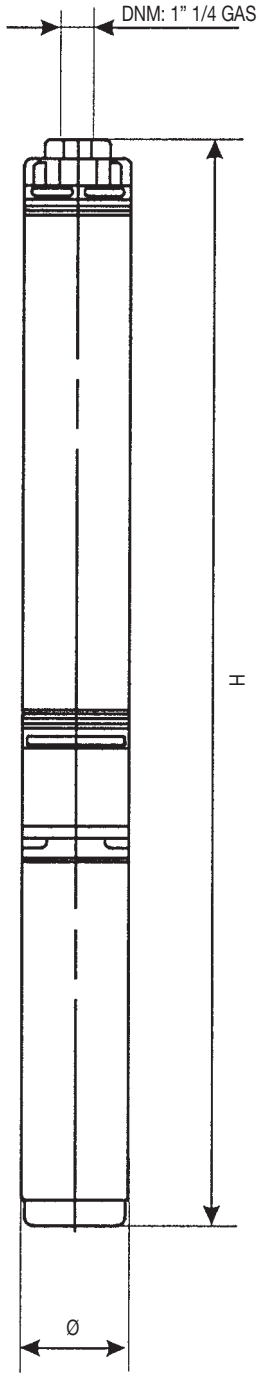
ELECTRICAL DATA AND DIMENSIONS

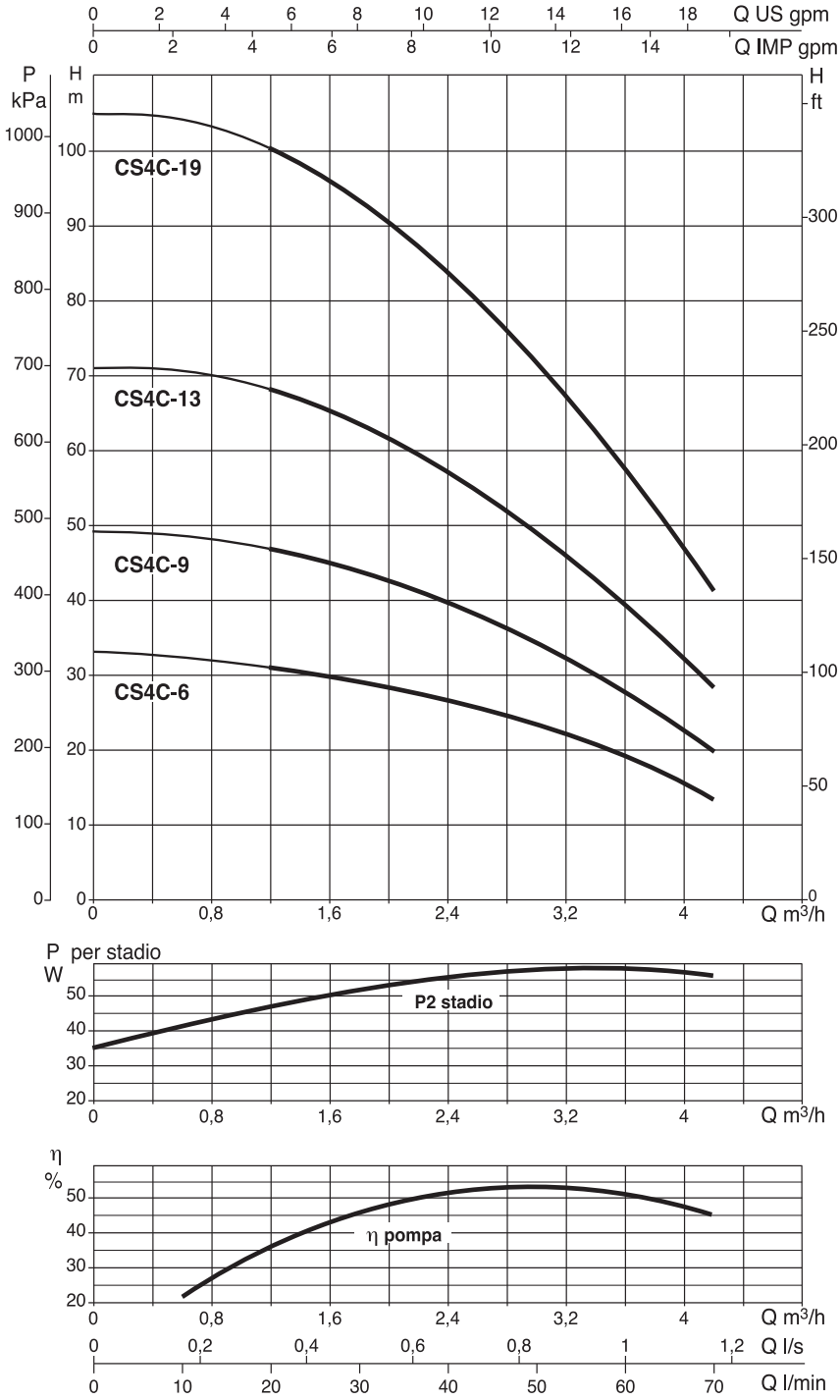
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	CABLE LENGTH m	Q.TY X PALLET	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H				
		kW	HP											
CS4C-6	4GG M	0,37	0,5	1x230 V ~	3,3	97	626	400	110	720	0,032	15	27	14,1
	4OL M	0,37	0,5	1x230 V ~	3,5	97	675	360	110	920	0,036	15	18	13,7
CS4C-6	4GG T	0,37	0,5	3x400 V ~	1,6	97	606	400	110	720	0,032	15	27	12
	4OL T	0,37	0,5	3x400 V ~	1,6	97	675	360	110	920	0,036	15	18	12,3
CS4C-9	4GG M	0,55	0,75	1x230 V ~	4,6	97	753,5	360	110	920	0,036	15	18	14,8
	4OL M	0,55	0,75	1x230 V ~	4,5	97	792,5	360	110	920	0,036	15	18	14,1
CS4C-9	4GG T	0,55	0,75	3x400 V ~	1,9	97	723,5	360	110	920	0,036	15	18	13
	4OL T	0,55	0,75	3x400 V ~	2,2	97	772,5	360	110	920	0,036	15	18	12,6
CS4C-13	4GG M	0,75	1	1x230 V ~	6,2	97	903,5	360	110	1120	0,044	30	18	21,2
	4OL M	0,75	1	1x230 V ~	6,3	97	952,5	360	110	1120	0,044	30	18	20,8
CS4C-13	4GG T	0,75	1	3x400 V ~	2,4	97	883,5	360	110	920	0,036	30	18	18,5
	4OL T	0,75	1	3x400 V ~	2,6	97	922,5	360	110	1120	0,044	30	18	17,8
CS4C-19	4GG M	1,1	1,5	1x230 V ~	8,6	97	1143,5	360	110	1335	0,053	30	18	23,7
	4OL M	1,1	1,5	1x230 V ~	8,5	97	1167,5	360	110	1335	0,053	30	18	22,5
CS4C-19	4GG T	1,1	1,5	3x400 V ~	3,4	97	1098,5	360	110	1335	0,053	30	18	21,3
	4OL T	1,1	1,5	3x400 V ~	3,6	97	1147,5	360	110	1335	0,053	30	18	20

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

CS4 C

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm^2/s and density equal to 1000 kg/m^3. Curve tolerance according to ISO 9906.

CS4 D

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100
CS4D-4	0,37	0,5	H (m)	24	-	-	-	23	22	21,8	18	16,2	11,2
CS4D-6	0,55	0,75		36	-	-	-	34,5	33	31,5	27	24,3	16,8
CS4D-8	0,75	1		48	-	-	-	46	44	42	36	32,5	22,4
CS4D-13	1,1	1,5		78	-	-	-	74,7	71,5	68,3	59	52,6	36,4

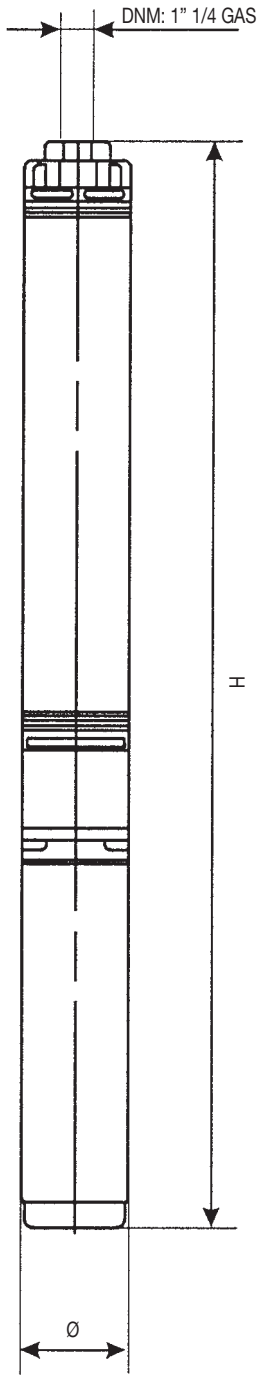
ELECTRICAL DATA AND DIMENSIONS

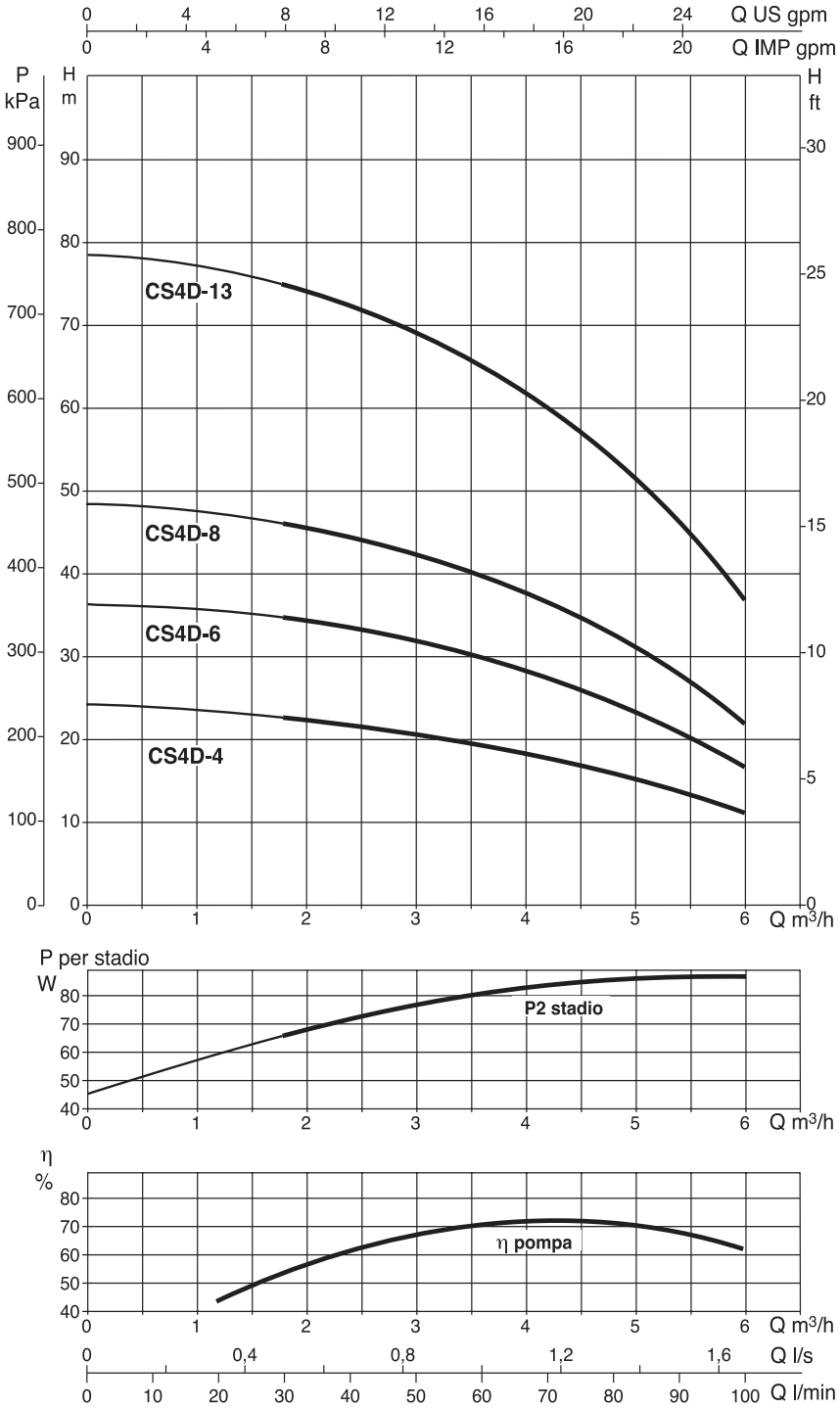
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	CABLE LENGTH m	Q.TY X PALLET	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H				
		kW	HP											
CS4D-4	4GG M	0,37	0,5	1x230 V ~	3,3	97	561	400	110	720	0,032	15	27	14
	4OL M	0,37	0,5	1x230 V ~	3,5	97	610	400	110	720	0,032	15	27	13,6
CS4D-4	4GG T	0,37	0,5	3x400 V ~	1,6	97	541	400	110	720	0,032	15	27	11,8
	4OL T	0,37	0,5	3x400 V ~	1,6	97	610	400	110	720	0,032	15	27	12,1
CS4D-6	4GG M	0,55	0,75	1x230 V ~	4,6	97	656	400	110	720	0,032	15	27	14,2
	4OL M	0,55	0,75	1x230 V ~	4,5	97	695	360	110	920	0,036	15	18	13,5
CS4D-6	4GG T	0,55	0,75	3x400 V ~	1,9	97	626	400	110	720	0,032	15	27	13,1
	4OL T	0,55	0,75	3x400 V ~	2,2	97	675	360	110	920	0,036	15	18	12,7
CS4D-8	4GG M	0,75	1	1x230 V ~	6,2	97	741	360	110	920	0,036	15	18	17,2
	4OL M	0,75	1	1x230 V ~	6,3	97	790	360	110	920	0,036	15	18	16,8
CS4D-8	4GG T	0,75	1	3x400 V ~	2,4	97	721	360	110	920	0,036	15	18	14,6
	4OL T	0,75	1	3x400 V ~	2,6	97	760	360	110	920	0,036	15	18	13,9
CS4D-13	4GG M	1,1	1,5	1x230 V ~	8,6	97	948,5	360	110	1120	0,044	30	18	22,6
	4OL M	1,1	1,5	1x230 V ~	8,5	97	972,5	360	110	1120	0,044	30	18	21,3
CS4D-13	4GG T	1,1	1,5	3x400 V ~	3,4	97	903,5	360	110	1120	0,044	30	18	20,2
	4OL T	1,1	1,5	3x400 V ~	3,6	97	952,5	360	110	1120	0,044	30	18	20,3

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

CS4 D

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

S4

4" SUBMERSIBLE ELECTRIC PUMPS

SAND RESISTANT

TECHNICAL DATA

Operating range: from 0,3 to 24 m^3/h.
Maximum head: up to 320 metres.
Pumped liquid: clean, free of solids and abrasives, chemically neutral, with properties similar to water.
Liquid temperature range: from 0 °C to +40 °C.
Maximum permitted amount of sand: 120 g/m^3.
300 gr/m^3 (only for S4F)
Installation: in 4" wells or larger, tanks and cisterns, vertical position.
Starts/hour: max 20.
Cooling flow: 8 cm/s.
Special executions on requests: alternative voltages and/or frequencies.
On request, the single phase version can be supplied with **CONTROL BOX BOOSTER** for the increase of the starting torque.
Electric pumps complying with the 2009/125/EC Directive (EcoDesign - ErP)
M.E.I. $\geq$ **0.4**

APPLICATIONS

Submersible electric pumps for 4" wells or larger, capable of generating a wide range of flows and heads. These units have a very extensive range of applications for lifting, distribution, and pressurisation in civil and industrial water systems, filling of pressure vessels and tanks, fire-fighting systems and washing of irrigation systems.

CONSTRUCTION FEATURES OF THE PUMP

Multistage centrifugal type with radial or semi-axial impellers. Pump and motor directly coupled with rigid coupling. Technopolymer impellers with stainless steel wearing parts, fitted on floating clearance rings made of synthetic low abrasion material, and technopolymer diffusers that impart significant wear resistance to the pump. Pump liner, shaft and coupling, strainer and cable sheath in stainless steel.
Base support and upper head in microcast AISI 304 stainless steel; check valve incorporated in the head. The pumps comply with the European Community Directives.

CONSTRUCTION FEATURES OF THE MOTOR

Submersible asynchronous two-pole motor made of AISI 304 stainless steel.
Squirrel cage rotor mounted on self-centring thrust block designed to withstand significant axial loads. Cooling of the bearing assembly and the bushings is provided by water, thereby eliminating the risk of contamination. Canned-type stator installed inside an airtight casing made of stainless steel.

Flanging: NEMA - 4"
Protection class: IP68
Insulation class: F

Supply voltage:	single-phase	230 V / 50 Hz.
	three-phase	400 V / 50 Hz.
	three-phase	230 V / 50 Hz.

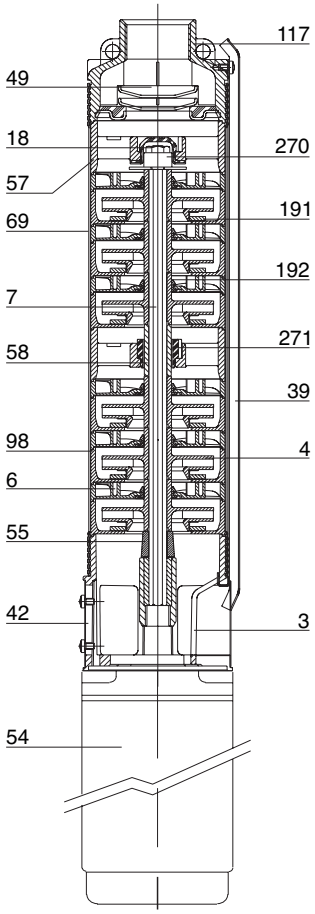
Electric pump with 4OL motor in oil bath available on request.

SUPPLY

Control box (for the single-phase version) and motor to be ordered separately.

MATERIALS

N.	PART*	MATERIALS
3	BASE SUPPORT	AISI 304 MICROCAST STAINLESS STEEL
4	IMPELLER	TECHNOPOLYMER A with thrust in STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
6	DIFFUSER	TECHNOPOLYMER A
7	SHAFT WITH COUPLING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
18	LOCKING NUT	STAINLESS STEEL
39	CABLE SHEATH	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
42	STRAINER	STAINLESS STEEL
49	VALVE	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
54	MOTOR	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
55	SPACER	TECHNOPOLYMER A
57	SUPPORT	TECHNOPOLYMER A
58	INTERMEDIATE BUSHING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
69	PUMP LINER	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER A
117	UPPER HEAD	AISI 304 MICROCAST STAINLESS STEEL
191	FRONT THRUST RING	ABRASION-PROOF SYNTHETIC MATERIAL
192	REAR THRUST RING	ABRASION-PROOF SYNTHETIC MATERIAL
270	UPPER SHAFT GUIDE BUSH	RUBBER
271	INTERMEDIATE SHAFT GUIDE BUSH	ABRASION-PROOF SYNTHETIC MATERIAL



* In contact with the liquid.

– Legend:
(example)

S 4 C 13

Submersible pump (stainless steel delivery and suction supports).

Diameter (in inches) of the submersible pump

A - B - C - D - E - F = Geometry of the impeller

Number of stages

S4 A

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA																
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6	9	11,4	18	24	27
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	450
S4 A 8	0,37	0,5	H (m)	51	44,4	26,8	13,7	-	-	-	-	-	-	-	-	-	-	-
S4 A 12	0,37	0,5		76,5	66,6	40,2	20,5	-	-	-	-	-	-	-	-	-	-	-
S4 A 18	0,55	0,75		114,8	99,8	60,3	30,8	-	-	-	-	-	-	-	-	-	-	-
S4 A 25	0,75	1		159,4	138,7	83,7	42,7	-	-	-	-	-	-	-	-	-	-	-
S4 A 36	1,1	1,5		229,5	200	120,6	61,6	-	-	-	-	-	-	-	-	-	-	-
S4 A 50	1,5	2		318,8	277,4	167,5	85,5	-	-	-	-	-	-	-	-	-	-	-

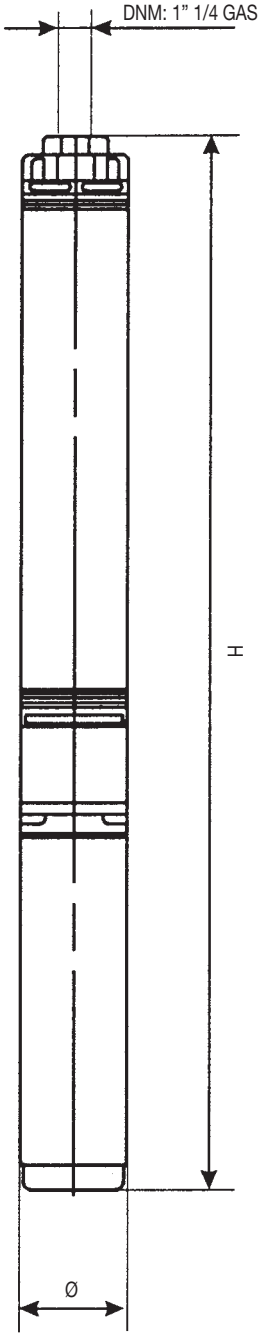
ELECTRICAL DATA AND DIMENSIONS

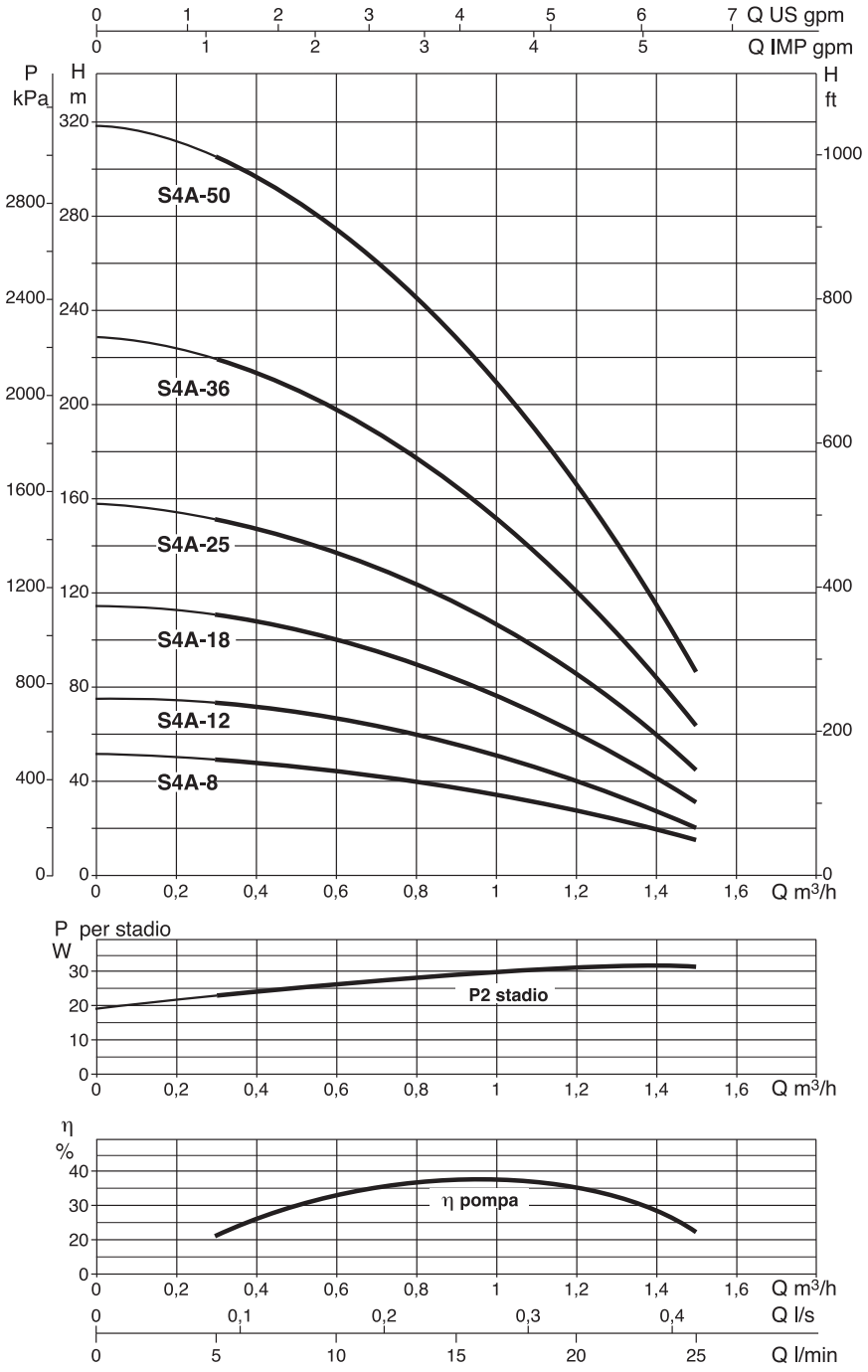
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H		
		kW	HP									
S4 A 8	4GG M	0,37	0,5	1x230 V ~	3,3	97	578	110	110	770	0,009	11,2
	4OL M	0,37	0,5	1x230 V ~	3,5	97	627	110	110	770	0,009	10,8
S4 A 12	4GG M	0,37	0,5	1x230 V ~	3,3	97	658	110	110	770	0,009	12,5
	4OL M	0,37	0,5	1x230 V ~	3,5	97	707	110	110	770	0,009	12,1
S4 A 18	4GG M	0,55	0,75	1x230 V ~	4,6	97	808	110	110	910	0,011	14,5
	4OL M	0,55	0,75	1x230 V ~	4,5	97	847	110	110	910	0,011	13,8
S4 A 18	4GG T	0,55	0,75	3x400 V ~	1,9	97	778	110	110	910	0,011	13,2
	4OL T	0,55	0,75	3x400 V ~	2,2	97	827	110	110	910	0,011	12,8
S4 A 25	4GG M	0,75	1	1x230 V ~	6,2	97	968	110	110	1080	0,013	19,8
	4OL M	0,75	1	1x230 V ~	6,3	97	1017	110	110	1080	0,013	19,4
S4 A 25	4GG T	0,75	1	3x400 V ~	2,4	97	948	110	110	1080	0,013	15
	4OL T	0,75	1	3x400 V ~	2,6	97	987	110	110	1080	0,013	14,3
S4 A 36	4GG M	1,1	1,5	1x230 V ~	8,6	97	1265,5	120	120	1590	0,023	25
	4OL M	1,1	1,5	1x230 V ~	8,5	97	1289,5	120	120	1590	0,023	18,5
S4 A 36	4GG T	1,1	1,5	3x400 V ~	3,4	97	1220,5	120	120	1590	0,023	22,6
	4OL T	1,1	1,5	3x400 V ~	3,6	97	1269,5	120	120	1590	0,023	21,3
S4 A 50	4GG M	1,5	2	1x230 V ~	11	97	1607,5	120	120	1920	0,028	27,8
	4OL M	1,5	2	1x230 V ~	10,8	97	1614,5	120	120	1920	0,028	20,3
S4 A 50	4GG T	1,5	2	3x400 V ~	4,4	97	1562,5	120	120	1920	0,028	26,8
	4OL T	1,5	2	3x400 V ~	4,6	97	1569,5	120	120	1920	0,028	25,5

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

S4 A

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm^2/s and density equal to 1000 kg/m^3. Curve tolerance according to ISO 9906.

S4 B

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA																
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6	9	11,4	18	24	27
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	450
S4 B 5	0,37	0,5	H (m)	31	30	26	22,6	19	10	-	-	-	-	-	-	-	-	-
S4 B 8	0,37	0,5		49,6	47,8	41,5	36,2	30,6	16	-	-	-	-	-	-	-	-	-
S4 B 12	0,55	0,75		74,4	71,8	62,3	54,4	45,8	24	-	-	-	-	-	-	-	-	-
S4 B 16	0,75	1		99,2	95,7	83	72,5	61	32	-	-	-	-	-	-	-	-	-
S4 B 24	1,1	1,5		148,8	143,5	124,6	108,7	91,7	48	-	-	-	-	-	-	-	-	-
S4 B 32	1,5	2		198,4	191,4	166	144,9	122,2	64	-	-	-	-	-	-	-	-	-
S4 B 40	2,2	3		248	239,2	207,6	181,2	152,8	80	-	-	-	-	-	-	-	-	-
S4 B 48	2,2	3		297,6	287,1	249,2	217,4	183,4	96	-	-	-	-	-	-	-	-	-

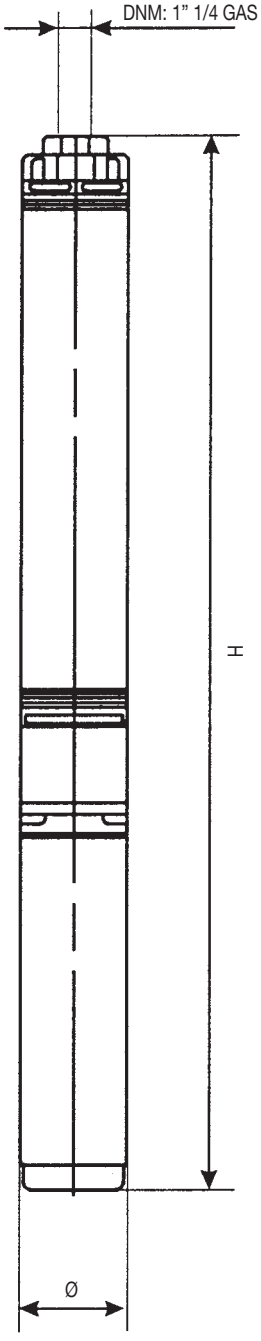
ELECTRICAL DATA AND DIMENSIONS

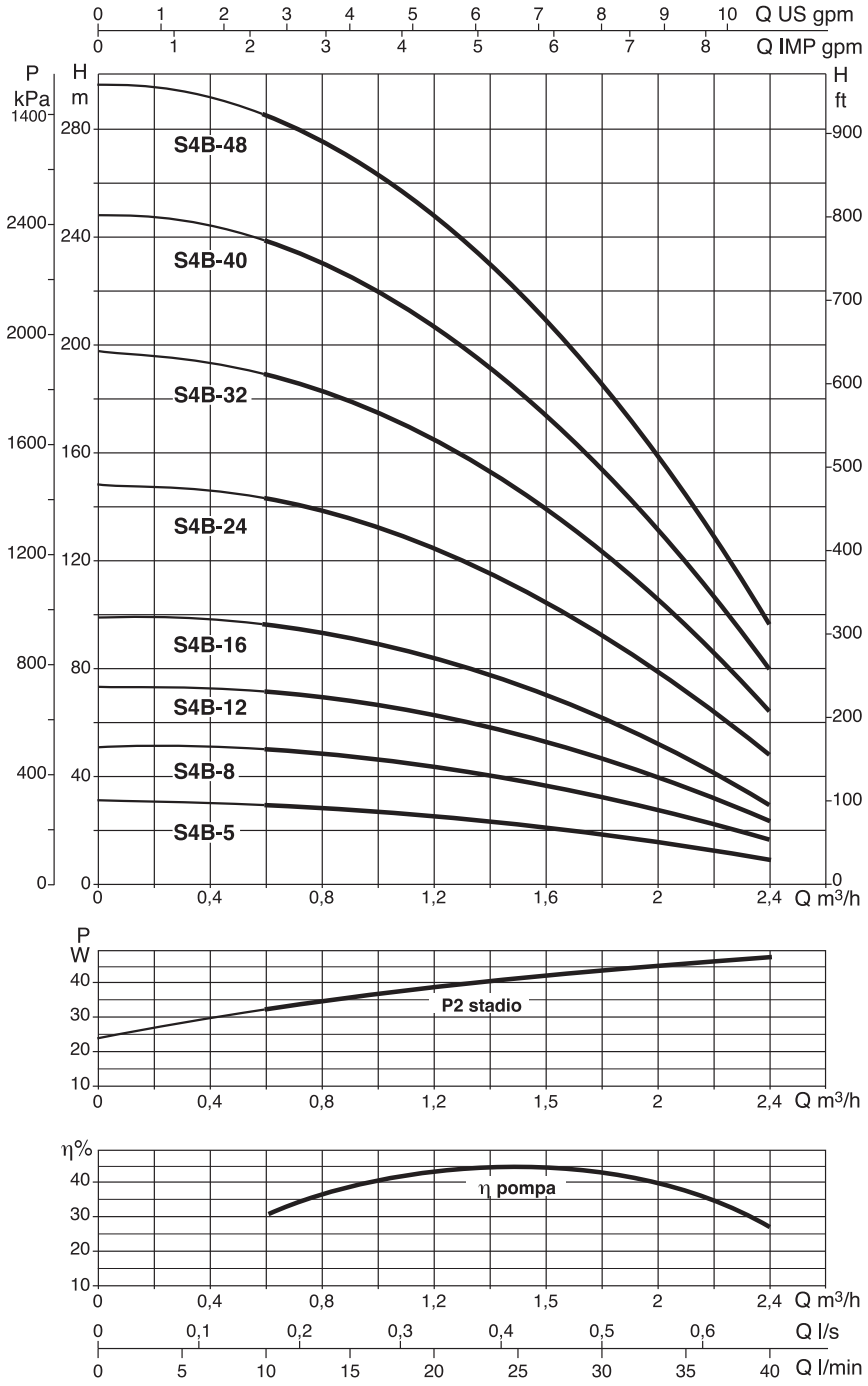
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H		
		kW	HP									
S4 B 5	4GG M	0,37	0,5	1x230 V ~	3,3	97	530,5	110	110	770	0,009	10,8
	4OL M	0,37	0,5	1x230 V ~	3,5	97	579,5	110	110	770	0,009	10,4
S4 B 8	4GG M	0,37	0,5	1x230 V ~	3,3	97	598	110	110	770	0,009	12,1
	4OL M	0,37	0,5	1x230 V ~	3,5	97	647	110	110	770	0,009	11,7
S4 B 12	4GG M	0,55	0,75	1x230 V ~	4,6	97	718	110	110	770	0,009	14
	4OL M	0,55	0,75	1x230 V ~	4,5	97	757	110	110	770	0,009	13,3
S4 B 12	4GG T	0,55	0,75	3x400 V ~	1,9	97	688	110	110	770	0,009	12,5
	4OL T	0,55	0,75	3x400 V ~	2,2	97	737	110	110	770	0,009	12,1
S4 B 16	4GG M	0,75	1	1x230 V ~	6,2	97	828	110	110	1080	0,013	15,9
	4OL M	0,75	1	1x230 V ~	6,3	97	877	110	110	1080	0,013	15,5
S4 B 16	4GG T	0,75	1	3x400 V ~	2,4	97	808	110	110	910	0,011	14,2
	4OL T	0,75	1	3x400 V ~	2,6	97	847	110	110	910	0,011	13,5
S4 B 24	4GG M	1,1	1,5	1x230 V ~	8,6	97	1053	120	120	1240	0,018	22,6
	4OL M	1,1	1,5	1x230 V ~	8,5	97	1077	120	120	1240	0,018	21,3
S4 B 24	4GG T	1,1	1,5	3x400 V ~	3,4	97	1008	120	120	1240	0,018	16,7
	4OL T	1,1	1,5	3x400 V ~	3,6	97	1057	120	120	1240	0,018	15,4
S4 B 32	4GG M	1,5	2	1x230 V ~	11	97	1295	120	120	1590	0,023	25,4
	4OL M	1,5	2	1x230 V ~	10,8	97	1302	120	120	1590	0,023	23,9
S4 B 32	4GG T	1,5	2	3x400 V ~	4,4	97	1250	120	120	1330	0,019	23,5
	4OL T	1,5	2	3x400 V ~	4,6	97	1257	120	120	1330	0,019	22,2
S4 B 40	4GG M	2,2	3	1x230 V ~	16	97	1527,5	120	120	1920	0,028	29
	4OL M	2,2	3	1x230 V ~	14	97	1632,5	120	120	1920	0,028	29,6
S4 B 40	4GG T	2,2	3	3x400 V ~	5,9	97	1507,5	120	120	1590	0,023	25,3
	4OL T	2,2	3	3x400 V ~	6	97	1514,5	120	120	1590	0,023	25,5
S4 B 48	4GG M	2,2	3	1x230 V ~	16	97	1706,5	120	120	1920	0,028	32,3
	4OL M	2,2	3	1x230 V ~	14	97	1811,5	120	120	1920	0,028	32,9
S4 B 48	4GG T	2,2	3	3x400 V ~	5,9	97	1686,5	120	120	1920	0,028	27,5
	4OL T	2,2	3	3x400 V ~	6	97	1693,5	120	120	1920	0,028	27,7

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

S4 B

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

S4 C

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA															
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6	9	11,4	18	24	27
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	450
S4 C 6	0,37	0,5		33	-	31,8	30,7	29,4	26,4	22,7	13,2	-	-	-	-	-	-	-
S4 C 9	0,55	0,75		49,5	-	47,7	46	44	39,6	34	19,8	-	-	-	-	-	-	-
S4 C 13	0,75	1		71,5	-	68,9	66,4	63,7	57,2	49,2	28,6	-	-	-	-	-	-	-
S4 C 19	1,1	1,5		104,5	-	100,7	97	93	83,6	71,8	41,8	-	-	-	-	-	-	-
S4 C 25	1,5	2	H (m)	137,5	-	132,5	128	122,5	110	94,5	55	-	-	-	-	-	-	-
S4 C 32	2,2	3		176	-	169,6	163	156,8	140,8	120,9	70,4	-	-	-	-	-	-	-
S4 C 39	2,2	3		214,5	-	206,7	200	191,1	171,6	147,4	85,8	-	-	-	-	-	-	-
S4 C 45	3	4		247,5	-	238,5	229	220,5	198	170,1	99	-	-	-	-	-	-	-
S4 C 51	3	4		280,5	-	270,3	261	250	224,4	192,8	112,2	-	-	-	-	-	-	-

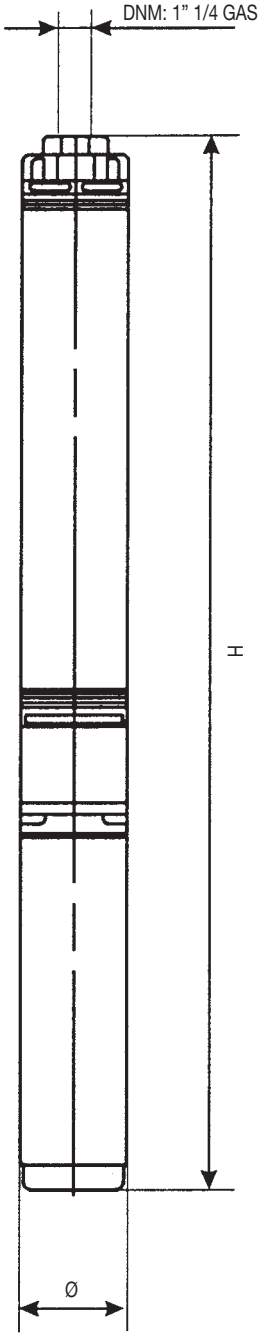
ELECTRICAL DATA AND DIMENSIONS

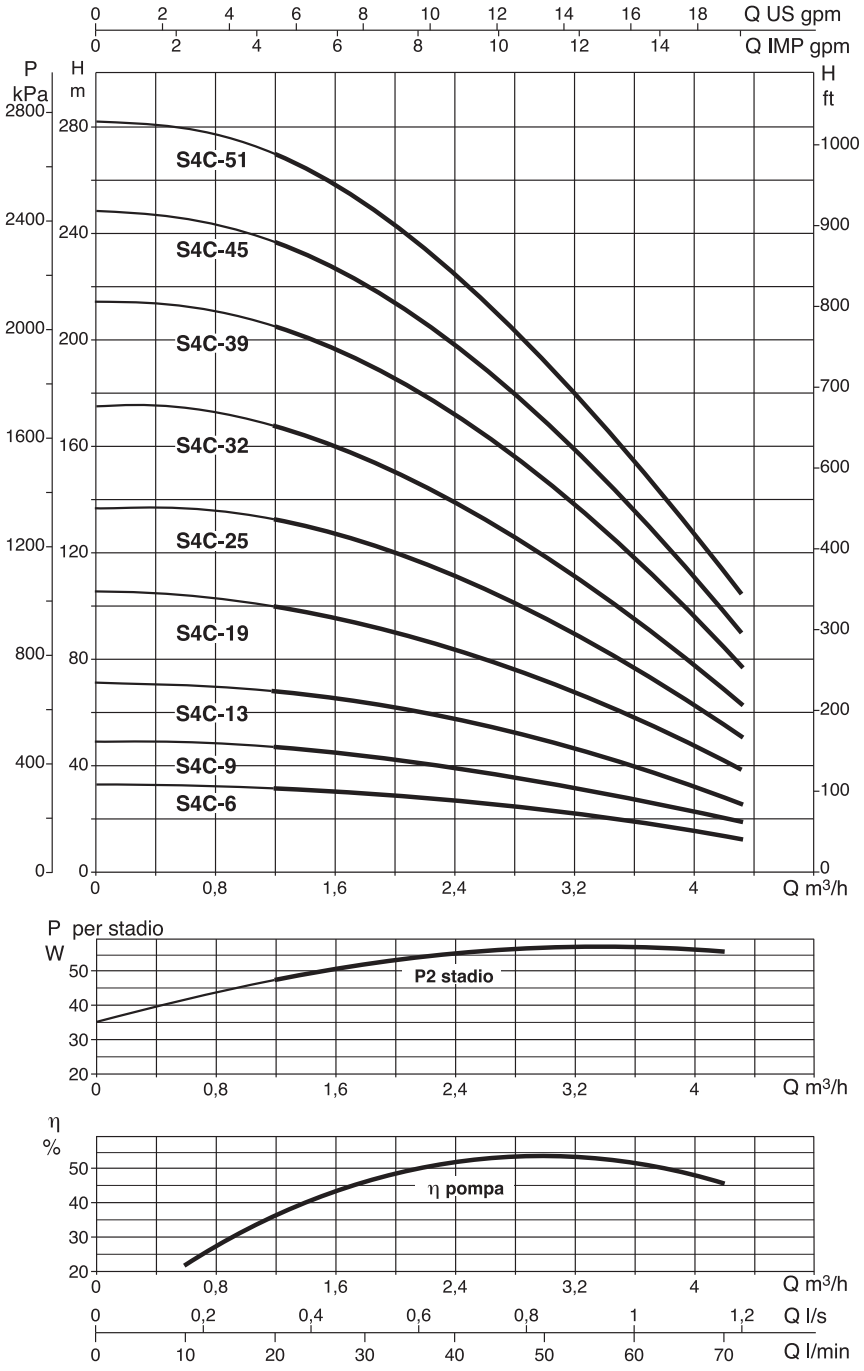
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H		
		kW	HP									
S4 C 6	4GG M	0,37	0,5	1x230 V ~	3,3	97	613	110	110	770	0,009	12
	4OL M	0,37	0,5	1x230 V ~	3,5	97	662	110	110	770	0,009	11,6
S4 C 9	4GG M	0,55	0,75	1x230 V ~	4,6	97	740,5	110	110	910	0,011	14,2
	4OL M	0,37	0,5	1x230 V ~	3,5	97	779,5	110	110	910	0,011	13,5
S4 C 9	4GG T	0,55	0,75	3x400 V ~	1,9	97	710,5	110	110	910	0,011	12,5
	4OL T	0,55	0,75	3x400 V ~	2,2	97	759,5	110	110	910	0,011	12,1
S4 C 13	4GG M	0,75	1	1x230 V ~	6,2	97	890,5	110	110	1080	0,013	16,2
	4OL M	0,75	1	1x230 V ~	6,3	97	939,5	110	110	1080	0,013	15,8
S4 C 13	4GG T	0,75	1	3x400 V ~	2,4	97	870,5	110	110	1080	0,013	14,5
	4OL T	0,75	1	3x400 V ~	2,6	97	909,5	110	110	1080	0,013	13,8
S4 C 19	4GG M	1,1	1,5	1x230 V ~	8,6	97	1130,5	120	120	1240	0,018	18,6
	4OL M	1,1	1,5	1x230 V ~	8,5	97	1154,5	120	120	1240	0,018	17,3
S4 C 19	4GG T	1,1	1,5	3x400 V ~	3,4	97	1085,5	120	120	1240	0,018	17,1
	4OL T	1,1	1,5	3x400 V ~	3,6	97	1134,5	120	120	1240	0,018	15,8
S4 C 25	4GG M	1,5	2	1x230 V ~	11	97	1387,5	120	120	1590	0,023	25,2
	4OL M	1,5	2	1x230 V ~	10,8	97	1394,5	120	120	1590	0,023	244,7
S4 C 25	4GG T	1,5	2	3x400 V ~	4,4	97	1342,5	120	120	1590	0,023	23,2
	4OL T	1,5	2	3x400 V ~	4,6	97	1349,5	120	120	1590	0,023	21,9
S4 C 32	4GG M	2,2	3	1x230 V ~	16	97	1667,5	120	120	1920	0,028	27,4
	4OL M	2,2	3	1x230 V ~	14	97	1772,5	120	120	1920	0,028	28
S4 C 32	4GG T	2,2	3	3x400 V ~	5,9	97	1647,5	120	120	1920	0,028	29,5
	4OL T	2,2	3	3x400 V ~	6	97	1654,5	120	120	1920	0,028	29,7
S4 C 39	4GG M	2,2	3	1x230 V ~	16	97	1895	120	120	2200	0,032	38
	4OL M	2,2	3	1x230 V ~	14	97	2000	120	120	2200	0,032	38,6
S4 C 39	4GG T	2,2	3	3x400 V ~	5,9	97	1875	120	120	2200	0,032	33,5
	4OL T	2,2	3	3x400 V ~	6	97	1882	120	120	2200	0,032	33,7
S4 C 45	4GG T	3	4	3x400 V ~	8,3	97	2252,9	120	120	2600	0,037	42,6
	4OL T	3	4	3x400 V ~	7,9	97	2226,9	120	120	2600	0,037	38,6
S4 C 51	4GG T	3	4	3x400 V ~	8,3	97	2447	120	120	2600	0,037	44
	4OL T	3	4	3x400 V ~	7,9	97	2421	120	120	2600	0,037	40,3

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

S4 C

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm^2/s and density equal to 1000 kg/m^3. Curve tolerance according to ISO 9906.

S4 D

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA																
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6	9	11,4	18	24	27
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	450
S4 D 4	0,37	0,5	H (m)	24	-	-	-	23	22	21,8	18	16,2	11,2	-	-	-	-	-
S4 D 6	0,55	0,75		36	-	-	-	34,5	33	31,5	27	24,3	16,8	-	-	-	-	-
S4 D 8	0,75	1		48	-	-	-	46	44	42	36	32,5	22,4	-	-	-	-	-
S4 D 13	1,1	1,5		78	-	-	-	74,7	71,5	68,3	59	52,6	36,4	-	-	-	-	-
S4 D 17	1,5	2		102	-	-	-	98	93,5	89,5	77,5	68,8	47,6	-	-	-	-	-
S4 D 21	2,2	3		126	-	-	-	121	115,5	110	96	85	58,8	-	-	-	-	-
S4 D 25	2,2	3		150	-	-	-	144	137,5	132	114,5	101,2	70	-	-	-	-	-
S4 D 29	3	4		174	-	-	-	166	159,5	152	132	117,4	81,2	-	-	-	-	-
S4 D 34	3	4		204	-	-	-	196	187	179,5	155	137,7	95,2	-	-	-	-	-
S4 D 38	4	5,5		228	-	-	-	219	209	200	173	153,9	106,4	-	-	-	-	-
S4 D 45	4	5,5		270	-	-	-	259	247,5	237	205	182,2	127	-	-	-	-	-

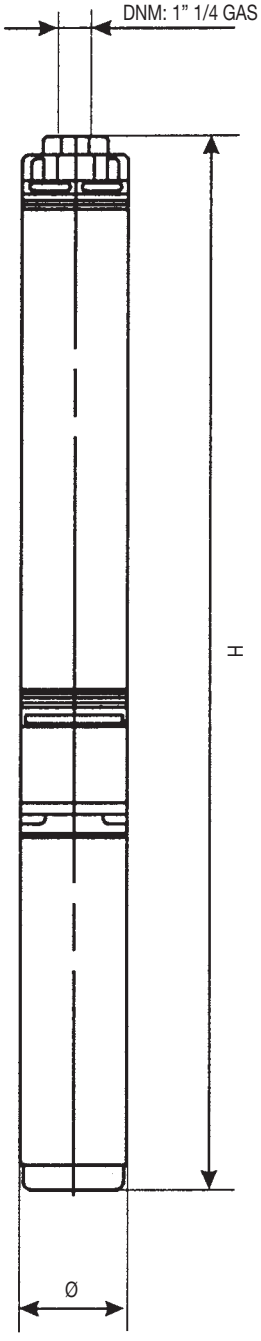
ELECTRICAL DATA AND DIMENSIONS

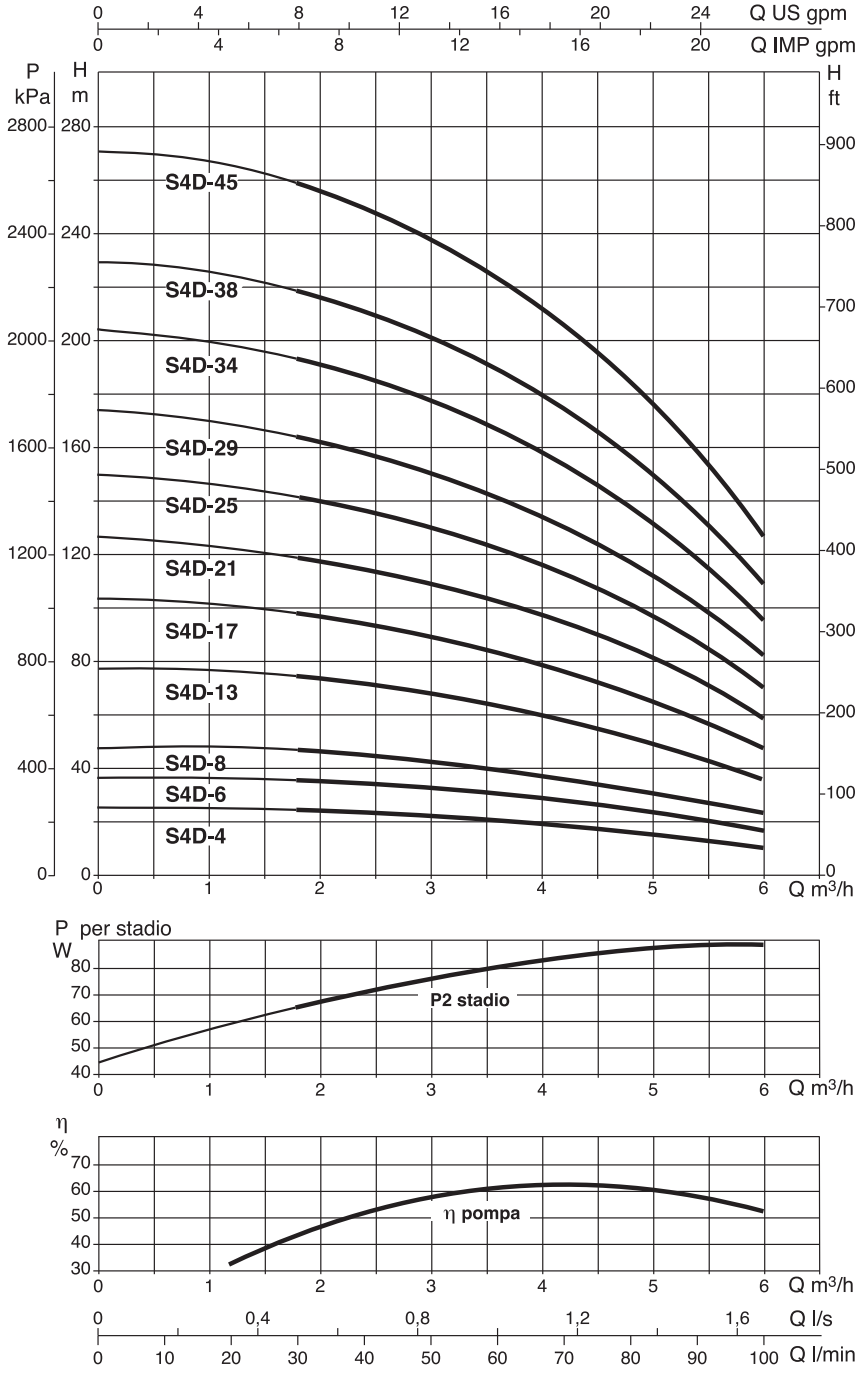
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H		
		kW	HP									
S4 D 4	4GG M	0,37	0,5	1x230 V ~	3,3	97	548	110	110	770	0,009	11,8
	4OL M	0,37	0,5	1x230 V ~	3,5	97	597	110	110	770	0,009	11,4
S4 D 6	4GG M	0,55	0,75	1x230 V ~	4,6	97	643	110	110	770	0,009	13,5
	4OL M	0,55	0,75	1x230 V ~	4,5	97	682	110	110	770	0,009	12,8
S4 D 6	4GG T	0,55	0,75	3x400 V ~	1,9	97	613	110	110	770	0,009	12
	4OL T	0,55	0,75	3x400 V ~	2,2	97	662	110	110	770	0,009	11,6
S4 D 8	4GG M	0,75	1	1x230 V ~	6,2	97	728	110	110	910	0,011	15
	4OL M	0,75	1	1x230 V ~	6,3	97	777	110	110	910	0,011	14,6
S4 D 8	4GG T	0,75	1	3x400 V ~	2,4	97	708	110	110	910	0,011	13,5
	4OL T	0,75	1	3x400 V ~	2,6	97	747	110	110	910	0,011	12,8
S4 D 13	4GG M	1,1	1,5	1x230 V ~	8,6	97	935,5	110	110	1080	0,013	17,5
	4OL M	1,1	1,5	1x230 V ~	8,5	97	959,5	110	110	1080	0,013	16,2
S4 D 13	4GG T	1,1	1,5	3x400 V ~	3,4	97	890,5	110	110	1080	0,013	15,8
	4OL T	1,1	1,5	3x400 V ~	3,6	97	939,5	110	110	1080	0,013	14,5
S4 D 17	4GG M	1,5	2	1x230 V ~	11	97	1127,5	120	120	1240	0,018	19,6
	4OL M	1,5	2	1x230 V ~	10,8	97	1134,5	120	120	1240	0,018	18,1
S4 D 17	4GG T	1,5	2	3x400 V ~	4,4	97	1082,5	120	120	1240	0,018	17,8
	4OL T	1,5	2	3x400 V ~	4,6	97	1089,5	120	120	1240	0,018	16,5
S4 D 21	4GG M	2,2	3	1x230 V ~	16	97	1277,5	120	120	1590	0,023	24,9
	4OL M	2,2	3	1x230 V ~	14	97	1382,5	120	120	1590	0,023	25,5
S4 D 21	4GG T	2,2	3	3x400 V ~	5,9	97	1257,5	120	120	1330	0,019	20,1
	4OL T	2,2	3	3x400 V ~	6	97	1264,5	120	120	1330	0,019	20,3
S4 D 25	4GG M	2,2	3	1x230 V ~	16	97	1407,5	120	120	1590	0,023	25,8
	4OL M	2,2	3	1x230 V ~	14	97	1512,5	120	120	1590	0,023	26,4
S4 D 25	4GG T	2,2	3	3x400 V ~	5,9	97	1387,5	120	120	1590	0,023	26,5
	4OL T	2,2	3	3x400 V ~	6	97	1394,5	120	120	1590	0,023	26,7
S4 D 29	4GG T	3	4	3x400 V ~	8,3	97	1701	120	120	1820	0,026	32,5
	4OL T	3	4	3x400 V ~	7,9	97	1675	120	120	1820	0,026	28,5
S4 D 34	4GG T	3	4	3x400 V ~	8,3	97	1863,5	120	120	2200	0,032	36,5
	4OL T	3	4	3x400 V ~	7,9	97	1837,5	120	120	2200	0,032	32,5
S4 D 38	4GG T	4	5,5	3x400 V ~	10	97	2096	120	120	2200	0,032	43,6
	4OL T	4	5,5	3x400 V ~	10,2	97	2056	120	120	2200	0,032	37,8
S4 D 45	4GG T	4	5,5	3x400 V ~	10	97	2323	120	120	2600	0,037	46
	4OL T	4	5,5	3x400 V ~	10,2	97	2283	120	120	2600	0,037	40,2

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

S4 D

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm^2/s and density equal to 1000 kg/m^3. Curve tolerance according to ISO 9906.

S4 E

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA															
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6	9	11,4	18	24	27
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	450
S4 E 6	0,75	1	H (m)	40,5	-	-	-	-	-	-	31,5	30	27	17,6	7,7	-	-	-
S4 E 8	1,1	1,5		54	-	-	-	-	-	-	42	40	37	23,4	10,3	-	-	-
S4 E 12	1,5	2		81	-	-	-	-	-	-	63	60	55	35,2	15,5	-	-	-
S4 E 17	2,2	3		114,8	-	-	-	-	-	-	89,5	86	78	49,8	21,9	-	-	-
S4 E 20	3	4		135	-	-	-	-	-	-	105	101,5	91	58,6	25,7	-	-	-
S4 E 23	3	4		155,4	-	-	-	-	-	-	120,5	117	104,5	67,4	29,6	-	-	-
S4 E 27	4	5,5		182,4	-	-	-	-	-	-	141,5	137	122,5	79,2	34,8	-	-	-
S4 E 31	4	5,5		209,4	-	-	-	-	-	-	162	156	140	90,9	39,9	-	-	-
S4 E 36	5,5	7,5		243,2	-	-	-	-	-	-	188	180	162	105,5	46,5	-	-	-
S4 E 42	5,5	7,5		283,7	-	-	-	-	-	-	220	211	189	123,2	54	-	-	-

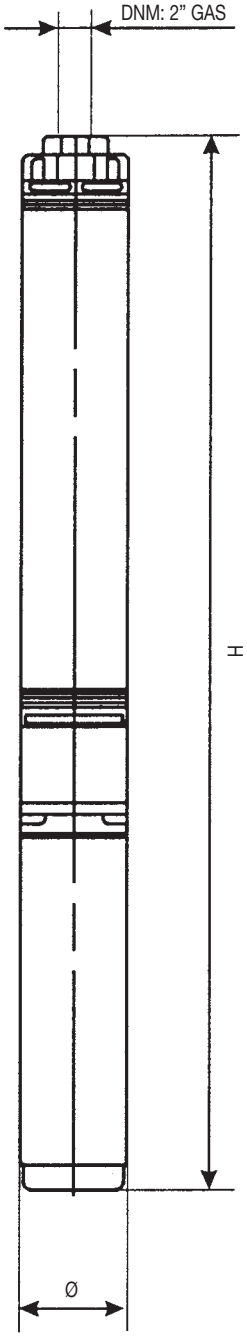
ELECTRICAL DATA AND DIMENSIONS

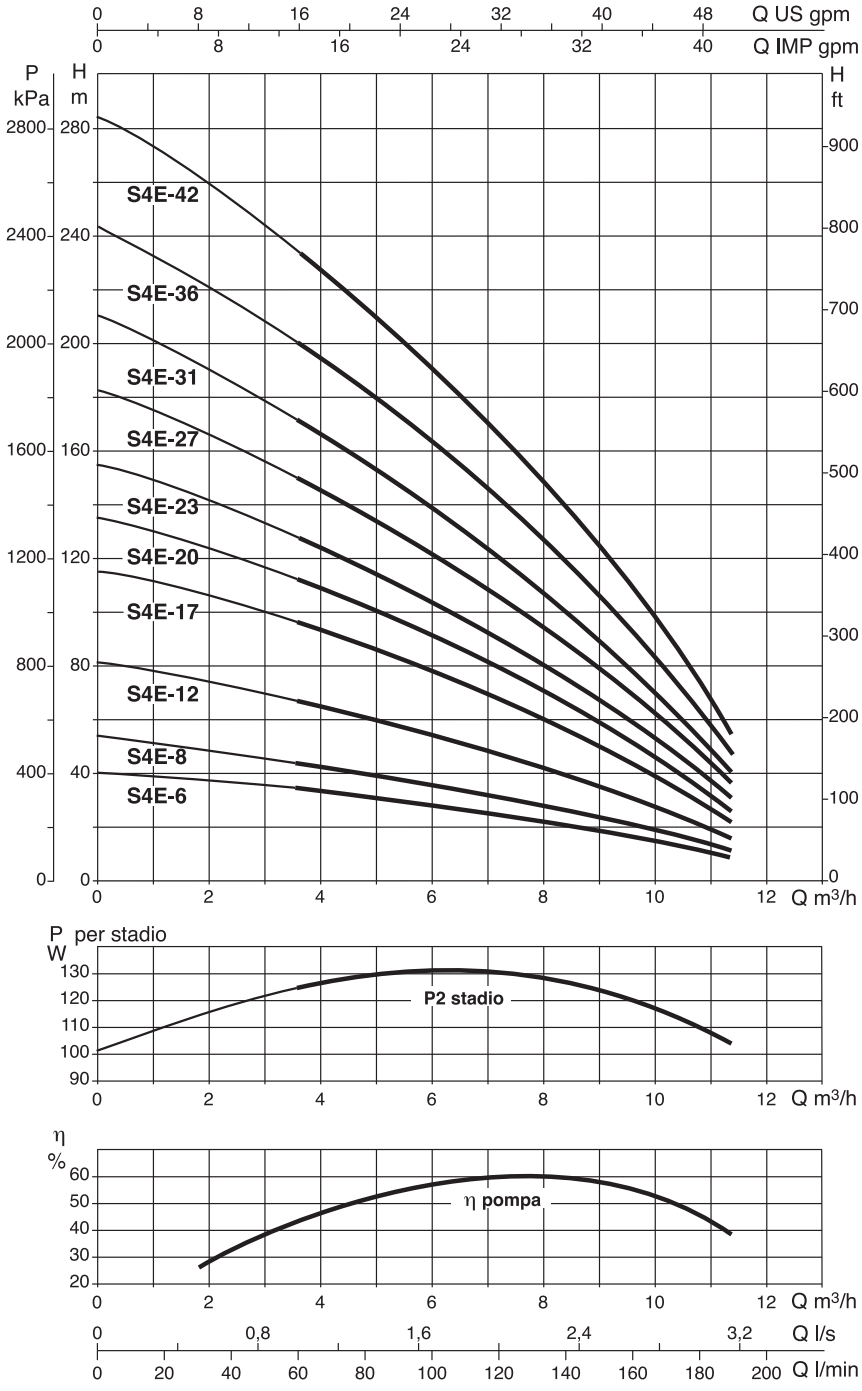
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H		
		kW	HP									
S4 E 6	4GG M	0,75	1	1x230 V ~	6,2	97	788,5	110	110	910	0,011	15,4
	4OL M	0,75	1	1x230 V ~	6,3	97	837,5	110	110	910	0,011	15
S4 E 6	4GG T	0,75	1	3x400 V ~	2,4	97	768,5	110	110	910	0,011	13,9
	4OL T	0,75	1	3x400 V ~	2,6	97	807,5	110	110	910	0,011	13,2
S4 E 8	4GG M	1,1	1,5	1x230 V ~	8,6	97	938,5	110	110	1080	0,013	17,1
	4OL M	1,1	1,5	1x230 V ~	8,5	97	962,5	110	110	1080	0,013	15,8
S4 E 8	4GG T	1,1	1,5	3x400 V ~	3,4	97	893,5	110	110	1080	0,013	15,5
	4OL T	1,1	1,5	3x400 V ~	3,6	97	942,5	110	110	1080	0,013	14,2
S4 E 12	4GG M	1,5	2	1x230 V ~	11	97	1210,5	120	120	1330	0,019	19,5
	4OL M	1,5	2	1x230 V ~	10,8	97	1217,5	120	120	1330	0,019	18
S4 E 12	4GG T	1,5	2	3x400 V ~	4,4	97	1165,5	120	120	1330	0,019	18,5
	4OL T	1,5	2	3x400 V ~	4,6	97	1172,5	120	120	1330	0,019	17,2
S4 E 17	4GG M	2,2	3	1x230 V ~	16	97	1525,5	120	120	1920	0,028	25,9
	4OL M	2,2	3	1x230 V ~	14	97	1630,5	120	120	1920	0,028	26,5
S4 E 17	4GG T	2,2	3	3x400 V ~	5,9	97	1505,5	120	120	1590	0,023	20,9
	4OL T	2,2	3	3x400 V ~	6	97	1512,5	120	120	1590	0,023	21,1
S4 E 20	4GG T	3	4	3x400 V ~	8,3	97	1814	120	120	1920	0,028	25,2
	4OL T	3	4	3x400 V ~	7,9	97	1788	120	120	1920	0,028	21,2
S4 E 23	4GG T	3	4	3x400 V ~	8,3	97	1971,5	120	120	2200	0,032	29,5
	4OL T	3	4	3x400 V ~	7,9	97	1945,5	120	120	2200	0,032	25,5
S4 E 27	4GG T	4	5,5	3x400 V ~	10	97	2284	120	120	2600	0,037	45,8
	4OL T	4	5,5	3x400 V ~	10,2	97	2244	120	120	2600	0,037	40
S4 E 31	4GG T	4	5,5	3x400 V ~	10	97	2494	120	120	2600	0,037	47
	4OL T	4	5,5	3x400 V ~	10,2	97	2454	120	120	2600	0,037	42,2
S4 E 36	4GG T	5,5	7,5	3x400 V ~	14	97	2859	180	180	3000	0,097	62
	4OL T	5,5	7,5	3x400 V ~	13,1	97	2819	180	180	3000	0,097	59,3
S4 E 42	4GG T	5,5	7,5	3x400 V ~	14	97	3174	180	180	3300	0,107	65
	4OL T	5,5	7,5	3x400 V ~	13,1	97	3134	180	180	3300	0,107	62,5

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

S4 E

4" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm^2/s and density equal to 1000 kg/m^3. Curve tolerance according to ISO 9906.

S4 F

4" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz

MODEL	ELECTRICAL DATA		HYDRAULIC DATA															
	P2 NOMINAL		Q=m³/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6	9	11,4	18	24	27
	kW	HP	Q=l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	450
S4 F 7	2,2	3	H (m)	40,5	-	-	-	-	-	-	-	-	-	36	33	24	15	11
S4 F 10	3	4		58	-	-	-	-	-	-	-	-	-	50,8	47	34	22	16
S4 F 13	4	5,5		76	-	-	-	-	-	-	-	-	-	66	62	44,7	28	20
S4 F 18	5,5	7,5		104,5	-	-	-	-	-	-	-	-	-	91	84	61,2	39	28

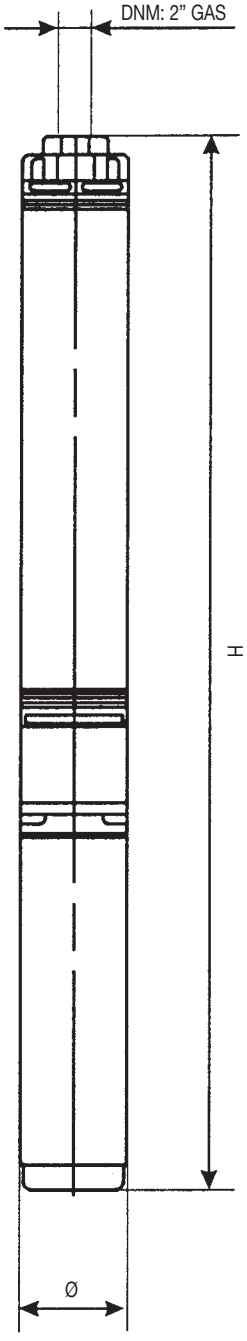
ELECTRICAL DATA AND DIMENSIONS

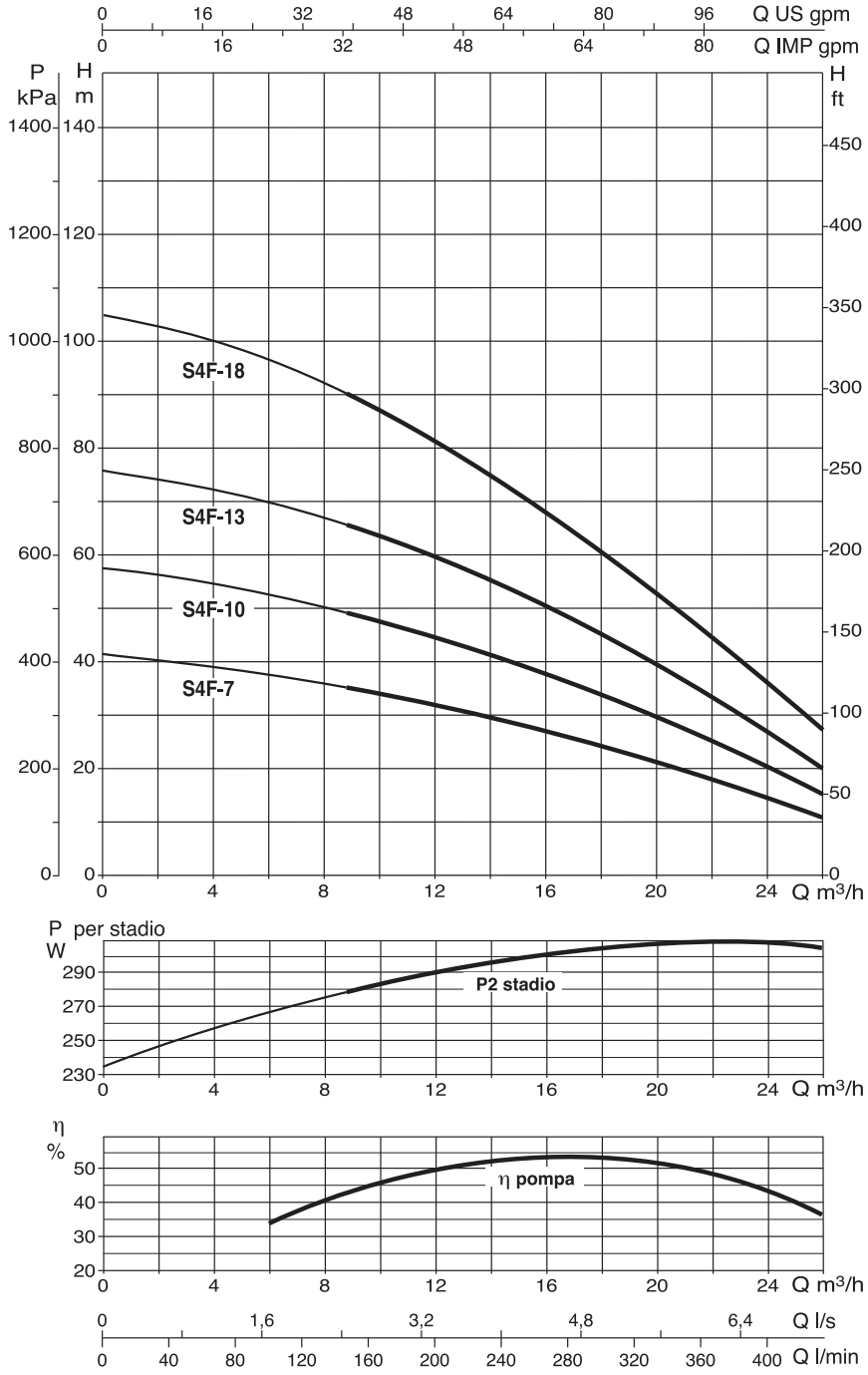
MODEL	ELECTRICAL DATA					Ø mm	H mm	PACKING DIMENSIONS			VOLUME m³	WEIGHT kg
	MOTOR	P2 NOMINAL		POWER INPUT 50 Hz	In A			L/A	L/B	H		
		kW	HP									
S4 F 7 M	4GG M	2,2	3	1x230 V ~	16	97	1076,5	120	120	1240	0,018	23,5
	4OL M	2,2	3	1x230 V ~	14	97	1181,5	120	120	1240	0,018	24,1
S4 F 7 T	4GG T	2,2	3	3x400 V ~	5,9	97	1056,5	120	120	1240	0,018	20
	4OL T	2,2	3	3x400 V ~	6	97	1063,5	120	120	1240	0,018	20,2
S4 F 10 T	4GG T	3	4	3x400 V ~	8,3	97	1411,5	120	120	1590	0,023	23,6
	4OL T	3	4	3x400 V ~	7,9	97	1385,5	120	120	1590	0,023	22
S4 F 13 T	4GG T	4	5,5	3x400 V ~	10	97	1718	120	120	1920	0,028	34,5
	4OL T	4	5,5	3x400 V ~	10,2	97	1678	120	120	1920	0,028	28,7
S4 F 18 T	4GG T	5,5	7,5	3x400 V ~	14	97	2160,5	120	120	2600	0,037	40
	4OL T	5,5	7,5	3x400 V ~	13,1	97	2120,5	120	120	2600	0,037	37,1

4GG motor: 4" encapsulated in water bath.
4OL motor: 4" rewindable in oil bath.

S4 F

4" SUBMERSIBLE ELECTRIC PUMPS

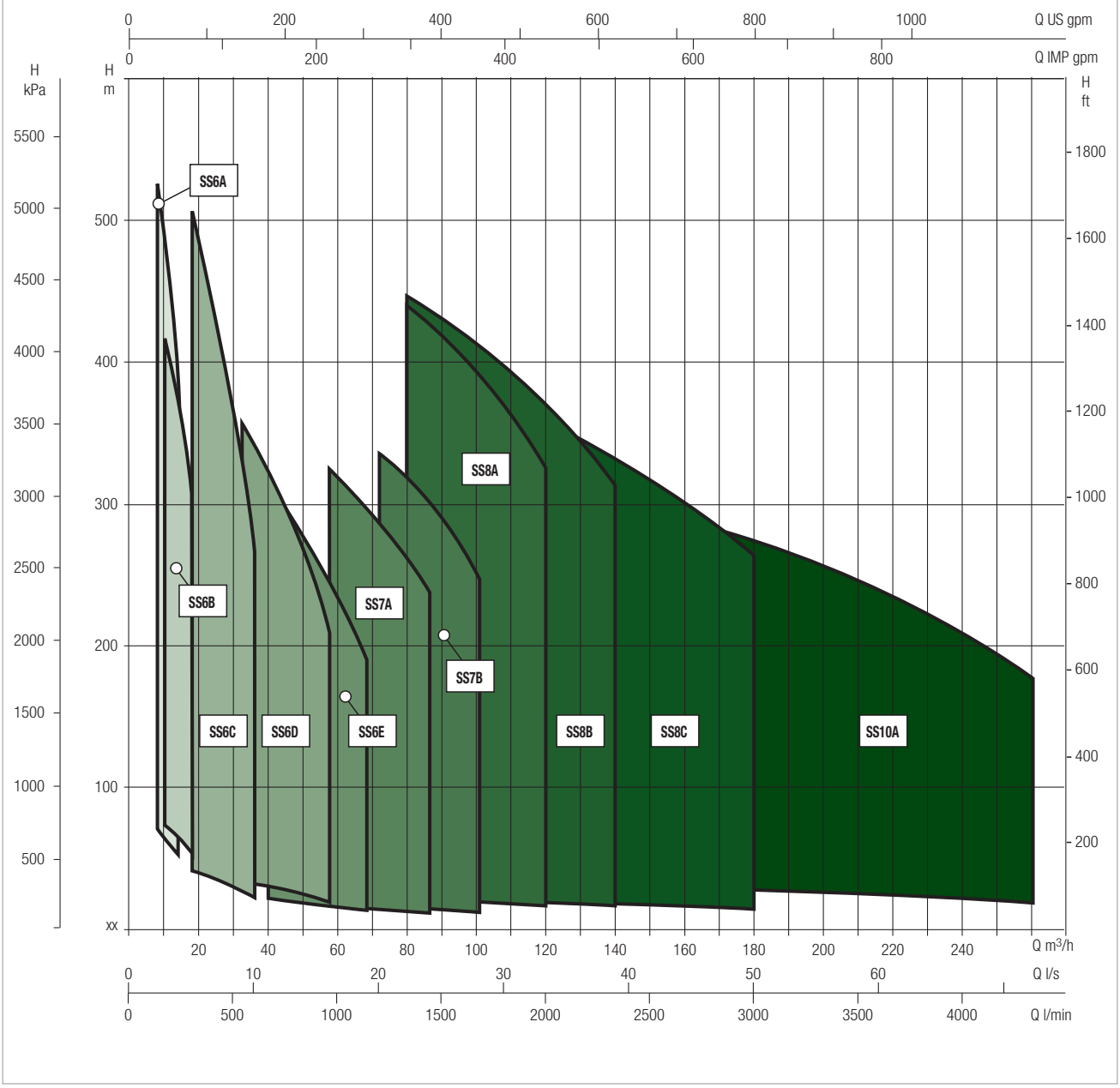




Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm^2/s and density equal to 1000 kg/m^3. Curve tolerance according to ISO 9906.

PERFORMANCE RANGE

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.



SS6

SUBMERSIBLE PUMPS 6”

TECHNICAL DATA

Performance range: flow up to 75 m3/h and max head of 670 m
Max. quantity of sand/silt: 50g/m3
Max. ambient temperature: 30°C (50°C available on request)
Outlet connection diameter (inside threaded): SS6 A – SS6 B : 2 ½”
SS6 C : 3”
SS6 D – SS6 E : 4”
Nr of starts: refer to the motor specification
Motor Cooling flow: refer to the motor specification
Installation: horizontal or vertical, refer to the motor specification

APPLICATIONS

Multistage mixed-flow borehole electric pumps, completely made in stainless steel (AISI 304L or AISI 316 on request), usable for wells from a minimum diameter equal to pump size or greater and capable of developing a wide range of Flows and Heads.
These pumps can be used in a wide range of lifting, distributing, and pressuring application: domestic and general water supply; sprinkler and drip irrigations systems; fire-fighting installations; lowering of groundwater level; industrial supplies as mining, hot springs, autoclaves and tanks.
These pumps are suitable both for standard water and for aggressive water applications by choosing the proper manufacturing material (AISI 304L or AISI 316) both for hydraulic part and motor.
Special version of motors with PE2+PA windings can be used on request for high-temperature water applications up to maximum 50°C.
Pumps can be installed both vertically and horizontally simply by removing the non-return valve and adding a cooling sleeve to the suction case (the only remark is to check the motor applicability to horizontal operations, refer to the motor specifications section).

CONSTRUCTION FEATURES OF PUMP

Mixed flow pumps with diffusers, impellers, brackets, suction case and discharge case completely made of stainless steel AISI 304 in order to provide maximum strength, durability, wear and tear resistance.

The impellers are balanced and locked to the shaft with a specially shaped collet and nut coupling, in order to guarantee ease-to-assembly feature and avoid vibration sensitive malfunctions and noise increase during rotation.

Rubber bearings that drive the shaft are water lubricated and have sand channels to make enable the sand particles leave the pump with the pumped liquid (maximum permissible sand content 50 gr/m3).

Built-in non returned valve provided in order to minimize local friction losses.

Stainless steel strainer provided in order to prevent particles over a certain size from entering the pump.

Coupling with 6”, 8” or 10” motor depending on the power requested by hydraulic part:
- 6GF: 6” canned submersible motor
- TR6: 6” rewindable submersible motor
- TR8: 8” rewindable submersible motor
- TR10: 10” rewindable submersible motor

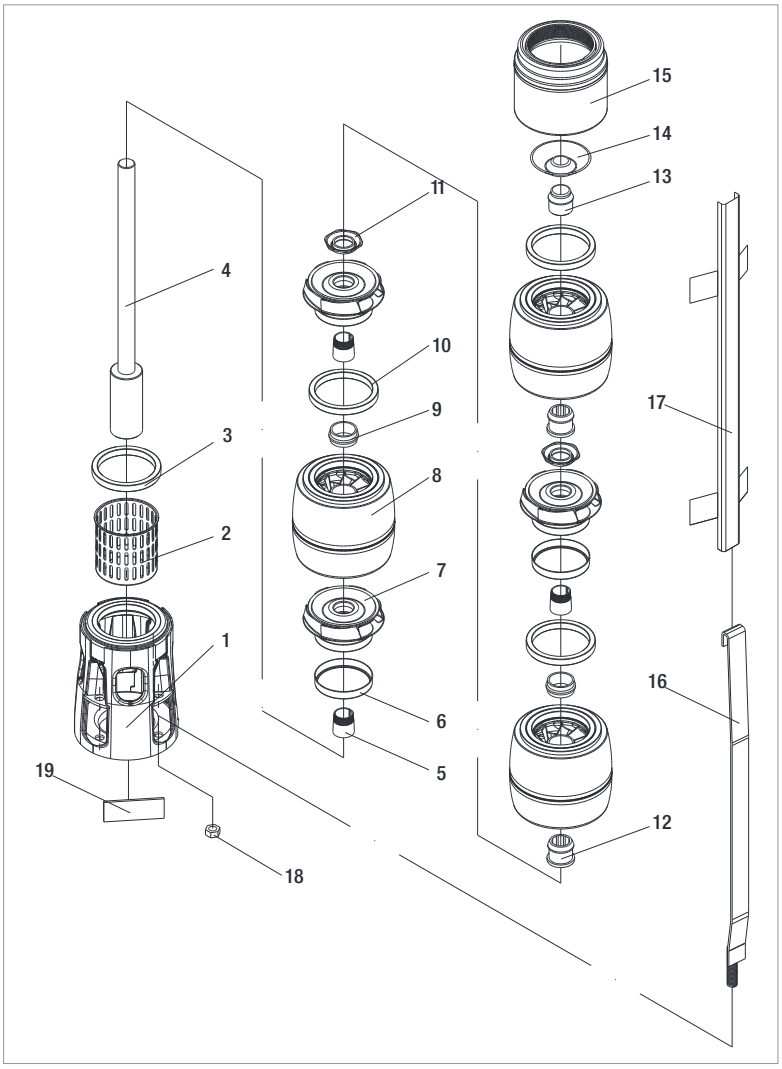
For inverter application refer to the detailed motor specification.

ON REQUEST:

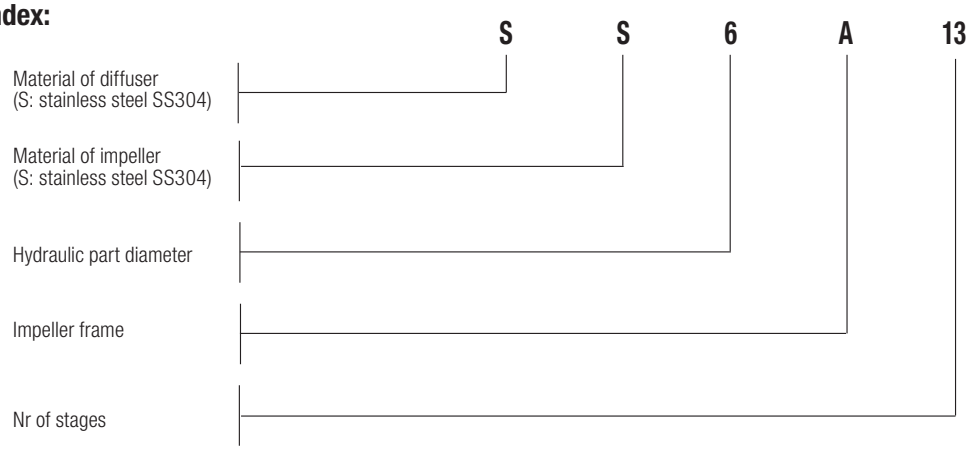
- Pump body stainless steel AISI 316 for aggressive water application
- Impellers stainless steel AISI 316
- Motors in full stainless steel AISI 316 for aggressive water application
- Star/Delta starting version
- Special version of the motor for high temperature application
- Non-standard power coupling

MATERIALS

N°	PART NAME	MATERIAL
1	Suction Case	Stainless Steel (AISI 304L)
2	Filter	Stainless Steel (AISI 304L)
3	Suction Case Wear Ring	Bronze (ASTM B145-4A)
4	Pump Shaft	Stainless Steel (AISI 420)
5	Collet	Stainless Steel
6	Impeller Wear Ring	STAINLESS STEEL (AISI 304)
7	Impeller	Stainless Steel (AISI 304L)
8	Diffuser	Stainless Steel (AISI 304L)
9	Rubber Bearing	Rubber
10	Diffuser Wear Ring	Rubber
11	Nut for Stop Ring	Stainless Steel (AISI 304L)
12	Bearing	Rubber
13	Shaft Stopper	Bronze (ASTM B145-4A)
14	Valve	Stainless Steel (AISI 304)
15	Discharge Case	Stainless Steel (AISI 304)
16	TIE ROD	STAINLESS STEEL (AISI 304L)
17	CABLE GUARD	STAINLESS STEEL (AISI 304)
18	TIR ROD NUT	STAINLESS STEEL (AISI 303)
19	NAME PLATE	STAINLESS STEEL (AISI 304)



– Designation Index:
(EXAMPLE)



SS6A

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	2	4	6	8	10	12	14	16	17	
	kW	HP	Q=l/min	0	33,3	66,6	100	133,3	166,6	200	233,3	266,6	283,3	
SS6A 08	4	5,5		75	75	74	73	70	65	59	51	41	36	6"
SS6A 09	4	5,5		84	84	84	82	78	73	66	57	46	40	6"
SS6A 10	4	5,5		93	94	93	91	87	81	73	63	51	44	6"
SS6A 11	4	5,5		103	103	102	100	96	89	81	70	56	49	6"
SS6A 12	5,5	7,5		112	112	112	109	104	97	88	76	61	53	6"
SS6A 13	5,5	7,5		121	122	121	118	113	105	95	82	67	58	6"
SS6A 14	5,5	7,5		131	131	130	127	122	114	103	89	72	62	6"
SS6A 15	5,5	7,5		140	140	139	136	130	122	110	95	77	67	6"
SS6A 16	7,5	10	H (mt)	149	150	149	145	139	130	117	101	82	71	6"
SS6A 17	7,5	10		159	159	158	154	148	138	124	108	87	76	6"
SS6A 18	7,5	10		168	169	167	163	156	146	132	114	92	80	6"
SS6A 19	7,5	10		177	178	177	172	165	154	139	120	97	84	6"
SS6A 20	7,5	10		187	187	186	182	174	162	146	127	102	89	6"
SS6A 21	7,5	10		196	197	195	191	182	170	154	133	108	93	6"
SS6A 22	9,2	12,5		205	206	204	200	191	178	161	139	113	98	6"
SS6A 23	9,2	12,5		215	215	214	209	200	186	168	146	118	102	6"
SS6A 24	9,2	12,5		224	225	223	218	209	195	176	152	123	107	6"

SS6A

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA			OPERATING BY INVERTER	HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A								
		kW	HP									
SS6A 08	6GF	4	5,5	10,6	●	●	1353	600	753	141	132	54,4
SS6A 09	6GF	4	5,5	10,6	●	●	1414	600	814	141	132	56,4
SS6A 10	6GF	4	5,5	10,6	●	●	1474	600	874	141	132	57,4
SS6A 11	6GF	4	5,5	10,6	●	●	1535	600	935	141	132	59,4
SS6A 12	6GF	5,5	7,5	14	●	●	1626	631	995	141	132	63,6
	TR6	5,5	7,5	13	○	●	1802	807	995	144	132	71
SS6A 13	6GF	5,5	7,5	14	●	●	1687	631	1056	141	132	65,6
	TR6	5,5	7,5	13	○	●	1863	807	1056	144	132	73
SS6A 14	6GF	5,5	7,5	14	●	●	1747	631	1116	141	132	66,6
	TR6	5,5	7,5	13	○	●	1923	807	1116	144	132	74
SS6A 15	6GF	5,5	7,5	14	●	●	1808	631	1177	141	132	68,6
	TR6	5,5	7,5	13	○	●	1984	807	1177	144	132	76
SS6A 16	6GF	7,5	10	18	●	●	1897	660	1237	141	132	72,2
	TR6	7,5	10	18	○	●	2074	837	1237	144	132	80
SS6A 17	6GF	7,5	10	18	●	●	1958	660	1298	141	132	73,2
	TR6	7,5	10	18	○	●	2135	837	1298	144	132	81
SS6A 18	6GF	7,5	10	18	●	●	2018	660	1358	141	132	75,2
	TR6	7,5	10	18	○	●	2195	837	1358	144	132	83
SS6A 19	6GF	7,5	10	18	●	●	2079	660	1419	141	132	76,2
	TR6	7,5	10	18	○	●	2256	837	1419	144	132	84
SS6A 20	6GF	7,5	10	18	●	●	2139	660	1479	141	132	78,2
	TR6	7,5	10	18	○	●	2316	837	1479	144	132	86
SS6A 21	6GF	7,5	10	18	●	●	2200	660	1540	141	132	79,2
	TR6	7,5	10	18	○	●	2377	837	1540	144	132	87
SS6A 22	6GF	9,2	12,5	22	●	●	2285	685	1600	141	132	84,6
	TR6	9,2	12,5	21	○	●	2467	867	1600	144	132	91
SS6A 23	6GF	9,2	12,5	22	●	●	2346	685	1661	141	132	85,6
	TR6	9,2	12,5	21	○	●	2528	867	1661	144	132	92
SS6A 24	6GF	9,2	12,5	22	●	●	2406	685	1721	141	132	87,6
	TR6	9,2	12,5	21	○	●	2588	867	1721	144	132	94

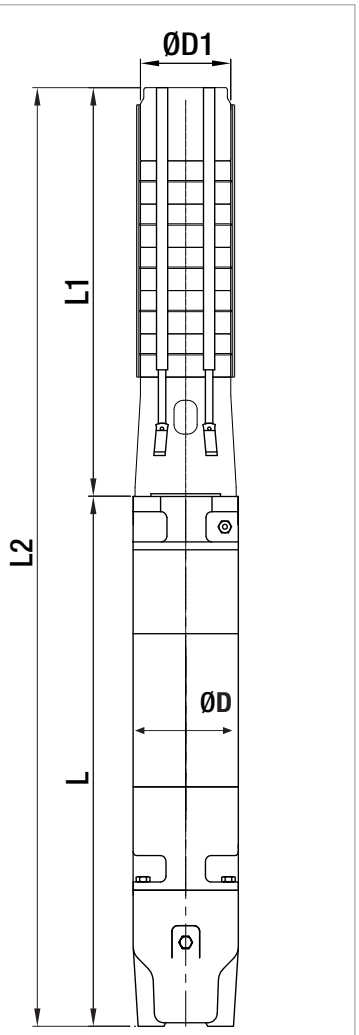
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR6: 6“ rewindable submersible motors.

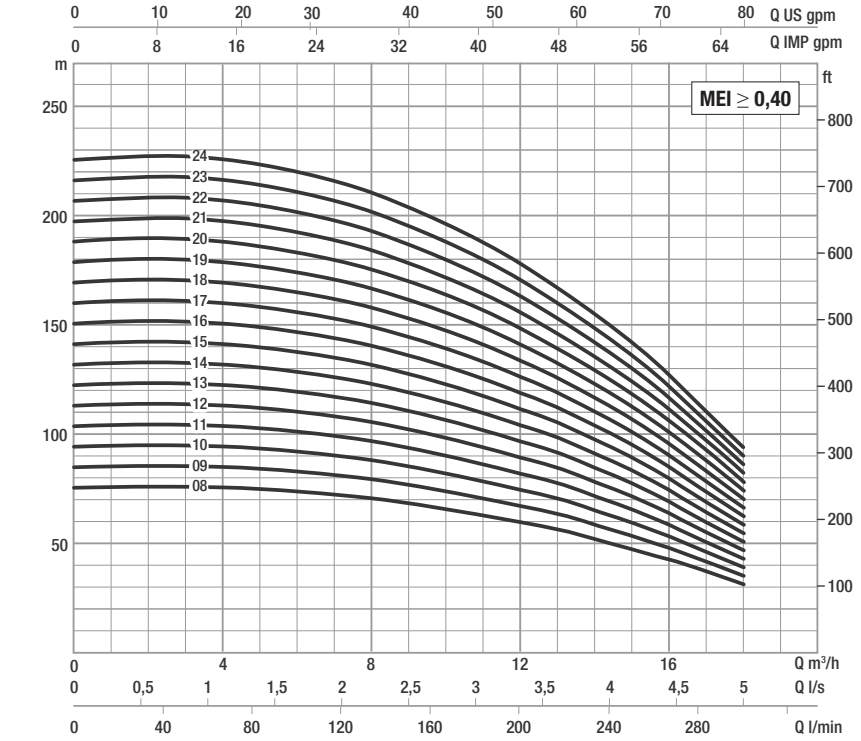
●	Allowed
○	Only PE2 + PA version

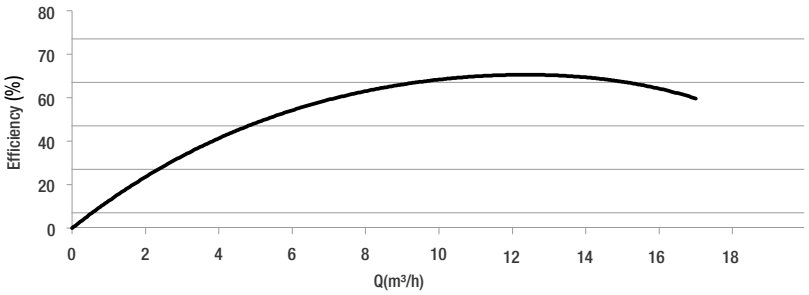
SS6A

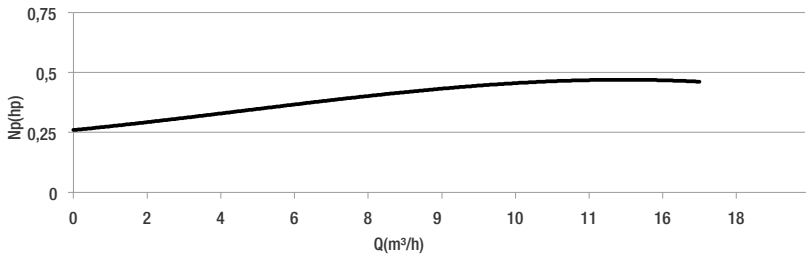
SUBMERSIBLE PUMPS 6”

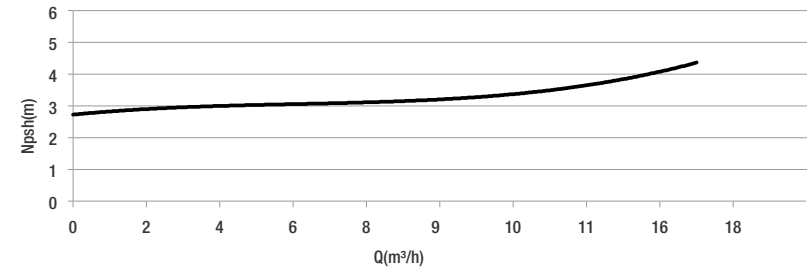
The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.











For hydraulic efficiency see pag. 89

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	2	4	6	8	10	12	14	16	17	
	kW	HP	Q=l/min	0	33,3	66,6	100	133,3	166,6	200	233,3	266,6	283,3	
SS6A 25	9,2	12,5	H (mt)	233	234	232	227	217	203	183	158	128	111	6”
SS6A 26	9,2	12,5		243	244	242	236	226	211	190	165	133	116	6”
SS6A 27	11	15		252	253	251	245	235	219	198	171	138	120	6”
SS6A 28	11	15		261	262	260	254	243	227	205	177	143	124	6”
SS6A 29	11	15		270	272	270	263	252	235	212	184	149	129	6”
SS6A 30	11	15		280	281	279	272	261	243	220	190	154	133	6”
SS6A 31	13	17,5		289	290	288	281	269	251	227	196	159	138	6”
SS6A 32	13	17,5		298	300	297	290	278	259	234	202	164	142	6”
SS6A 33	13	17,5		308	309	307	300	287	268	242	209	169	147	6”
SS6A 34	13	17,5		317	318	316	309	295	276	249	215	174	151	6”
SS6A 35	13	17,5		326	328	325	318	304	284	256	221	179	156	6”
SS6A36	13	17,5		336	337	335	327	313	292	264	228	184	160	6”
SS6A 37	13	17,5		345	347	344	336	321	300	271	234	190	164	6”
SS6A 38	15	20		354	356	353	345	330	308	278	240	195	169	6”
SS6A 39	15	20		364	365	362	354	339	316	286	247	200	173	6”
SS6A 40	15	20		373	375	372	363	348	324	293	253	205	178	6”
SS6A 41	15	20		382	384	381	372	356	332	300	259	210	182	6”
SS6A 42	18,5	25		392	393	390	381	365	341	308	266	215	187	6”

SS6A

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6A 25	6GF	9,2	12,5	22	●	●	2467	685	1782	141	132	88,6
	TR6	9,2	12,5	21	○	●	2649	867	1782	144	132	95
SS6A 26	6GF	9,2	12,5	22	●	●	2527	685	1842	141	132	89,6
	TR6	9,2	12,5	21	○	●	2709	867	1842	144	132	96
SS6A 27	6GF	11	15	25,5	●	●	2633	730	1903	141	132	96
	TR6	11	15	25	○	●	2800	897	1903	144	132	103
SS6A 28	6GF	11	15	25,5	●	●	2693	730	1963	141	132	97
	TR6	11	15	25	○	●	2860	897	1963	144	132	104
SS6A 29	6GF	11	15	25,5	●	●	2754	730	2024	141	132	99
	TR6	11	15	25	○	●	2921	897	2024	144	132	106
SS6A 30	6GF	11	15	25,5	●	●	2814	730	2084	141	132	100
	TR6	11	15	25	○	●	2981	897	2084	144	132	107
SS6A 31	6GF	15	20	33,4	●	●	2930	785	2145	141	132	108
	TR6	13	17,5	29	○	●	3072	927	2145	144	132	114
SS6A 32	6GF	15	20	33,4	●	●	2990	785	2205	141	132	109
	TR6	13	17,5	29	○	●	3132	927	2205	144	132	115
SS6A 33	6GF	15	20	33,4	●	●	3051	785	2266	141	132	111
	TR6	13	17,5	29	○	●	3193	927	2266	144	132	117
SS6A 34	6GF	15	20	33,4	●	●	3111	785	2326	141	132	112
	TR6	13	17,5	29	○	●	3253	927	2326	144	132	118
SS6A 35	6GF	15	20	33,4	●	●	3172	785	2387	141	132	113
	TR6	13	17,5	29	○	●	3314	927	2387	144	132	119
SS6A 36	6GF	15	20	33,4	●	●	3232	785	2447	141	132	115
	TR6	13	17,5	29	○	●	3374	927	2447	144	132	121
SS6A 37	6GF	15	20	33,4	●	●	3293	785	2508	141	132	116
	TR6	13	17,5	29	○	●	3435	927	2508	144	132	122
SS6A 38	6GF	15	20	33,4	●	●	3353	785	2568	141	132	118
	TR6	15	20	32	○	●	3565	997	2568	144	132	136
SS6A 39	6GF	15	20	33,4	●	●	3664	785	2879	141	167	150
	TR6	15	20	32	○	●	3876	997	2879	144	167	168
SS6A 40	6GF	15	20	33,4	●	●	3724	785	2939	141	167	151
	TR6	15	20	32	○	●	3936	997	2939	144	167	169
SS6A 41	6GF	15	20	33,4	●	●	3785	785	3000	141	167	153
	TR6	15	20	32	○	●	3997	997	3000	144	167	171
SS6A 42	6GF	18,5	25	41	●	●	3920	860	3060	141	167	163
	TR6	18,5	25	39	○	●	4117	1057	3060	144	167	179

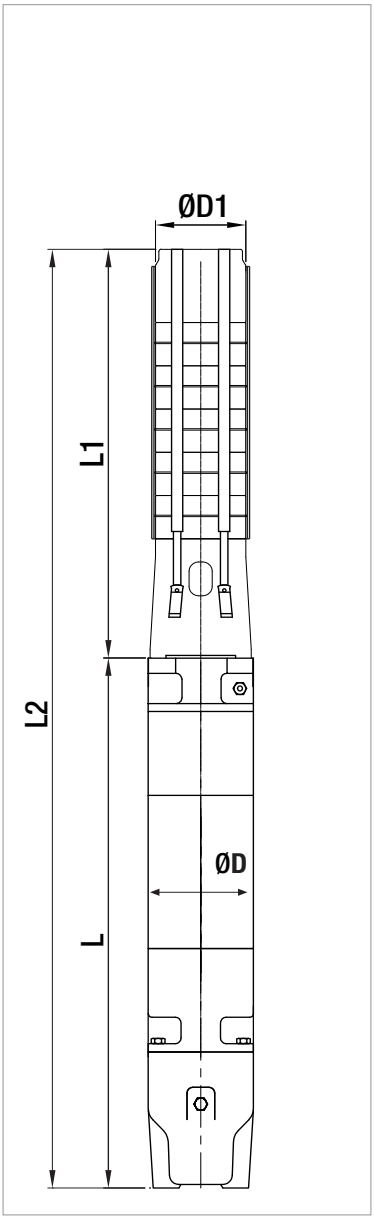
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR6: 6“ rewindable submersible motors.

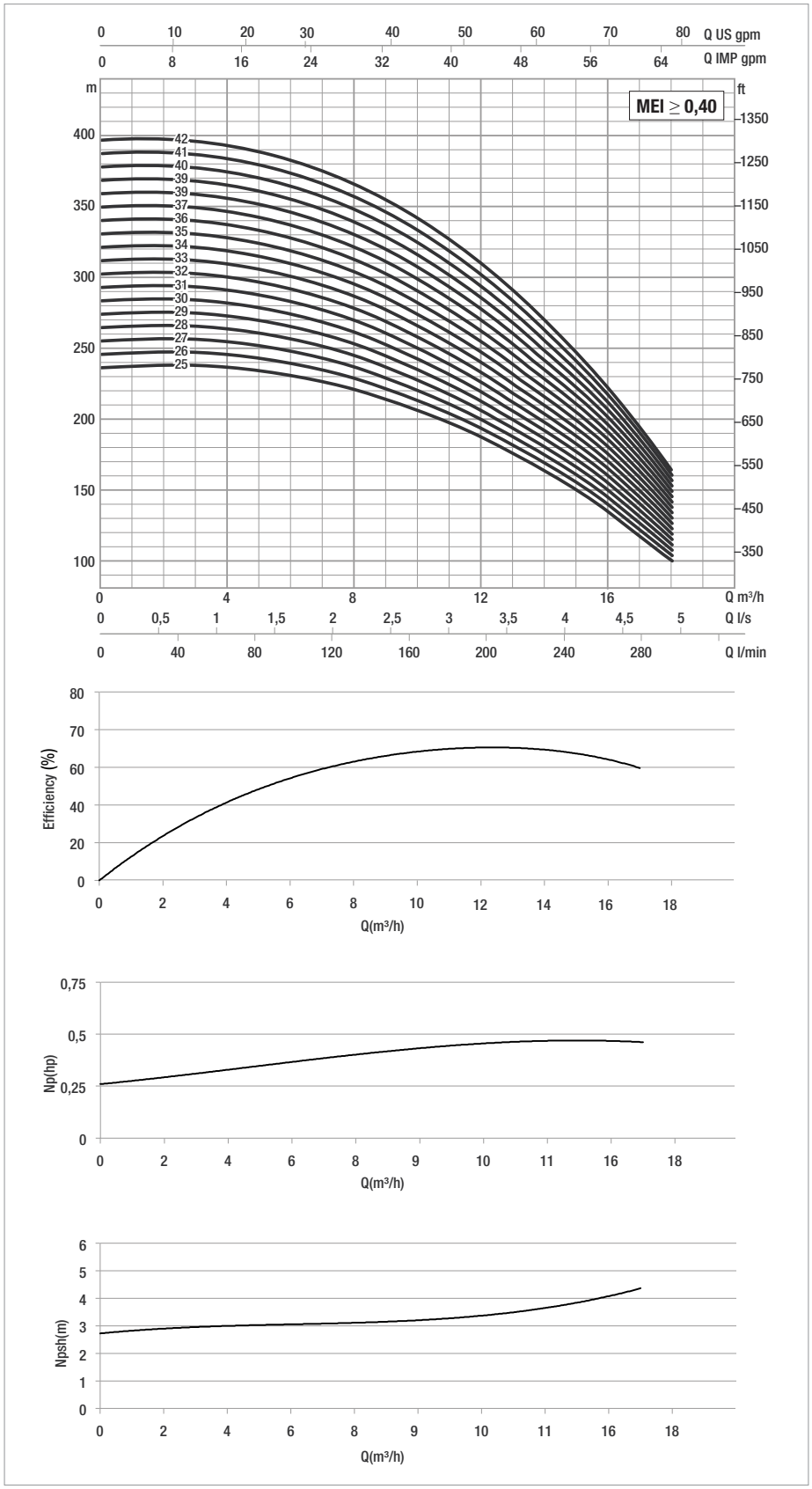
●	Allowed
○	Only PE2 + PA version

SS6A

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

SS6A

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	2	4	6	8	10	12	14	16	17	
	kW	HP	Q=l/min	0	33,3	66,6	100	133,3	166,6	200	233,3	266,6	283,3	
SS6A 43	18,5	25	H (mt)	401	403	400	390	374	349	315	272	220	191	6”
SS6A 44	18,5	25		410	412	409	399	382	357	322	278	225	196	6”
SS6A 45	18,5	25		420	421	418	408	391	365	330	285	231	200	6”
SS6A 46	18,5	25		429	431	428	418	400	373	337	291	236	204	6”
SS6A 47	18,5	25		438	440	437	427	408	381	344	297	241	209	6”
SS6A 48	18,5	25		448	450	446	436	417	389	352	304	246	213	6”
SS6A 49	18,5	25		457	459	455	445	426	397	359	310	251	218	6”
SS6A 50	22	30		466	468	465	454	434	405	366	316	256	222	6”
SS6A 51	22	30		476	478	474	463	443	414	373	323	261	227	6”
SS6A 52	22	30		485	487	483	472	452	422	381	329	266	231	6”
SS6A 53	22	30		494	496	493	481	460	430	388	335	272	236	6”
SS6A 54	22	30		504	506	502	490	469	438	395	342	277	240	6”
SS6A 55	22	30		513	515	511	499	478	446	403	348	282	244	6”
SS6A 56	22	30		522	524	520	508	487	454	410	354	287	249	6”
SS6A 57	22	30		532	534	530	517	495	462	417	361	292	253	6”
SS6A 58	22	30		541	543	539	526	504	470	425	367	297	258	6”
SS6A 59	22	30		550	553	548	536	513	478	432	373	302	262	6”
SS6A 60	22	30		560	562	558	545	521	486	439	380	307	267	6”

SS6A

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6A 43	6GF	18,5	25	41	●	●	3981	860	3121	141	167	165
	TR6	18,5	25	39	○	●	4178	1057	3121	144	167	181
SS6A 44	6GF	18,5	25	41	●	●	4041	860	3181	141	167	167
	TR6	18,5	25	39	○	●	4238	1057	3181	144	167	183
SS6A 45	6GF	18,5	25	41	●	●	4102	860	3242	141	167	168
	TR6	18,5	25	39	○	●	4299	1057	3242	144	167	184
SS6A 46	6GF	18,5	25	41	●	●	4162	860	3302	141	167	170
	TR6	18,5	25	39	○	●	4359	1057	3302	144	167	186
SS6A 47	6GF	18,5	25	41	●	●	4223	860	3363	141	167	172
	TR6	18,5	25	39	○	●	4420	1057	3363	144	167	188
SS6A 48	6GF	18,5	25	41	●	●	4283	860	3423	141	167	174
	TR6	18,5	25	39	○	●	4480	1057	3423	144	167	190
SS6A 49	6GF	18,5	25	41	●	●	4344	860	3484	141	167	175
	TR6	18,5	25	39	○	●	4541	1057	3484	144	167	191
SS6A 50	6GF	22	30	47	●	●	4464	920	3544	141	167	180,6
	TR6	22	30	49	○	●	4631	1087	3544	144	167	205
SS6A 51	6GF	22	30	47	●	●	4525	920	3605	141	167	182,6
	TR6	22	30	49	○	●	4692	1087	3605	144	167	207
SS6A 52	6GF	22	30	47	●	●	4585	920	3665	141	167	184,6
	TR6	22	30	49	○	●	4752	1087	3665	144	167	209
SS6A 53	6GF	22	30	47	●	●	4646	920	3726	141	167	186,6
	TR6	22	30	49	○	●	4813	1087	3726	144	167	211
SS6A 54	6GF	22	30	47	●	●	4706	920	3786	141	167	187,6
	TR6	22	30	49	○	●	4873	1087	3786	144	167	212
SS6A 55	6GF	22	30	47	●	●	4767	920	3847	141	167	189,6
	TR6	22	30	49	○	●	4934	1087	3847	144	167	214
SS6A 56	6GF	22	30	47	●	●	4827	920	3907	141	167	191,6
	TR6	22	30	49	○	●	4994	1087	3907	144	167	216
SS6A 57	6GF	22	30	47	●	●	4888	920	3968	141	167	193,6
	TR6	22	30	49	○	●	5055	1087	3968	144	167	218
SS6A 58	6GF	22	30	47	●	●	4948	920	4028	141	167	195,6
	TR6	22	30	49	○	●	5115	1087	4028	144	167	220
SS6A 59	6GF	22	30	47	●	●	5009	920	4089	141	167	196,6
	TR6	22	30	49	○	●	5176	1087	4089	144	167	221
SS6A 60	6GF	22	30	47	●	●	5069	920	4149	141	167	198,6
	TR6	22	30	49	○	●	5236	1087	4149	144	167	223

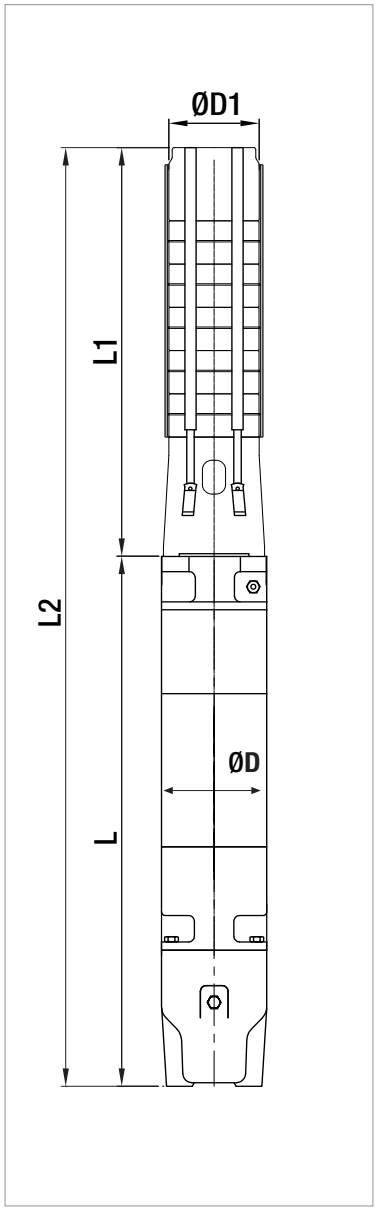
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR6: 6“ rewindable submersible motors.

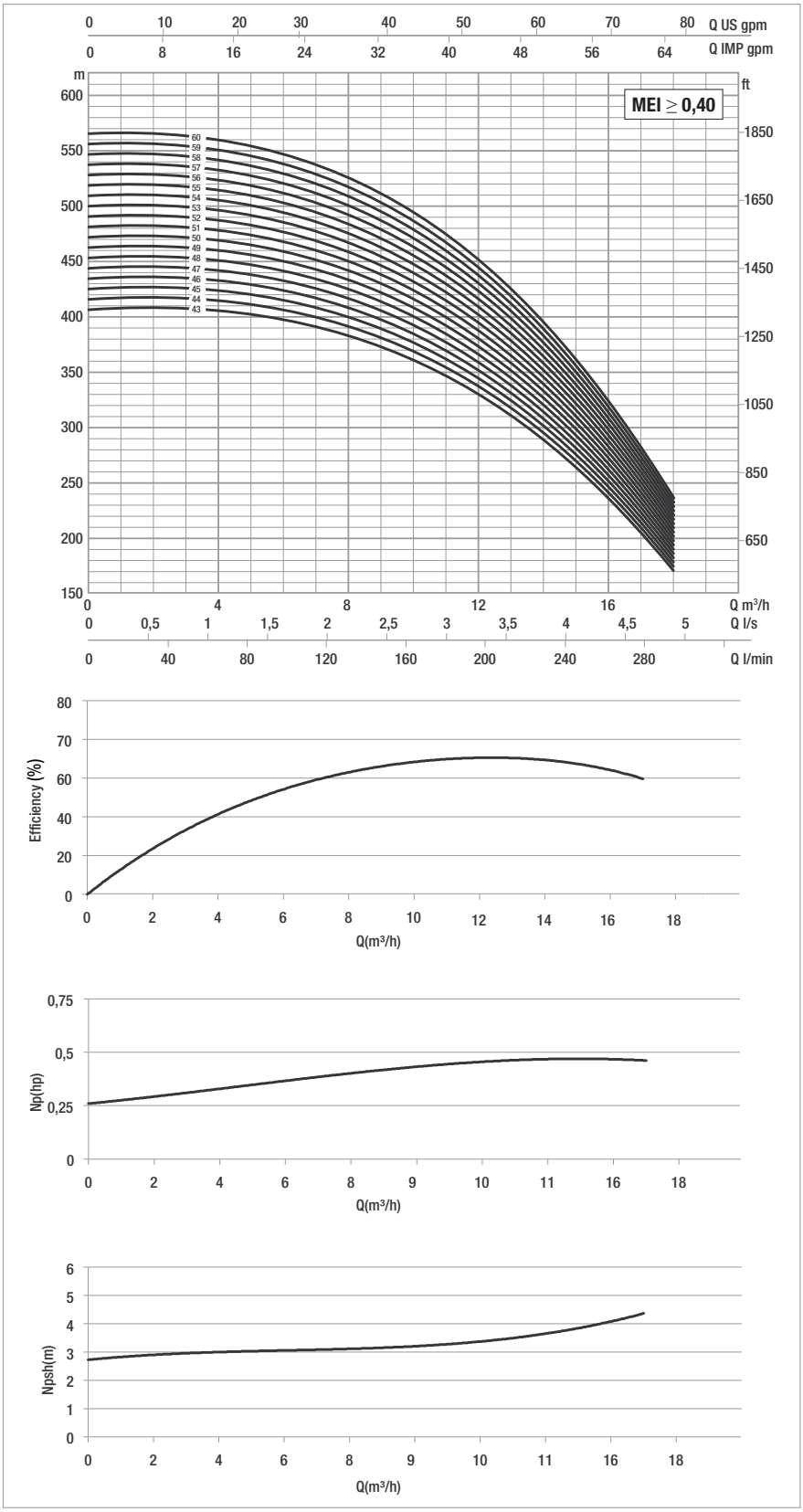
●	Allowed
○	Only PE2 + PA version

SS6A

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

SS6B

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	6	8	10	12	14	15	16	18	20	
	kW	HP	Q=l/min	0	100	133,3	166,6	200	233,3	250	266,6	300	333,3	
SS6B 07	4	5,5		79	77	76	73	70	65	63	60	53	45	6”
SS6B 08	5,5	7,5		90	89	87	84	80	75	71	68	60	52	6”
SS6B 09	5,5	7,5		102	100	98	94	90	84	80	77	68	58	6”
SS6B 10	5,5	7,5		113	111	108	105	100	93	89	85	76	65	6”
SS6B 11	7,5	10		124	122	119	115	110	102	98	94	83	71	6”
SS6B 12	7,5	10		135	133	130	126	120	112	107	102	91	78	6”
SS6B 13	7,5	10		147	144	141	136	130	121	116	111	98	84	6”
SS6B 14	7,5	10		158	155	152	147	140	130	125	119	106	91	6”
SS6B 15	9,3	12,5		169	166	163	157	150	140	134	128	113	97	6”
SS6B 16	9,3	12,5		181	177	173	168	160	149	143	136	121	103	6”
SS6B 17	9,3	12,5	H (mt)	192	188	184	178	170	158	152	145	128	110	6”
SS6B 18	11	15		203	199	195	189	180	168	161	153	136	116	6”
SS6B 19	11	15		214	210	206	199	190	177	170	162	143	123	6”
SS6B 20	11	15		226	221	217	210	199	186	179	170	151	129	6”
SS6B 21	13	17,5		237	232	228	220	209	196	188	179	159	136	6”
SS6B 22	13	17,5		248	243	238	230	219	205	196	187	166	142	6”
SS6B 23	13	17,5		260	254	249	241	229	214	205	196	174	149	6”
SS6B 24	13	17,5		271	266	260	251	239	224	214	204	181	155	6”
SS6B 25	15	20		282	277	271	262	249	233	223	213	189	162	6”
SS6B 26	15	20		293	288	282	272	259	242	232	221	196	168	6”
SS6B 27	15	20		305	299	293	283	269	252	241	230	204	175	6”

SS6B

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6B 07	6GF	4	5,5	10,6	●	●	1293	600	693	141	132	53,4
SS6B 08	6GF	5,5	7,5	14	●	●	1384	631	753	141	132	58,6
	TR6	5,5	7,5	13	o	●	1560	807	753	144	132	66
SS6B 09	6GF	5,5	7,5	14	●	●	1445	631	814	141	132	59,6
	TR6	5,5	7,5	13	o	●	1621	807	814	144	132	67
SS6B 10	6GF	5,5	7,5	14	●	●	1505	631	874	141	132	60,6
	TR6	5,5	7,5	13	o	●	1681	807	874	144	132	68
SS6B 11	6GF	7,5	10	18	●	●	1595	660	935	141	132	65,2
	TR6	7,5	10	18	o	●	1772	837	935	144	132	73
SS6B 12	6GF	7,5	10	18	●	●	1655	660	995	141	132	66,2
	TR6	7,5	10	18	o	●	1832	837	995	144	132	74
SS6B 13	6GF	7,5	10	18	●	●	1716	660	1056	141	132	68,2
	TR6	7,5	10	18	o	●	1893	837	1056	144	132	76
SS6B 14	6GF	7,5	10	18	●	●	1776	660	1116	141	132	69,2
	TR6	7,5	10	18	o	●	1953	837	1116	144	132	77
SS6B 15	6GF	9,3	12,5	22	●	●	1862	685	1177	141	132	74,6
	TR6	9,2	12,5	21	o	●	2044	867	1177	144	132	81
SS6B 16	6GF	9,3	12,5	22	●	●	1922	685	1237	141	132	75,6
	TR6	9,2	12,5	21	o	●	2104	867	1237	144	132	82
SS6B 17	6GF	9,3	12,5	22	●	●	1983	685	1298	141	132	77,6
	TR6	9,2	12,5	21	o	●	2165	867	1298	144	132	84
SS6B 18	6GF	11	15	25,5	●	●	2088	730	1358	141	132	83
	TR6	11	15	25	o	●	2255	897	1358	144	132	90
SS6B 19	6GF	11	15	25,5	●	●	2149	730	1419	141	132	84
	TR6	11	15	25	o	●	2316	897	1419	144	132	91
SS6B 20	6GF	11	15	25,5	●	●	2209	730	1479	141	132	86
	TR6	11	15	25	o	●	2376	897	1479	144	132	93
SS6B 21	6GF	15	20	33,4	●	●	2325	785	1540	141	132	93
	TR6	13	17,5	29	o	●	2467	927	1540	144	132	99
SS6B 22	6GF	15	20	33,4	●	●	2385	785	1600	141	132	95
	TR6	13	17,5	29	o	●	2527	927	1600	144	132	101
SS6B 23	6GF	15	20	33,4	●	●	2446	785	1661	141	132	96
	TR6	13	17,5	29	o	●	2588	927	1661	144	132	102
SS6B 24	6GF	15	20	33,4	●	●	2506	785	1721	141	132	98
	TR6	13	17,5	29	o	●	2648	927	1721	144	132	104
SS6B 25	6GF	15	20	33,4	●	●	2567	785	1782	141	132	99
	TR6	15	20	32	o	●	2779	997	1782	144	132	117
SS6B 26	6GF	15	20	33,4	●	●	2627	785	1842	141	132	101
	TR6	15	20	32	o	●	2839	997	1842	144	132	119
SS6B 27	6GF	15	20	33,4	●	●	2688	785	1903	141	132	102
	TR6	15	20	32	o	●	2900	997	1903	144	132	120

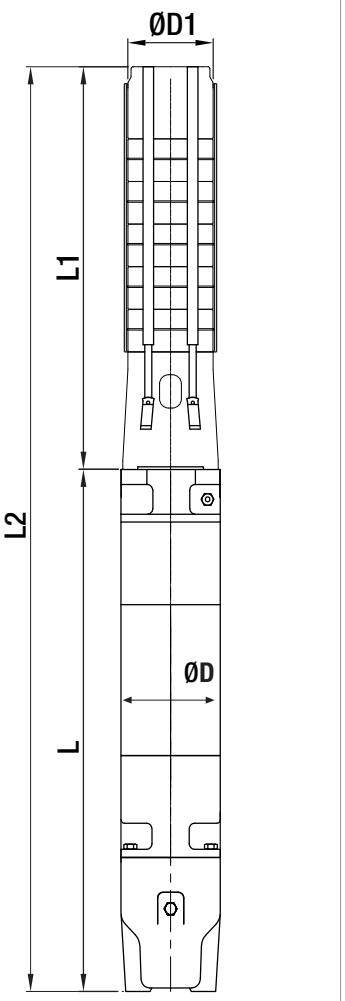
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“ rewindable submersible motors.

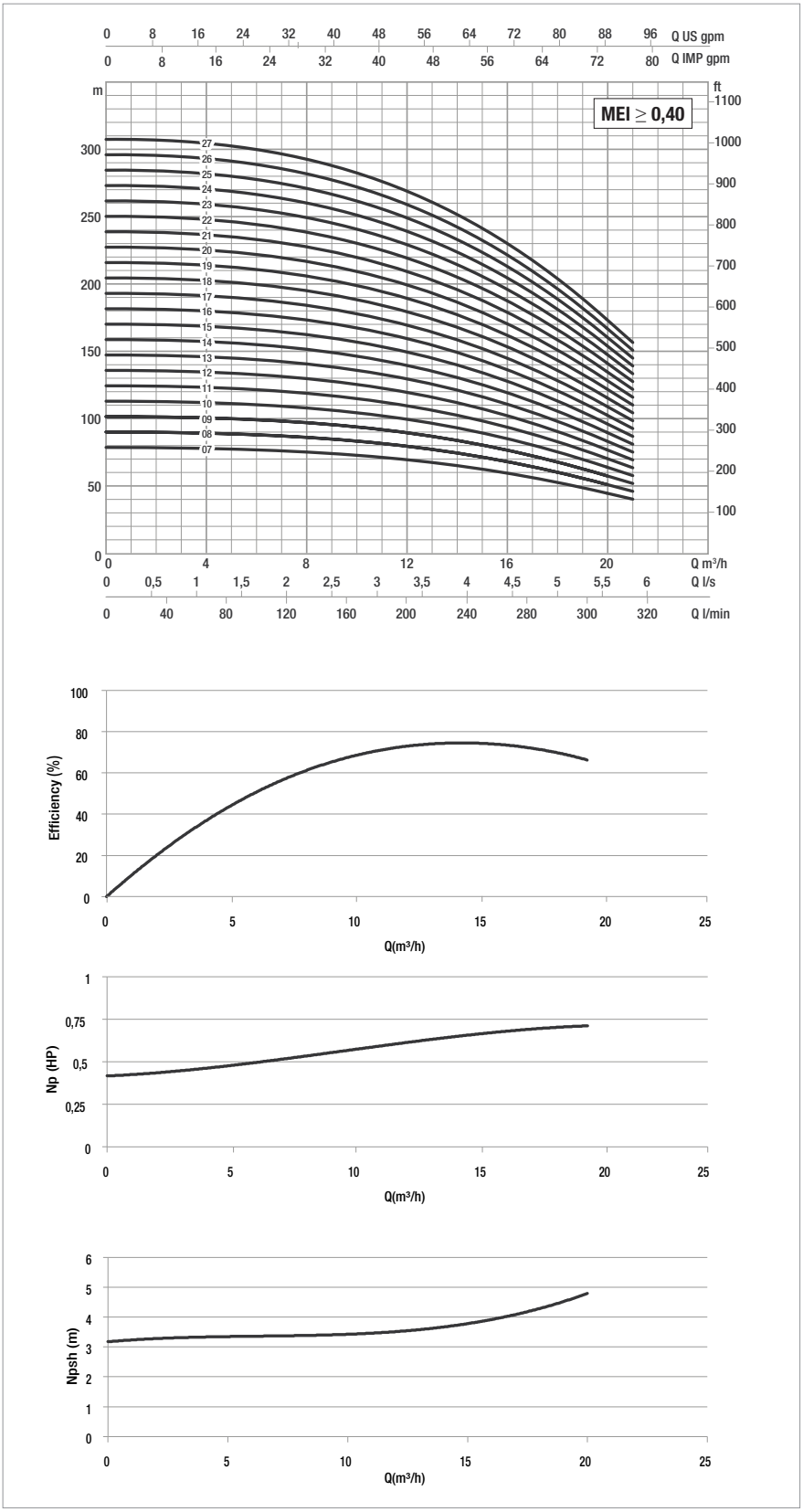
●	Allowed
o	Only PE2 + PA version

SS6B

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

SS6B

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	6	8	10	12	14	15	16	18	20	
	kW	HP	Q=l/min	0	100	133,3	166,6	200	233,3	250	266,6	300	333,3	
SS6B 28	15	20	H (mt)	316	310	303	293	279	261	250	238	211	181	6”
SS6B 29	18,5	25		327	321	314	304	289	270	259	247	219	188	6”
SS6B 30	18,5	25		339	332	325	314	299	280	268	255	227	194	6”
SS6B 31	18,5	25		350	343	336	325	309	289	277	264	234	200	6”
SS6B 32	18,5	25		361	354	347	335	319	298	286	272	242	207	6”
SS6B 33	18,5	25		372	365	358	346	329	307	295	281	249	213	6”
SS6B 34	18,5	25		384	376	368	356	339	317	304	289	257	220	6”
SS6B 35	22	30		395	387	379	367	349	326	313	298	264	226	6”
SS6B 36	22	30		406	398	390	377	359	335	322	306	272	233	6”
SS6B 37	22	30		418	409	401	388	369	345	330	315	279	239	6”
SS6B 38	22	30		429	420	412	398	379	354	339	323	287	246	6”
SS6B 39	22	30		440	432	423	409	389	363	348	332	294	252	6”
SS6B 40	22	30		451	443	433	419	399	373	357	340	302	259	6”
SS6B 41	22	30		463	454	444	430	409	382	366	349	310	265	6”
SS6B 42	26,5	35		474	465	455	440	419	391	375	357	317	272	6”
SS6B 43	26,5	35		485	476	466	450	429	401	384	366	325	278	6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6B 28	6GF	15	20	33,4	●	●	2748	785	1963	141	132	104
	TR6	15	20	32	o	●	2960	997	1963	144	132	122
SS6B 29	6GF	18,5	25	41	●	●	2884	860	2024	141	132	113
	TR6	18,5	25	39	o	●	3081	1057	2024	144	132	129
SS6B 30	6GF	18,5	25	41	●	●	2944	860	2084	141	132	114
	TR6	18,5	25	39	o	●	3141	1057	2084	144	132	130
SS6B 31	6GF	18,5	25	41	●	●	3005	860	2145	141	132	116
	TR6	18,5	25	39	o	●	3202	1057	2145	144	132	132
SS6B 32	6GF	18,5	25	41	●	●	3065	860	2205	141	132	117
	TR6	18,5	25	39	o	●	3262	1057	2205	144	132	133
SS6B 33	6GF	18,5	25	41	●	●	3126	860	2266	141	132	119
	TR6	18,5	25	39	o	●	3323	1057	2266	144	132	135
SS6B 34	6GF	18,5	25	41	●	●	3186	860	2326	141	132	120
	TR6	18,5	25	39	o	●	3383	1057	2326	144	132	136
SS6B 35	6GF	22	30	47	●	●	3307	920	2387	141	132	125,6
	TR6	22	30	49	o	●	3474	1087	2387	144	132	150
SS6B 36	6GF	22	30	47	●	●	3367	920	2447	141	132	126,6
	TR6	22	30	49	o	●	3534	1087	2447	144	132	151
SS6B 37	6GF	22	30	47	●	●	3428	920	2508	141	132	128,6
	TR6	22	30	49	o	●	3595	1087	2508	144	132	153
SS6B 38	6GF	22	30	47	●	●	3488	920	2568	141	132	129,6
	TR6	22	30	49	o	●	3655	1087	2568	144	132	154
SS6B 39	6GF	22	30	47	●	●	3799	920	2879	141	167	161,6
	TR6	22	30	49	o	●	3966	1087	2879	144	167	186
SS6B 40	6GF	22	30	47	●	●	3859	920	2939	141	167	163,6
	TR6	22	30	49	o	●	4026	1087	2939	144	167	188
SS6B 41	6GF	22	30	47	●	●	3920	920	3000	141	167	165,6
	TR6	22	30	49	o	●	4087	1087	3000	144	167	190
SS6B 42	6GF	30	40	61,5	●	●	4110	1050	3060	141	167	182,8
	TR6	26	35	58	o	●	4217	1157	3060	144	167	201
SS6B 43	6GF	30	40	61,5	●	●	4171	1050	3121	141	167	184,8
	TR6	26	35	58	o	●	4278	1157	3121	144	167	203

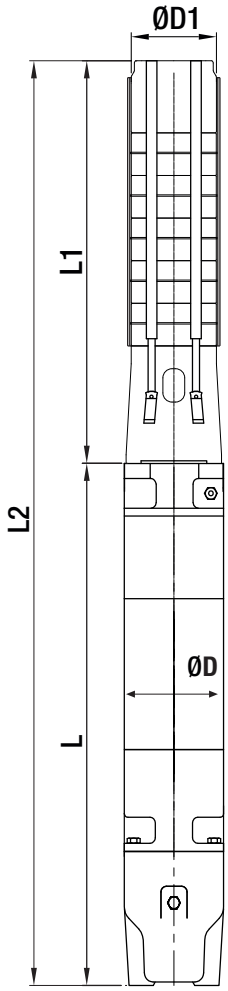
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR6: 6“ rewindable submersible motors.

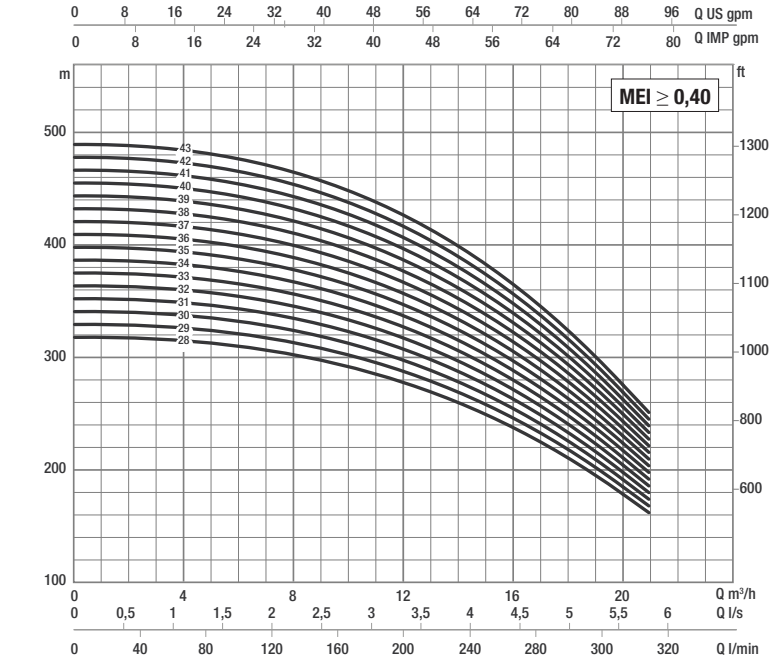
●	Allowed
o	Only PE2 + PA version

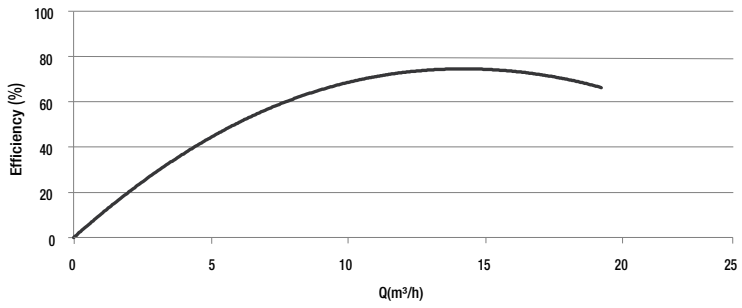
SS6B

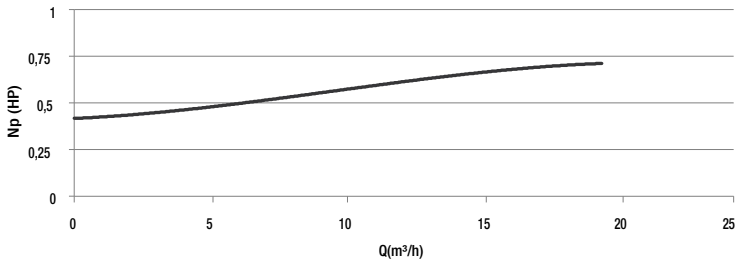
SUBMERSIBLE PUMPS 6”

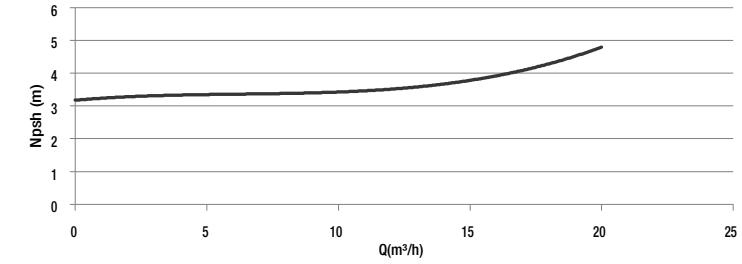
The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.











For hydraulic efficiency see pag. 89

SS6B

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	6	8	10	12	14	15	16	18	20	
	kW	HP	Q=l/min	0	100	133,3	166,6	200	233,3	250	266,6	300	333,3	
SS6B 44	26,5	35	H (mt)	497	487	477	461	439	410	393	374	332	284	6”
SS6B 45	26,5	35		508	498	488	471	449	419	402	383	340	291	6”
SS6B 46	26,5	35		519	509	498	482	459	429	411	391	347	297	6”
SS6B 47	26,5	35		531	520	509	492	469	438	420	400	355	304	6”
SS6B 48	26,5	35		542	531	520	503	479	447	429	408	362	310	6”
SS6B 49	30	40		553	542	531	513	489	457	438	417	370	317	6”
SS6B 50	30	40		564	553	542	524	499	466	447	425	378	323	6”
SS6B 51	30	40		576	564	553	534	509	475	456	434	385	330	6”
SS6B 52	30	40		587	575	563	545	519	485	464	442	393	336	6”
SS6B 53	30	40		598	586	574	555	529	494	473	451	400	343	6”
SS6B 54	30	40		610	597	585	566	539	503	482	459	408	349	6”
SS6B 55	30	40		621	609	596	576	549	512	491	468	415	356	6”
SS6B 56	30	40		632	620	607	587	559	522	500	476	423	362	6”
SS6B 57	37	50		643	631	618	597	569	531	509	485	430	369	6”
SS6B 58	37	50		655	642	628	608	578	540	518	493	438	375	6”
SS6B 59	37	50		666	653	639	618	588	550	527	502	446	381	6”
SS6B 60	37	50		677	664	650	629	598	559	536	510	453	388	6”

SS6B

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6B 44	6GF	30	40	61,5	●	●	4231	1050	3181	141	167	186,8
	TR6	26	35	58	o	●	4338	1157	3181	144	167	205
SS6B 45	6GF	30	40	61,5	●	●	4292	1050	3242	141	167	188,8
	TR6	26	35	58	o	●	4399	1157	3242	144	167	207
SS6B 46	6GF	30	40	61,5	●	●	4352	1050	3302	141	167	189,8
	TR6	26	35	58	o	●	4459	1157	3302	144	167	208
SS6B 47	6GF	30	40	61,5	●	●	4413	1050	3363	141	167	191,8
	TR6	26	35	58	o	●	4520	1157	3363	144	167	210
SS6B 48	6GF	30	40	61,5	●	●	4473	1050	3423	141	167	193,8
	TR6	26	35	58	o	●	4580	1157	3423	144	167	212
SS6B 49	6GF	30	40	61,5	●	●	4534	1050	3484	141	167	195,8
	TR6	30	40	65	o	●	4696	1212	3484	144	167	219
SS6B 50	6GF	30	40	61,5	●	●	4594	1050	3544	141	167	197,8
	TR6	30	40	65	o	●	4756	1212	3544	144	167	221
SS6B 51	6GF	30	40	61,5	●	●	4655	1050	3605	141	167	198,8
	TR6	30	40	65	o	●	4817	1212	3605	144	167	222
SS6B 52	6GF	30	40	61,5	●	●	4715	1050	3665	141	167	200,8
	TR6	30	40	65	o	●	4877	1212	3665	144	167	224
SS6B 53	6GF	30	40	61,5	●	●	4776	1050	3726	141	167	202,8
	TR6	30	40	65	o	●	4938	1212	3726	144	167	226
SS6B 54	6GF	30	40	61,5	●	●	4836	1050	3786	141	167	204,8
	TR6	30	40	65	o	●	4998	1212	3786	144	167	228
SS6B 55	6GF	30	40	61,5	●	●	4897	1050	3847	141	167	206,8
	TR6	30	40	65	o	●	5059	1212	3847	144	167	230
SS6B 56	6GF	30	40	61,5	●	●	4957	1050	3907	141	167	207,8
	TR6	30	40	65	o	●	5119	1212	3907	144	167	231
SS6B 57	6GF	37	50	79,3	●	●	5148	1180	3968	141	167	221,8
	TR6	37	50	80	o	●	5280	1312	3968	144	167	243
SS6B 58	6GF	37	50	79,3	●	●	5208	1180	4028	141	167	223,8
	TR6	37	50	80	o	●	5340	1312	4028	144	167	245
SS6B 59	6GF	37	50	79,3	●	●	5269	1180	4089	141	167	225,8
	TR6	37	50	80	o	●	5401	1312	4089	144	167	247
SS6B 60	6GF	37	50	79,3	●	●	5329	1180	4149	141	167	227,8
	TR6	37	50	80	o	●	5466	1317	4149	144	167	249

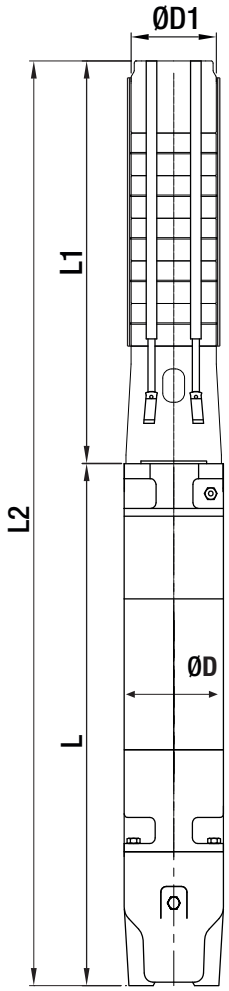
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“ rewindable submersible motors.

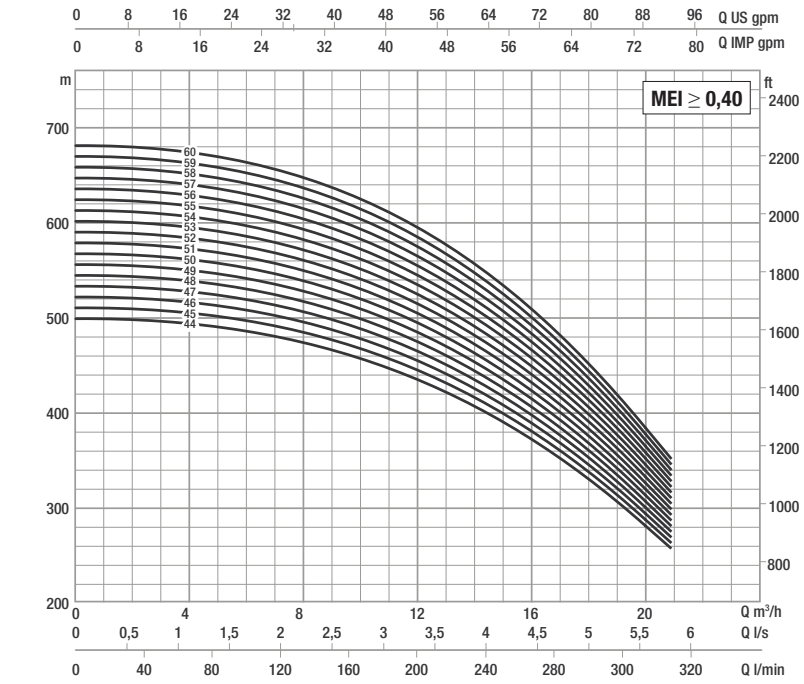
●	Allowed
o	Only PE2 + PA version

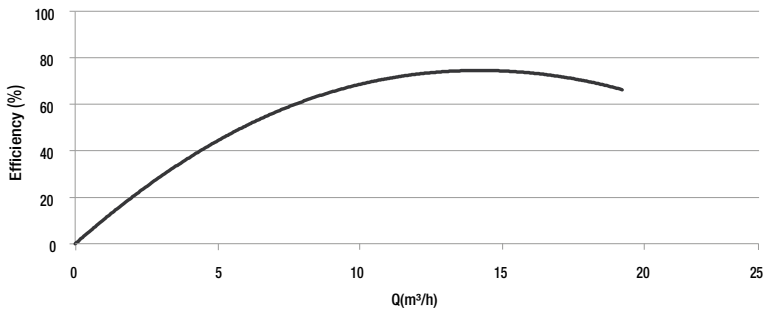
SS6B

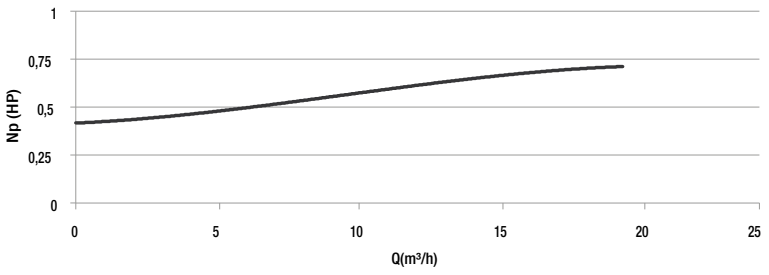
SUBMERSIBLE PUMPS 6”

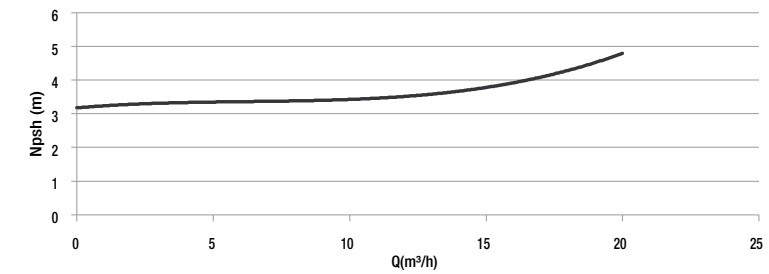
The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.











For hydraulic efficiency see pag. 89

SS6C

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	6	10	14	18	22	26	30	34	38	
	kW	HP	Q=l/min	0	100	166,6	233,3	300	366,6	433,3	500	566,6	633,3	
SS6C 04	4	5,5	H (mt)	47	46	44	43	40	37	34	30	25	20	6”
SS6C 05	5,5	7,5		59	57	55	53	50	47	42	37	32	25	6”
SS6C 06	5,5	7,5		70	69	67	64	60	56	51	45	38	30	6”
SS6C 07	7,5	10		82	80	78	74	70	65	59	52	44	35	6”
SS6C 08	7,5	10		94	92	89	85	80	75	68	60	51	40	6”
SS6C 09	9,2	12,5		105	103	100	96	90	84	76	67	57	45	6”
SS6C 10	9,2	12,5		117	114	111	106	100	93	85	75	63	50	6”
SS6C 11	9,2	12,5		129	126	122	117	110	103	93	82	70	55	6”
SS6C 12	11	15		141	137	133	128	120	112	102	90	76	60	6”
SS6C 13	11	15		152	149	144	138	131	121	110	97	82	65	6”
SS6C 14	15	20		164	160	155	149	141	131	119	105	89	70	6”
SS6C 15	15	20		176	172	166	159	151	140	127	112	95	75	6”
SS6C 16	15	20		187	183	178	170	161	149	136	120	101	80	6”
SS6C 17	15	20		199	195	189	181	171	159	144	127	108	85	6”
SS6C 18	18,5	25		211	206	200	191	181	168	153	135	114	90	6”
SS6C 19	18,5	25		223	217	211	202	191	177	161	142	121	95	6”
SS6C 20	18,5	25		234	229	222	213	201	186	170	150	127	100	6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6C 04	6GF	4	5,5	10,6	●	●	1249	600	649	141	132	52,4
SS6C 05	6GF	5,5	7,5	14	●	●	1375	631	744	141	132	57,6
	TR6	5,5	7,5	13	o	●	1551	807	744	144	132	65
SS6C 06	6GF	5,5	7,5	14	●	●	1470	631	839	141	132	59,6
	TR6	5,5	7,5	13	o	●	1646	807	839	144	132	67
SS6C 07	6GF	7,5	10	18	●	●	1594	660	934	141	132	64,2
	TR6	7,5	10	18	o	●	1771	837	934	144	132	72
SS6C 08	6GF	7,5	10	18	●	●	1689	660	1029	141	132	66,2
	TR6	7,5	10	18	o	●	1866	837	1029	144	132	74
SS6C 09	6GF	9,2	12,5	22	●	●	1809	685	1124	141	132	71,6
	TR6	9,2	12,5	21	o	●	1991	867	1124	144	132	78
SS6C 10	6GF	9,2	12,5	22	●	●	1904	685	1219	141	132	73,6
	TR6	9,2	12,5	21	o	●	2086	867	1219	144	132	80
SS6C 11	6GF	9,2	12,5	22	●	●	1999	685	1314	141	132	75,6
	TR6	9,2	12,5	21	o	●	2181	867	1314	144	132	82
SS6C 12	6GF	11	15	25,5	●	●	2139	730	1409	141	132	82
	TR6	11	15	25	o	●	2306	897	1409	144	132	89
SS6C 13	6GF	11	15	25,5	●	●	2234	730	1504	141	132	84
	TR6	11	15	25	o	●	2401	897	1504	144	132	91
SS6C 14	6GF	15	20	33,4	●	●	2384	785	1599	141	132	92
	TR6	13	17,5	29	o	●	2526	927	1599	144	132	98
SS6C 15	6GF	15	20	33,4	●	●	2479	785	1694	141	132	95
	TR6	13	17,5	29	o	●	2621	927	1694	144	132	101
SS6C 16	6GF	15	20	33,4	●	●	2574	785	1789	141	132	97
	TR6	15	20	32	o	●	2786	997	1789	144	132	115
SS6C 17	6GF	15	20	33,4	●	●	2669	785	1884	141	132	99
	TR6	15	20	32	o	●	2881	997	1884	144	132	117
SS6C 18	6GF	18,5	25	41	●	●	2839	860	1979	141	132	109
	TR6	18,5	25	39	o	●	3036	1057	1979	144	132	125
SS6C 19	6GF	18,5	25	41	●	●	2934	860	2074	141	132	111
	TR6	18,5	25	39	o	●	3131	1057	2074	144	132	127
SS6C 20	6GF	18,5	25	41	●	●	3029	860	2169	141	132	113
	TR6	18,5	25	39	o	●	3226	1057	2169	144	132	129

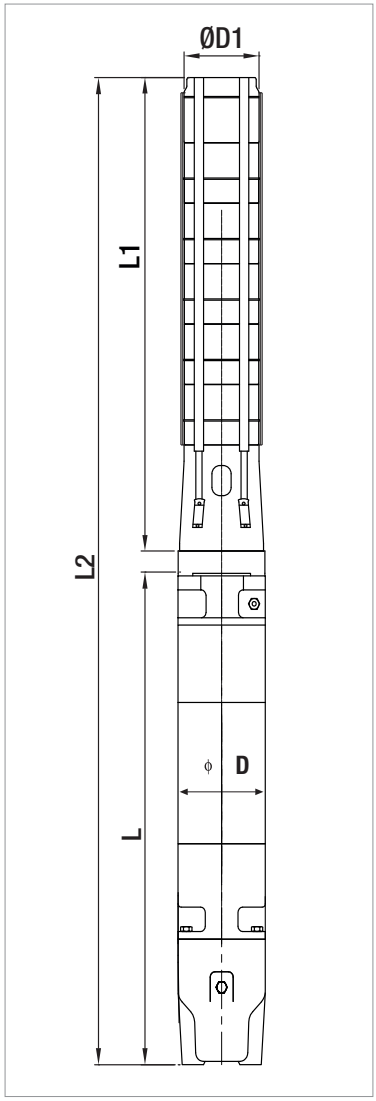
*** Motor 6GF:** 6“ canned submersible motors
Motor TR:6“ rewindable submersible motors

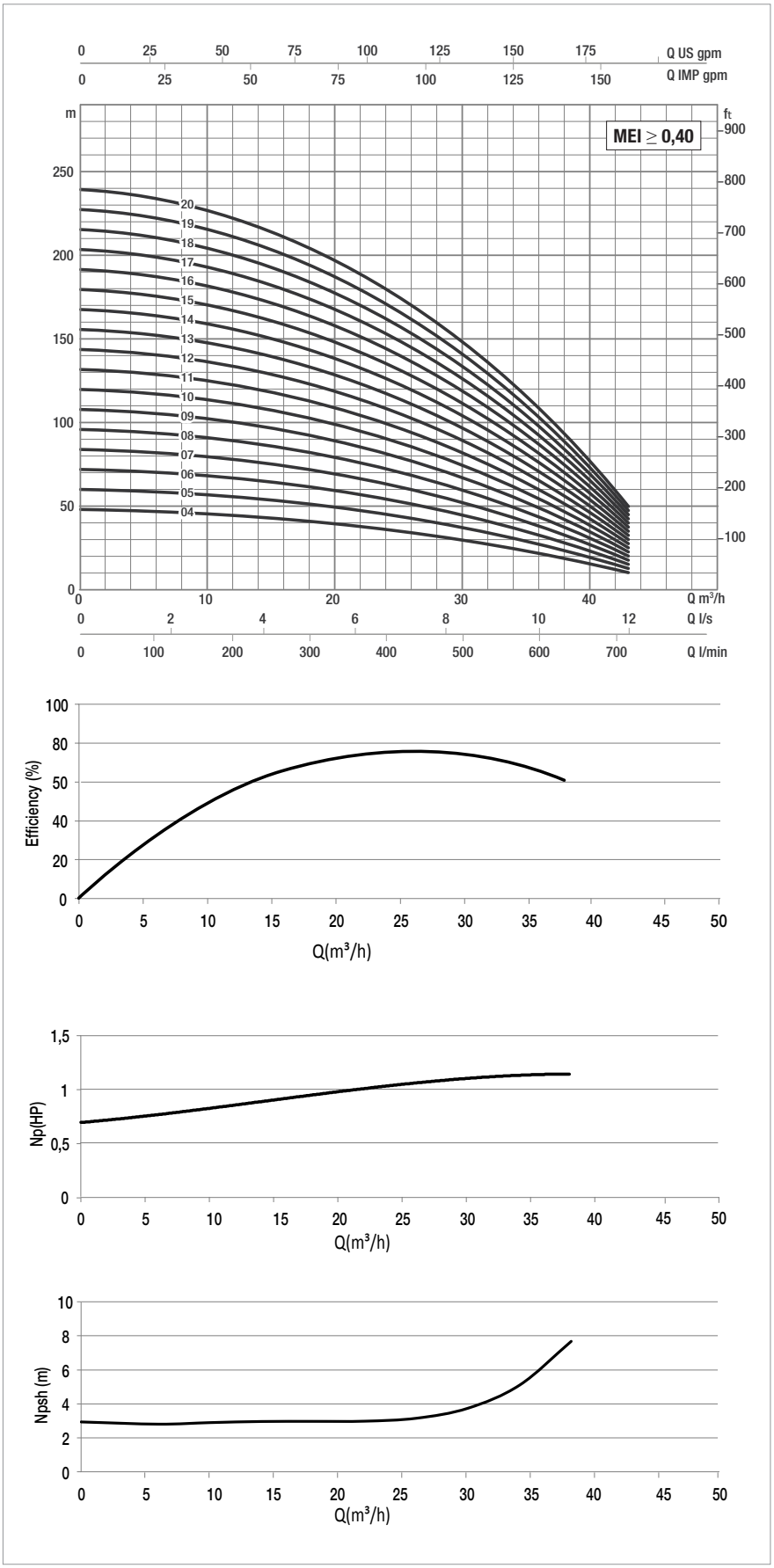
●	Allowed
o	Only PE2 + PA version

SS6C

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	6	10	14	18	22	26	30	34	38	
	kW	HP	Q=l/min	0	100	166,6	233,3	300	366,6	433,3	500	566,6	633,3	
SS6C 21	18,5	25		246	240	233	223	211	196	178	157	133	105	6”
SS6C 22	22	30		258	252	244	234	221	205	187	165	140	110	6”
SS6C 23	22	30		269	263	255	244	231	214	195	172	146	115	6”
SS6C 24	22	30		281	275	266	255	241	224	203	180	152	120	6”
SS6C 25	22	30		293	286	277	266	251	233	212	187	159	125	6”
SS6C 26	22	30		305	298	289	276	261	242	220	195	165	130	6”
SS6C 27	26	35		316	309	300	287	271	252	229	202	171	136	6”
SS6C 28	26	35		328	320	311	298	281	261	237	210	178	141	6”
SS6C 29	26	35	H (mt)	340	332	322	308	291	270	246	217	184	146	6”
SS6C 30	26	35		351	343	333	319	301	280	254	225	190	151	6”
SS6C 31	37	50		363	355	344	330	311	289	263	232	197	156	6”
SS6C 32	37	50		375	366	355	340	321	298	271	240	203	161	6”
SS6C 33	37	50		387	378	366	351	331	308	280	247	209	166	6”
SS6C 34	37	50		398	389	377	361	341	317	288	255	216	171	6”
SS6C 35	37	50		410	401	388	372	351	326	297	262	222	176	6”
SS6C 36	37	50		422	412	400	383	361	336	305	270	228	181	6”
SS6C 37	37	50		433	423	411	393	371	345	314	277	235	186	6”

SS6C

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6C 21	6GF	18,5	25	41	●	●	3124	860	2264	141	132	115
	TR6	18,5	25	39	o	●	3321	1057	2264	144	132	131
SS6C 22	6GF	22	30	47	●	●	3279	920	2359	141	132	120,6
	TR6	22	30	49	o	●	3446	1087	2359	144	132	145
SS6C 23	6GF	22	30	47	●	●	3374	920	2454	141	132	122,6
	TR6	22	30	49	o	●	3541	1087	2454	144	132	147
SS6C 24	6GF	22	30	47	●	●	3469	920	2549	141	132	124,6
	TR6	22	30	49	o	●	3636	1087	2549	144	132	149
SS6C 25	6GF	22	30	47	●	●	3564	920	2644	141	132	126,6
	TR6	22	30	49	o	●	3731	1087	2644	144	132	151
SS6C 26	6GF	22	30	47	●	●	3659	920	2739	141	132	128,6
	TR6	22	30	49	o	●	3826	1087	2739	144	132	153
SS6C 27	6GF	37	50	61,5	●	●	3884	1050	2834	141	132	146,8
	TR6	26	35	58	o	●	3991	1157	2834	144	132	165
SS6C 28	6GF	37	50	61,5	●	●	3979	1050	2929	141	132	149,8
	TR6	26	35	58	o	●	4086	1157	2929	144	132	168
SS6C 29	6GF	37	50	61,5	●	●	4074	1050	3024	141	132	151,8
	TR6	26	35	58	o	●	4181	1157	3024	144	132	170
SS6C 30	6GF	37	50	61,5	●	●	4169	1050	3119	141	132	153,8
	TR6	26	35	58	o	●	4276	1157	3119	144	132	172
SS6C 31	6GF	37	50	61,5	●	●	4264	1050	3214	141	132	155,8
	TR6	37	50	65	o	●	4426	1212	3214	144	132	179
SS6C 32	6GF	37	50	61,5	●	●	4359	1050	3309	141	132	157,8
	TR6	37	50	65	o	●	4521	1212	3309	144	132	181
SS6C 33	6GF	37	50	61,5	●	●	4454	1050	3404	141	132	159,8
	TR6	37	50	65	o	●	4616	1212	3404	144	132	183
SS6C34	6GF	37	50	61,5	●	●	4549	1050	3499	141	132	161,8
	TR6	37	50	65	o	●	4711	1212	3499	144	132	185
SS6C 35	6GF	37	50	61,5	●	●	4644	1050	3594	141	132	163,8
	TR6	37	50	65	o	●	4806	1212	3594	144	132	187
SS6C 36	6GF	37	50	61,5	●	●	4739	1050	3689	141	132	165,8
	TR6	37	50	65	o	●	4901	1212	3689	144	132	189
SS6C 37	6GF	37	50	79,3	●	●	4964	1180	3784	141	132	179,8
	TR6	37	50	80	o	●	5096	1312	3784	144	132	201

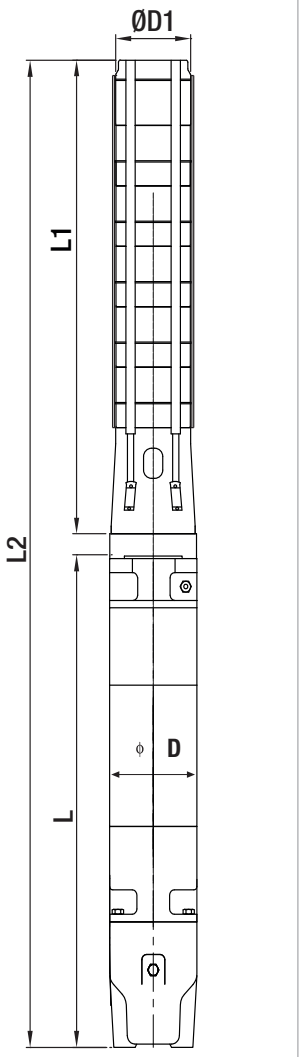
***Motor 6GF:** 6“ canned submersible motors
Motor TR:6“ rewindable submersible motors

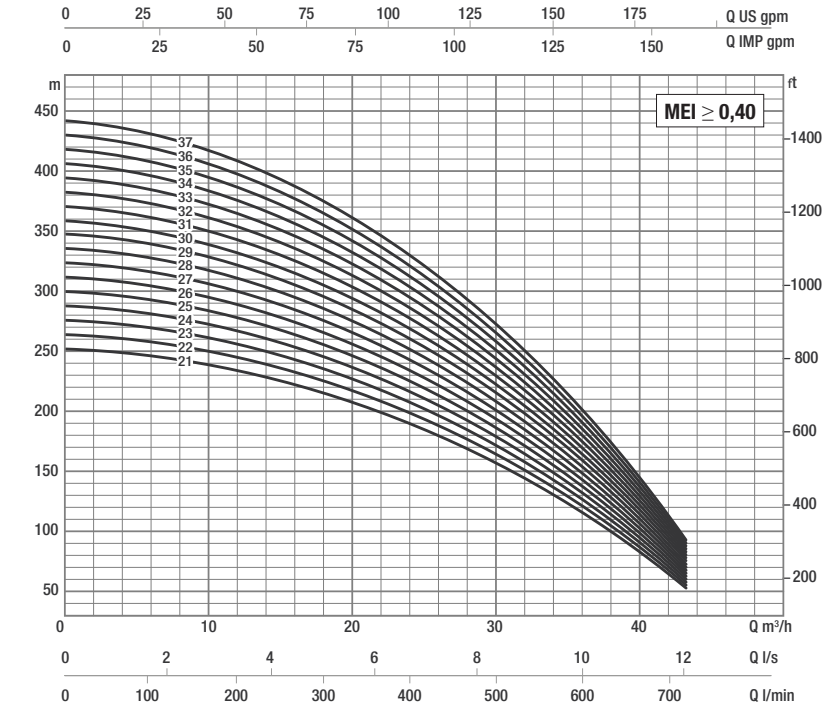
●	Allowed
o	Only PE2 + PA version

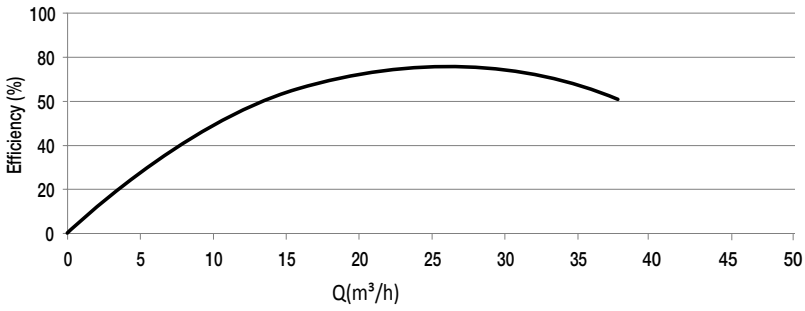
SS6C

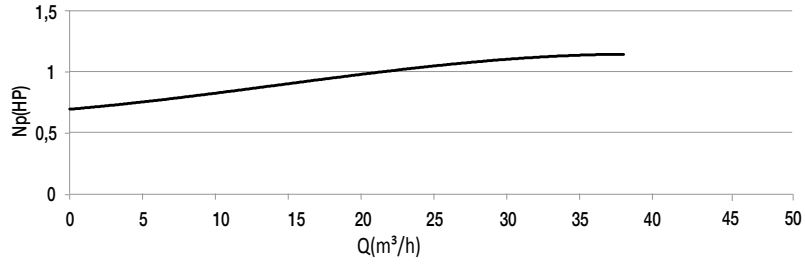
SUBMERSIBLE PUMPS 6”

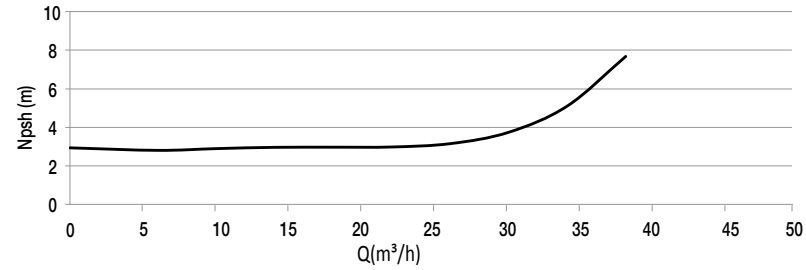
The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.











For hydraulic efficiency see pag. 89

SS6C

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	6	10	14	18	22	26	30	34	38	
	kW	HP	Q=l/min	0	100	166,6	233,3	300	366,6	433,3	500	566,6	633,3	
SS6C 38	37	50	H (mt)	445	435	422	404	381	354	322	285	241	191	6”
SS6C 39	37	50		457	446	433	415	392	364	331	292	247	196	6”
SS6C 40	37	50		469	458	444	425	402	373	339	300	254	201	6”
SS6C 41	37	50		480	469	455	436	412	382	348	307	260	206	6”
SS6C 42	37	50		492	481	466	446	422	392	356	315	266	211	6”
SS6C 43	45	60		504	492	477	457	432	401	365	322	273	216	8”
SS6C 44	45	60		515	504	488	468	442	410	373	330	279	221	8”
SS6C 45	45	60		527	515	499	478	452	420	381	337	285	226	8”
SS6C 46	45	60		539	526	511	489	462	429	390	344	292	231	8”
SS6C 47	45	60		551	538	522	500	472	438	398	352	298	236	8”
SS6C 48	45	60		562	549	533	510	482	448	407	359	304	241	8”
SS6C 49	45	60		574	561	544	521	492	457	415	367	311	246	8”
SS6C 50	45	60		586	572	555	532	502	466	424	374	317	251	8”
SS6C 51	45	60		597	584	566	542	512	476	432	382	323	256	8”
SS6C 52	55	75		609	595	577	553	522	485	441	389	330	261	8”
SS6C 53	55	75		621	607	588	563	532	494	449	397	336	266	8”
SS6C 54	55	75		633	618	599	574	542	503	458	404	342	271	8”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6C 38	6GF	37	50	79,3	●	●	5059	1180	3879	141	132	203
	TR6	37	50	80	o	●	5191	1312	3879	144	132	222,8
SS6C 39	6GF	37	50	79,3	●	●	5404	1180	4224	141	167	244
	TR6	37	50	80	o	●	5536	1312	4224	144	167	224,8
SS6C 40	6GF	37	50	79,3	●	●	5499	1180	4319	141	167	246
	TR6	37	50	80	o	●	5631	1312	4319	144	167	227,8
SS6C 41	6GF	37	50	79,3	●	●	5594	1180	4414	141	167	249
	TR6	37	50	80	o	●	5726	1312	4414	144	167	230,8
SS6C 42	6GF	37	50	79,9	●	●	5689	1180	4509	141	167	252
	TR6	37	50	80	o	●	5821	1312	4509	144	167	311
SS6C 43	TR8	45	60	92	o	●	5874	1270	4604	141	167	314
SS6C 44	TR8	45	60	92	o	●	5969	1270	4699	141	167	316
SS6C 45	TR8	45	60	92	o	●	6064	1270	4794	141	167	319
SS6C 46	TR8	45	60	92	o	●	6159	1270	4889	141	167	322
SS6C 47	TR8	45	60	92	o	●	6254	1270	4984	141	167	324
SS6C 48	TR8	45	60	92	o	●	6349	1270	5079	141	167	327
SS6C 49	TR8	45	60	92	o	●	6444	1270	5174	141	167	329
SS6C 50	TR8	45	60	92	o	●	6539	1270	5269	141	167	332
SS6C 51	TR8	45	60	92	o	●	6634	1270	5364	141	167	350
SS6C 52	TR8	55	75	109	o	●	6809	1350	5459	141	167	352
SS6C 53	TR8	55	75	109	o	●	6904	1350	5554	141	167	355
SS6C 54	TR8	55	75	109	o	●	6999	1350	5649	141	167	355

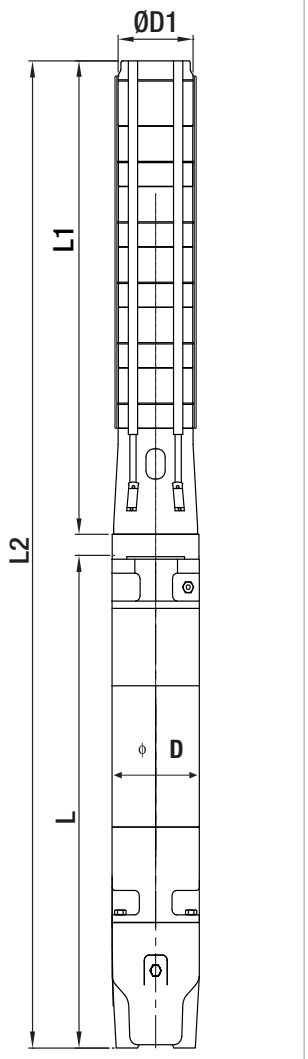
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“ 8“ rewindable submersible motors.

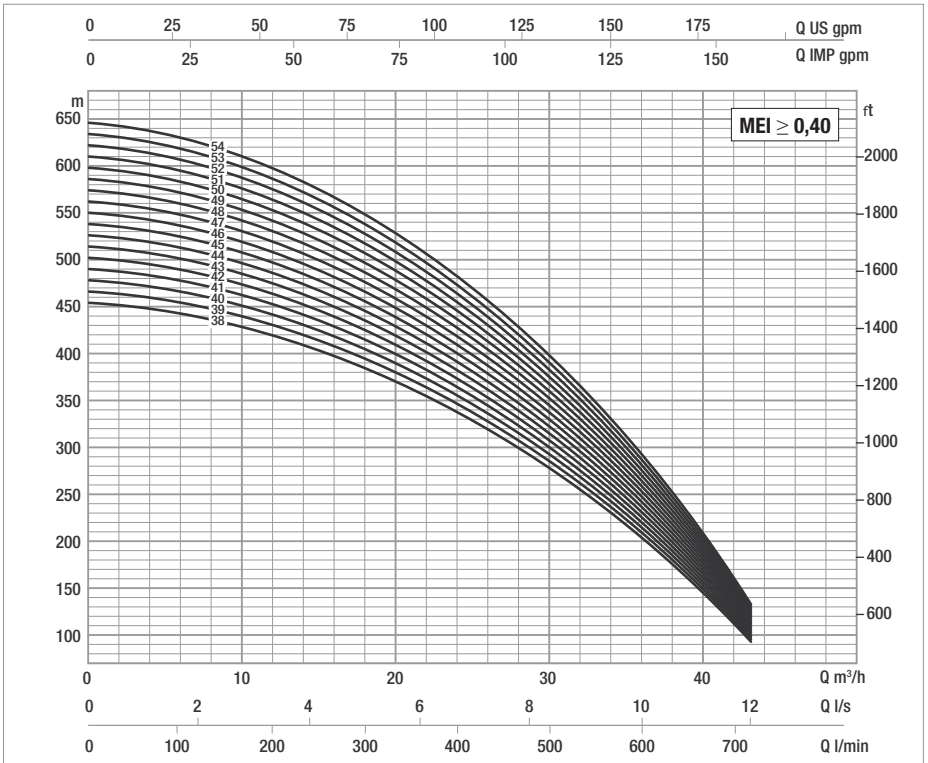
●	Allowed
o	Only PE2 + PA version

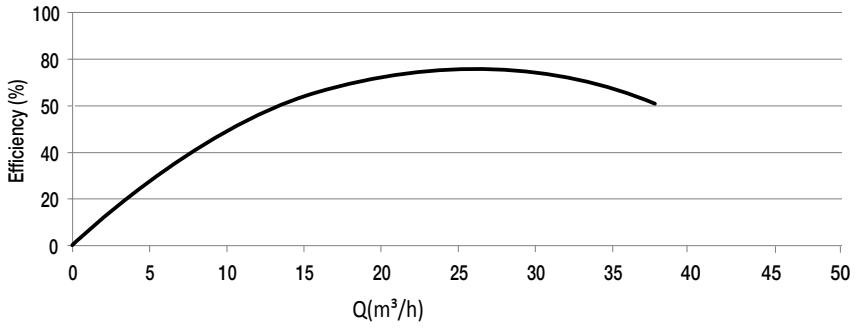
SS6C

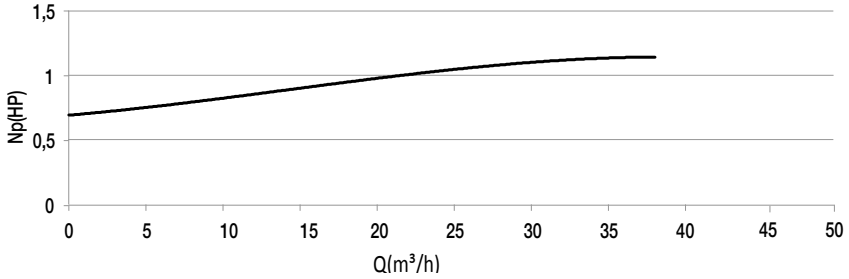
SUBMERSIBLE PUMPS 6”

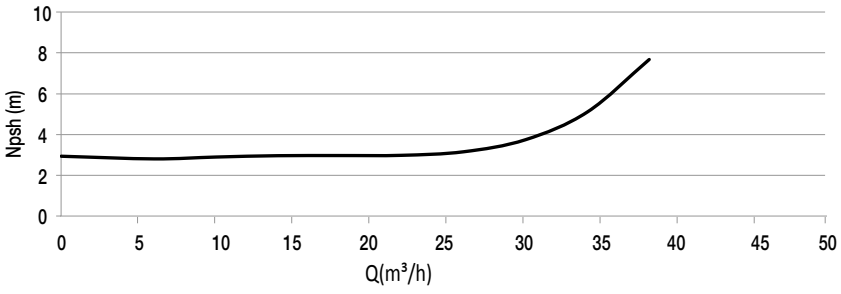
The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.











For hydraulic efficiency see pag. 89

SS6D

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	20	25	30	35	40	45	50	55	60	
	kW	HP	Q=l/min	0	333,3	416,6	500	583,3	666,6	750	833,3	916,6	1000	
SS6D 03	5,5	7,5		42	38	36	33	31	29	26	24	20	16	6"
SS6D 04	7,5	10		56	50	47	44	41	38	35	32	27	21	6"
SS6D 05	7,5	10		70	63	59	56	52	48	44	39	34	26	6"
SS6D 06	9,3	12,5		84	75	71	67	62	57	53	47	41	31	6"
SS6D 07	11	15		98	88	83	78	72	67	61	55	47	36	6"
SS6D 08	13	17,5		112	101	95	89	83	77	70	63	54	42	6"
SS6D 09	15	20		126	113	107	100	93	86	79	71	61	47	6"
SS6D 10	18,5	25		140	126	119	111	103	96	88	79	68	52	6"
SS6D 11	18,5	25	H (mt)	154	138	130	122	114	105	97	87	74	57	6"
SS6D 12	22	30		168	151	142	133	124	115	105	95	81	62	6"
SS6D 13	22	30		182	163	154	144	134	125	114	102	88	68	6"
SS6D 14	22	30		196	176	166	155	145	134	123	110	95	73	6"
SS6D 15	26,5	35		210	188	178	167	155	144	132	118	101	78	6"
SS6D 16	26,5	35		224	201	190	178	165	153	141	126	108	83	6"
SS6D 17	30	40		238	214	202	189	176	163	149	134	115	88	6"
SS6D 18	30	40		252	226	213	200	186	172	158	142	122	93	6"
SS6D 19	37	50		266	239	225	211	197	182	167	150	128	99	6"

SS6D

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6 D3	6GF	5,5	7,5	14	●	●	1237	631	606	141	144	54,6
	TR6	5,5	7,5	13	o	●	1413	807	606	144	144	62
SS6 D4	6GF	7,5	10	18	●	●	1378	660	718	141	144	60,2
	TR6	7,5	10	18	o	●	1555	837	718	144	144	68
SS6 D5	6GF	7,5	10	18	●	●	1490	660	830	141	144	63,2
	TR6	7,5	10	18	o	●	1667	837	830	144	144	71
SS6 D6	6GF	9,2	12,5	22	●	●	1627	685	942	141	144	68,6
	TR6	9,2	12,5	21	o	●	1809	867	942	144	144	75
SS6 D7	6GF	11	15	25,5	●	●	1784	730	1054	141	144	76
	TR6	11	15	25	o	●	1951	897	1054	144	144	83
SS6 D8	6GF	15	20	33,4	●	●	1951	785	1166	141	144	85
	TR6	13	17,5	29	o	●	2093	927	1166	144	144	91
SS6 D9	6GF	15	20	33,4	●	●	2063	785	1278	141	144	87
	TR6	15	20	32	o	●	2275	997	1278	144	144	105
SS6 D10	6GF	18,5	25	41	●	●	2250	860	1390	141	144	98
	TR6	18,5	25	39	o	●	2447	1057	1390	144	144	114
SS6 D11	6GF	18,5	25	41	●	●	2362	860	1502	141	144	101
	TR6	18,5	25	39	o	●	2559	1057	1502	144	144	117
SS6 D12	6GF	22	30	47	●	●	2534	920	1614	141	144	106,6
	TR6	22	30	49	o	●	2701	1087	1614	144	144	131
SS6 D13	6GF	22	30	47	●	●	2646	920	1726	141	144	109,6
	TR6	22	30	49	o	●	2813	1087	1726	144	144	134
SS6 D14	6GF	22	30	47	●	●	2758	920	1838	141	144	112,6
	TR6	22	30	49	o	●	2925	1087	1838	144	144	137
SS6 D15	6GF	30	40	61,5	●	●	3000	1050	1950	141	144	130,8
	TR6	26	35	58	o	●	3107	1157	1950	144	144	149
SS6 D16	6GF	30	40	61,5	●	●	3112	1050	2062	141	144	133,8
	TR6	26	35	58	o	●	3219	1157	2062	144	144	152
SS6 D17	6GF	30	40	61,5	●	●	3224	1050	2174	141	144	135,8
	TR6	30	40	65	o	●	3386	1212	2174	144	144	159
SS6 D18	6GF	30	40	61,5	●	●	3336	1050	2286	141	144	138,8
	TR6	30	40	65	o	●	3498	1212	2286	144	144	162
SS6 D19	6GF	37	50	79,3	o	●	3578	1180	2398	141	144	153,8
	TR6	37	50	80	●	●	3710	1312	2398	144	144	175

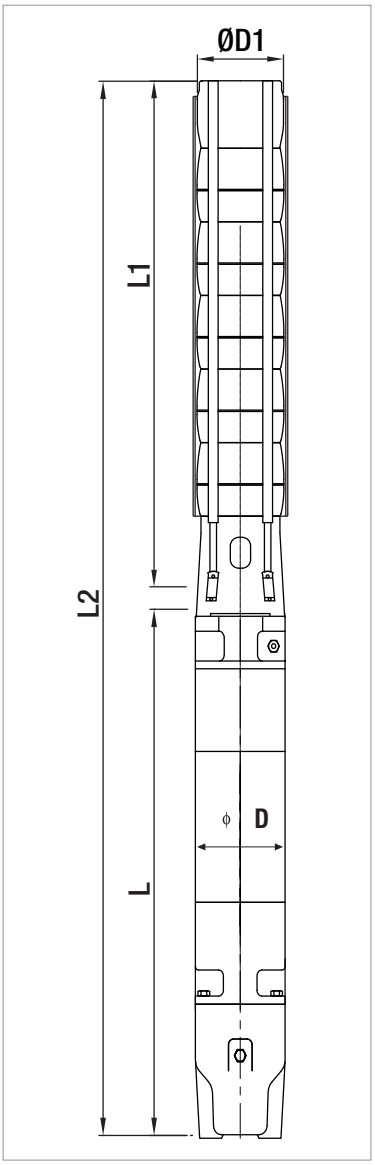
*** Motor 6GF:** 6“ canned submersible motors
Motor TR:6“ rewindable submersible motors

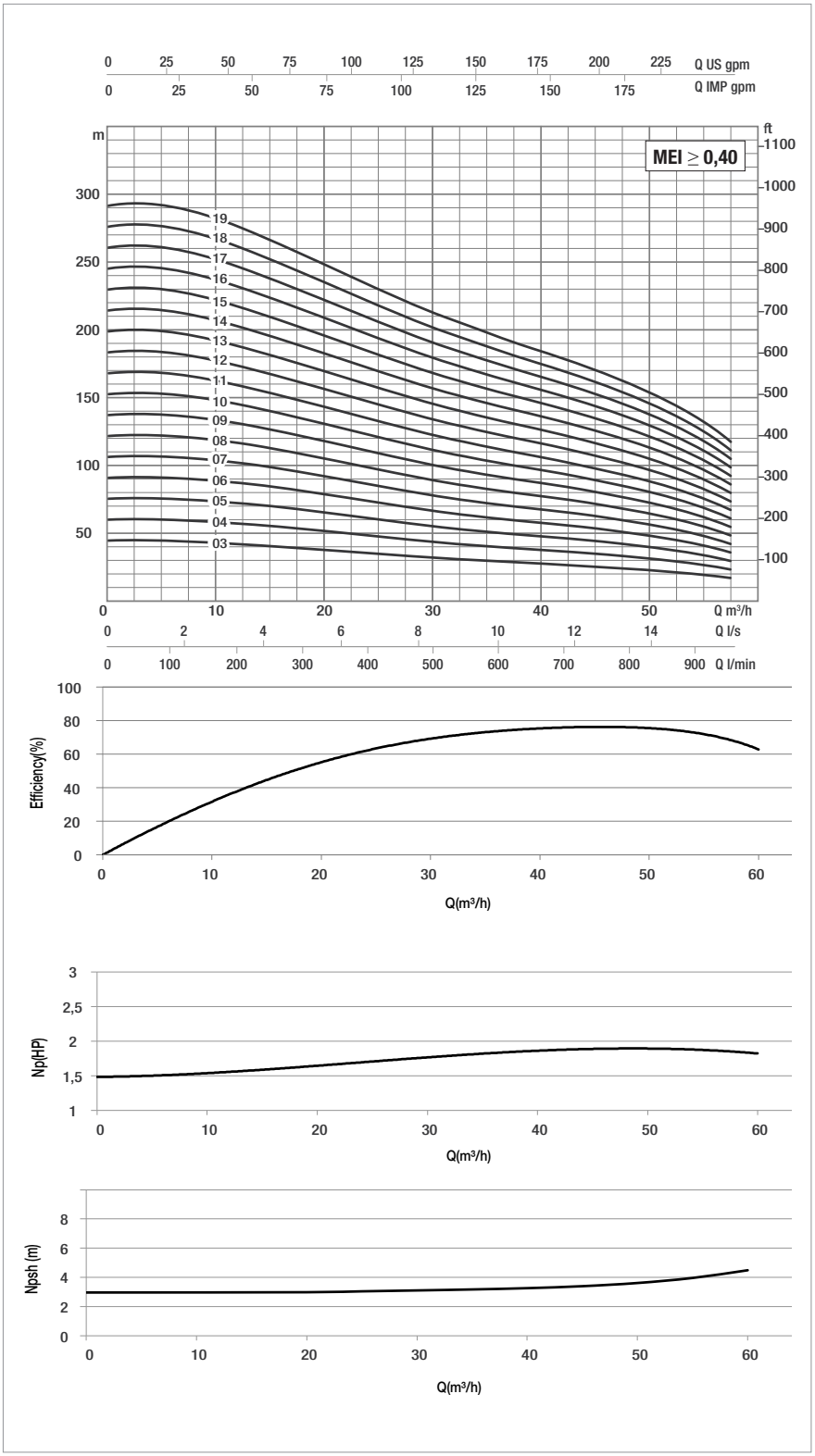
●	Allowed
o	Only PE2 + PA version

SS6D

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

SS6D

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	20	25	30	35	40	45	50	55	60	
	kW	HP	Q=l/min	0	333,3	416,6	500	583,3	666,6	750	833,3	916,6	1000	
SS6D 20	37	50	H (mt)	280	251	237	222	207	192	176	158	135	104	6”
SS6D 21	37	50		294	264	249	233	217	201	184	166	142	109	6”
SS6D 22	37	50		308	276	261	244	228	211	193	173	149	114	6”
SS6D 23	37	50		322	289	273	255	238	220	202	181	155	119	6”
SS6D 24	45	60		336	302	285	267	248	230	211	189	162	125	8”
SS6D 25	45	60		350	314	296	278	259	239	220	197	169	130	8”
SS6D 26	45	60		364	327	308	289	269	249	228	205	176	135	8”
SS6D 27	45	60		378	339	320	300	279	259	237	213	182	140	8”
SS6D 28	45	60		392	352	332	311	290	268	246	221	189	145	8”
SS6D 29	45	60		406	364	344	322	300	278	255	229	196	151	8”
SS6D 30	45	60		420	377	356	333	310	287	264	237	203	156	8”
SS6D 31	55	75		434	390	368	344	321	297	272	244	209	161	8”
SS6D 32	55	75		448	402	379	355	331	307	281	252	216	166	8”
SS6D 33	55	75		462	415	391	366	341	316	290	260	223	171	8”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6D 20	6GF	37	50	79,3	●	●	3690	1180	2510	141	144	155,8
	TR6	37	50	80	o	●	3822	1312	2510	144	144	177
SS6D 21	6GF	37	50	79,3	●	●	3802	1180	2622	141	144	158,8
	TR6	37	50	80	o	●	3934	1312	2622	144	144	180
SS6D 22	6GF	37	50	79,3	●	●	3914	1180	2734	141	144	161,8
	TR6	37	50	80	o	●	4046	1312	2734	144	144	183
SS6D 23	6GF	37	50	79,3	●	●	4026	1180	2846	141	144	163,8
	TR6	37	50	80	o	●	4158	1312	2846	144	144	185
SS6D 24	TR8	45	60	92	o	●	4228	1270	2958	192	144	245
SS6D 25	TR8	45	60	92	o	●	4340	1270	3070	192	144	248
SS6D 26	TR8	45	60	92	o	●	4452	1270	3182	192	144	250
SS6D 27	TR8	45	60	92	o	●	4564	1270	3294	192	144	253
SS6D 28	TR8	45	60	92	o	●	4676	1270	3406	192	144	256
SS6D 29	TR8	45	60	92	o	●	4788	1270	3518	192	144	258
SS6D 30	TR8	45	60	92	o	●	4900	1270	3630	192	144	261
SS6D 31	TR8	55	75	109	o	●	5092	1350	3742	192	144	278
SS6D 32	TR8	55	75	109	o	●	5204	1350	3854	192	144	281
SS6D 33	TR8	55	75	109	o	●	5316	1350	3966	192	144	284

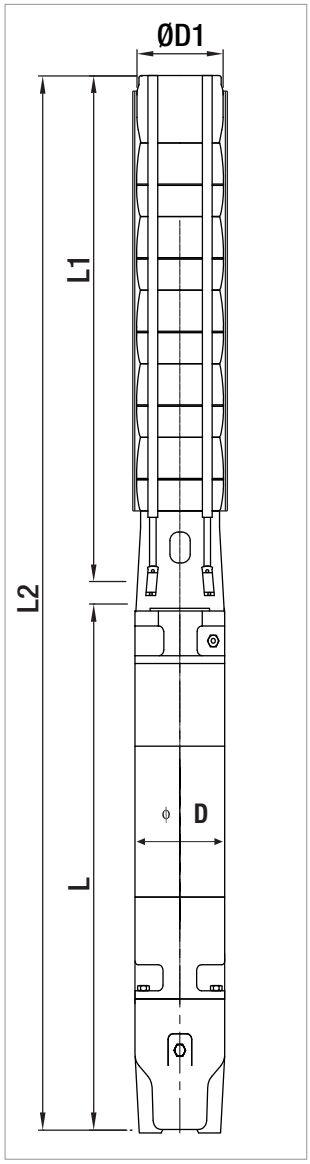
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“ 8“ rewindable submersible motors.

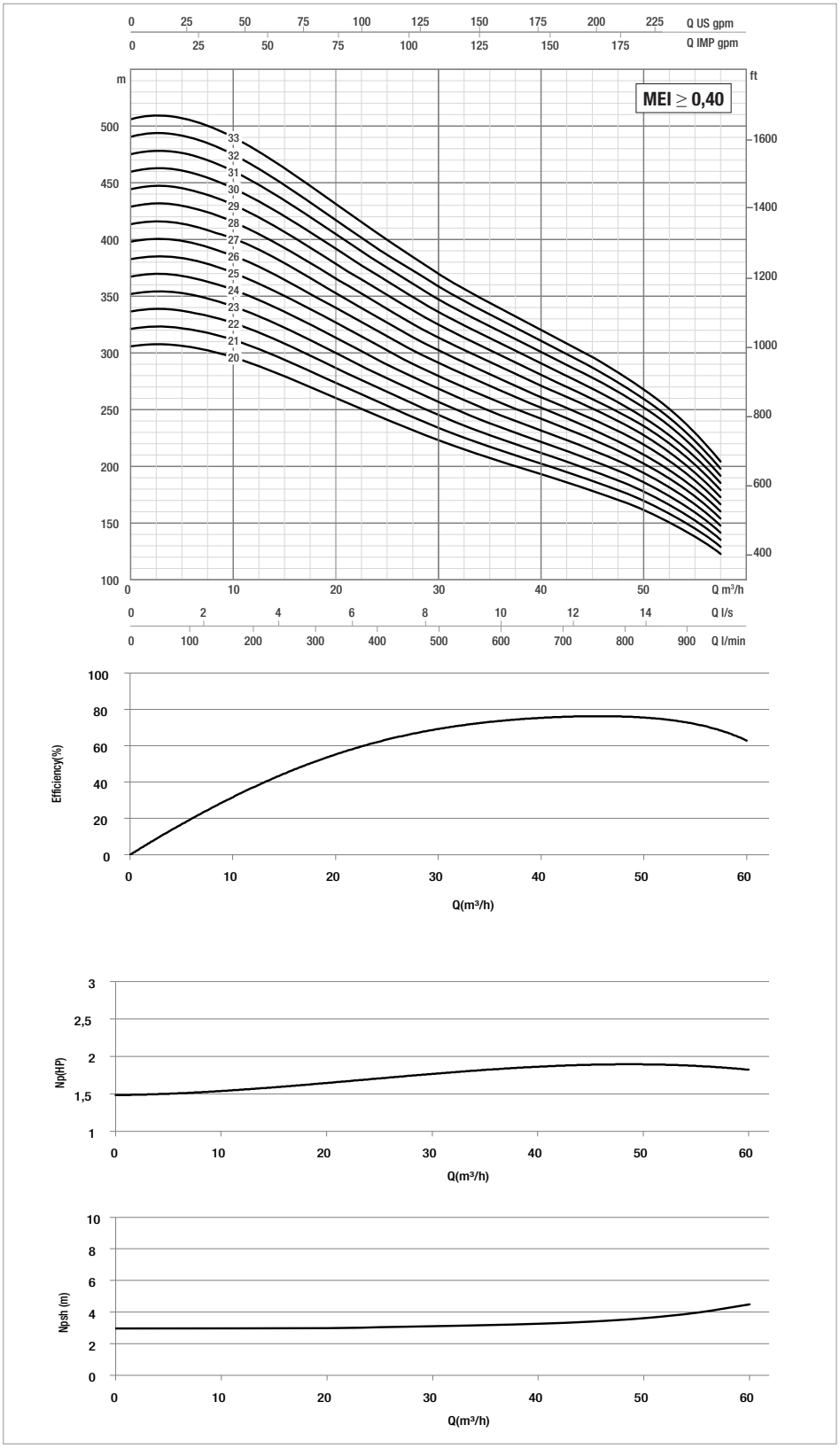
●	Allowed
o	Only PE2 + PA version

SS6D

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	20	40	45	50	55	60	65	70	75	
	kW	HP	Q=l/min	0	333,3	666,6	750	833,3	916,6	1000	1083,3	1166,6	1250	
SS6E 02	4	5,5	H (mt)	30	26	21	20	19	18	17	15	14	11	6"
SS6E 03	5,5	7,5		45	38	31	30	28	27	25	23	20	17	6"
SS6E 04	7,5	10		60	51	42	40	38	36	33	31	27	23	6"
SS6E 05	9,2	12,5		75	64	52	50	47	45	42	38	34	28	6"
SS6E 06	11	15		90	77	62	59	57	54	50	46	41	34	6"
SS6E 07	13	17,5		105	90	73	69	66	63	59	54	48	40	6"
SS6E 08	15	20		120	103	83	79	75	71	67	61	54	45	6"
SS6E 09	18,5	25		135	115	94	89	85	80	75	69	61	51	6"
SS6E 10	18,5	25		150	128	104	99	94	89	84	77	68	56	6"
SS6E 11	22	30		165	141	115	109	104	98	92	85	75	62	6"
SS6E 12	22	30		180	154	125	119	113	107	100	92	82	68	6"
SS6E 13	26	35		195	167	135	129	123	116	109	100	88	73	6"
SS6E 14	26	35		210	180	146	139	132	125	117	108	95	79	6"
SS6E 15	30	40		225	192	156	149	141	134	126	115	102	85	6"
SS6E 16	30	40		240	205	167	159	151	143	134	123	109	90	6"
SS6E 17	30	40		255	218	177	169	160	152	142	131	116	96	6"

SS6E

SUBMERSIBLE PUMPS 6”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6E 02	6GF	4	5,5	10,6	●	●	1094	600	494	141	144	49,4
SS6E 03	6GF	5,5	7,5	14	●	●	1237	631	606	141	144	54,6
	TR6	5,5	7,5	13	o	●	1413	807	606	144	144	62
SS6E 04	6GF	7,5	10	18	●	●	1378	660	718	141	144	60,2
	TR6	7,5	10	18	o	●	1555	837	718	144	144	68
SS6E 05	6GF	9,2	12,5	22	●	●	1515	685	830	141	144	66,6
	TR6	9,2	12,5	21	o	●	1697	867	830	144	144	73
SS6E 06	6GF	11	15	25,5	●	●	1672	730	942	141	144	73
	TR6	11	15	25	o	●	1839	897	942	144	144	80
SS6E 07	6GF	15	20	33,4	●	●	1839	785	1054	141	144	82
	TR6	13	17,5	29	o	●	1981	927	1054	144	144	88
SS6E 08	6GF	15	20	33,4	●	●	1951	785	1166	141	144	85
	TR6	15	20	32	o	●	2163	997	1166	144	144	103
SS6E 09	6GF	18,5	25	41	●	●	2138	860	1278	141	144	95
	TR6	18,5	25	39	o	●	2335	1057	1278	144	144	111
SS6E 10	6GF	18,5	25	41	●	●	2250	860	1390	141	144	98
	TR6	18,5	25	39	o	●	2447	1057	1390	144	144	114
SS6E 11	6GF	22	30	47	●	●	2422	920	1502	141	144	104,6
	TR6	22	30	49	o	●	2589	1087	1502	144	144	129
SS6E 12	6GF	22	30	47	●	●	2534	920	1614	141	144	106,6
	TR6	22	30	49	o	●	2701	1087	1614	144	144	131
SS6E 13	6GF	30	35	61,5	●	●	2776	1050	1726	141	144	125,8
	TR6	26	35	58	o	●	2883	1157	1726	144	144	144
SS6E 14	6GF	30	35	61,5	●	●	2888	1050	1838	141	144	128,8
	TR6	26	35	58	o	●	2995	1157	1838	144	144	147
SS6E 15	6GF	30	40	61,5	●	●	3000	1050	1950	141	144	130,8
	TR6	30	40	65	o	●	3162	1212	1950	144	144	154
SS6E 16	6GF	30	40	61,5	●	●	3112	1050	2062	141	144	133,8
	TR6	30	40	65	o	●	3274	1212	2062	144	144	157
SS6E 17	6GF	30	40	61,5	●	●	3224	1050	2174	141	144	136,8
	TR6	30	40	65	o	●	3386	1212	2174	144	144	160

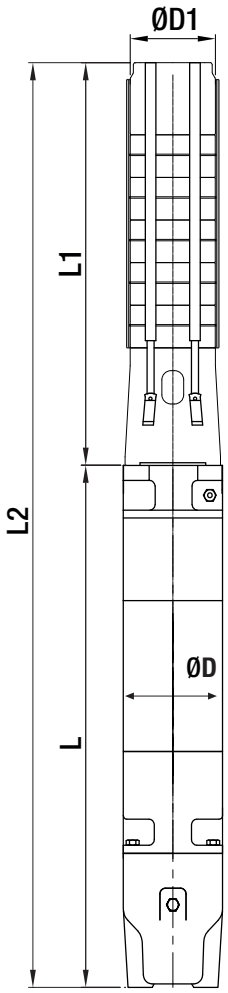
*** Motor 6GF:** 6“ canned submersible motors
Motor TR:6“ rewindable submersible motors

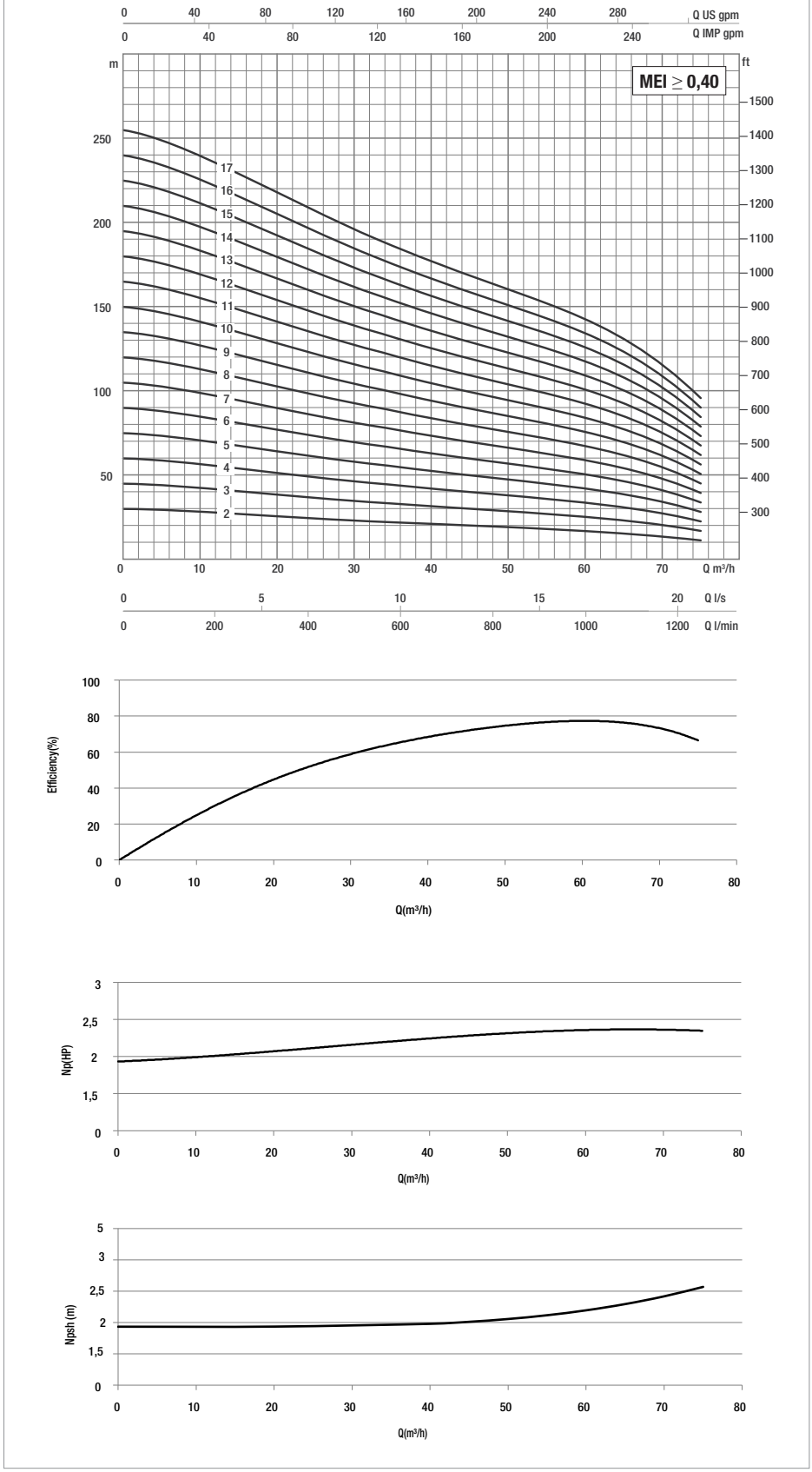
●	Allowed
o	Only PE2 + PA version

SS6E

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

SS6E

SUBMERSIBLE PUMPS 6”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	20	40	45	50	55	60	65	70	75	
	kW	HP	Q=l/min	0	333,3	666,6	750	833,3	916,6	1000	1083,3	1166,6	1250	
SS6E 18	37	50	H (mt)	270	231	187	178	170	161	151	138	122	102	6”
SS6E 19	37	50		285	244	198	188	179	170	159	146	129	107	6”
SS6E 20	37	50		300	257	208	198	189	179	167	154	136	113	6”
SS6E 21	37	50		315	269	219	208	198	188	176	161	143	119	6”
SS6E 22	45	60		330	282	229	218	207	197	184	169	150	124	8“
SS6E 23	45	60		345	295	239	228	217	205	193	177	157	130	8“
SS6E 24	45	60		360	308	250	238	226	214	201	184	163	135	8“
SS6E 25	55	75		375	321	260	248	236	223	209	192	170	141	8“
SS6E 26	55	75		390	334	271	258	245	232	218	200	177	147	8“
SS6E 27	55	75		405	346	281	268	255	241	226	208	184	152	8“
SS6E 28	55	75		420	359	292	278	264	250	234	215	191	158	8“
SS6E 29	55	75		435	372	302	287	273	259	243	223	197	164	8“
SS6E 30	55	75		450	385	312	297	283	268	251	231	204	169	8“

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS6E 18	6GF	37	50	79,3	●	●	3466	1180	2286	141	144	150,8
	TR6	37	50	80	o	●	3598	1312	2286	144	144	172
SS6E 19	6GF	37	50	79,3	●	●	3578	1180	2398	141	144	153,8
	TR6	37	50	80	o	●	3710	1312	2398	144	144	175
SS6E 20	6GF	37	50	79,3	●	●	3690	1180	2510	141	144	156,8
	TR6	37	50	80	o	●	3822	1312	2510	144	144	178
SS6E 21	6GF	37	50	79,3	●	●	3802	1180	2622	141	144	158,8
	TR6	37	50	80	o	●	3934	1312	2622	144	144	180
SS6E 22	TR8	45	60	92	o	●	4004	1270	2734	192	144	240
SS6E 23	TR8	45	60	92	o	●	4116	1270	2846	192	144	242
SS6E 24	TR8	45	60	92	o	●	4228	1270	2958	192	144	245
SS6E 25	TR8	55	75	109	o	●	4420	1350	3070	192	144	263
SS6E 26	TR8	55	75	109	o	●	4532	1350	3182	192	144	265
SS6E 27	TR8	55	75	109	o	●	4644	1350	3294	192	144	268
SS6E 28	TR8	55	75	109	o	●	4756	1350	3406	192	144	271
SS6E 29	TR8	55	75	109	o	●	4868	1350	3518	192	144	273
SS6E 30	TR8	55	75	109	o	●	4980	1350	3630	192	144	276

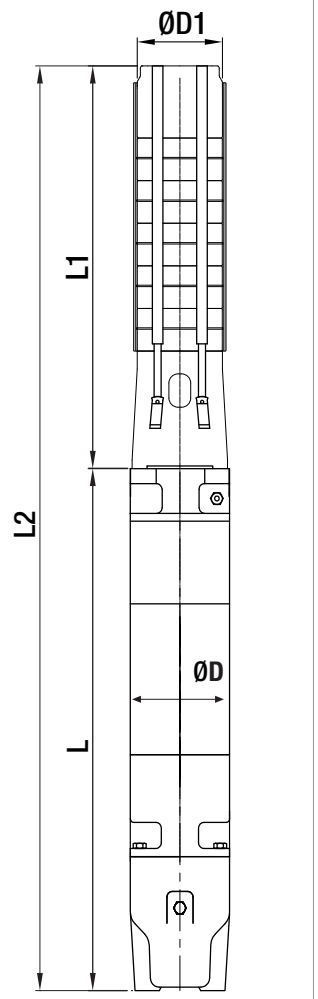
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“ 8“ rewindable submersible motors.

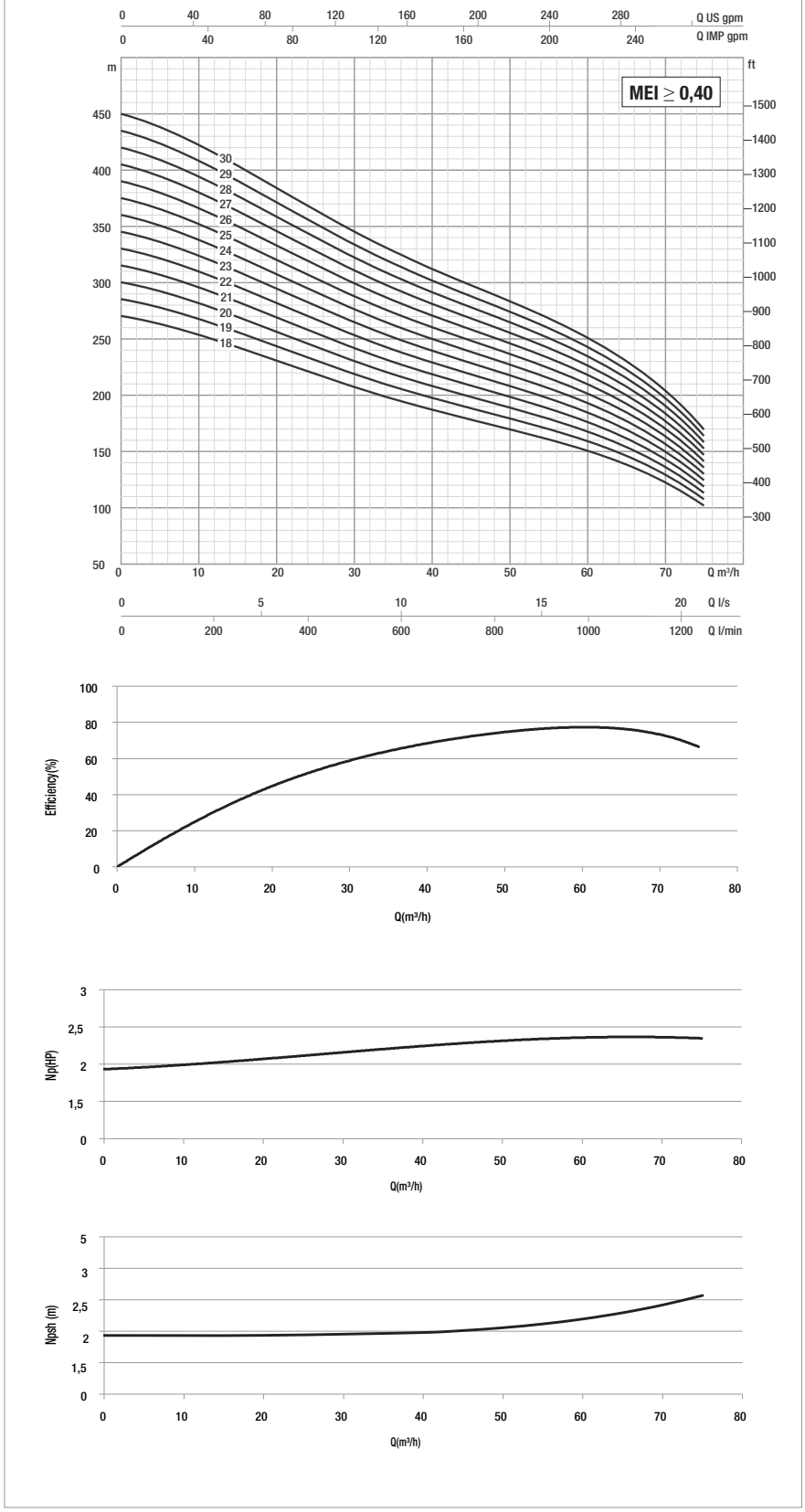
●	Allowed
o	Only PE2 + PA version

SS6E

SUBMERSIBLE PUMPS 6”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





For hydraulic efficiency see pag. 89

SS7

SUBMERSIBLE PUMPS 7”

TECHNICAL DATA

Performance range: flow up to 110 m3/h and max head of 423 m
Max. quantity of sand/silt: 50g/m3
Max. ambient temperature: 30°C (50°C available on request)
Outlet connection diameter (inside threaded): 5”
Nr of starts: refer to the motor specification
Motor Cooling flow: refer to the motor specification
Installation: horizontal or vertical, refer to the motor specification

APPLICATIONS

Multistage mixed-flow borehole electric pumps, completely made in stainless steel (AISI 304L or AISI 316 on request), usable for wells from a minimum diameter equal to pump size or greater and capable of developing a wide range of Flows and Heads.
These pumps can be used in a wide range of lifting, distributing, and pressuring application: domestic and general water supply; sprinkler and drip irrigations systems; fire-fighting installations; lowering of groundwater level; industrial supplies as mining, hot springs, autoclaves and tanks.
These pumps are suitable both for standard water and for aggressive water applications by choosing the proper manufacturing material (AISI 304L or AISI 316) both for hydraulic part and motor.
Special version of motors with PE2+PA windings can be used on request for high-temperature water applications up to maximum 50°C.
Pumps can be installed both vertically and horizontally simply by removing the non-return valve and adding a cooling sleeve to the suction case (the only remark is to check the motor applicability to horizontal operations, refer to the motor specifications section).

CONSTRUCTION FEATURES OF PUMP

Mixed flow pumps with diffusers, impellers, brackets, suction case and discharge case completely made of stainless steel AISI 304 in order to provide maximum strength, durability, wear and tear resistance.

The impellers are balanced and locked to the shaft with a specially shaped collet and nut coupling, in order to guarantee ease-to-assembly feature and avoid vibration sensitive malfunctions and noise increase during rotation.

Rubber bearings that drive the shaft are water lubricated and have sand channels to make enable the sand particles leave the pump with the pumped liquid (maximum permissible sand content 50 gr/m3).

Built-in non returned valve provided in order to minimize local friction losses.

Stainless steel strainer provided in order to prevent particles over a certain size from entering the pump.

Coupling with 6”, 8” or 10” motor depending on the power requested by hydraulic part:
- 6GF: 6” canned submersible motor
- TR6: 6” rewindable submersible motor
- TR8: 8” rewindable submersible motor
- TR10: 10” rewindable submersible motor

For inverter application refer to the detailed motor specification.

ON REQUEST:

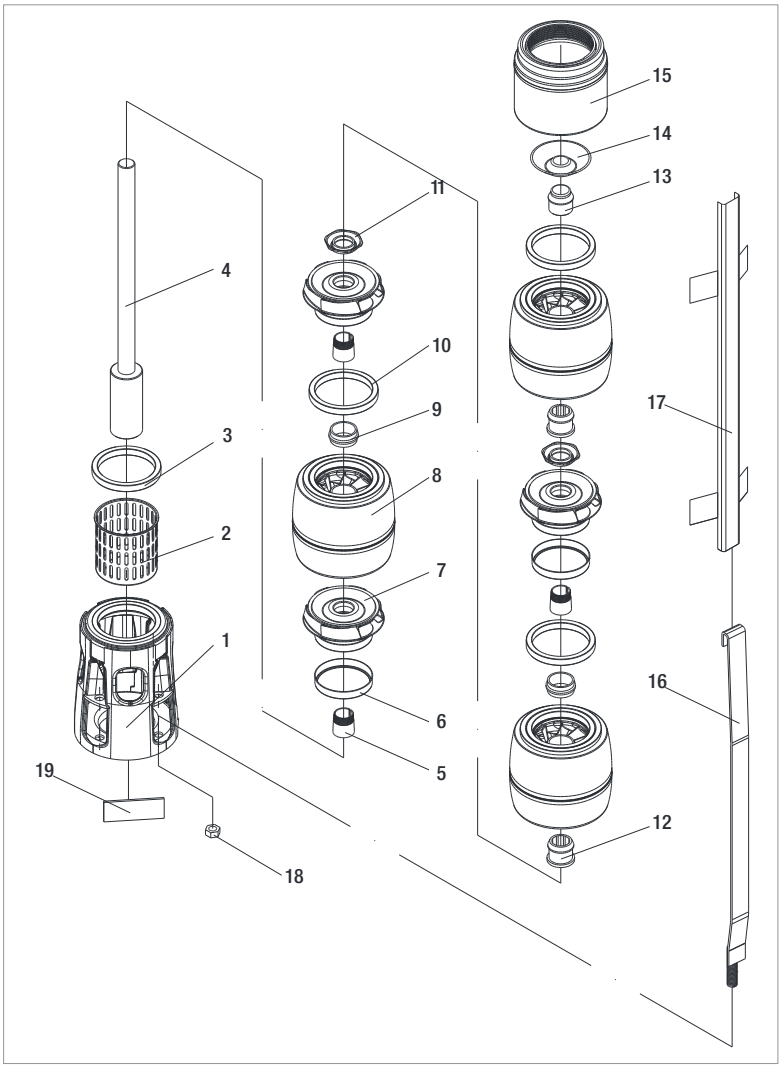
- Pump body stainless steel AISI 316 for aggressive water application
- Impellers stainless steel AISI 316
- Motors in full stainless steel AISI 316 for aggressive water application
- Star/Delta starting version
- Special version of the motor for high temperature application
- Non-standard power coupling

SS7

SUBMERSIBLE PUMPS 7”

MATERIALS

N°	Part Name	Material
1	Suction Case	Stainless Steel (AISI 304L)
2	Filter	Stainless Steel (AISI 304L)
3	Suction Case Wear Ring	Bronze (ASTM B145-4A)
4	Pump Shaft	Stainless Steel (AISI 420)
5	Collet	Stainless Steel
6	Impeller Wear Ring	STAINLESS STEEL (AISI 304)
7	Impeller	Stainless Steel (AISI 304L)
8	Diffuser	Stainless Steel (AISI 304L)
9	Rubber Bearing	Rubber
10	Diffuser Wear Ring	Rubber
11	Nut for Stop Ring	Stainless Steel (AISI 304L)
12	Bearing	Rubber
13	Shaft Stopper	Bronze (ASTM B145-4A)
14	Valve	Stainless Steel (AISI 304)
15	Discharge Case	Stainless Steel (AISI 304)
16	TIE ROD	STAINLESS STEEL (AISI 304L)
17	CABLE GUARD	STAINLESS STEEL (AISI 304)
18	TIR ROD NUT	STAINLESS STEEL (AISI 303)
19	NAME PLATE	STAINLESS STEEL (AISI 304)



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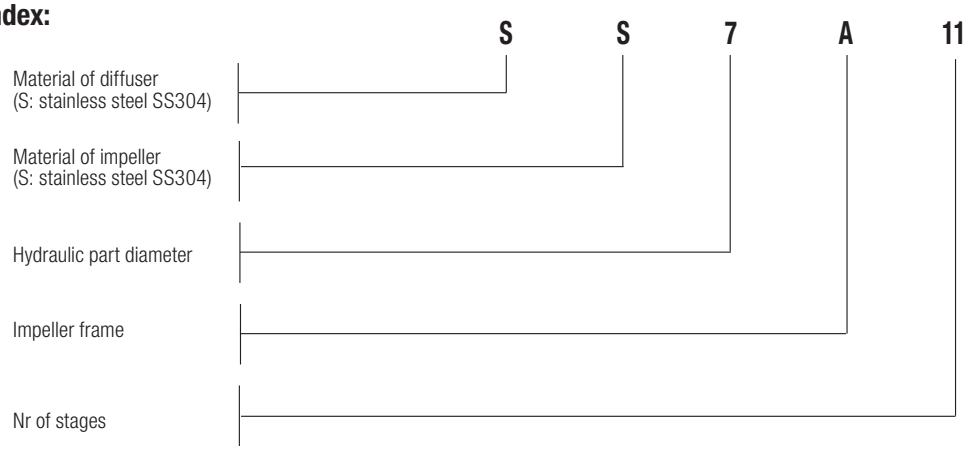


SS7A

SUBMERSIBLE PUMPS 7”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	20	30	40	50	60	70	80	90	100	
	kW	HP	Q=l/min	0	333,3	500	666,6	833,3	1000	1166,6	1333,3	1500	1666,6	
SS7A 01	4	5,5	H (mt)	19	19	18	17	16	15	14	12	11	8	6”
SS7A 02	7,5	10		38	37	36	34	32	30	28	25	21	17	6”
SS7A 03	11	15		58	56	54	51	49	45	42	37	32	25	6”
SS7A 04	15	20		77	74	72	69	65	61	56	50	42	33	6”
SS7A 05	18,5	25		96	93	90	86	81	76	69	62	53	41	6”
SS7A 06	22	30		115	111	108	103	97	91	83	74	63	50	6”
SS7A 07	26	35		135	130	126	120	114	106	97	87	74	58	6”
SS7A 08	30	40		154	149	144	137	130	121	111	99	84	66	6”
SS7A 09	37	50		173	167	161	154	146	136	125	111	95	75	6”
SS7A 10	37	50		192	186	179	172	162	152	139	124	105	83	6”
SS7A 11	45	60		211	204	197	189	179	167	153	136	116	91	8”
SS7A 12	45	60		231	223	215	206	195	182	167	149	127	99	8”
SS7A 13	55	75		250	241	233	223	211	197	181	161	137	108	8”
SS7A 14	55	75		269	260	251	240	227	212	195	173	148	116	8”
SS7A 15	55	75		288	278	269	257	244	227	208	186	158	124	8”
SS7A 16	63	85		307	297	287	275	260	243	222	198	169	133	8”
SS7A 17	75	100		327	316	305	292	276	258	236	210	179	141	8”
SS7A 18	75	100		346	334	323	309	292	273	250	223	190	149	8”
SS7A 19	75	100		365	353	341	326	309	288	264	235	200	158	8”
SS7A 20	75	100		384	371	359	343	325	303	278	248	211	166	8”
SS7A 21	75	100		404	390	377	360	341	318	292	260	221	174	8”
SS7A 22	92	125		423	408	395	378	357	334	306	272	232	182	8”

SS7A

SUBMERSIBLE PUMPS 7”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS7A 01	6GF	4	5,5	10,6	●	●	1171	600	571	141	172	65,4
SS7A 02	6GF	7,5	10	18	●	●	1359	660	699	141	172	75,2
	TR6	7,5	10	18	O	●	1536	837	699	144	172	83
SS7A 03	6GF	11	15	25,5	●	●	1557	730	827	141	172	87
	TR6	11	15	25	O	●	1724	897	827	144	172	94
SS7A 04	6GF	15	20	33,4	●	●	1740	785	955	141	172	97
	TR6	15	20	32	O	●	1952	997	955	144	172	115
SS7A 05	6GF	18,5	25	41	●	●	1943	860	1083	141	172	109
	TR6	18,5	25	39	O	●	2140	1057	1083	144	172	125
SS7A 06	6GF	22	30	47	●	●	2131	920	1211	141	172	116,6
	TR6	22	30	49	O	●	2298	1087	1211	144	172	141
SS7A 07	6GF	30	40	61,5	●	●	2389	1050	1339	141	172	136,8
	TR6	26	35	58	O	●	2496	1157	1339	144	172	155
SS7A 08	6GF	30	40	61,5	●	●	2517	1050	1467	141	172	140,8
	TR6	30	40	65	O	●	2679	1212	1467	144	172	164
SS7A 09	6GF	37	50	79,3	●	●	2775	1180	1595	141	172	156,8
	TR6	37	50	80	O	●	2907	1312	1595	144	172	178
SS7A 10	6GF	37	50	79,9	●	●	2903	1180	1723	141	172	160,8
	TR6	37	50	80	O	●	3035	1312	1723	144	172	182
SS7A 11	TR8	45	60	92	O	●	3121	1270	1851	192	172	243
SS7A 12	TR8	45	60	92	O	●	3249	1270	1979	192	172	247
SS7A 13	TR8	55	75	109	O	●	3457	1350	2107	192	172	266
SS7A 14	TR8	55	75	109	O	●	3585	1350	2235	192	172	270
SS7A 15	TR8	55	75	109	O	●	3713	1350	2363	192	172	274
SS7A 16	TR8	63	85	126	O	●	3981	1490	2491	192	172	304
SS7A 17	TR8	75	100	145	O	●	4209	1590	2619	192	172	326
SS7A 18	TR8	75	100	145	O	●	4337	1590	2747	192	172	330
SS7A 19	TR8	75	100	145	O	●	4465	1590	2875	192	172	334
SS7A 20	TR8	75	100	145	O	●	4593	1590	3003	192	172	338
SS7A 21	TR8	75	100	145	O	●	4721	1590	3131	192	172	342
SS7A 22	TR8	92	125	177	O	●	5089	1830	3259	192	172	392

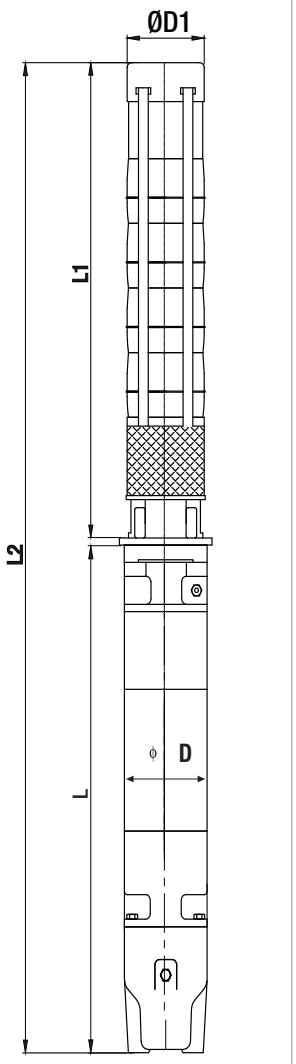
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“-8“ rewindable submersible motors.

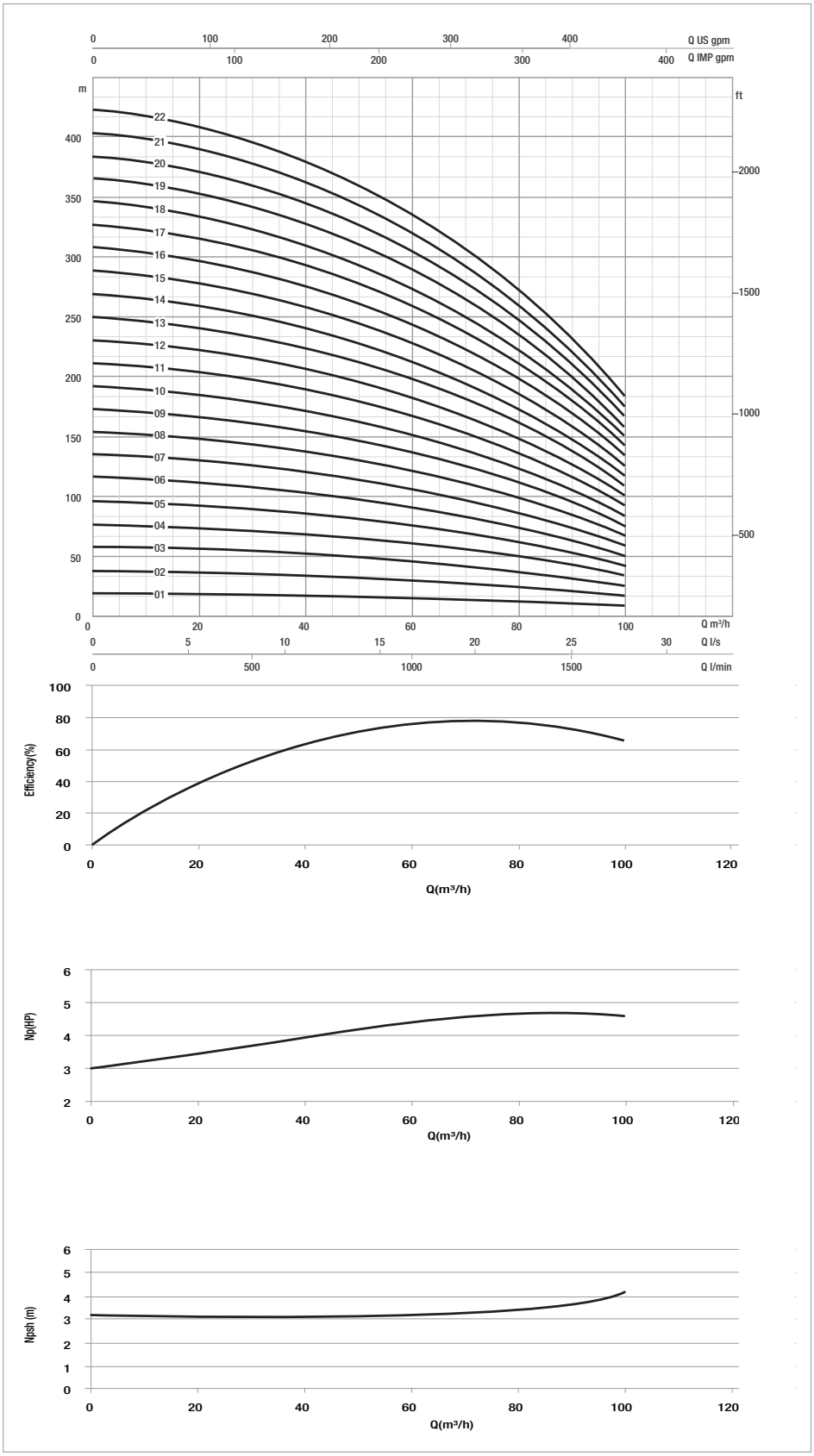
●	Allowed
O	Only PE2 + PA version

SS7A

SUBMERSIBLE PUMPS 7”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





SS7B

SUBMERSIBLE PUMPS 7”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	20	40	50	60	70	80	90	100	115	
	kW	HP	Q=l/min	0	333,3	666,6	833,3	1000	1166,6	1333,3	1500	1666,6	1916,6	
SS7B 01	5,5	7,5	H (mt)	21	21	20	20	19	18	17	16	14	11	6”
SS7B 02	11	15		43	43	41	39	38	36	34	32	28	21	6”
SS7B 03	15	20		64	64	61	59	56	54	51	47	43	32	6”
SS7B 04	22	30		85	86	81	78	75	72	68	63	57	43	6”
SS7B 05	30	40		106	107	101	98	94	90	85	79	71	54	6”
SS7B 06	37	50		128	128	122	117	113	108	102	95	85	64	6”
SS7B 07	37	50		149	150	142	137	132	126	119	111	100	75	6”
SS7B 08	45	60		170	171	162	156	150	144	136	126	114	86	8”
SS7B 09	45	60		192	193	183	176	169	162	153	142	128	96	8”
SS7B 10	55	75		213	214	203	196	188	180	170	158	142	107	8”
SS7B 11	63	85		234	235	223	215	207	197	187	174	157	118	8”
SS7B 12	75	100		256	257	243	235	225	215	204	190	171	128	8”
SS7B 13	75	100		277	278	264	254	244	233	221	206	185	139	8”
SS7B 14	75	100		298	300	284	274	263	251	238	221	199	150	8”
SS7B 15	92	125		319	321	304	293	282	269	255	237	214	161	8”
SS7B 16	92	125		341	342	325	313	301	287	272	253	228	171	8”
SS7B 17	92	125		362	364	345	332	319	305	289	269	242	182	8”
SS7B 18	110	150		383	385	365	352	338	323	306	285	256	193	8”
SS7B 19	110	150		405	407	385	372	357	341	323	300	271	203	8”
SS7B 20	110	150		426	428	406	391	376	359	340	316	285	214	8”

SS7B

SUBMERSIBLE PUMPS 7”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS7B 01	6GF	5,5	7,5	14	●	●	1202	631	571	141	172	68,6
	TR6	5,5	7,5	13	o	●	1378	807	571	144	172	76
SS7B 02	6GF	11	15	25,5	●	●	1429	730	699	141	172	81,8
	TR6	11	15	25	o	●	1596	897	699	144	172	90
SS7B 03	6GF	15	20	33,4	●	●	1612	785	827	141	172	93
	TR6	15	20	32	o	●	1824	997	827	144	172	111
SS7B 04	6GF	22	30	47	●	●	1875	920	955	141	172	108,6
	TR6	22	30	49	o	●	2042	1087	955	144	172	133
SS7B 05	6GF	30	40	61,5	●	●	2133	1050	1083	141	172	128,8
	TR6	30	40	65	o	●	2295	1212	1083	144	172	152
SS7B 06	6GF	37	50	79,3	●	●	2391	1180	1211	141	172	144,8
	TR6	37	50	80	o	●	2523	1312	1211	144	172	166
SS7B 07	6GF	37	50	79,3	●	●	2519	1180	1339	141	172	148,8
	TR6	37	50	80	o	●	2651	1312	1339	144	172	170
SS7B 08	TR8	45	60	92	o	●	2737	1270	1467	192	172	231
SS7B 09	TR8	45	60	92	o	●	2865	1270	1595	192	172	235
SS7B 10	TR8	55	75	109	o	●	3073	1350	1723	192	172	254
SS7B 11	TR8	63	85	126	o	●	3341	1490	1851	192	172	284
SS7B 12	TR8	75	100	145	o	●	3569	1590	1979	192	172	307
SS7B 13	TR8	75	100	145	o	●	3697	1590	2107	192	172	311
SS7B 14	TR8	75	100	145	o	●	3825	1590	2235	192	172	315
SS7B 15	TR8	92	125	177	o	●	4193	1830	2363	192	172	365
SS7B 16	TR8	92	125	177	o	●	4321	1830	2491	192	172	369
SS7B 17	TR8	92	125	177	o	●	4449	1830	2619	192	172	373
SS7B 18	TR8	110	150	213	o	●	4807	2060	2747	192	172	427
SS7B 19	TR8	110	150	213	o	●	4935	2060	2875	192	172	431
SS7B 20	TR8	110	150	213	o	●	5063	2060	3003	192	172	435

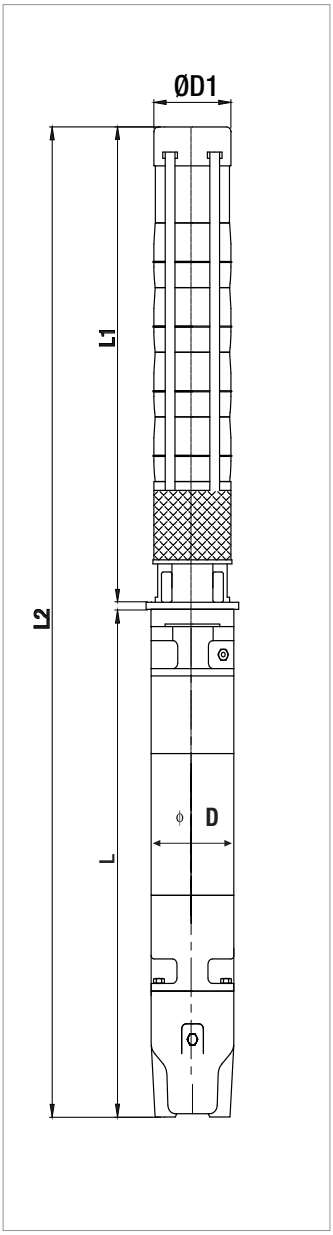
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“-8“ rewindable submersible motors.

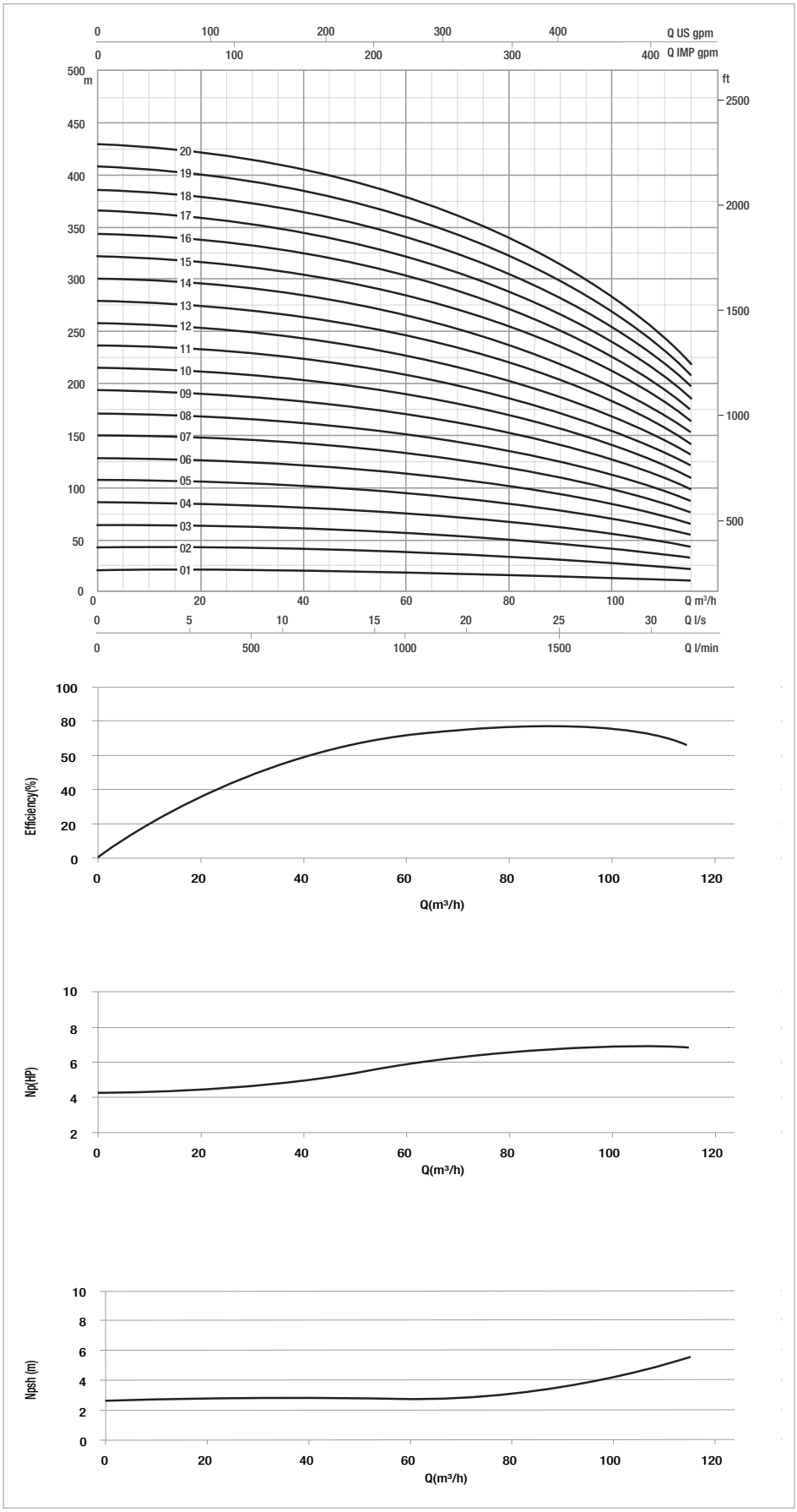
●	Allowed
o	Only PE2 + PA version

SS7B

SUBMERSIBLE PUMPS 7”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





SS8

SUBMERSIBLE PUMPS 8”

TECHNICAL DATA

Performance range: flow up to 210 m3/h and max head of 555 m
Max. quantity of sand/silt: 50g/m3
Max. ambient temperature: 30°C (50°C available on request)
Outlet connection diameter (inside threaded): 6”
Nr of starts: refer to the motor specification
Motor Cooling flow: refer to the motor specification
Installation: horizontal or vertical, refer to the motor specification

APPLICATIONS

Multistage mixed-flow borehole electric pumps, completely made in stainless steel (AISI 304L or AISI 316 on request), usable for wells from a minimum diameter equal to pump size or greater and capable of developing a wide range of Flows and Heads.
These pumps can be used in a wide range of lifting, distributing, and pressuring application: domestic and general water supply; sprinkler and drip irrigations systems; fire-fighting installations; lowering of groundwater level; industrial supplies as mining, hot springs, autoclaves and tanks.
These pumps are suitable both for standard water and for aggressive water applications by choosing the proper manufacturing material (AISI 304L or AISI 316) both for hydraulic part and motor.
Special version of motors with PE2+PA windings can be used on request for high-temperature water applications up to maximum 50°C.
Pumps can be installed both vertically and horizontally simply by removing the non-return valve and adding a cooling sleeve to the suction case (the only remark is to check the motor applicability to horizontal operations, refer to the motor specifications section).

CONSTRUCTION FEATURES OF PUMP

Mixed flow pumps with diffusers, impellers, brackets, suction case and discharge case completely made of stainless steel AISI 304 in order to provide maximum strength, durability, wear and tear resistance.

The impellers are balanced and locked to the shaft with a specially shaped collet and nut coupling, in order to guarantee ease-to-assembly feature and avoid vibration sensitive malfunctions and noise increase during rotation.

Rubber bearings that drive the shaft are water lubricated and have sand channels to make enable the sand particles leave the pump with the pumped liquid (maximum permissible sand content 50 gr/m3).

Built-in non returned valve provided in order to minimize local friction losses.

Stainless steel strainer provided in order to prevent particles over a certain size from entering the pump.

Coupling with 6”, 8” or 10” motor depending on the power requested by hydraulic part:
- 6GF: 6” canned submersible motor
- TR6: 6” rewindable submersible motor
- TR8: 8” rewindable submersible motor
- TR10: 10” rewindable submersible motor

For inverter application refer to the detailed motor specification.

ON REQUEST:

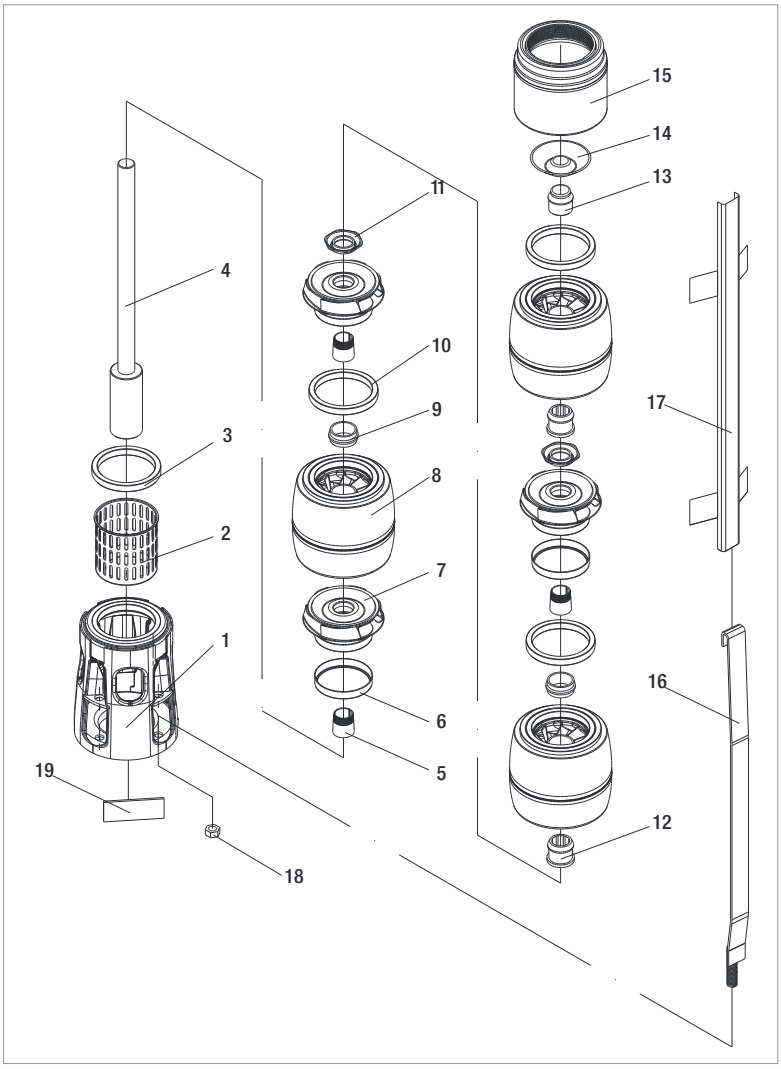
- Pump body stainless steel AISI 316 for aggressive water application
- Impellers stainless steel AISI 316
- Motors in full stainless steel AISI 316 for aggressive water application
- Star/Delta starting version
- Special version of the motor for high temperature application
- Non-standard power coupling

SS8

SUBMERSIBLE PUMPS 8”

MATERIALS

N°	Part Name	Material
1	Suction Case	Stainless Steel (AISI 304L)
2	Filter	Stainless Steel (AISI 304L)
3	Suction Case Wear Ring	Bronze (ASTM B145-4A)
4	Pump Shaft	Stainless Steel (AISI 420)
5	Collet	Stainless Steel
6	Impeller Wear Ring	STAINLESS STEEL (AISI 304)
7	Impeller	Stainless Steel (AISI 304L)
8	Diffuser	Stainless Steel (AISI 304L)
9	Rubber Bearing	Rubber
10	Diffuser Wear Ring	Rubber
11	Nut for Stop Ring	Stainless Steel (AISI 304L)
12	Bearing	Rubber
13	Shaft Stopper	Bronze (ASTM B145-4A)
14	Valve	Stainless Steel (AISI 304)
15	Discharge Case	Stainless Steel (AISI 304)
16	TIE ROD	STAINLESS STEEL (AISI 304L)
17	CABLE GUARD	STAINLESS STEEL (AISI 304)
18	TIR ROD NUT	STAINLESS STEEL (AISI 303)
19	NAME PLATE	STAINLESS STEEL (AISI 304)



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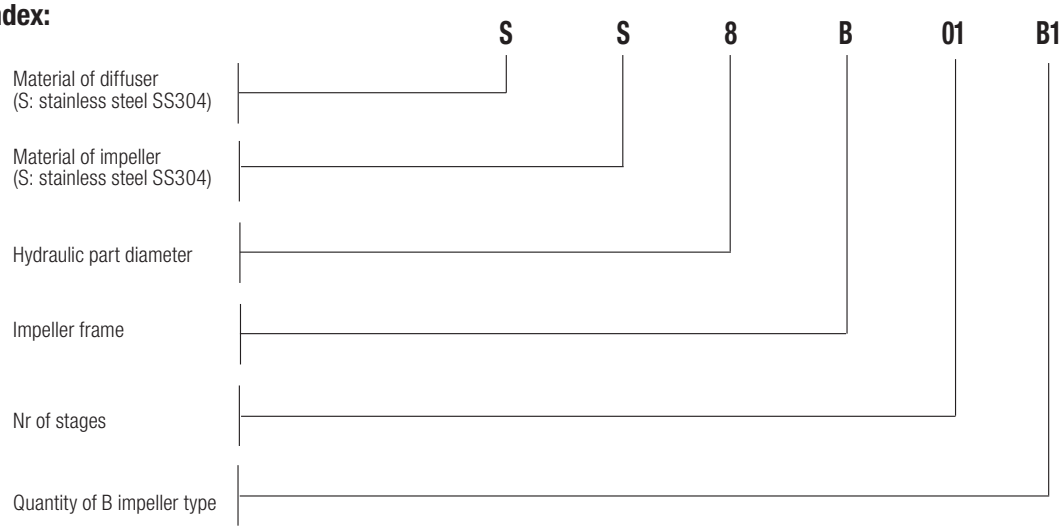


SS8A

SUBMERSIBLE PUMPS 8”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	30	70	80	90	100	110	120	130	140	
	kW	HP	Q=l/min	0	500	1166,6	1333,3	1500	1666,6	1833,3	2000	2166,6	2333,3	
SS8A 01	7,5	10	H (mt)	28	26	23	22	21	20	18	16	15	12	6"
SS8A 02	15	20		56	52	46	44	42	39	36	33	29	24	6"
SS8A 03	22	30		83	78	69	66	63	59	54	49	44	37	6"
SS8A 04	30	40		111	104	91	88	83	78	73	66	58	49	6"
SS8A 05	37	50		139	129	114	110	104	98	91	82	73	61	6"
SS8A 06	45	60		167	155	137	131	125	118	109	99	87	73	8"
SS8A 07	55	75		194	181	160	153	146	137	127	115	102	86	8"
SS8A 08	63	85		222	207	183	175	167	157	145	132	116	98	8"
SS8A 09	75	100		250	233	206	197	188	176	163	148	131	110	8"
SS8A 10	75	100		278	259	229	219	208	196	182	165	145	122	8"
SS8A 11	92	125		305	285	252	241	229	216	200	181	160	135	8"
SS8A 12	92	125		333	311	274	263	250	235	218	198	174	147	8"
SS8A 13	92	125		361	337	297	285	271	255	236	214	189	159	8"
SS8A 14	110	150		389	362	320	307	292	274	254	231	203	171	8"
SS8A 15	110	150		416	388	343	329	313	294	272	247	218	184	8"
SS8A 16	132	180		444	414	366	351	333	313	290	264	232	196	10"
SS8A 17	132	180		472	440	389	373	354	333	309	280	247	208	10"
SS8A 18	132	180		500	466	412	394	375	353	327	297	262	220	10"
SS8A 19	147	200		527	492	435	416	396	372	345	313	276	233	10"
SS8A 20	147	200		555	518	457	438	417	392	363	330	291	245	10"

SS8A

SUBMERSIBLE PUMPS 8”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS8A 01	6GF	7,5	10	18	●	●	1346	660	686	141	213	77,2
	TR6	7,5	10	18	o	●	1523	837	686	144	213	85
SS8A 02	6GF	15	20	33,4	●	●	1627	785	842	141	213	97
	TR6	15	20	32	o	●	1839	997	842	144	213	115
SS8A 03	6GF	22	30	47	●	●	1917	920	997	141	213	115,6
	TR6	22	30	49	o	●	2084	1087	997	144	213	140
SS8A 04	6GF	30	40	61,5	●	●	2203	1050	1153	141	213	137,8
	TR6	30	40	65	o	●	2365	1212	1153	144	213	161
SS8A 05	6GF	37	50	79,3	●	●	2489	1180	1309	141	213	155,8
	TR6	37	50	80	o	●	2621	1312	1309	144	213	177
SS8A 06	TR8	45	60	92	o	●	2735	1270	1465	192	213	241
SS8A 07	TR8	55	75	109	o	●	2970	1350	1620	192	213	262
SS8A 08	TR8	63	85	126	o	●	3266	1490	1776	192	213	294
SS8A 09	TR8	75	100	145	o	●	3522	1590	1932	192	213	320
SS8A 10	TR8	75	100	145	o	●	3677	1590	2087	192	213	326
SS8A 11	TR8	92	125	177	o	●	4073	1830	2243	192	213	378
SS8A 12	TR8	92	125	177	o	●	4229	1830	2399	192	213	384
SS8A 13	TR8	92	125	177	o	●	4384	1830	2554	192	213	391
SS8A 14	TR8	110	150	213	o	●	4770	2060	2710	192	213	447
SS8A 15	TR8	110	150	213	o	●	4926	2060	2866	192	213	453
SS8A 16	TR10	132	180	257	o	●	4892	1870	3022	232	213	562
SS8A 17	TR10	132	180	257	o	●	5047	1870	3177	232	213	568
SS8A 18	TR10	132	180	257	o	●	5203	1870	3333	232	213	574
SS8A 19	TR10	147	200	300	o	●	5559	2070	3489	232	213	645
SS8A 20	TR10	147	200	300	o	●	5714	2070	3644	232	213	652

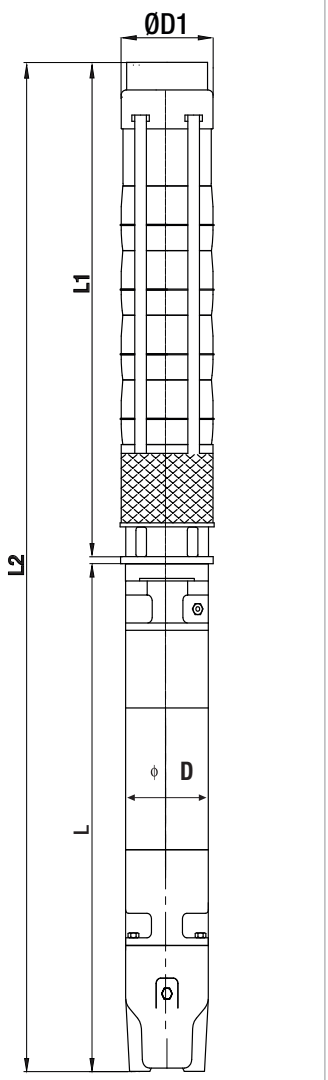
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“-10“ rewindable submersible motors.

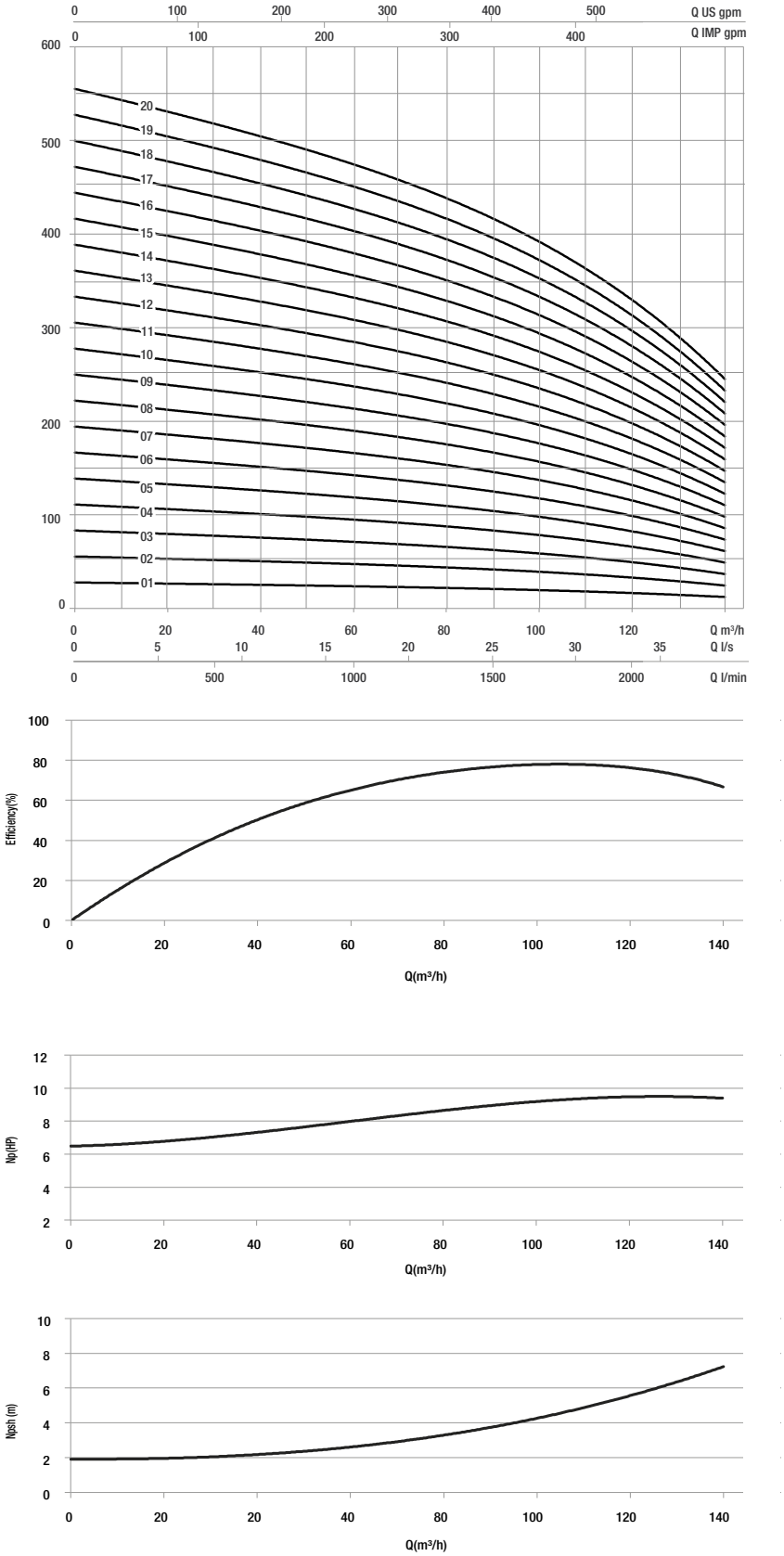
●	Allowed
o	Only PE2 + PA version

SS8A

SUBMERSIBLE PUMPS 8”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





SS8B

SUBMERSIBLE PUMPS 8”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	40	70	90	120	130	140	150	160	170	
	kW	HP	Q=l/min	0	666,6	1166,6	1500	2000	2166,6	2333,3	2500	2666,6	2833,3	
SS8B 01.B1	9,3	12,5		27	25	23	22	19	18	17	16	14	12	6"
SS8B 01	11	15		33	31	28	27	24	23	21	19	17	14	6"
SS8B 02.B2	18,5	25		54	50	46	44	39	37	34	32	28	24	6"
SS8B 02	22	30		65	61	57	53	48	45	42	38	34	29	6"
SS8B 03.B3	30	40		80	75	70	66	58	55	52	47	42	35	6"
SS8B 03	37	50		98	92	85	80	71	68	63	58	51	43	6"
SS8B 04	45	60		131	122	113	107	95	90	84	77	68	58	8"
SS8B 05.B3	55	75		146	136	126	119	106	100	94	86	76	64	8"
SS8B 05	55	75	H (mt)	163	153	142	134	119	113	105	96	85	72	8"
SS8B 06	75	100		196	183	170	160	143	135	126	115	102	87	8"
SS8B 07	75	100		228	214	198	187	166	158	147	135	119	101	8"
SS8B 08	92	125		261	245	227	214	190	180	168	154	136	115	8"
SS8B 09	110	150		294	275	255	240	214	203	189	173	153	130	8"
SS8B 10	110	150		326	306	283	267	238	225	210	192	171	144	8"
SS8B 11	132	180		359	336	312	294	261	248	231	211	188	159	10"
SS8B 12	132	180		392	367	340	320	285	270	252	231	205	173	10"
SS8B 13	147	200		424	397	368	347	309	293	273	250	222	187	10"

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS8B 01.B1	6GF	9,3	12,5	22	●	●	1371	685	686	141	213	80,6
	TR6	9,3	12,5	21	o	●	1553	867	686	144	213	87
SS8B 01	6GF	11	15	25,5	●	●	1416	730	686	141	213	85
	TR6	11	15	25	o	●	1583	897	686	144	213	92
SS8B 02.B2	6GF	18,5	25	41	●	●	1702	860	842	141	213	106
	TR6	18,5	25	39	o	●	1899	1057	842	144	213	122
SS8B 02	6GF	22	30	47	●	●	1762	920	842	141	213	109,6
	TR6	22	30	49	o	●	1929	1087	842	144	213	134
SS8B 03.B3	6GF	30	40	61,5	●	●	2047	1050	997	141	213	131,8
	TR6	30	40	65	o	●	2209	1212	997	144	213	155
SS8B 03	6GF	37	50	79,3	●	●	2177	1180	997	141	213	143,8
	TR6	37	50	80	o	●	2309	1312	997	144	213	165
SS8B 04	TR8	45	60	92	o	●	2423	1270	1153	192	213	229
SS8B 05.B3	TR8	55	75	109	o	●	2659	1350	1309	192	213	250
SS8B 05	TR8	55	75	109	o	●	2659	1350	1309	192	213	250
SS8B 06	TR8	75	100	145	o	●	3055	1590	1465	192	213	302
SS8B 07	TR8	75	100	145	o	●	3210	1590	1620	192	213	308
SS8B 08	TR8	92	125	177	o	●	3606	1830	1776	192	213	361
SS8B 09	TR8	110	150	213	o	●	3992	2060	1932	192	213	417
SS8B 10	TR8	110	150	213	o	●	4147	2060	2087	192	213	424
SS8B 11	TR10	132	180	257	o	●	4113	1870	2243	232	213	532
SS8B 12	TR10	132	180	257	o	●	4269	1870	2399	232	213	539
SS8B 13	TR10	147	200	300	o	●	4624	2070	2554	232	213	610

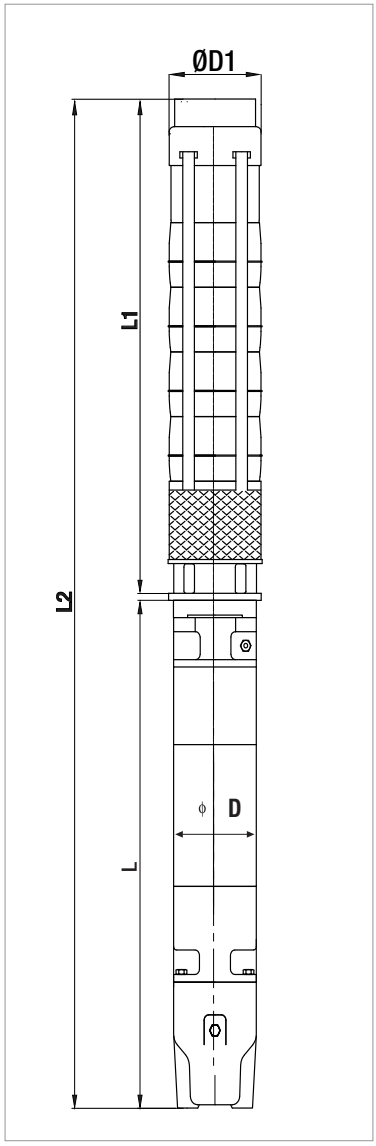
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“-10“ rewindable submersible motors.

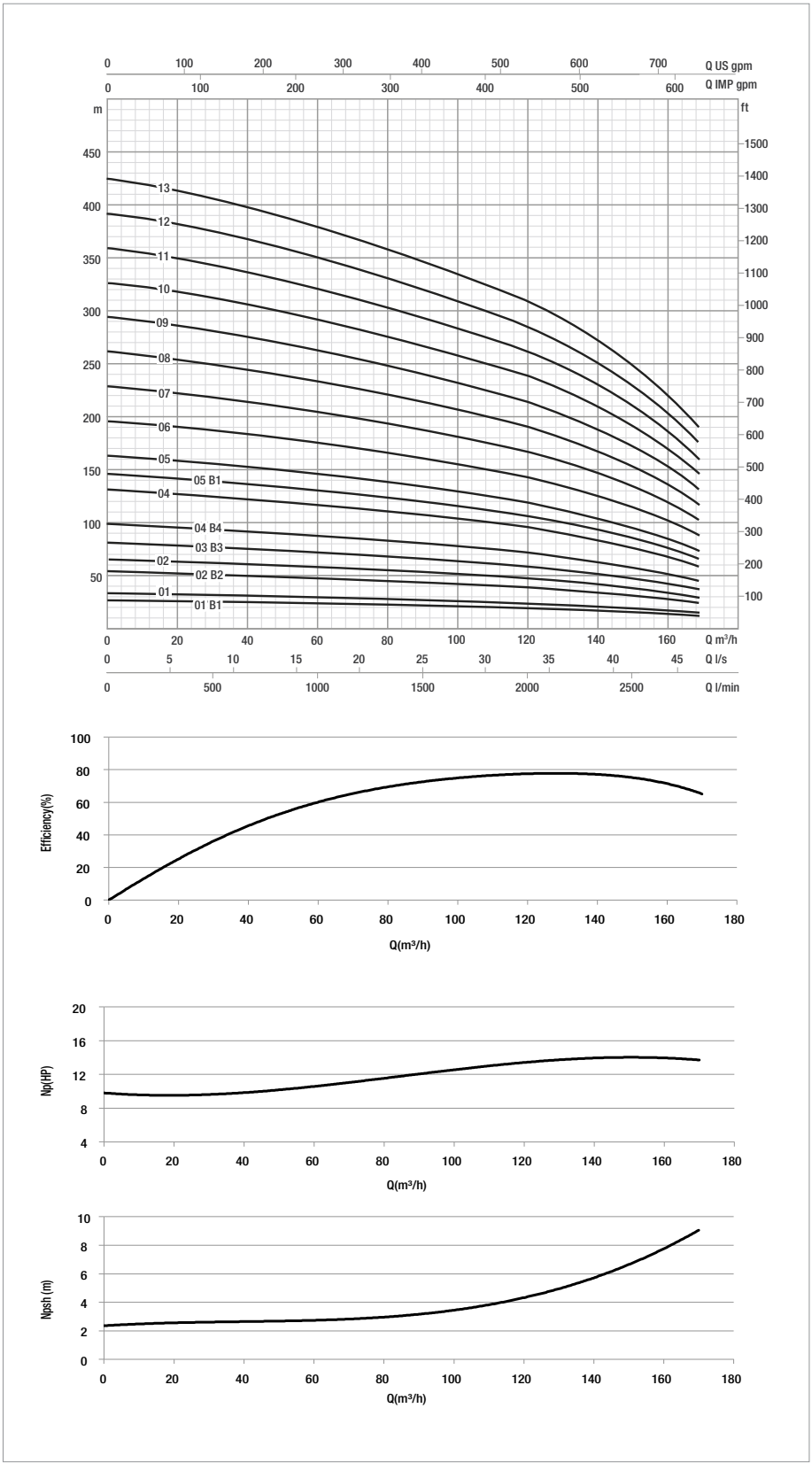
●	Allowed
o	Only PE2 + PA version

SS8B

SUBMERSIBLE PUMPS 8”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





SS8C

SUBMERSIBLE PUMPS 8”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	50	70	90	110	130	150	170	190	210	
	kW	HP	Q=l/min	0	833,3	1166,6	1500	1833,3	2166,6	2500	2833,3	3166,6	3500	
SS8C 01.B1	9,2	12,5		24	22	21	20	18	17	16	14	12	9	6”
SS8C 01	11	15		30	28	26	24	23	22	20	18	15	11	6”
SS8C 02.B2	18,5	25		48	44	42	39	37	34	32	28	23	17	6”
SS8C 02	22	30		60	55	52	49	46	43	40	35	29	22	6”
SS8C 03.B2	30	40		78	72	68	64	60	56	52	46	38	28	6”
SS8C 03	37	50		90	83	78	73	69	65	60	53	44	32	6”
SS8C 04	45	60		120	111	104	98	92	86	80	71	58	43	8”
SS8C 05	55	75		150	139	130	122	115	108	99	88	73	54	8”
SS8C 06.B3	63	85		162	150	141	132	124	116	107	95	79	58	8”
SS8C 06	75	100		180	166	156	147	138	129	119	106	88	65	8”
SS8C 07.B3	75	100	H (mt)	192	177	167	156	147	138	127	113	94	69	8”
SS8C 07	92	125		210	194	182	171	161	151	139	124	102	76	8”
SS8C 08	92	125		240	222	208	195	184	172	159	141	117	87	8”
SS8C 09	110	150		270	249	234	220	207	194	179	159	132	97	8”
SS8C 10	110	150		300	277	260	244	230	215	199	176	146	108	8”
SS8C 11	132	180		330	305	286	269	253	237	219	194	161	119	10“
SS8C 12	147	200		360	333	312	293	276	259	239	212	175	130	10“
SS8C 13	147	200		390	360	338	318	299	280	258	229	190	141	10“
SS8C 14	170	230		420	388	364	342	322	302	278	247	205	152	10“
SS8C 15	190	260		450	416	390	366	345	323	298	265	219	162	10“
SS8C 16	190	260		480	443	416	391	368	345	318	282	234	173	10“

SS8C

SUBMERSIBLE PUMPS 8”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS8C 01.B1	6GF	9,2	12,5	22	●	●	1371	685	686	141	226	82,6
	TR6	9,2	12,5	21	O	●	1553	867	686	144	226	89
SS8C 01	6GF	11	15	25,5	●	●	1416	730	686	141	226	87
	TR6	11	15	25	O	●	1583	897	686	144	226	94
SS8C 02.B2	6GF	18,5	25	41	●	●	1702	860	842	141	226	107
	TR6	18,5	25	39	O	●	1899	1057	842	144	226	123
SS8C 02	6GF	22	30	47	●	●	1762	920	842	141	226	110,6
	TR6	22	30	49	O	●	1929	1087	842	144	226	135
SS8C 03.B2	6GF	30	40	61,5	●	●	2047	1050	997	141	226	133,8
	TR6	30	40	65	O	●	2209	1212	997	144	226	157
SS8C 03	6GF	37	50	79,3	●	●	2177	1180	997	141	226	145,8
	TR6	37	50	80	O	●	2309	1312	997	144	226	167
SS8C 04	TR8	45	60	92	O	●	2423	1270	1153	192	226	230
SS8C 05	TR8	55	75	109	O	●	2659	1350	1309	192	226	252
SS8C 06.B3	TR8	63	85	126	O	●	2955	1490	1465	192	226	284
SS8C 06	TR8	75	100	145	O	●	3055	1590	1465	192	226	303
SS8C 07.B3	TR8	75	100	145	O	●	3210	1590	1620	192	226	310
SS8C 07	TR8	92	125	177	O	●	3450	1830	1620	192	226	356
SS8C 08	TR8	92	125	177	O	●	3606	1830	1776	192	226	362
SS8C 09	TR8	110	150	213	O	●	3992	2060	1932	192	226	419
SS8C 10	TR8	110	150	213	O	●	4147	2060	2087	192	226	425
SS8C 11	TR10	132	180	257	O	●	4113	1870	2243	232	226	534
SS8C 12	TR10	147	200	300	O	●	4469	2070	2399	232	226	605
SS8C 13	TR10	147	200	300	O	●	4624	2070	2554	232	226	612
SS8C 14	TR10	170	230	348	O	●	4930	2220	2710	232	226	658
SS8C 15	TR10	190	260	405	O	●	5266	2400	2866	232	226	704
SS8C 16	TR10	190	260	405	O	●	5422	2400	3022	232	226	711

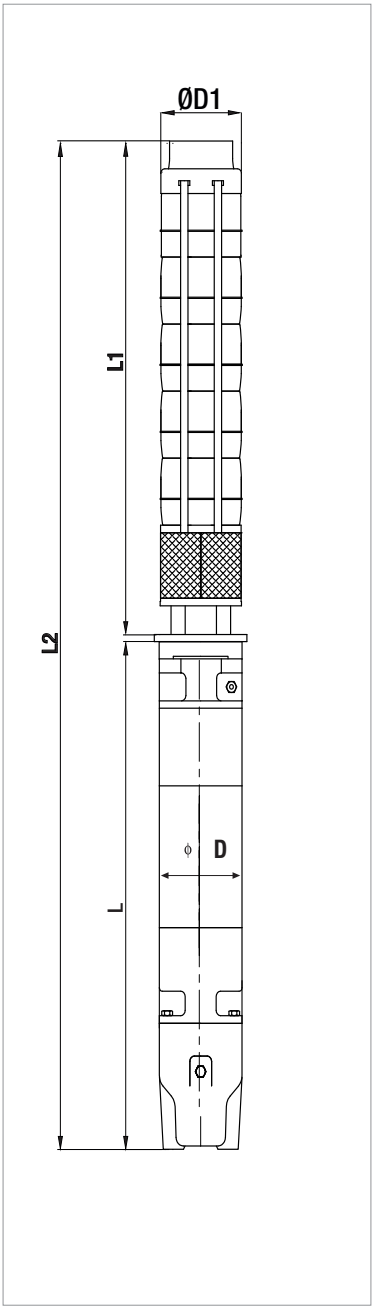
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“-10“ rewindable submersible motors.

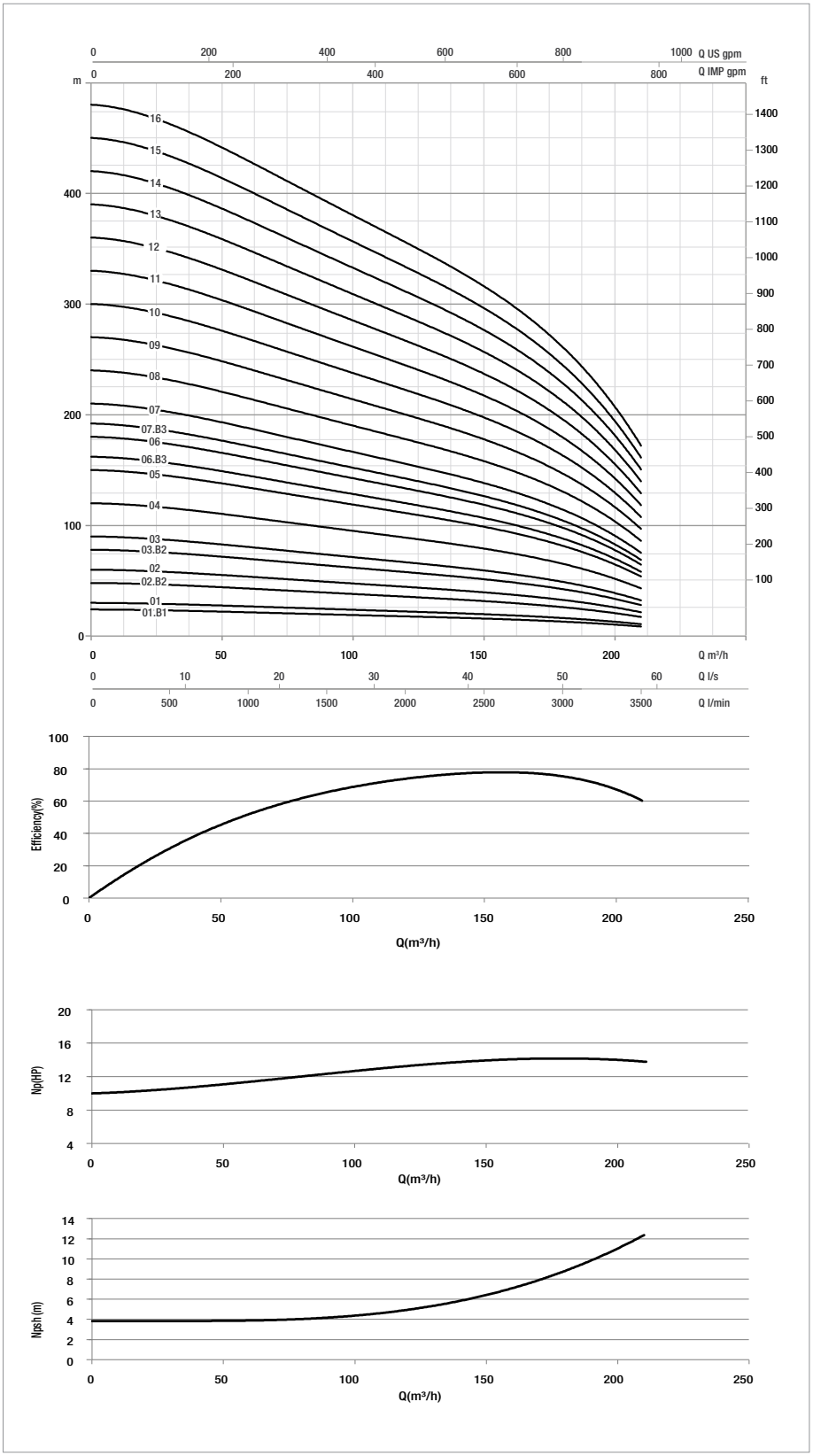
●	Allowed
O	Only PE2 + PA version

SS8C

SUBMERSIBLE PUMPS 8”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.





SS10A

SUBMERSIBLE PUMPS 10”

TECHNICAL DATA

Performance range: flow up to 290 m3/h and max head of 385 m
Max. quantity of sand/silt: 50g/m3
Max. ambient temperature: 30°C (50°C available on request)
Outlet connection diameter (inside threaded): 6”
Nr of starts: refer to the motor specification
Motor Cooling flow: refer to the motor specification
Installation: horizontal or vertical, refer to the motor specification

APPLICATIONS

Multistage mixed-flow borehole electric pumps, completely made in stainless steel (AISI 304L or AISI 316 on request), usable for wells from a minimum diameter equal to pump size or greater and capable of developing a wide range of Flows and Heads.
These pumps can be used in a wide range of lifting, distributing, and pressuring application: domestic and general water supply; sprinkler and drip irrigations systems; fire-fighting installations; lowering of groundwater level; industrial supplies as mining, hot springs, autoclaves and tanks.
These pumps are suitable both for standard water and for aggressive water applications by choosing the proper manufacturing material (AISI 304L or AISI 316) both for hydraulic part and motor.
Special version of motors with PE2+PA windings can be used on request for high-temperature water applications up to maximum 50°C.
Pumps can be installed both vertically and horizontally simply by removing the non-return valve and adding a cooling sleeve to the suction case (the only remark is to check the motor applicability to horizontal operations, refer to the motor specifications section).

CONSTRUCTION FEATURES OF PUMP

Mixed flow pumps with diffusers, impellers, brackets, suction case and discharge case completely made of stainless steel AISI 304 in order to provide maximum strength, durability, wear and tear resistance.

The impellers are balanced and locked to the shaft with a specially shaped collet and nut coupling, in order to guarantee ease-to-assembly feature and avoid vibration sensitive malfunctions and noise increase during rotation.

Rubber bearings that drive the shaft are water lubricated and have sand channels to make enable the sand particles leave the pump with the pumped liquid (maximum permissible sand content 50 gr/m3).

Built-in non returned valve provided in order to minimize local friction losses.

Stainless steel strainer provided in order to prevent particles over a certain size from entering the pump.

Coupling with 6”, 8” or 10” motor depending on the power requested by hydraulic part:
- 6GF: 6” canned submersible motor
- TR6: 6” rewindable submersible motor
- TR8: 8” rewindable submersible motor
- TR10: 10” rewindable submersible motor

For inverter application refer to the detailed motor specification.

ON REQUEST:

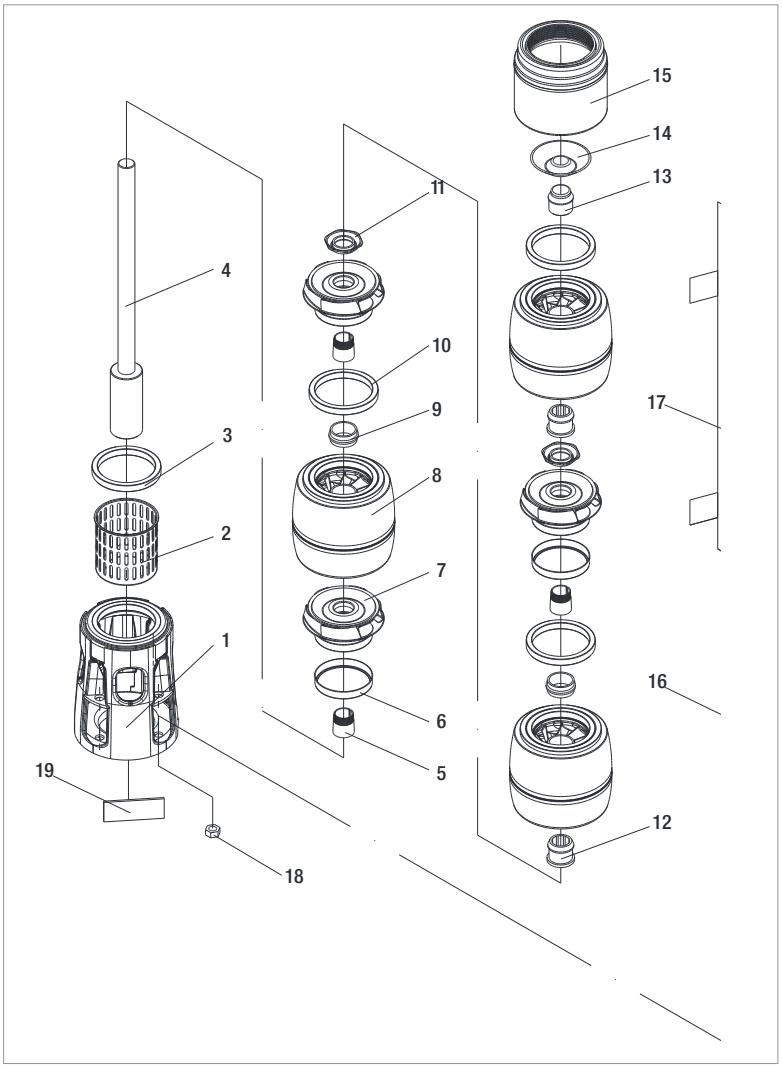
- Pump body stainless steel AISI 316 for aggressive water application
- Impellers stainless steel AISI 316
- Motors in full stainless steel AISI 316 for aggressive water application
- Star/Delta starting version
- Special version of the motor for high temperature application
- Non-standard power coupling

SS10A

SUBMERSIBLE PUMPS 10”

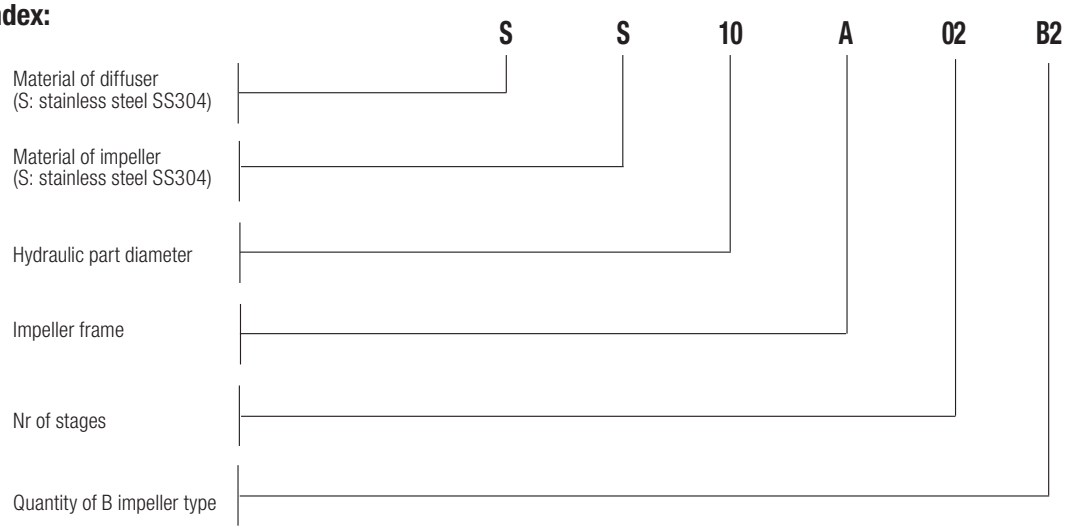
MATERIALS

N°	Part Name	Material
1	Suction Case	Stainless Steel (AISI 304L)
2	Filter	Stainless Steel (AISI 304L)
3	Suction Case Wear Ring	Bronze (ASTM B145-4A)
4	Pump Shaft	Stainless Steel (AISI 420)
5	Collet	Stainless Steel
6	Impeller Wear Ring	STAINLESS STEEL (AISI 304)
7	Impeller	Stainless Steel (AISI 304L)
8	Diffuser	Stainless Steel (AISI 304L)
9	Rubber Bearing	Rubber
10	Diffuser Wear Ring	Rubber
11	Nut for Stop Ring	Stainless Steel (AISI 304L)
12	Bearing	Rubber
13	Shaft Stopper	Bronze (ASTM B145-4A)
14	Valve	Stainless Steel (AISI 304)
15	Discharge Case	Stainless Steel (AISI 304)
16	TIE ROD	STAINLESS STEEL (AISI 304L)
17	CABLE GUARD	STAINLESS STEEL (AISI 304)
18	TIR ROD NUT	STAINLESS STEEL (AISI 303)
19	NAME PLATE	STAINLESS STEEL (AISI 304)



– Designation Index:

(EXAMPLE)



SS10A

SUBMERSIBLE PUMPS 10”

PERFORMANCE 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³h	0	50	100	140	180	200	220	240	260	290	
	kW	HP	Q=l/min	0	833,3	1666,6	2333,3	3000	3333,3	3666,6	4000	4333,3	4833,3	
SS10A 01.B1	15	20	H (mt)	29	27	25	22	20	19	18	16	15	11	6”
SS10A 01	18,5	25		39	36	33	30	27	25	24	22	19	15	6”
SS10A 02.B2	30	40		58	54	49	44	40	37	35	32	29	22	6”
SS10A 02	37	50		77	72	66	59	53	50	47	44	39	30	6”
SS10A 03.B3	45	60		87	81	74	66	59	56	53	49	44	34	8”
SS10A 03.B1	55	75		106	99	91	81	73	69	65	60	53	41	8”
SS10A 03	63	85		116	108	99	89	80	75	71	65	58	45	8”
SS10A 04.B2	75	100		135	126	115	103	93	88	82	76	68	53	8”
SS10A 04	75	100		155	145	132	119	106	100	94	87	78	60	8”
SS10A 05	92	125		194	181	165	148	133	125	118	109	97	75	8”
SS10A 06	110	150		232	217	198	178	159	151	141	131	117	91	8”
SS10A 07	132	180		271	253	231	207	186	176	165	152	136	106	10”
SS10A 08	147	200		310	289	264	237	212	201	189	174	156	121	10”
SS10A 09	170	230		349	325	298	267	239	226	212	196	175	136	10”
SS10A 10	190	260		387	362	331	296	265	251	236	218	195	151	10”

SS10A

SUBMERSIBLE PUMPS 10”

ELECTRICAL DATA AND DIMENSIONS

MODEL	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L2 mm	L mm	L1 mm	D mm	D1 mm	TOTAL WEIGHT Kg
		P2 NOMINAL		In A	OPERATING BY INVERTER							
		kW	HP									
SS10A 01.B1	6GF	15	20	33,4	●	●	1579	785	794	141	247	103
	TR6	15	20	32	o	●	1791	997	794	144	247	121
SS10A 01	6GF	18,5	25	41	●	●	1654	860	794	141	247	111
	TR6	18,5	25	39	o	●	1851	1057	794	144	247	127
SS10A 02.B2	6GF	30	40	61,5	●	●	2020	1050	970	141	247	141,8
	TR6	30	40	65	o	●	2182	1212	970	144	247	165
SS10A 02	6GF	37	50	79,3	●	●	2150	1180	970	141	247	153,8
	TR6	37	50	80	o	●	2282	1312	970	144	247	175
SS10A 03.B3	TR8	45	60	92	o	●	2417	1270	1147	192	247	243
SS10A 03.B1	TR8	55	75	109	o	●	2497	1350	1147	192	247	258
SS10A 03	TR8	63	85	126	o	●	2637	1490	1147	192	247	284
SS10A 04.B2	TR8	75	100	145	o	●	2913	1590	1323	192	247	313
SS10A 04	TR8	75	100	145	o	●	2913	1590	1323	192	247	313
SS10A 05	TR8	92	125	177	o	●	3329	1830	1499	192	247	370
SS10A 06	TR8	110	150	213	o	●	3735	2060	1675	192	247	431
SS10A 07	TR10	132	180	257	o	●	3721	1870	1851	232	247	544
SS10A 08	TR10	147	200	300	o	●	4098	2070	2028	232	247	619
SS10A 09	TR10	170	230	348	o	●	4424	2220	2204	232	247	670
SS10A 10	TR10	190	260	405	o	●	4780	2400	2380	232	247	721

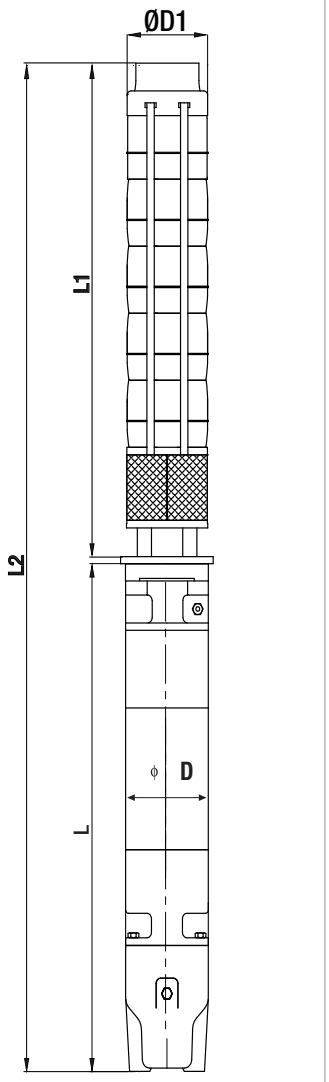
*** Motor 6GF:** 6“ canned submersible motors.
Motor TR: 6“-10“ rewindable submersible motors.

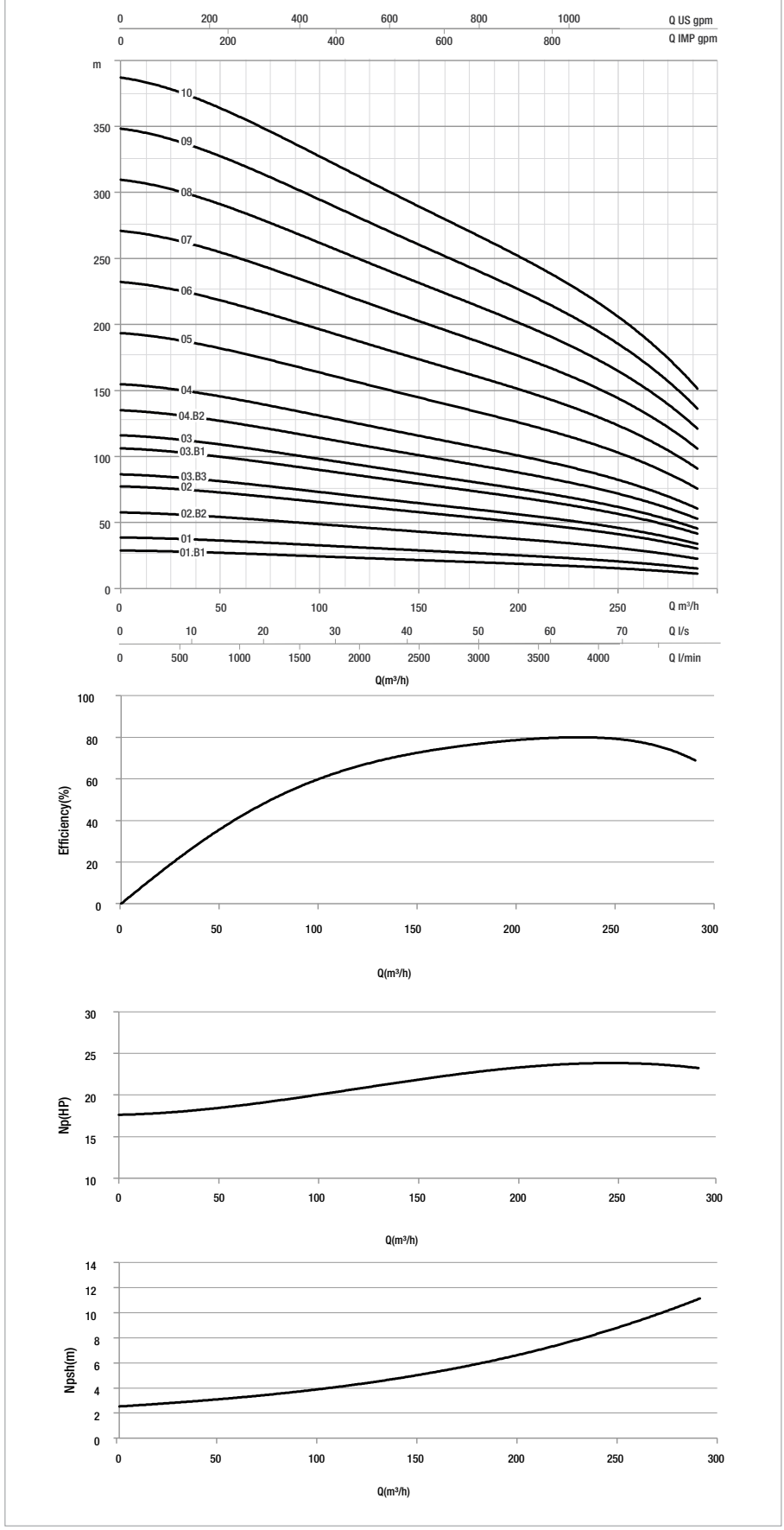
●	Allowed
o	Only PE2 + PA version

SS10A

SUBMERSIBLE PUMPS 10”

The performance curves are based on the kinematic viscosity values = 1 mm2/s and density equal to 1000 Kg/m3. Curve tolerance according to ISO 9906.

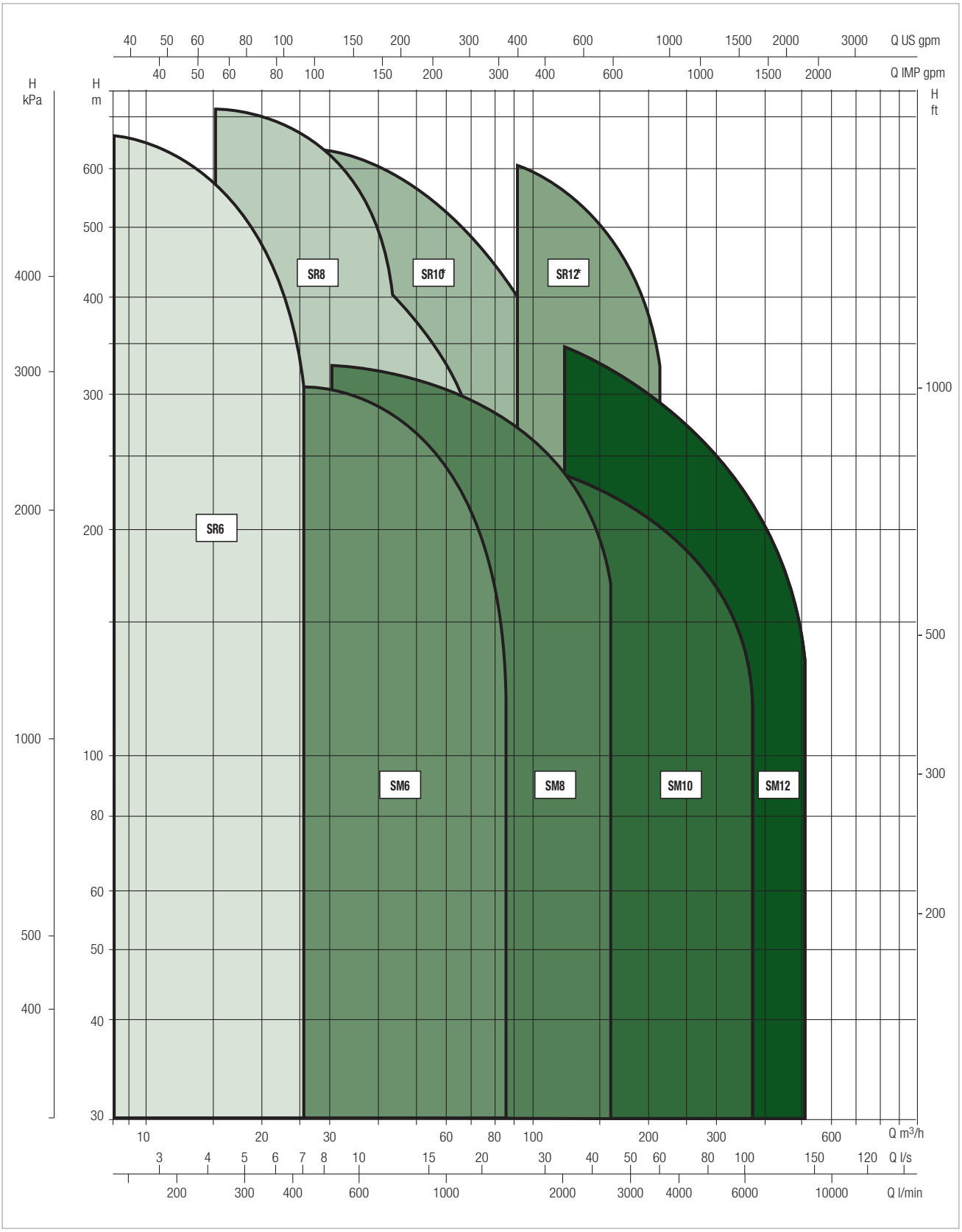




PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

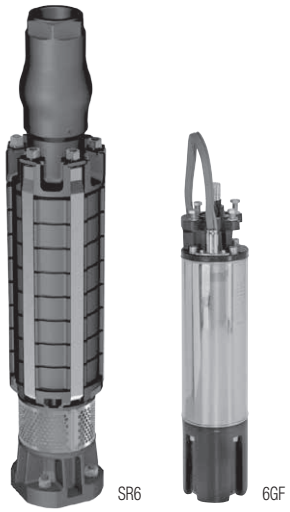


* Contact our sales network

SR6

RADIAL 6” SUBMERSIBLE ELECTRIC PUMPS

ONLY FOR EXTRA EU MARKETS



SR6 6GF

TECHNICAL DATA

Operating range: up to 27 m^3/h with head up to 650 m.
Pumped liquid: clean, free from solids or abrasive substances, chemically neutral, close to the characteristics of water.
Start-ups/hour: see the coupled motor.
Cooling flow: see the coupled motor.
Maximum permitted amount of sand: 30 g/m^3.
Ambient temperature: 30 °C.
Minimum recommended level on suction line: 1 m.
Installation: horizontal or vertical.

Electric pumps complying with the 2009/125/EC Directive (EcoDesign - ErP)
M.E.I. $\geq$ 0.10

APPLICATIONS

Multistage semiaxial submersible electric pumps for wells measuring 6” or above, able to generate a broad range of heads.
They are used extensively for the lifting, distribution and pressurisation of industrial water systems, the supply of autoclaves and tanks, firefighting systems and irrigation systems.
Application with clean, non-aggressive water free from solids or abrasive substances.

CONSTRUCTION FEATURES OF THE PUMP

Pump body in cast iron with paint coating, impellers in stainless steell AISI 304. Dynamically balanced impellers coupled on the shaft with pull tab.
Shaft guided with coaxial bush bearings and fully protected with bushes.

Pump with check valve of low pressure loss.
Threaded discharge port.

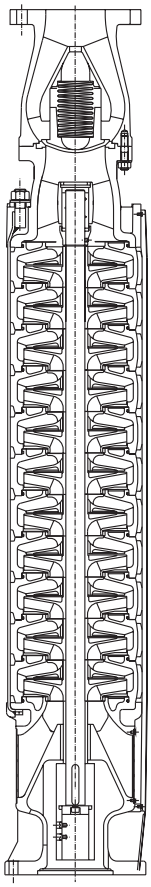
Coupling with motors of 6” or 8” depending on the required hydraulic power:
6GF: encapsulated 6” submersible motor.
TR6: rewindable 6” submersible motor.
TR8: rewindable 8” submersible motor.
For operation with inverter see the specifications of the coupled motor.

ON REQUEST

Pump body without check valve for horizontal installation.
Non-standard pump/motor couplings.
Star/Delta starting version.
Motor version for high temperature of water.

MATERIALS

PARTS	MATERIALS
BODY OF VALVE	CAST IRON
PRESSURE CHAMBER	CAST IRON
BEARING ON PRESSURE SIDE	BRONZE
STAGE BODY	CAST IRON
DIFFUSER	AISI 304 STAINLESS STEEL
INTERMEDIATE BEARING	BRONZE
IMPELLER	AISI 304 STAINLESS STEEL
SUCTION GRID	STAINLESS STEEL
CABLE PROTECTION ELEMENT	STAINLESS STEEL
BEARING ON SUCTION SIDE	BRONZE
SUCTION CHAMBER	CAST IRON
TIRANTE	STEEL
TIE ROD	AISI 420 STAINLESS STEEL
SPACER BUSH	BRONZE
SCREWS	AISI 304 STAINLESS STEEL



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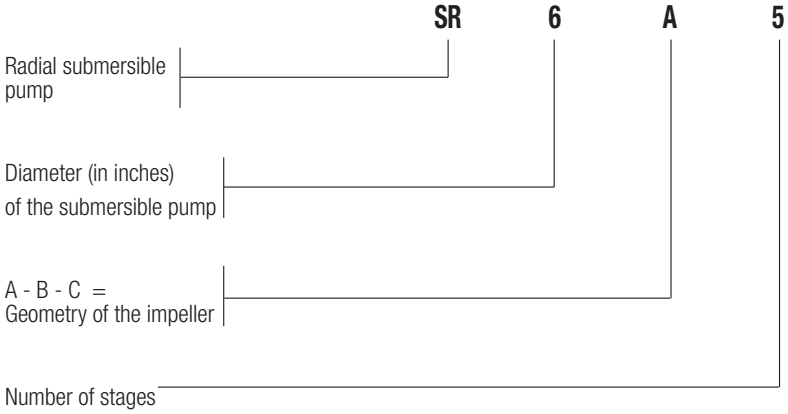
(example)



SR6A

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	7	8	9	10	11	12	13	14	
	kW	HP	Q=l/min	0	117	133	150	167	183	200	217	233	
SR6A5	4	5,5	H (mt)	58	59	56	53	49	45	39	32	24	6"
SR6A6	4	5,5		70	71	67	64	59	53	46	38	29	6"
SR6A7	4	5,5		81	83	78	74	69	62	54	45	34	6"
SR6A8	4	5,5		93	94	90	85	78	71	62	51	38	6"
SR6A9	5,5	7,5		104	106	101	95	88	80	69	58	43	6"
SR6A10	5,5	7,5		116	118	112	106	98	89	77	64	48	6"
SR6A12	5,5	7,5		139	142	134	127	118	107	92	77	58	6"
SR6A14	7,5	10		162	165	157	148	137	125	108	90	67	6"
SR6A16	7,5	10		186	189	179	170	157	142	123	102	77	6"
SR6A18	9,2	12,5		209	212	202	191	176	160	139	115	86	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

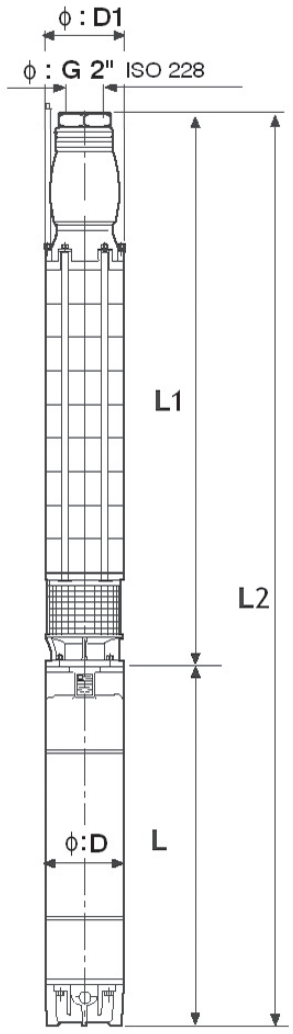
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6A5	6GF	4	5,5	10,6	●	●	628	600	1228	141	146	67,4
SR6A6	6GF	4	5,5	10,6	●	●	666	600	1266	141	146	69,4
SR6A7	6GF	4	5,5	10,6	●	●	704	600	1304	141	146	71,4
SR6A8	6GF	4	5,5	10,6	●	●	742	600	1342	141	146	74,4
SR6A9	6GF	5,5	7,5	14	●	●	780	631	1411	141	146	79,6
	TR6	5,5	7,5	13	O	●	780	807	1587	144	146	87
SR6A10	6GF	5,5	7,5	14	●	●	818	631	1449	141	146	81,6
	TR6	5,5	7,5	13	O	●	818	807	1625	144	146	89
SR6A12	6GF	5,5	7,5	14	●	●	958	631	1589	141	146	90,6
	TR6	5,5	7,5	13	O	●	958	807	1765	144	146	98
SR6A14	6GF	7,5	10	18	●	●	1034	660	1694	141	146	98,2
	TR6	7,5	10	18	O	●	1034	837	1871	144	146	106
SR6A16	6GF	7,5	10	18	●	●	1110	660	1770	141	146	102,2
	TR6	7,5	10	18	O	●	1110	837	1947	144	146	110
SR6A18	6GF	9,2	12,5	22	●	●	1186	685	1871	141	146	110,6
	TR6	9,2	12,5	21	O	●	1186	867	2053	144	146	117

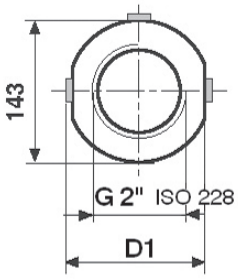
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

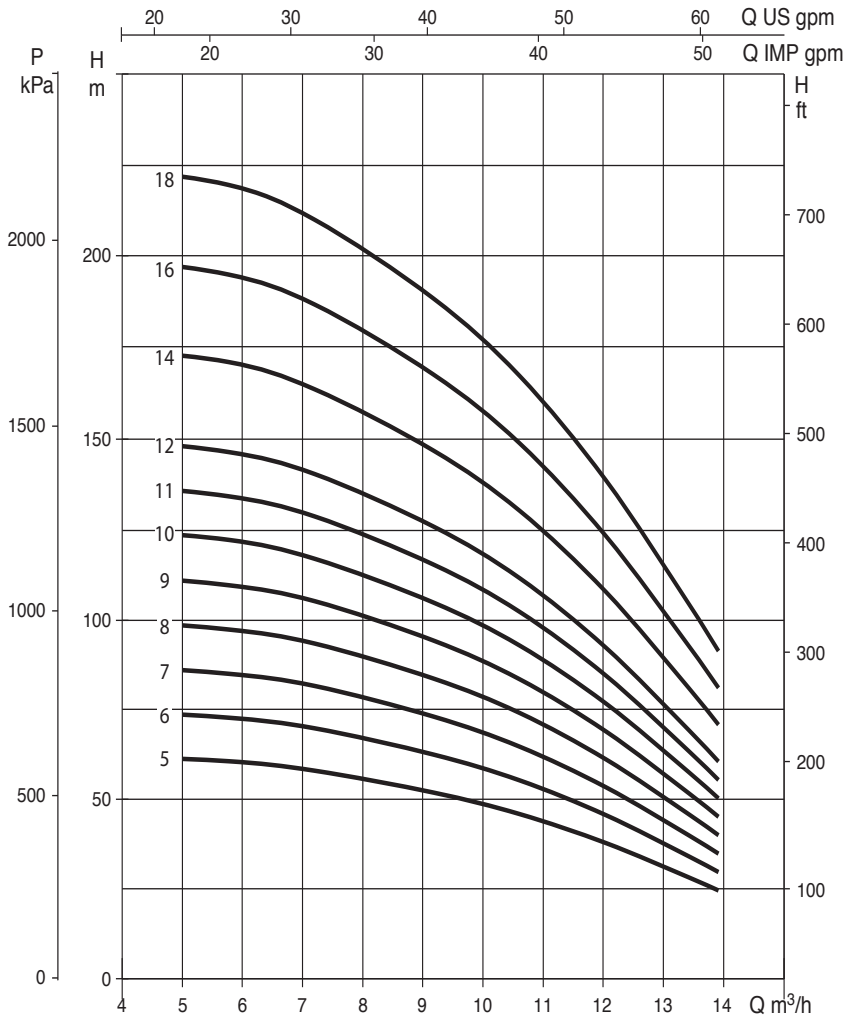
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

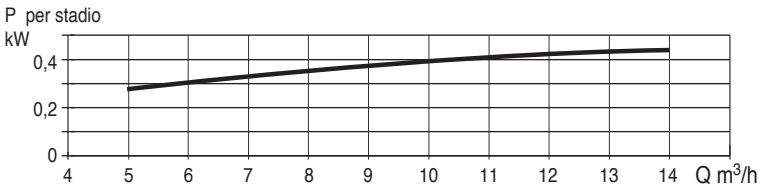
SR6A

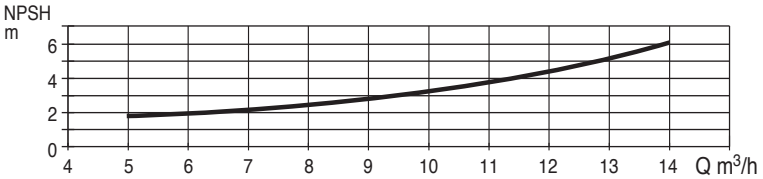
RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

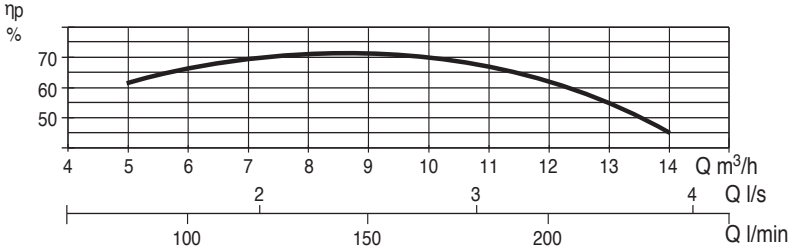












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6A

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	7	8	9	10	11	12	13	14	
	kW	HP	Q=l/min	0	117	133	150	167	183	200	217	233	
SR6A20	9,2	12,5	H (mt)	232	236	224	212	196	178	154	128	96	6"
SR6A22	11	15		255	260	246	233	216	196	169	141	106	6"
SR6A24	11	15		278	283	269	254	235	214	185	154	115	6"
SR6A26	15	20		302	307	291	276	255	231	200	166	125	6"
SR6A28	15	20		325	330	314	297	274	249	216	179	134	6"
SR6A30	15	20		348	354	336	318	294	267	231	192	144	6"
SR6A32	15	20		371	378	358	339	314	285	246	205	154	6"
SR6A34	18,5	25		394	401	381	360	333	303	262	218	163	6"
SR6A36	18,5	25		418	425	403	382	353	320	277	230	173	6"
SR6A38	18,5	25		441	448	426	403	372	338	293	243	182	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

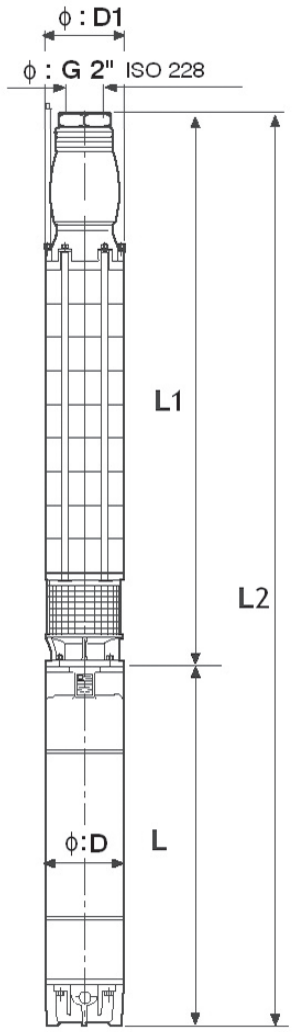
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6A20	6GF	9,2	12,5	22	●	●	1262	685	1947	141	146	114,6
	TR6	9,2	12,5	21	O	●	1262	867	2129	144	146	121
SR6A22	6GF	11	15	25,5	●	●	1338	730	2068	141	146	123
	TR6	11	15	25	O	●	1338	897	2235	144	146	130
SR6A24	6GF	11	15	25,5	●	●	1414	730	2144	141	146	128
	TR6	11	15	25	O	●	1414	897	2311	144	146	135
SR6A26	6GF	15	20	33,4	●	●	1554	785	2339	141	146	143
	TR6	13	17,5	29	O	●	1554	927	2481	144	146	149
SR6A28	6GF	15	20	33,4	●	●	1630	785	2415	141	146	148
	TR6	13	17,5	29	O	●	1630	927	2557	144	146	154
SR6A30	6GF	15	20	33,4	●	●	1706	785	2491	141	146	152
	TR6	15	20	32	O	●	1706	997	2703	144	146	170
SR6A32	6GF	15	20	33,4	●	●	1782	785	2567	141	146	156
	TR6	15	20	32	O	●	1782	997	2779	144	146	174
SR6A34	6GF	18,5	25	41	●	●	1858	860	2718	141	146	169
	TR6	18,5	25	39	O	●	1858	1057	2915	144	146	185
SR6A36	6GF	18,5	25	41	●	●	1934	860	2794	141	146	173
	TR6	18,5	25	39	O	●	1934	1057	2991	144	146	189
SR6A38	6GF	18,5	25	41	●	●	2010	860	2870	141	146	178
	TR6	18,5	25	39	O	●	2010	1057	3067	144	146	194

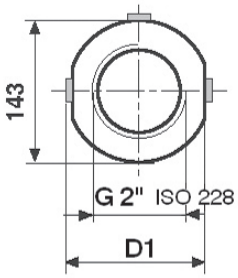
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

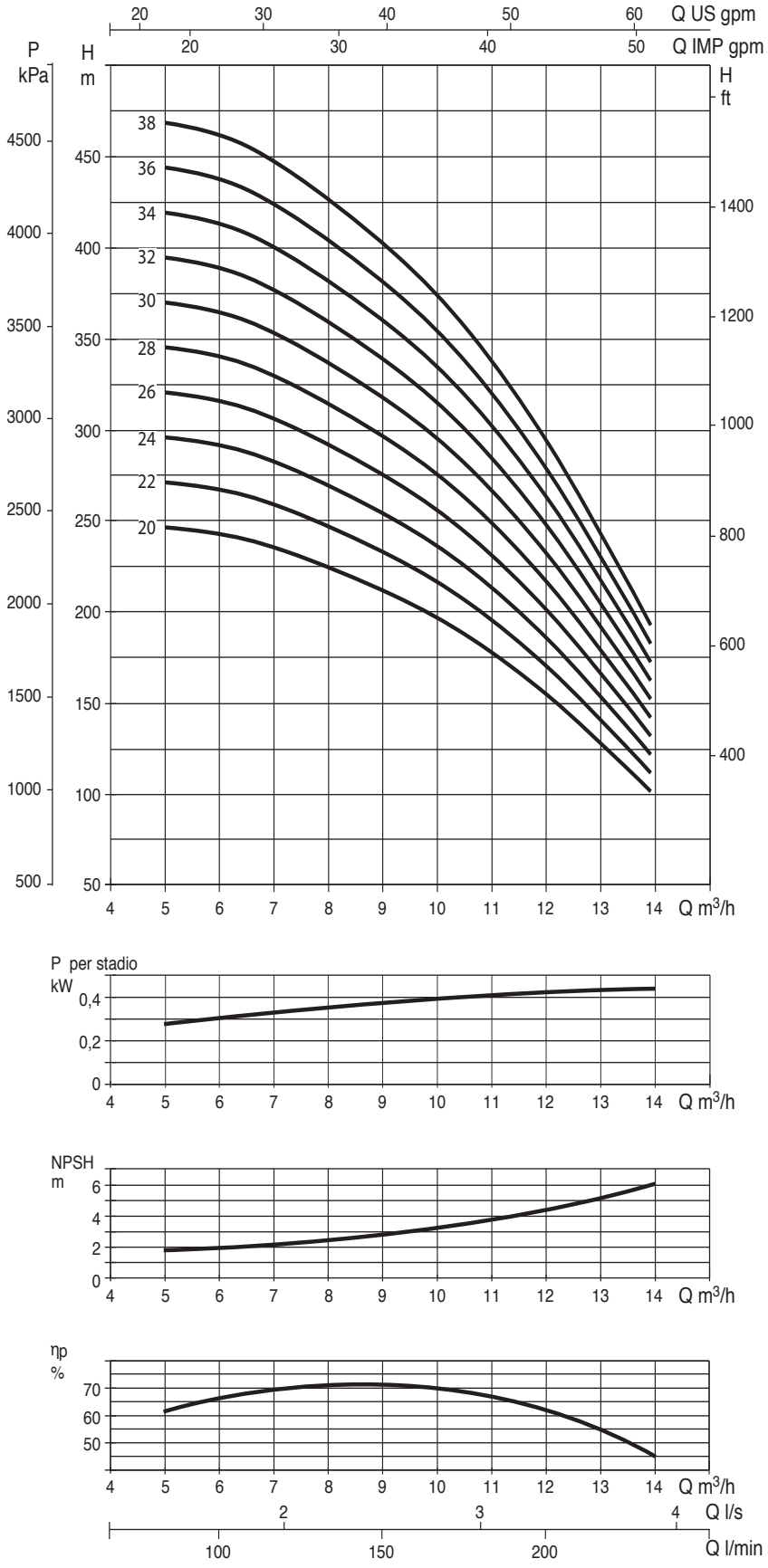
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SR6A

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6A

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	7	8	9	10	11	12	13	14	
	kW	HP	Q=l/min	0	117	133	150	167	183	200	217	233	
SR6A40	18,5	25	H (mt)	464	472	448	424	392	356	308	256	192	6"
SR6A42	22	30		482	491	466	441	407	370	320	266	200	6"
SR6A44	30	40		505	514	488	462	427	388	335	279	209	6"
SR6A46	30	40		523	532	505	478	442	401	347	289	216	6"
SR6A48	30	40		546	555	527	499	461	419	362	301	226	6"
SR6A50	30	40		563	572	543	514	475	432	373	310	233	6"
SR6A52	30	40		579	589	559	529	489	444	384	319	240	6"
SR6A54	30	40		620	631	599	567	524	476	412	342	257	6"
SR6A56	30	40		637	648	615	582	538	488	423	351	263	6"
SR6A58	30	40		653	664	630	596	551	501	433	360	270	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

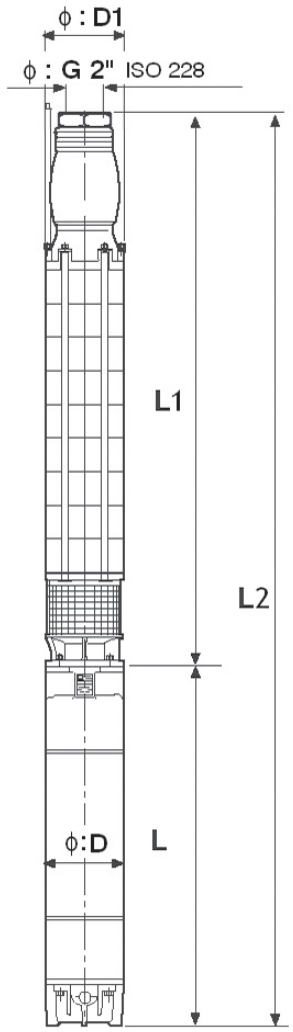
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6A40	6GF	18,5	25	41	●	●	2086	860	2946	141	146	182
	TR6	18,5	25	39	O	●	2086	1057	3143	144	146	198
SR6A42	6GF	22	30	47	●	●	2162	920	3082	141	146	189,6
	TR6	22	30	49	O	●	2162	1087	3249	144	146	214
SR6A44	6GF	30	40	61,5	●	●	2238	1050	3288	141	146	210,8
	TR6	26	35	58	O	●	2238	1157	3395	144	146	229
SR6A46	6GF	30	40	61,5	●	●	2314	1050	3364	141	146	214,8
	TR6	26	35	58	O	●	2314	1157	3471	144	146	233
SR6A48	6GF	30	40	61,5	●	●	2390	1050	3440	141	146	219,8
	TR6	26	35	58	O	●	2390	1157	3547	144	146	238
SR6A50	6GF	30	40	61,5	●	●	2466	1050	3516	141	146	223,8
	TR6	26	35	58	O	●	2466	1157	3623	144	146	242
SR6A52	6GF	30	40	61,5	●	●	2542	1050	3592	141	146	227,8
	TR6	26	35	58	O	●	2542	1157	3699	144	146	246
SR6A54	6GF	30	40	61,5	●	●	2618	1050	3668	141	146	232,8
	TR6	30	40	65	O	●	2618	1212	3830	144	146	256
SR6A56	6GF	30	40	61,5	●	●	2694	1050	3744	141	146	236,8
	TR6	30	40	65	O	●	2694	1212	3906	144	146	260
SR6A58	6GF	30	40	61,5	●	●	2770	1050	3820	141	146	241,8
	TR6	30	40	65	O	●	2770	1212	3982	144	146	265

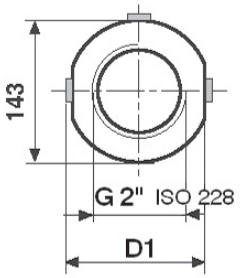
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

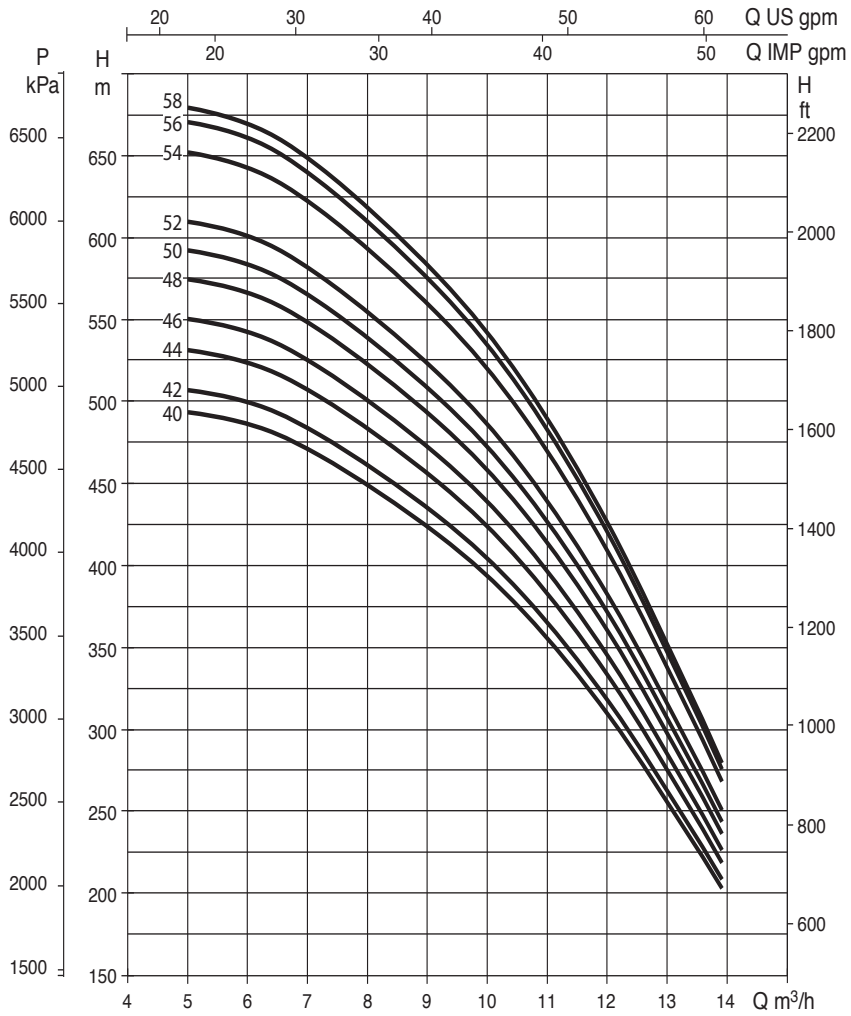
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

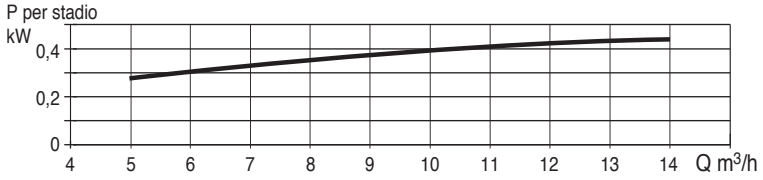
SR6A

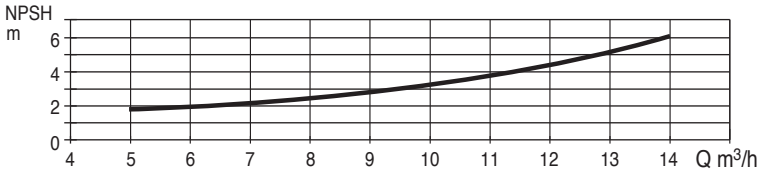
RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

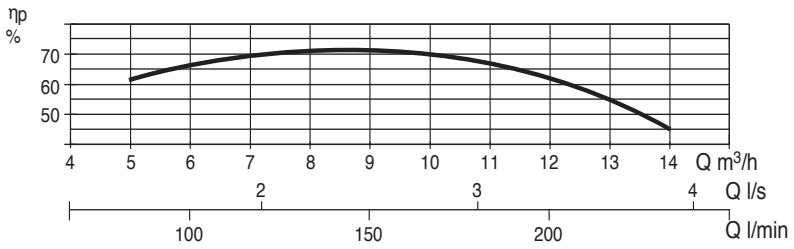












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6B

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	8	9	10	12	14	15	16	18	
	kW	HP	Q=l/min	0	133	150	167	200	233	250	267	300	
SR6B4	4	5,5	H (mt)	49	51	49	47	42	36	33	29	20	6"
SR6B5	4	5,5		62	64	62	59	53	45	41	36	25	6"
SR6B6	4	5,5		74	77	74	71	64	54	49	43	30	6"
SR6B7	4	5,5		86	90	86	83	74	63	57	50	35	6"
SR6B8	5,5	7,5		98	102	98	94	85	72	66	57	40	6"
SR6B9	5,5	7,5		111	115	111	106	95	81	74	65	45	6"
SR6B10	5,5	10		123	128	123	118	106	90	82	72	50	6"
SR6B11	7,5	10		135	141	135	130	117	99	90	79	55	6"
SR6B12	7,5	10		148	154	148	142	127	108	98	86	60	6"
SR6B14	9,2	12,5		172	179	172	165	148	126	115	100	70	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

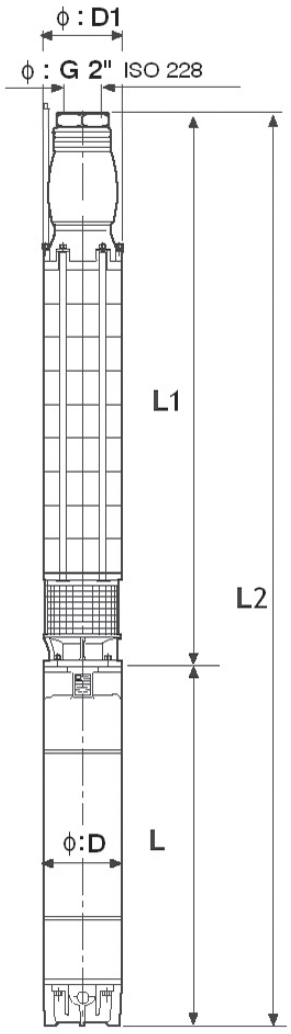
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6B4	6GF	4	5,5	10,6	●	●	590	600	1190	141	146	65,4
SR6B5	6GF	4	5,5	10,6	●	●	628	600	1228	141	146	67,4
SR6B6	6GF	4	5,5	10,6	●	●	666	600	1266	141	146	69,4
SR6B7	6GF	4	5,5	10,6	●	●	704	600	1304	141	146	71,4
SR6B8	6GF	5,5	7,5	14	●	●	742	631	1373	141	146	77,6
	TR6	5,5	7,5	13	O	●	742	807	1549	144	146	85
SR6B9	6GF	5,5	7,5	14	●	●	780	631	1411	141	146	79,6
	TR6	5,5	7,5	13	O	●	780	807	1587	144	146	87
SR6B10	6GF	7,5	10	18	●	●	818	660	1478	141	146	84,2
	TR6	7,5	10	18	O	●	818	837	1655	144	146	92
SR6B11	6GF	7,5	10	18	●	●	856	660	1516	141	146	91,2
	TR6	7,5	10	18	O	●	856	837	1693	144	146	99
SR6B12	6GF	7,5	10	18	●	●	958	660	1618	141	146	93,2
	TR6	7,5	10	18	O	●	958	837	1795	144	146	101
SR6B14	6GF	9,2	12,5	22	●	●	1034	685	1719	141	146	101,6
	TR6	9,2	12,5	21	O	●	1034	867	1901	144	146	108

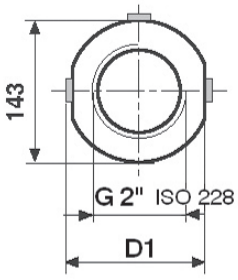
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

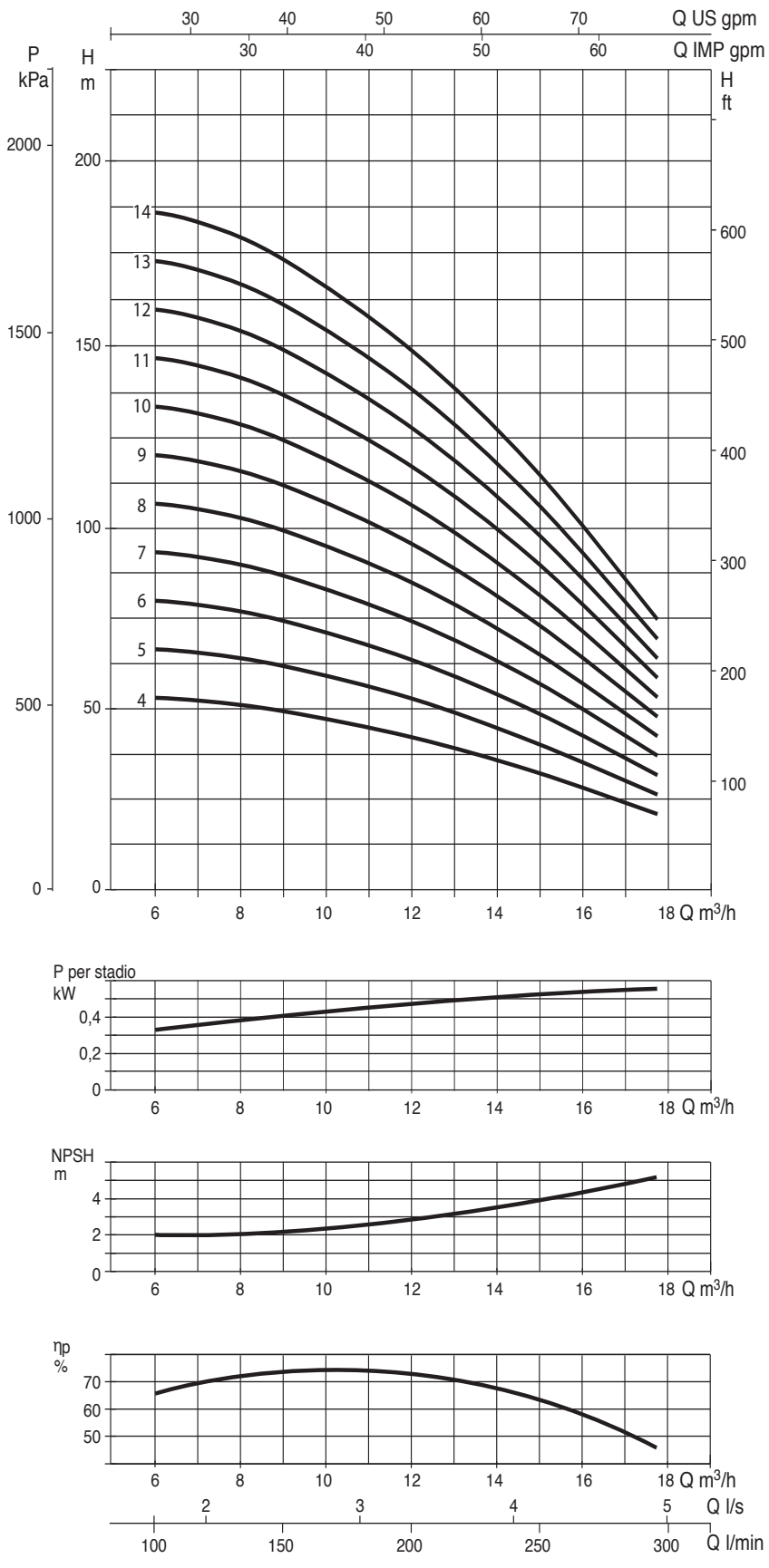
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SR6B

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6B

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	8	9	10	12	14	15	16	18	
	kW	HP	Q=l/min	0	133	150	167	200	233	250	267	300	
SR6B16	9,2	12,5	H (mt)	197	205	197	189	170	144	131	115	80	6"
SR6B18	11	15		221	230	221	213	191	162	148	129	90	6"
SR6B20	15	20		246	526	246	236	212	180	164	143	100	6"
SR6B22	15	20		271	282	271	260	233	198	180	158	110	6"
SR6B24	15	20		295	307	295	283	254	216	197	172	120	6"
SR6B26	18,5	25		320	333	320	307	276	234	213	186	130	6"
SR6B28	18,5	25		344	358	344	331	297	252	230	201	140	6"
SR6B30	18,5	25		369	384	369	354	318	270	246	215	150	6"
SR6B32	22	30		394	410	394	378	339	288	262	229	160	6"
SR6B34	22	30		418	435	418	402	360	306	279	244	170	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

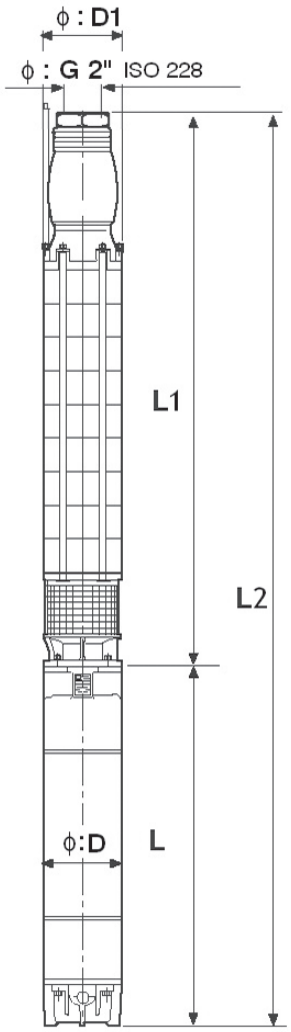
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6B16	6GF	9,2	12,5	22	●	●	1110	685	1795	141	146	105,6
	TR6	9,2	12,5	21	O	●	1110	867	1977	144	146	112
SR6B18	6GF	11	15	25,5	●	●	1186	730	1916	141	146	115
	TR6	11	15	25	O	●	1186	897	2083	144	146	122
SR6B20	6GF	15	20	33,4	●	●	1262	785	2047	141	146	125
	TR6	13	17,5	29	O	●	1262	927	2189	144	146	131
SR6B22	6GF	15	20	33,4	●	●	1338	785	2123	141	146	129
	TR6	15	20	32	O	●	1338	997	2335	144	146	147
SR6B24	6GF	15	20	33,4	●	●	1414	785	2199	141	146	134
	TR6	15	20	32	O	●	1414	997	2411	144	146	152
SR6B26	6GF	18,5	25	41	●	●	1554	860	2414	141	146	151
	TR6	18,5	25	39	O	●	1554	1057	2611	144	146	167
SR6B28	6GF	18,5	25	41	●	●	1630	860	2490	141	146	156
	TR6	18,5	25	39	O	●	1630	1057	2687	144	146	172
SR6B30	6GF	18,5	25	41	●	●	1706	860	2566	141	146	160
	TR6	18,5	25	39	O	●	1706	1057	2763	144	146	176
SR6B32	6GF	22	30	47	●	●	1782	920	2702	141	146	167,6
	TR6	22	30	49	O	●	1782	1087	2869	144	146	192
SR6B34	6GF	22	30	47	●	●	1858	920	2778	141	146	172,6
	TR6	22	30	49	O	●	1858	1087	2945	144	146	197

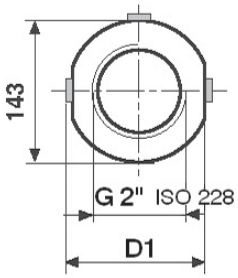
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

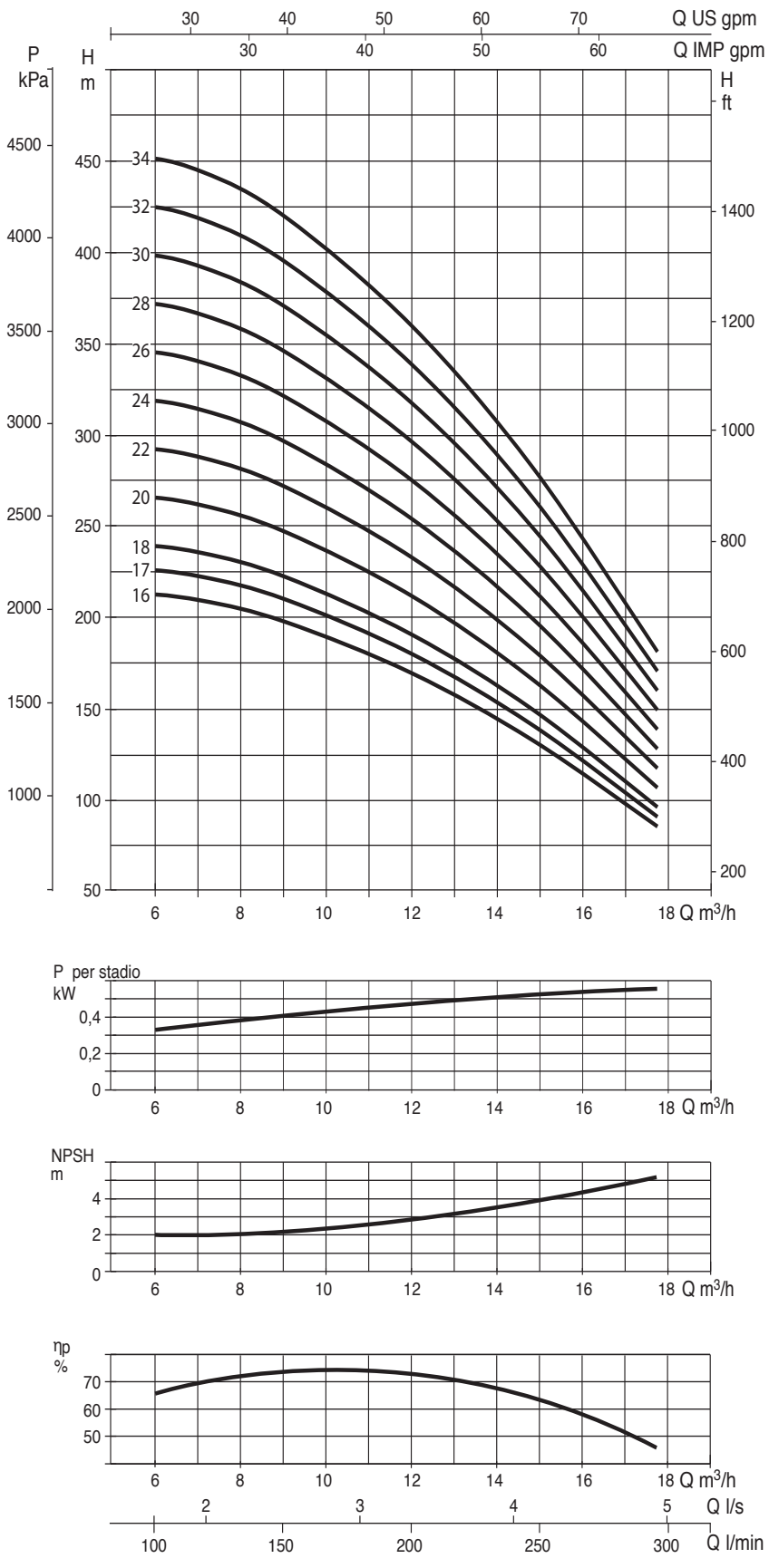
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SR6B

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6B

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	8	9	10	12	14	15	16	18	
	kW	HP	Q=l/min	0	133	150	167	200	233	250	267	300	
SR6B36	22	30	H (mt)	443	461	443	425	382	324	295	258	180	6"
SR6B38	30	40		467	486	467	449	403	342	312	272	190	6"
SR6B40	30	40		492	512	492	472	424	360	328	287	200	6"
SR6B42	30	40		511	532	511	491	441	374	341	298	208	6"
SR6B44	30	40		536	558	536	514	462	392	357	312	218	6"
SR6B46	30	40		554	577	554	532	478	406	370	323	225	6"
SR6B48	30	40		567	590	567	544	488	415	378	330	230	6"
SR6B50	37	50		609	634	609	585	525	446	406	355	248	6"
SR6B52	37	50		627	652	627	602	540	459	418	365	255	6"
SR6B54	37	50		638	664	638	612	550	467	425	372	259	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

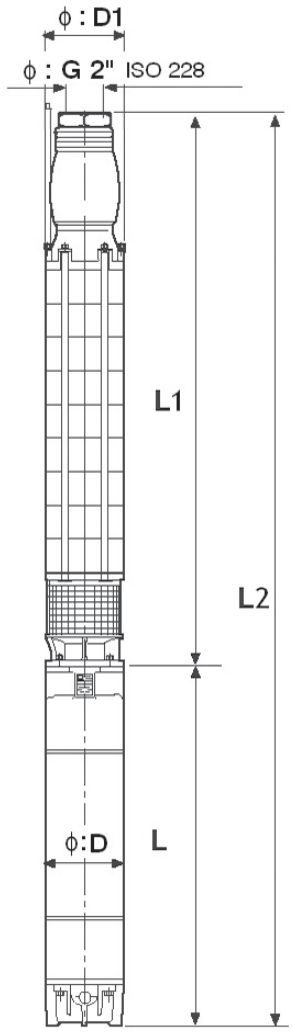
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6B36	6GF	22	30	47	●	●	1934	920	2854	141	146	176,6
	TR6	22	30	49	O	●	1934	1087	3021	144	146	201
SR6B38	6GF	30	40	61,5	●	●	2010	1050	3060	141	146	197,8
	TR6	26	35	58	O	●	2010	1157	3167	144	146	216
SR6B40	6GF	30	40	61,5	●	●	2086	1050	3136	141	146	201,8
	TR6	26	35	58	O	●	2086	1157	3243	144	146	220
SR6B42	6GF	30	40	61,5	●	●	2162	1050	3212	141	146	205,8
	TR6	26	35	58	O	●	2162	1157	3319	144	146	224
SR6B44	6GF	30	40	61,5	●	●	2238	1050	3288	141	146	210,8
	TR6	30	40	65	O	●	2238	1212	3450	144	146	234
SR6B46	6GF	30	40	61,5	●	●	2314	1050	3364	141	146	214,8
	TR6	30	40	65	O	●	2314	1212	3526	144	146	238
SR6B48	6GF	30	40	61,5	●	●	2390	1050	3440	141	146	219,8
	TR6	30	40	65	O	●	2390	1212	3602	144	146	243
SR6B50	6GF	37	50	79,3	●	●	2466	1180	3646	141	146	235,8
	TR6	37	50	80	O	●	2466	1312	3778	144	146	257
SR6B52	6GF	37	50	79,3	●	●	2542	1180	3722	141	146	239,8
	TR6	37	50	80	O	●	2542	1312	3854	144	146	261
SR6B54	6GF	37	50	79,3	●	●	2618	1180	3798	141	146	244,8
	TR6	37	50	80	O	●	2618	1312	3930	144	146	266

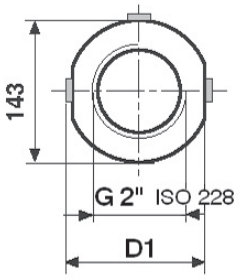
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

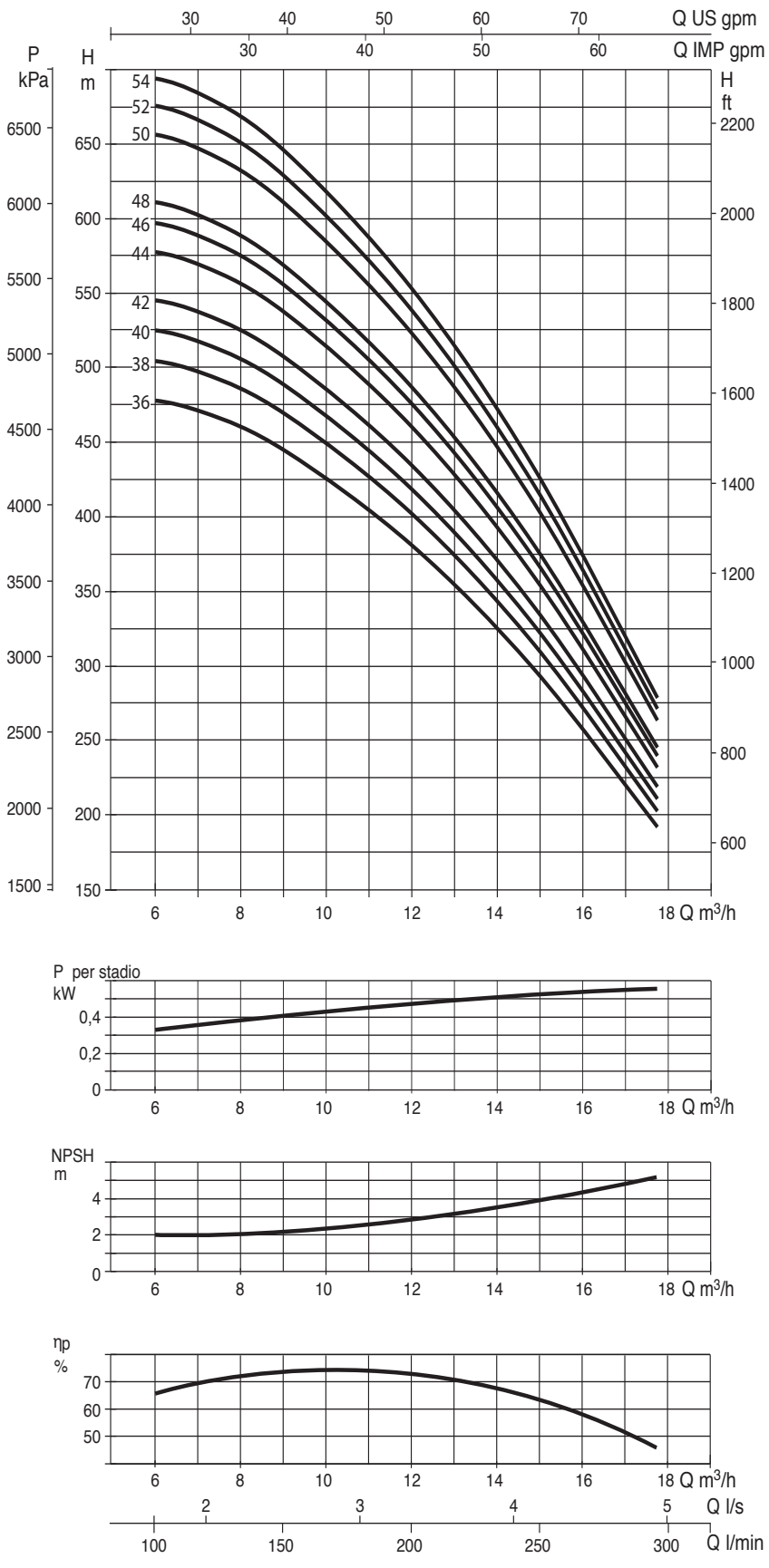
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SR6B

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6C

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	12	13	14	15	18	21	24	27	
	kW	HP	Q=l/min	0	200	217	233	250	300	350	400	450	
SR6C3	4	5,5	H (mt)	38	38	37	36	35	31	26	20	12	6"
SR6C4	4	5,5		50	50	49	48	46	41	34	27	16	6"
SR6C5	5,5	7,5		63	63	62	60	58	51	43	33	20	6"
SR6C6	5,5	7,5		75	76	74	72	70	62	52	40	24	6"
SR6C7	5,5	10		88	88	86	84	81	72	60	47	28	6"
SR6C8	7,5	10		100	101	99	96	93	82	69	53	32	6"
SR6C9	7,5	10		113	113	111	108	105	93	78	60	36	6"
SR6C10	9,2	12,5		125	126	124	120	116	103	86	67	40	6"
SR6C11	9,2	12,5		138	139	136	132	128	113	95	73	44	6"
SR6C12	11	15		150	151	148	144	139	123	103	80	48	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

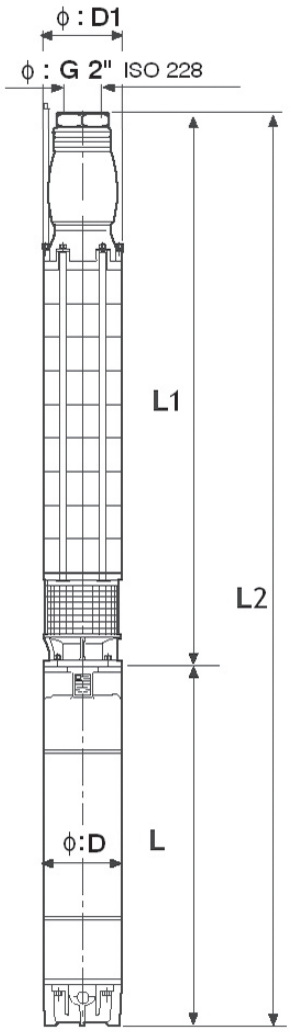
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6C3	6GF	4	5,5	10,6	●	●	552	600	1152	141	146	63,4
SR6C4	6GF	4	5,5	10,6	●	●	590	600	1190	141	146	65,4
SR6C5	6GF	5,5	7,5	14	●	●	628	631	1259	141	146	70,6
	TR6	5,5	7,5	13	O	●	628	807	1435	144	146	78
SR6C6	6GF	5,5	7,5	14	●	●	666	631	1297	141	146	72,6
	TR6	5,5	7,5	13	O	●	666	807	1473	144	146	80
SR6C7	6GF	7,5	10	18	●	●	704	660	1364	141	146	77,2
	TR6	7,5	10	18	O	●	704	837	1541	144	146	85
SR6C8	6GF	7,5	10	18	●	●	742	660	1402	141	146	80,2
	TR6	7,5	10	18	O	●	742	837	1579	144	146	88
SR6C9	6GF	7,5	10	18	●	●	780	660	1440	141	146	82,2
	TR6	7,5	10	18	O	●	780	837	1617	144	146	90
SR6C10	6GF	9,2	12,5	22	●	●	818	685	1503	141	146	87,6
	TR6	9,2	12,5	21	O	●	818	867	1685	144	146	94
SR6C11	6GF	9,2	12,5	22	●	●	856	685	1541	141	146	94,6
	TR6	9,2	12,5	21	O	●	856	867	1723	144	146	101
SR6C12	6GF	11	15	25,5	●	●	958	730	1688	141	146	101
	TR6	11	15	25	O	●	958	897	1855	144	146	108

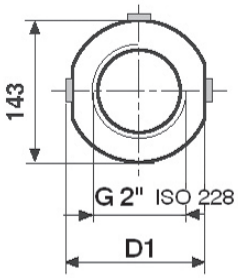
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

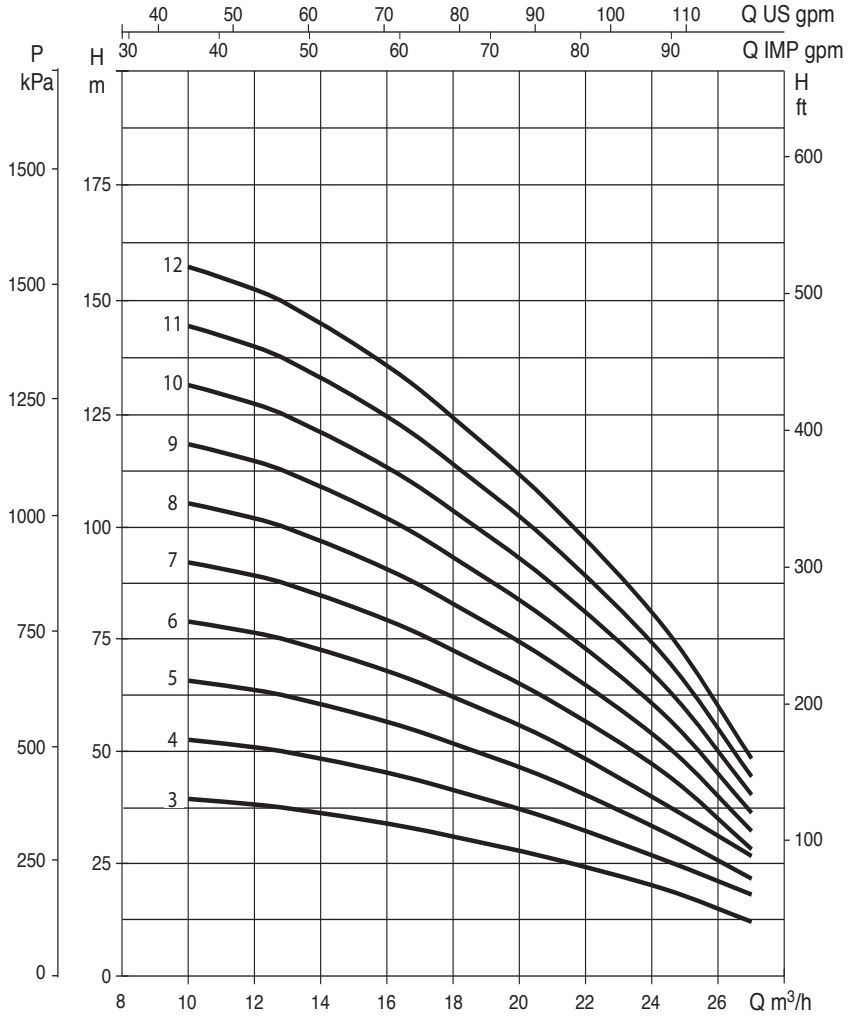
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

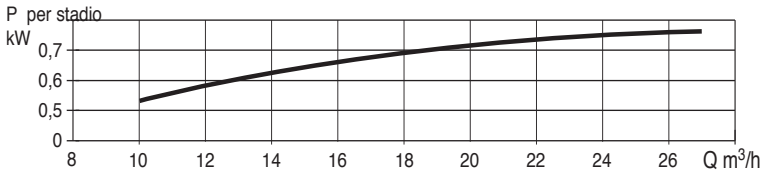
SR6C

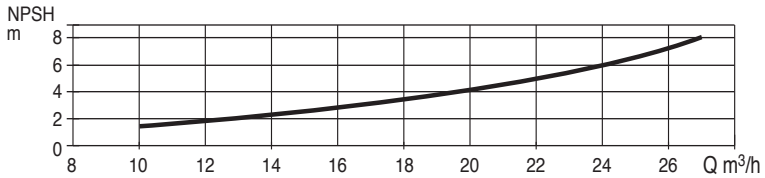
RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

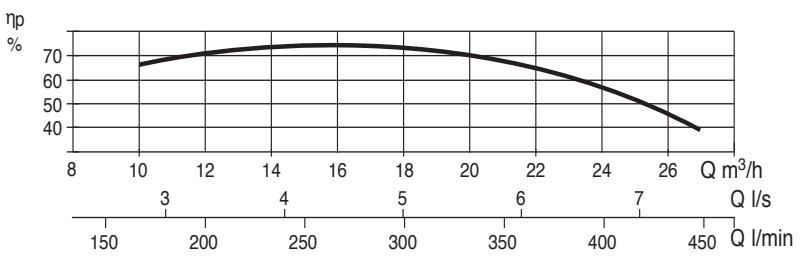












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6C

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	12	13	14	15	18	21	24	27	
	kW	HP	Q=l/min	0	200	217	233	250	300	350	400	450	
SR6C14	15	20	H (mt)	175	177	173	168	163	144	121	94	56	6"
SR6C16	15	20		200	202	198	192	186	164	138	107	64	6"
SR6C18	15	20		225	227	222	216	209	185	155	120	72	6"
SR6C20	18,5	25		250	252	247	240	232	206	172	134	80	6"
SR6C22	18,5	25		275	277	272	264	256	226	190	147	88	6"
SR6C24	22	30		300	303	296	288	279	247	207	160	96	6"
SR6C26	22	30		325	328	321	312	302	267	224	174	104	6"
SR6C28	30	40		350	353	346	336	325	288	241	187	112	6"
SR6C30	30	40		375	378	371	360	349	308	259	200	120	6"
SR6C32	30	40		400	404	395	384	372	329	276	214	128	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

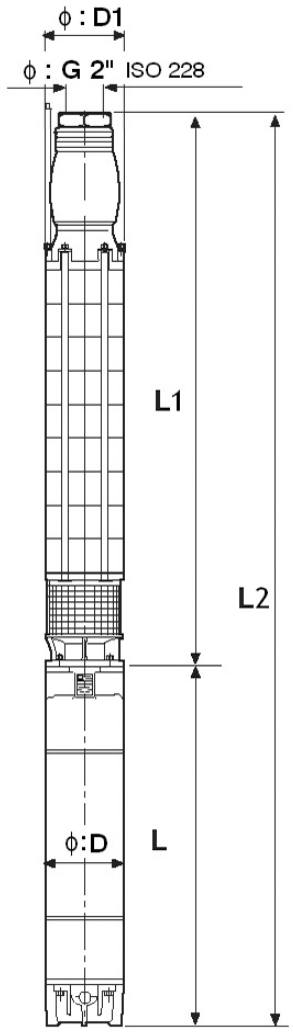
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6C14	6GF	15	20	33,4	●	●	1034	785	1819	141	146	112
	TR6	13	17,5	29	O	●	1034	927	1961	144	146	118
SR6C16	6GF	15	20	33,4	●	●	1110	785	1895	141	146	116
	TR6	13	17,5	29	O	●	1110	927	2037	144	146	122
SR6C18	6GF	15	20	33,4	●	●	1186	785	1971	141	146	121
	TR6	15	20	32	O	●	1186	997	2183	144	146	139
SR6C20	6GF	18,5	25	41	●	●	1262	860	2122	141	146	133
	TR6	18,5	25	39	O	●	1262	1057	2319	144	146	149
SR6C22	6GF	18,5	25	41	●	●	1338	860	2198	141	146	137
	TR6	18,5	25	39	O	●	1338	1057	2395	144	146	153
SR6C24	6GF	22	30	47	●	●	1414	920	2334	141	146	145,6
	TR6	22	30	49	O	●	1414	1087	2501	144	146	170
SR6C26	6GF	22	30	47	●	●	1554	920	2474	141	146	154,6
	TR6	22	30	49	O	●	1554	1087	2641	144	146	179
SR6C28	6GF	30	40	61,5	●	●	1630	1050	2680	141	146	175,8
	TR6	26	35	58	O	●	1630	1157	2787	144	146	194
SR6C30	6GF	30	40	61,5	●	●	1706	1050	2756	141	146	179,8
	TR6	26	35	58	O	●	1706	1157	2863	144	146	198
SR6C32	6GF	30	40	61,5	●	●	1782	1050	2832	141	146	183,8
	TR6	26	35	58	O	●	1782	1157	2939	144	146	202

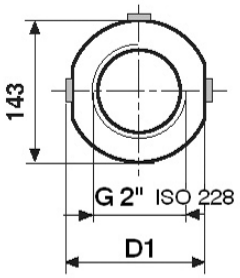
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

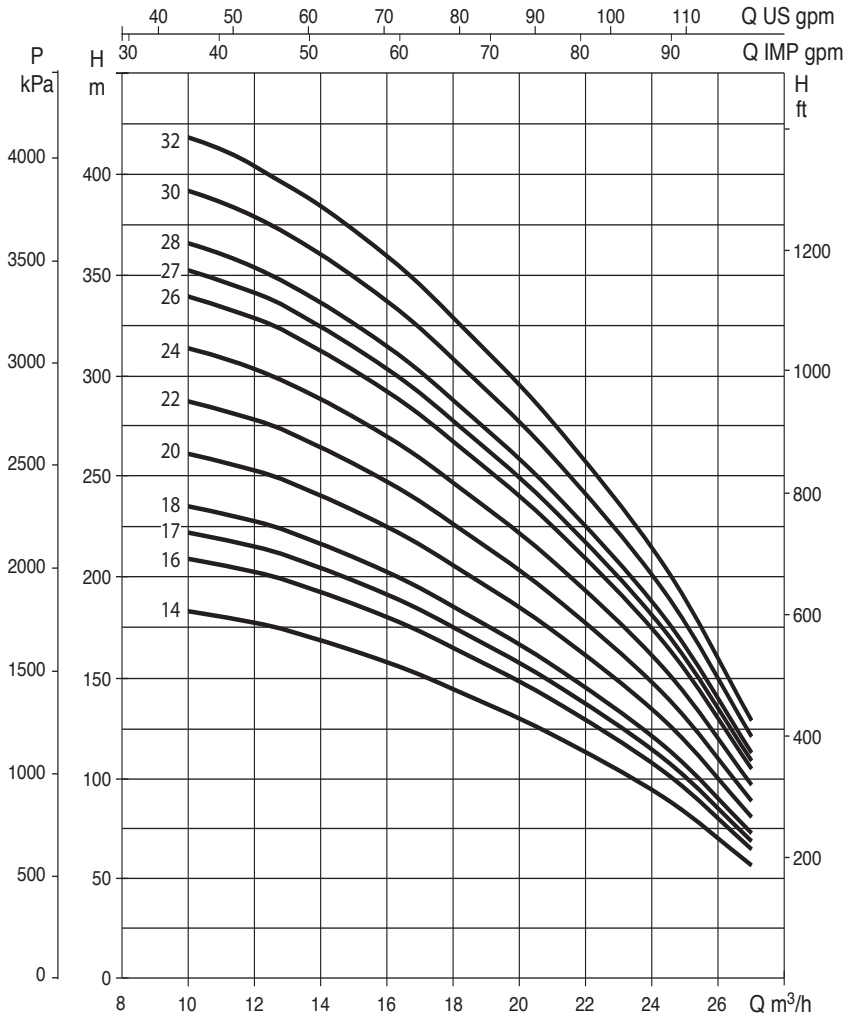
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

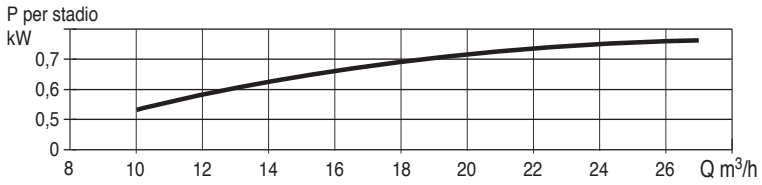
SR6C

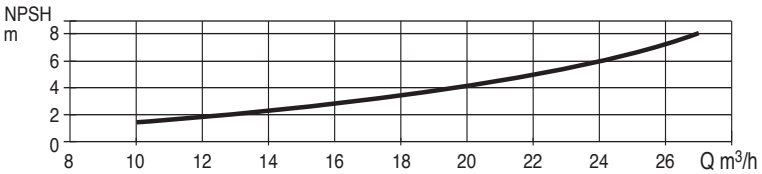
RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

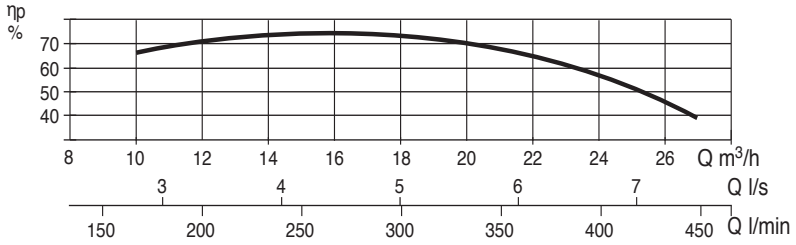












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR6C

RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	12	13	14	15	18	21	24	27	
	kW	HP	Q=l/min	0	200	217	233	250	300	350	400	450	
SR6C34	30	40	H (mt)	425	429	420	408	395	350	293	227	136	6"
SR6C36	30	40		441	445	436	423	410	363	304	236	141	6"
SR6C38	37	50		470	474	465	451	437	387	324	251	150	6"
SR6C40	37	50		490	494	484	470	456	403	338	262	157	6"
SR6C42	37	50		509	514	503	489	473	419	351	272	163	6"
SR6C44	37	50		534	538	527	512	496	439	368	285	171	6"
SR6C46	37	50		552	557	545	530	513	454	381	295	177	6"
SR6C48	45	60		582	587	575	559	541	479	401	311	186	6"
SR6C50	45	60		606	612	599	582	564	499	418	324	194	6"
SR6C52	45	60		631	636	623	605	586	519	435	337	202	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

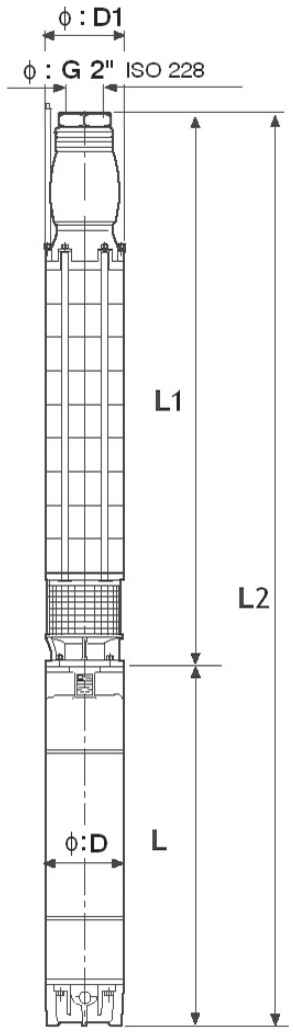
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR6C34	6GF	30	40	61,5	●	●	1858	1050	2908	141	146	188,8
	TR6	30	40	65	O	●	1858	1212	3070	144	146	212
SR6C36	6GF	30	40	61,5	●	●	1934	1050	2984	141	146	192,8
	TR6	30	40	65	O	●	1934	1212	3146	144	146	216
SR6C38	6GF	37	50	79,3	●	●	2010	1180	3190	141	146	209,8
	TR6	37	50	80	O	●	2010	1312	3322	144	146	231
SR6C40	6GF	37	50	79,3	●	●	2086	1180	3266	141	146	213,8
	TR6	37	50	80	O	●	2086	1312	3398	144	146	235
SR6C42	6GF	37	50	79,3	●	●	2162	1180	3342	141	146	217,8
	TR6	37	50	80	O	●	2162	1312	3474	144	146	239
SR6C44	6GF	37	50	79,3	●	●	2238	1180	3418	141	146	222,8
	TR6	37	50	80	O	●	2238	1312	3550	144	146	244
SR6C46	6GF	37	50	79,3	●	●	2314	1180	3494	141	146	226,8
	TR6	37	50	80	O	●	2314	1312	3626	144	146	248
SR6C48	TR6	45	60	93,1	●	●	2390	1457	3847	144	146	268
	TR8	45	60	92	O	●	2390	1270	3660	192	146	310
SR6C50	TR6	45	60	93,1	●	●	2466	1457	3923	144	146	272
	TR8	45	60	92	O	●	2466	1270	3736	192	146	314
SR6C52	TR6	45	60	93,1	●	●	2542	1457	3999	144	146	276
	TR8	45	60	92	O	●	2542	1270	3812	192	146	318

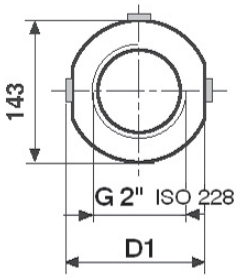
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

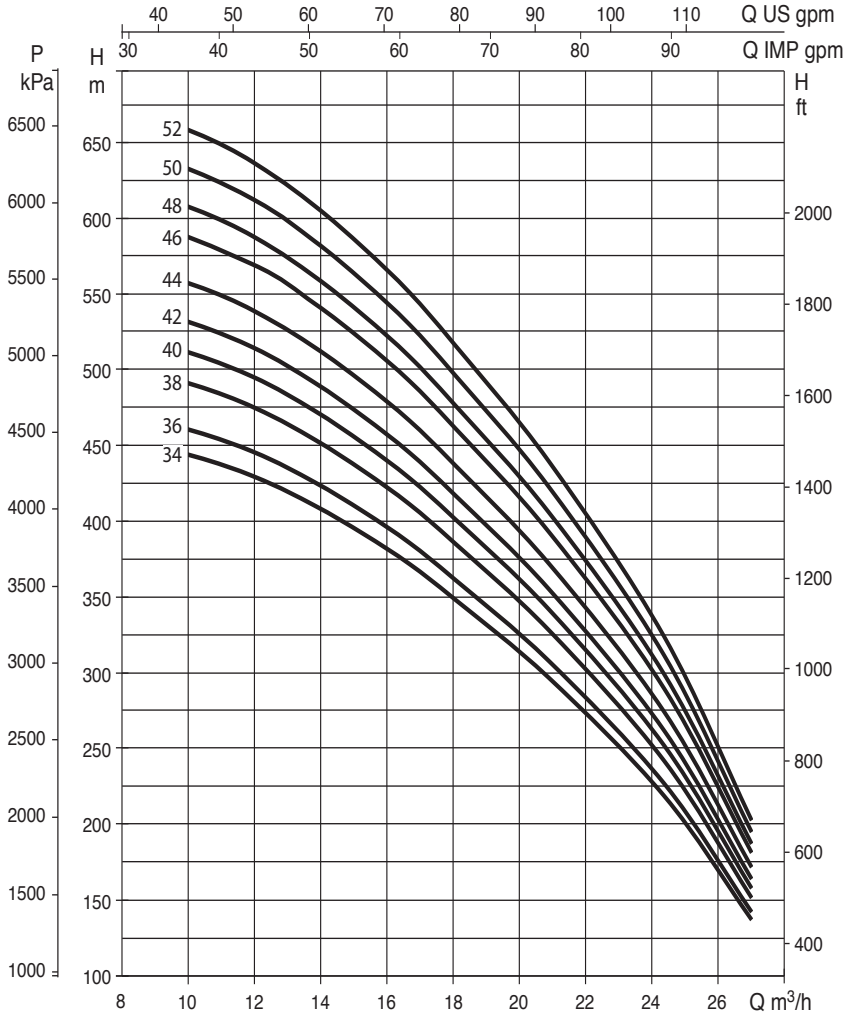
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

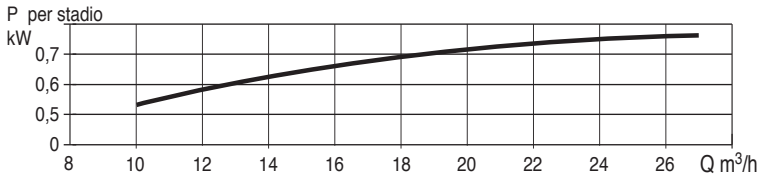
SR6C

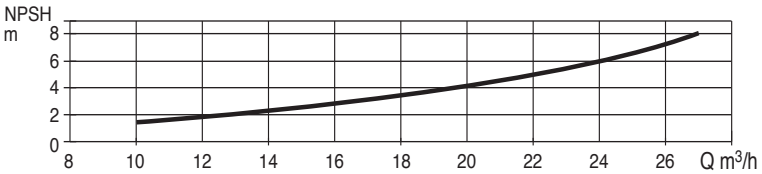
RADIAL 6" SUBMERSIBLE ELECTRIC PUMPS

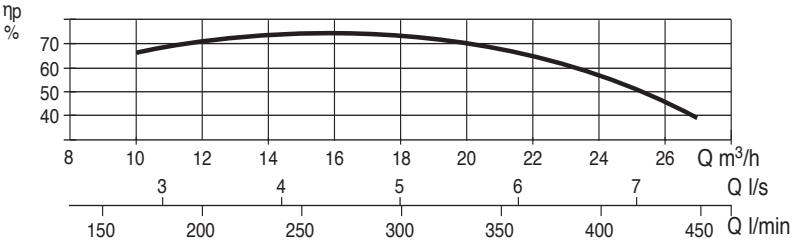












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

ONLY FOR EXTRA MARKETS EU

TECHNICAL DATA

Operating range: up to 85 m^3/h with head up to 390 m.
Pumped liquid: clean, free from solids or abrasive substances, chemically neutral, close to the characteristics of water.
Start-ups/hour: see the coupled motor.
Cooling flow: see the coupled motor.
Maximum permitted amount of sand: 50 g/m^3.
Ambient temperature: 30 °C.
Minimum recommended level on suction line: 1 m.
Installation: horizontal or vertical.

Electric pumps complying with the 2009/125/EC Directive (EcoDesign - ErP)
M.E.I. $\geq$ 0.10

APPLICATIONS

Multistage semiaxial submersible electric pumps for wells measuring 6" or above, able to generate a broad range of flow rates and heads.
They are used extensively for the lifting, distribution and pressurisation of industrial water systems, the supply of autoclaves and tanks, firefighting systems and irrigation systems.
Application with clean, non-aggressive water free from solids or abrasive substances.

CONSTRUCTION FEATURES OF THE PUMP

Pump body in cast iron with paint coating, impellers in cast iron. Dynamically balanced impellers coupled on the shaft with pull tab.
Shaft guided with coaxial bush bearings and fully protected with bushes.

Pump with check valve of low pressure loss.
Flanged and threaded discharge port.

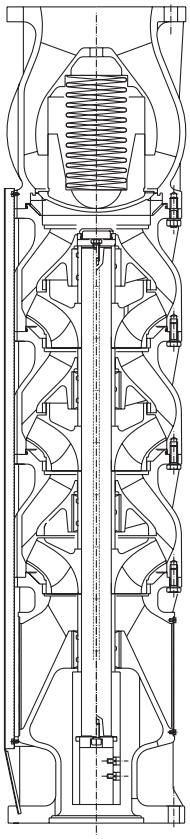
Coupling with motors of 6"or 8" depending on the required hydraulic power:
6GF: encapsulated 6" submersible motor.
TR6: rewindable 6" submersible motor.
TR8: rewindable 8" submersible motor.
For operation with inverter see the specifications of the coupled motor.

ON REQUEST

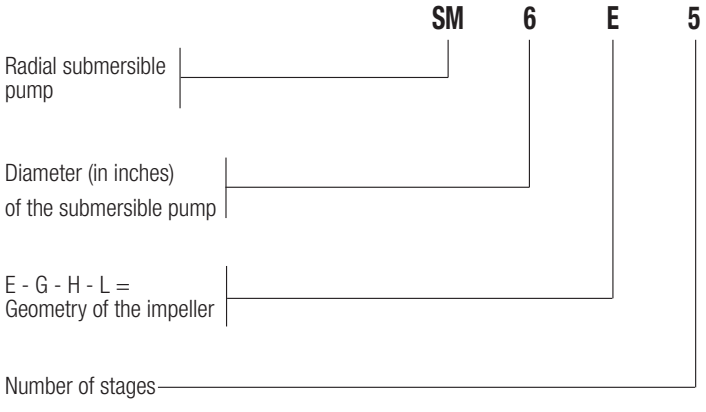
Pump body in microcast AISI 316 stainless steel for use in aggressive water.
Impellers in microcast AISI 316 stainless steel or bronze.
Pump body without check valve for horizontal installation.
Motor in AISI 316 stainless steel for use in aggressive water.
Non-standard pump/motor couplings.
Star/Delta starting version.
Motor version for high temperature of water.

MATERIALS

PARTS	MATERIALS
BODY OF VALVE	CAST IRON
PRESSURE CHAMBER	CAST IRON
BEARING ON PRESSURE SIDE	BRONZE
STAGE BODY	CAST IRON
FIXED WEAR RING	STEEL AND RUBBER
INTERMEDIATE BEARING	STEEL AND RUBBER
IMPELLER	CAST IRON
STAGE BODY GASKET	RUBBER
SUCTION GRID	STAINLESS STEEL
CABLE PROTECTION ELEMENT	STAINLESS STEEL
BEARING ON SUCTION SIDE	STEEL AND RUBBER
SUCTION CHAMBER	CAST IRON
SHAFT	AISI 420 STAINLESS STEEL
SPACER BUSH	STAINLESS STEEL
SCREWS	AISI 304 STAINLESS STEEL



– Legend:
(example)



SM6E

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	20	25	30	35	40	45	50	55	
	kW	HP	Q=l/min	0	333	417	500	583	667	750	883	917	
SM6E2	3,7	5		29	24	23	21	19	17	14	10	6	6"
SM6E3	5,5	7,5		44	37	35	32	29	26	21	16	9	6"
SM6E4	5,5	7,5		60	49	47	44	39	34	28	22	12	6"
SM6E5	7,5	10		75	62	59	55	50	44	36	27	15	6"
SM6E6	9,2	12,5		91	76	72	67	60	53	44	33	18	6"
SM6E7	11	15		106	88	84	78	70	62	51	39	21	6"
SM6E8	11	15	H	122	101	96	89	80	70	58	44	24	6"
SM6E9	13	17,5	(mt)	137	113	108	100	90	79	65	50	27	6"
SM6E10	15	20		152	126	120	111	100	88	73	55	30	6"
SM6E11	15	20		167	139	132	122	110	97	80	61	33	6"
SM6E12	18,5	25		182	151	144	133	120	106	87	66	36	6"
SM6E13	18,5	25		198	164	156	144	130	114	94	72	39	6"
SM6E14	22	30		213	176	168	155	140	123	102	77	42	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

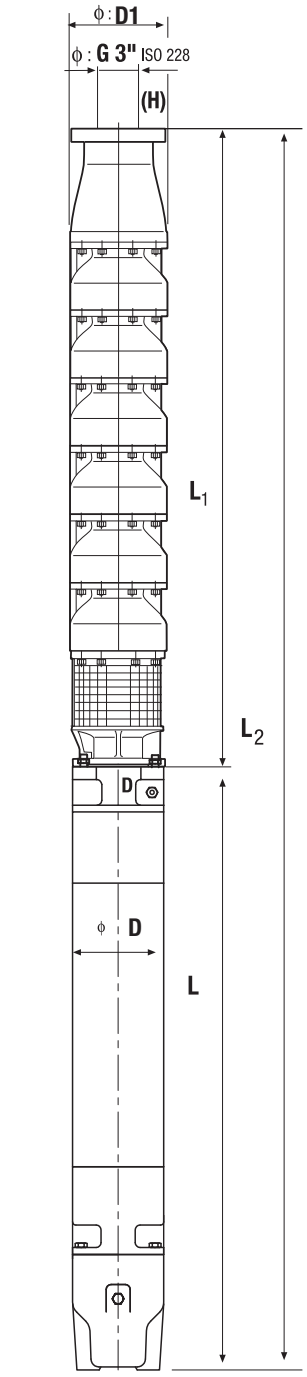
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6E2	6GF	4	5,5	10,6	●	●	632	600	1232	141	146	69,4
SM6E3	6GF	5,5	7,5	14	●	●	737	631	1368	141	146	78,6
	TR6	5,5	7,5	13	O	●	737	807	1544	144	146	86
SM6E4	6GF	5,5	7,5	14	●	●	842	631	1473	141	146	84,6
	TR6	5,5	7,5	13	O	●	842	807	1649	144	146	92
SM6E5	6GF	7,5	10	18	●	●	947	660	1607	141	146	93,2
	TR6	7,5	10	18	O	●	947	837	1784	144	146	101
SM6E6	6GF	9,2	12,5	22	●	●	1052	685	1737	141	146	102,6
	TR6	9,2	12,5	21	O	●	1052	867	1919	144	146	109
SM6E7	6GF	11	15	25,5	●	●	1157	730	1887	141	146	113
	TR6	11	15	25	O	●	1157	897	2054	144	146	120
SM6E8	6GF	11	15	25,5	●	●	1262	730	1992	141	146	119
	TR6	11	15	25	O	●	1262	897	2159	144	146	126
SM6E9	6GF	15	20	33,4	●	●	1367	785	2152	141	146	131
	TR6	13	17,5	29	O	●	1367	927	2294	144	146	137
SM6E10	6GF	15	20	33,4	●	●	1472	785	2257	141	146	137
	TR6	15	20	32	O	●	1472	997	2469	144	146	155
SM6E11	6GF	15	20	33,4	●	●	1577	785	2362	141	146	143
	TR6	15	20	32	O	●	1577	997	2574	144	146	161
SM6E12	6GF	18,5	25	41	●	●	1682	860	2542	141	146	157
	TR6	18,5	25	39	O	●	1682	1057	2739	144	146	173
SM6E13	6GF	18,5	25	41	●	●	1787	860	2647	141	146	163
	TR6	18,5	25	39	O	●	1787	1057	2844	144	146	179
SM6E14	6GF	22	30	47	●	●	1892	920	2812	141	146	172,6
	TR6	22	30	49	O	●	1892	1087	2979	144	146	197

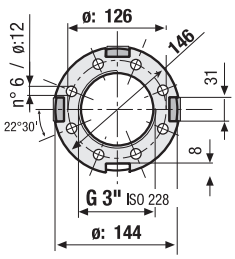
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

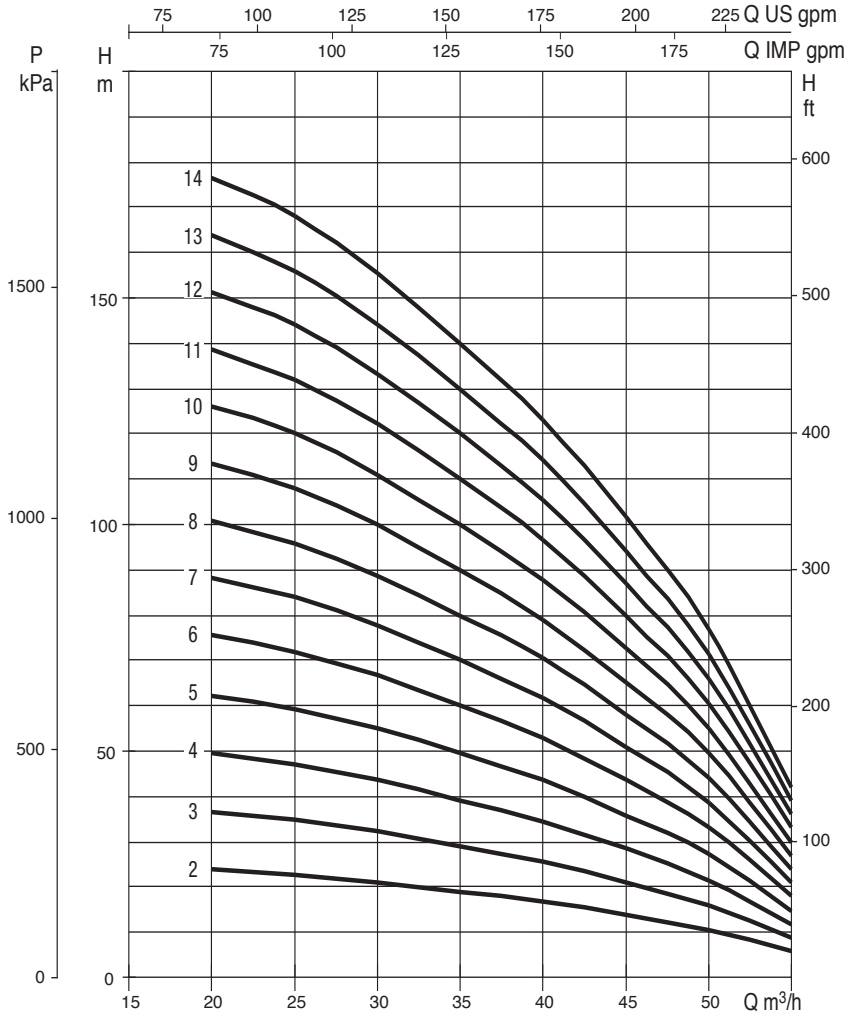
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

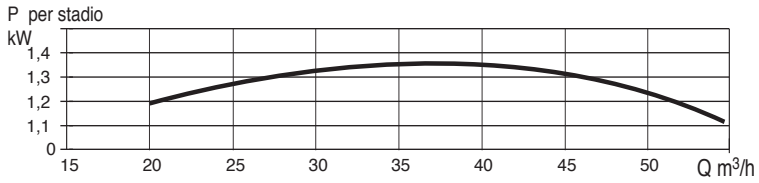
SM6E

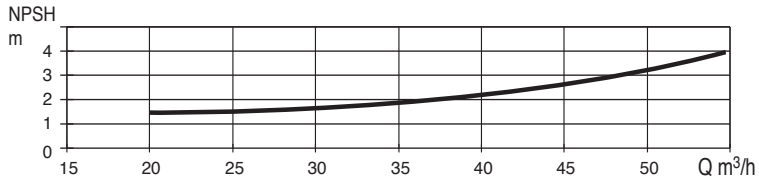
SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

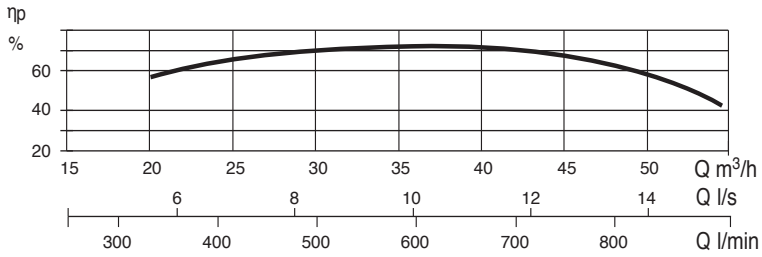












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6E

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	20	25	30	35	40	45	50	55	
	kW	HP	Q=l/min	0	333	417	500	583	667	750	883	917	
SM6E15	22	30		228	189	180	167	150	132	109	83	51	6"
SM6E16	22	30		243	202	192	178	160	141	116	88	45	6"
SM6E17	26	35		258	214	204	189	170	150	123	94	51	6"
SM6E18	26	35		274	227	216	200	180	158	131	99	54	6"
SM6E19	26	35		289	239	228	211	190	167	138	105	57	6"
SM6E20	30	40		304	252	240	222	200	176	145	110	60	6"
SM6E21	30	40	H (mt)	319	265	252	233	210	185	152	116	63	6"
SM6E22	30	40		334	277	264	244	220	194	160	121	66	6"
SM6E23	37	50		350	290	276	255	230	202	167	127	69	6"
SM6E24	37	50		365	302	288	266	240	211	174	132	72	6"
SM6E25	37	50		380	315	300	278	250	220	181	138	75	6"
SM6E26	37	50		395	328	312	289	260	229	189	143	78	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

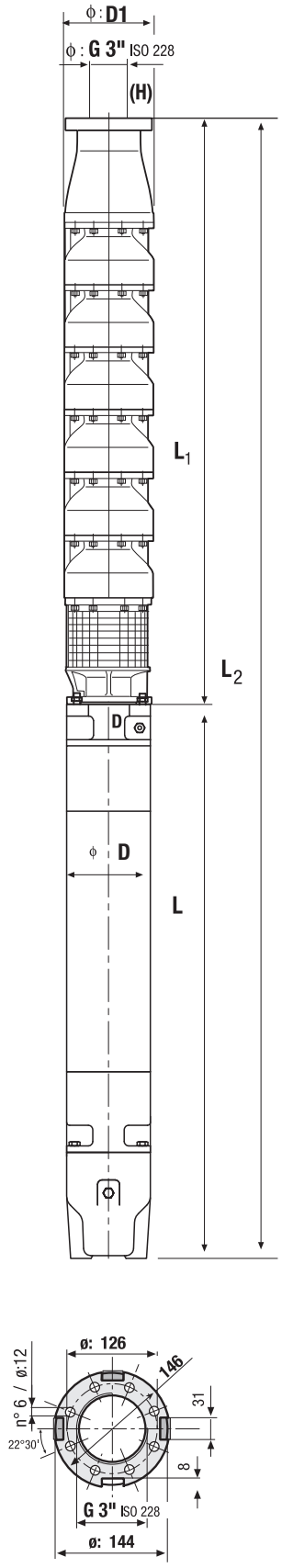
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6E15	6GF	22	30	47	●	●	1997	920	2917	141	146	178,6
	TR6	22	30	49	O	●	1997	1087	3084	144	146	203
SM6E16	6GF	22	30	47	●	●	2102	920	3022	141	146	184,6
	TR6	22	30	49	O	●	2102	1087	3189	144	146	209
SM6E17	6GF	30	40	61,5	●	●	2207	1050	3257	141	146	206,8
	TR6	26	35	58	O	●	2207	1157	3364	144	146	225
SM6E18	6GF	30	40	61,5	●	●	2312	1050	3362	141	146	212,8
	TR6	26	35	58	O	●	2312	1157	3469	144	146	231
SM6E19	6GF	30	40	61,5	●	●	2417	1050	3467	141	146	218,8
	TR6	26	35	58	O	●	2417	1157	3574	144	146	237
SM6E20	6GF	30	40	61,5	●	●	2522	1050	3572	141	146	224,8
	TR6	30	40	65	O	●	2522	1212	3734	144	146	248
SM6E21	6GF	30	40	61,5	●	●	2627	1050	3677	141	146	230,8
	TR6	30	40	65	O	●	2627	1212	3839	144	146	254
SM6E22	6GF	30	40	61,5	●	●	2732	1050	3782	141	146	236,8
	TR6	30	40	65	O	●	2732	1212	3944	144	146	260
SM6E23	6GF	37	50	79,3	●	●	2837	1180	4017	141	146	254,8
	TR6	37	50	80	O	●	2837	1312	4149	144	146	276
SM6E24	6GF	37	50	79,3	●	●	2942	1180	4122	141	146	260,8
	TR6	37	50	80	O	●	2942	1312	4254	144	146	282
SM6E25	6GF	37	50	79,3	●	●	3047	1180	4227	141	146	266,8
	TR6	37	50	80	O	●	3047	1312	4359	144	146	288
SM6E26	6GF	37	50	79,3	●	●	3152	1180	4332	141	146	272,8
	TR6	37	50	80	O	●	3152	1312	4464	144	146	294

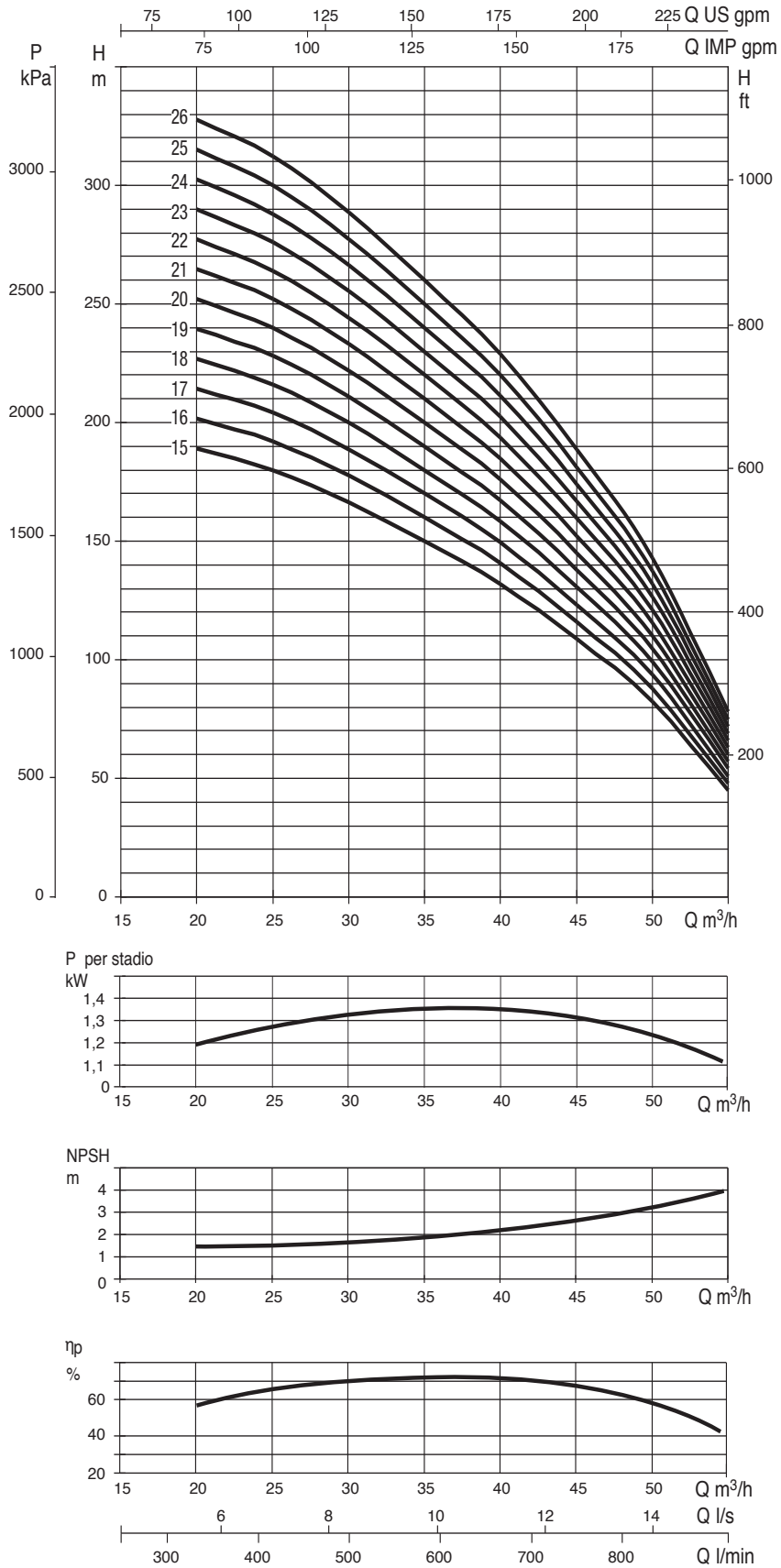
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM6E

SEMIAXIAL 6” SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6G

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	30	35	40	45	50	55	60	65	70	
	kW	HP	Q=l/min	0	500	583	667	750	833	917	1000	1083	1167	
SM6G2	3,7	5,0	H (mt)	32	24	22	21	19	18	16	13	10	6	6"
SM6G3	5,5	7,5		49	36	34	32	30	27	24	19	15	10	6"
SM6G4	7,5	10,0		66	49	46	43	40	36	32	26	20	13	6"
SM6G5	9,2	12,5		83	62	58	54	51	46	41	33	25	17	6"
SM6G6	11,0	15,0		101	75	70	66	61	56	49	40	31	20	6"
SM6G7	13,0	17,5		118	88	82	77	71	65	57	47	36	24	6"
SM6G8	15,0	20,0		134	100	94	88	82	74	66	54	41	27	6"
SM6G9	15,0	20,0		151	113	105	99	92	84	74	60	46	31	6"
SM6G10	18,5	25,0		168	125	117	110	102	93	82	67	51	34	6"
SM6G11	18,5	25,0		185	138	129	121	112	102	90	74	56	37	6"
SM6G12	22,0	30,0		202	150	140	132	123	111	98	80	61	41	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

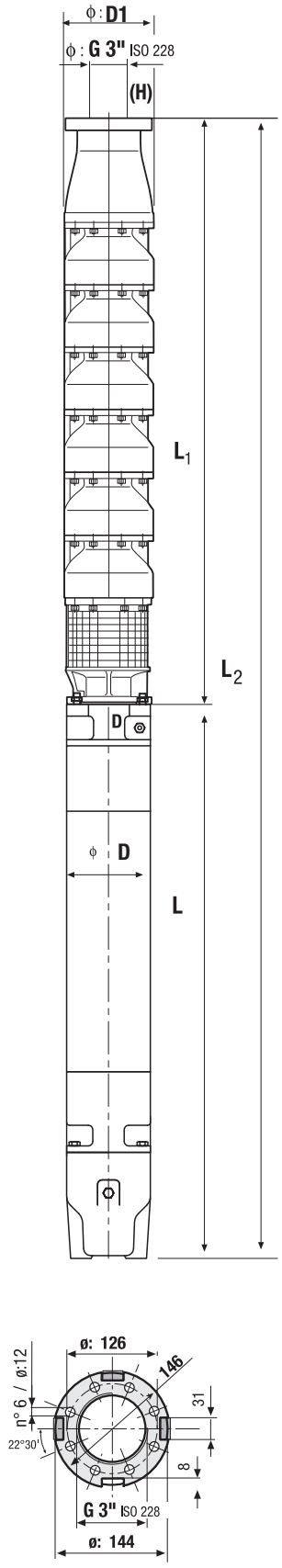
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6G2	6GF	4	5,5	10,6	●	●	632	600	1232	141	146	69,4
SM6G3	6GF	5,5	7,5	14	●	●	737	631	1368	141	146	78,6
	TR6	5,5	7,5	13	O	●	737	807	1544	144	146	86
SM6G4	6GF	7,5	10	18	●	●	842	660	1502	141	146	87,2
	TR6	7,5	10	18	O	●	842	837	1679	144	146	95
SM6G5	6GF	9,2	12,5	22	●	●	947	685	1632	141	146	96,6
	TR6	9,2	12,5	21	O	●	947	867	1814	144	146	103
SM6G6	6GF	11	15	25,5	●	●	1052	730	1782	141	146	107
	TR6	11	15	25	O	●	1052	897	1949	144	146	114
SM6G7	6GF	15	20	33,4	●	●	1157	785	1942	141	146	119
	TR6	13	17,5	29	O	●	1157	927	2084	144	146	125
SM6G8	6GF	15	20	33,4	●	●	1262	785	2047	141	146	125
	TR6	15	20	32	O	●	1262	997	2259	144	146	143
SM6G9	6GF	15	20	33,4	●	●	1367	785	2152	141	146	131
	TR6	15	20	32	O	●	1367	997	2364	144	146	149
SM6G10	6GF	18,5	25	41	●	●	1472	860	2332	141	146	145
	TR6	18,5	25	39	O	●	1472	1057	2529	144	146	161
SM6G11	6GF	18,5	25	41	●	●	1577	860	2437	141	146	151
	TR6	18,5	25	39	O	●	1577	1057	2634	144	146	167
SM6G12	6GF	22	30	47	●	●	1682	920	2602	141	146	160,6
	TR6	22	30	49	O	●	1682	1087	2769	144	146	185

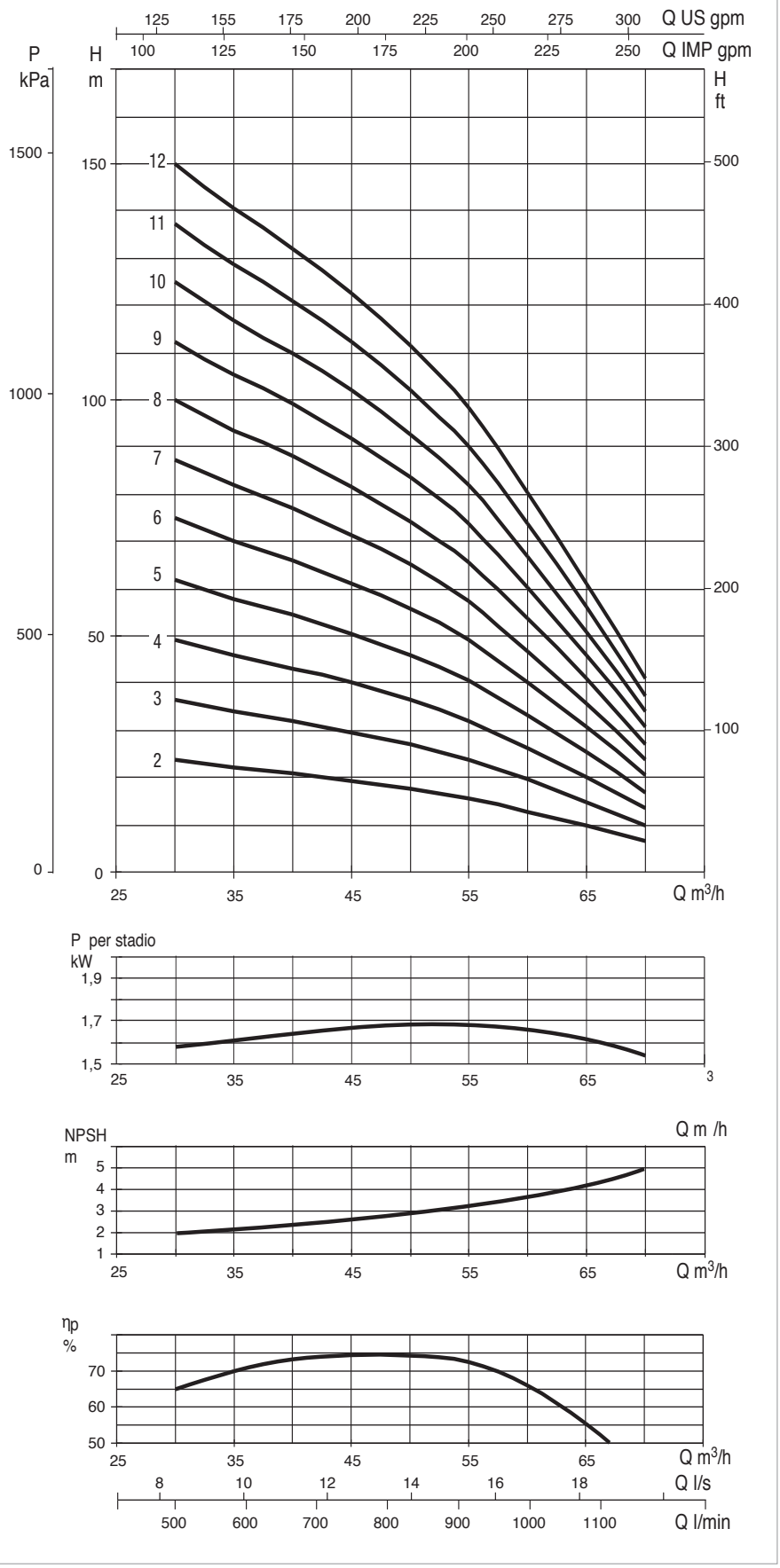
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM6G

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6G

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	30	35	40	45	50	55	60	65	70	
	kW	HP	Q=l/min	0	500	583	667	750	833	917	1000	1083	1167	
SM6G13	22,0	30,0	H (mt)	218	163	152	143	133	121	107	87	66	44	6"
SM6G14	26,0	35,0		235	175	164	154	143	130	115	94	71	48	6"
SM6G15	26,0	35,0		252	188	176	165	153	139	123	101	77	51	6"
SM6G16	30,0	40,0		269	200	187	176	163	148	131	107	82	54	6"
SM6G17	30,0	40,0		286	213	199	187	174	158	139	114	87	58	6"
SM6G18	30,0	40,0		302	225	211	198	184	167	148	121	92	61	6"
SM6G19	37,0	50,0		319	238	222	209	194	176	156	127	97	65	6"
SM6G20	37,0	50,0		336	250	234	220	204	186	164	134	102	68	6"
SM6G21	37,0	50,0		353	263	246	231	214	195	172	141	107	71	6"
SM6G22	45,0	60,0		370	275	257	242	225	204	180	147	112	75	6"
SM6G23	45,0	60,0		386	288	269	253	235	213	189	154	117	78	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

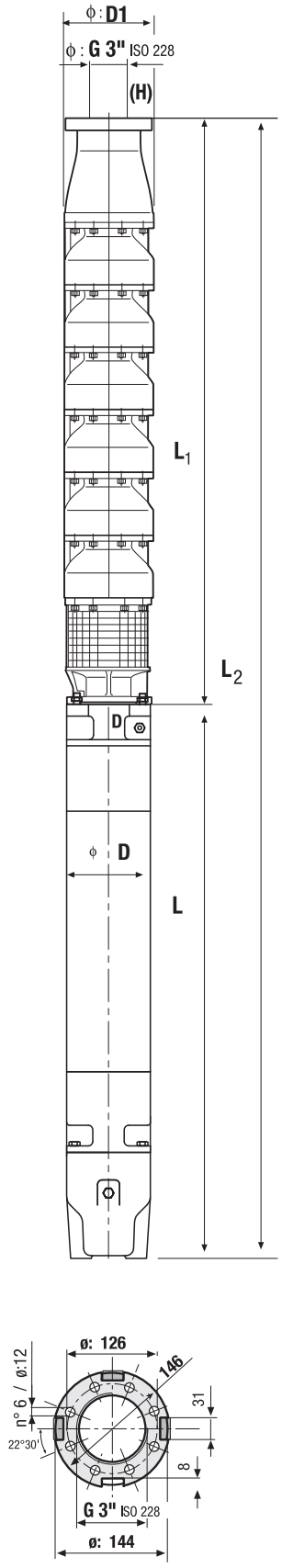
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6G13	6GF	22	30	47	●	●	1787	920	2707	141	146	166,6
	TR6	22	30	49	O	●	1787	1087	2874	144	146	191
SM6G14	6GF	30	40	61,5	●	●	1892	1050	2942	141	146	188,8
	TR6	26	35	58	O	●	1892	1157	3049	144	146	207
SM6G15	6GF	30	40	61,5	●	●	1997	1050	3047	141	146	194,8
	TR6	26	35	58	O	●	1997	1157	3154	144	146	213
SM6G16	6GF	30	40	61,5	●	●	2102	1050	3152	141	146	200,8
	TR6	30	40	65	O	●	2102	1212	3314	144	146	224
SM6G17	6GF	30	40	61,5	●	●	2207	1050	3257	141	146	206,8
	TR6	30	40	65	O	●	2207	1212	3419	144	146	230
SM6G18	6GF	30	40	61,5	●	●	2312	1050	3362	141	146	212,8
	TR6	30	40	65	O	●	2312	1212	3524	144	146	236
SM6G19	6GF	37	50	79,3	●	●	2417	1180	3597	141	146	230,8
	TR6	37	50	80	O	●	2417	1312	3729	144	146	252
SM6G20	6GF	37	50	79,3	●	●	2522	1180	3702	141	146	236,8
	TR6	37	50	80	O	●	2522	1312	3834	144	146	258
SM6G21	6GF	37	50	79,3	●	●	2627	1180	3807	141	146	242,8
	TR6	37	50	80	O	●	2627	1312	3939	144	146	264
SM6G22	TR6	45	60	93,1	●	●	2760	1457	4217	144	146	287
	TR8	45	60	92	O	●	2760	1270	4030	192	146	329
SM6G23	TR6	45	60	93,1	●	●	2865	1457	4322	144	146	293
	TR8	45	60	92	O	●	2865	1270	4135	192	146	335

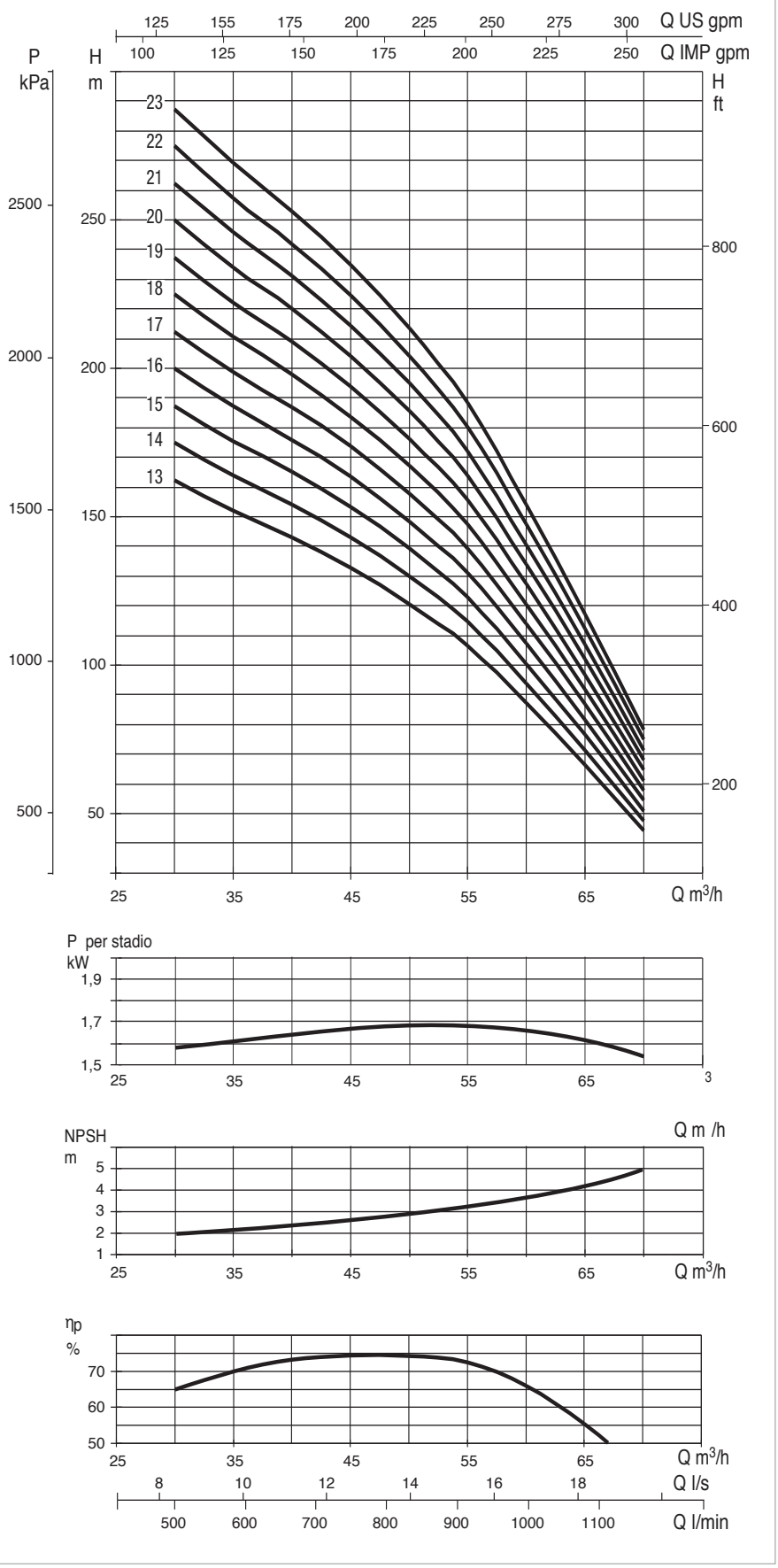
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM6G

SEMIAXIAL 6” SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6H

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	35	40	45	50	55	60	65	70	75	
	kW	HP	Q=l/min	0	583	667	750	833	917	1000	1083	1167	1250	
SM6H2	5,5	7,5		30	24	23	22	20	19	17	15	13	10	6"
SM6H3	7,5	10		47	37	36	33	31	29	26	23	19	15	6"
SM6H4	9,2	12,5		63	50	48	45	42	38	35	31	26	21	6"
SM6H5	11,0	15		79	63	60	57	53	49	44	39	33	26	6"
SM6H6	13,0	17,5		96	76	73	69	64	59	53	47	40	32	6"
SM6H7	15,0	20		112	89	85	81	75	69	62	55	46	37	6"
SM6H8	18,5	25	H (mt)	128	102	98	92	86	78	71	62	53	42	6"
SM6H9	18,5	25		144	114	110	104	96	88	80	70	59	48	6"
SM6H10	22,0	30		160	127	122	115	107	98	89	78	66	53	6"
SM6H11	22,0	30		176	140	134	127	118	108	98	86	73	58	6"
SM6H12	26,0	35		192	152	146	138	128	118	107	94	79	64	6“
SM6H13	30,0	40		208	165	159	150	139	127	116	101	86	69	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

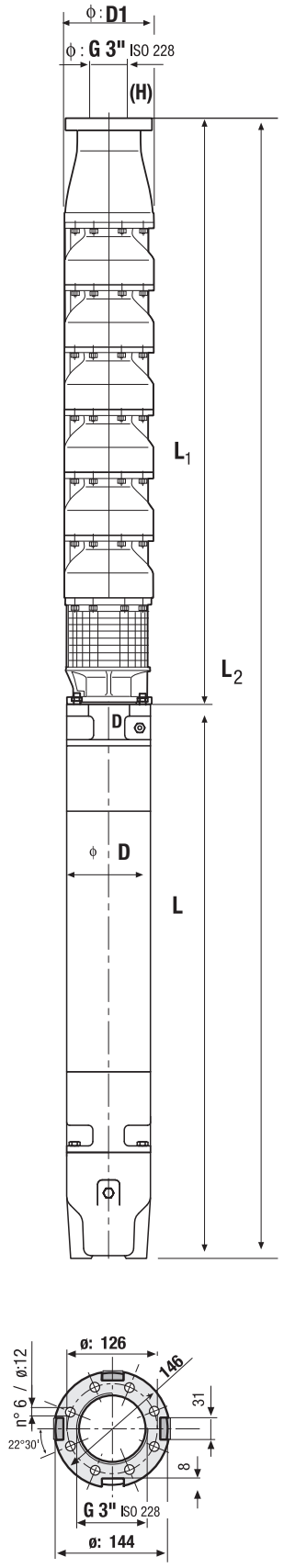
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6H2	6GF	5,5	7,5	14	●	●	632	631	1263	141	146	72,6
	TR6	5,5	7,5	13	O	●	632	807	1439	144	146	80
SM6H3	6GF	7,5	10	18	●	●	737	660	1397	141	146	81,2
	TR6	7,5	10	18	O	●	737	837	1574	144	146	89
SM6H4	6GF	9,2	12,5	22	●	●	842	685	1527	141	146	90,6
	TR6	9,2	12,5	21	O	●	842	867	1709	144	146	97
SM6H5	6GF	11	15	25,5	●	●	947	730	1677	141	146	101
	TR6	11	15	25	O	●	947	897	1844	144	146	108
SM6H6	6GF	15	20	33,4	●	●	1052	785	1837	141	146	113
	TR6	13	17,5	29	O	●	1052	927	1979	144	146	119
SM6H7	6GF	15	20	33,4	●	●	1157	785	1942	141	146	119
	TR6	15	20	32	O	●	1157	997	2154	144	146	137
SM6H8	6GF	18,5	25	41	●	●	1262	860	2122	141	146	133
	TR6	18,5	25	39	O	●	1262	1057	2319	144	146	149
SM6H9	6GF	18,5	25	41	●	●	1367	860	2227	141	146	139
	TR6	18,5	25	39	O	●	1367	1057	2424	144	146	155
SM6H10	6GF	22	30	47	●	●	1472	920	2392	141	146	148,6
	TR6	22	30	49	O	●	1472	1087	2559	144	146	173
SM6H11	6GF	22	30	47	●	●	1577	920	2497	141	146	154,6
	TR6	22	30	49	O	●	1577	1087	2664	144	146	179
SM6H12	6GF	30	40	61,5	●	●	1682	1050	2732	141	146	176,8
	TR6	26	35	58	O	●	1682	1157	2839	144	146	195
SM6H13	6GF	30	40	61,5	●	●	1787	1050	2837	141	146	182,8
	TR6	30	40	65	O	●	1787	1212	2999	144	146	206

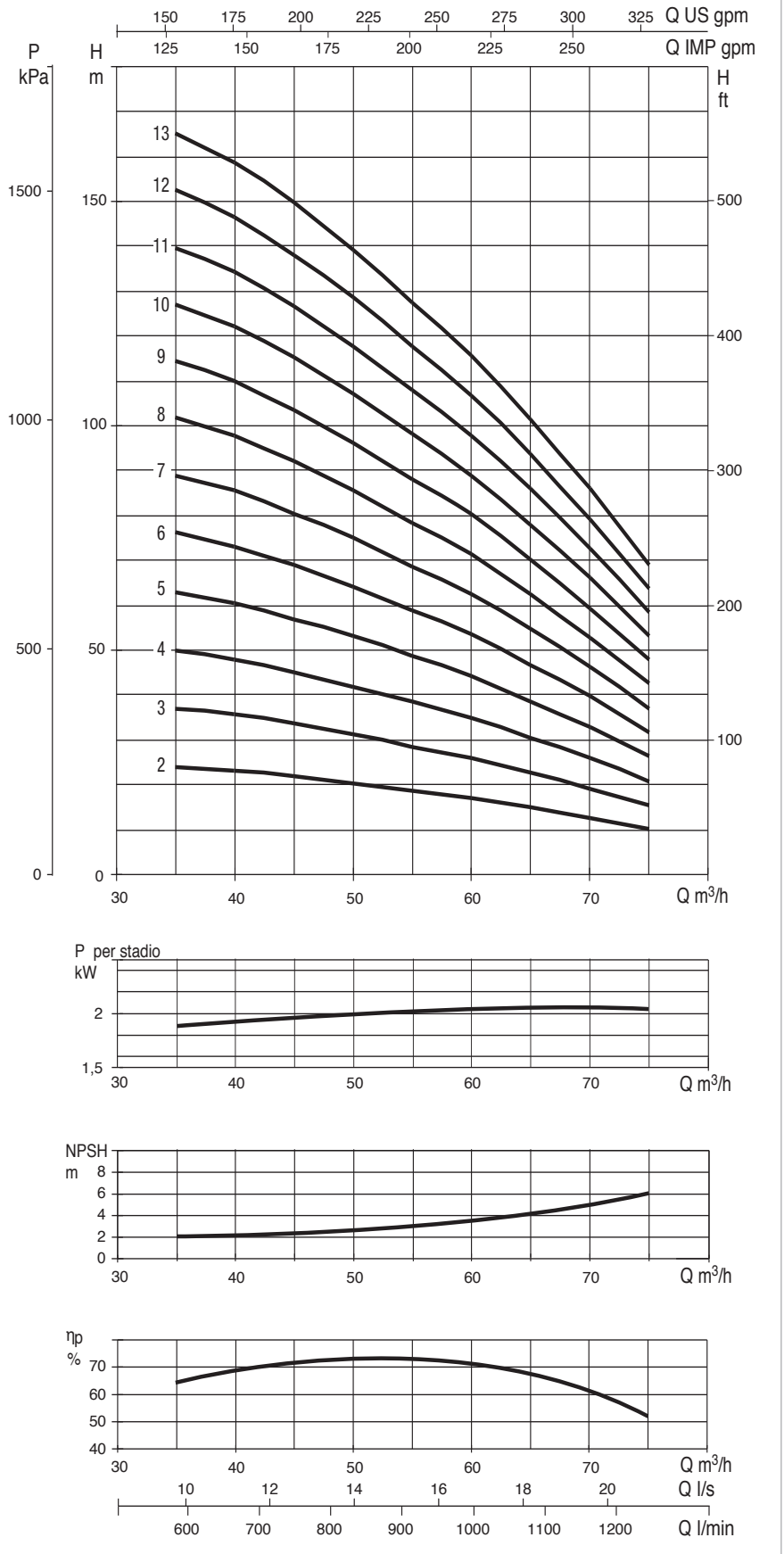
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM6H

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6H

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	35	40	45	50	55	60	65	70	75	
	kW	HP	Q=l/min	0	583	667	750	833	917	1000	1083	1167	1250	
SM6H14	5,5	7,5	H (mt)	224	178	171	161	150	137	125	109	92	74	6"
SM6H15	7,5	10		240	191	183	173	161	147	134	117	99	80	6"
SM6H16	9,2	12,5		256	203	195	184	171	157	142	125	106	85	6"
SM6H17	11,0	15		272	216	207	196	182	167	151	133	112	90	6"
SM6H18	13,0	17,5		288	229	220	207	193	176	160	140	119	95	8"
SM6H19	15,0	20		304	241	232	219	203	186	169	148	125	101	8"
SM6H20	18,5	25		320	254	244	230	214	196	178	156	132	106	8"
SM6H21	18,5	25		336	267	256	242	225	206	187	164	139	111	8"
SM6H22	22,0	30		352	279	268	253	235	216	196	172	145	117	8"
SM6H23	22,0	30		368	292	281	265	246	225	205	179	152	122	8"
SM6H24	26,0	35		384	305	293	276	257	235	214	187	158	127	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

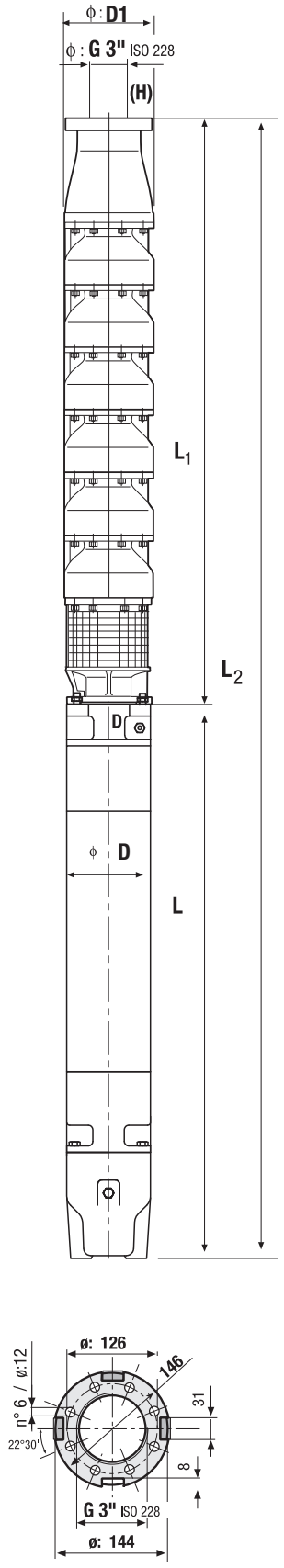
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6H14	6GF	30	40	61,5	●	●	1892	1050	2942	141	146	188,8
	TR6	30	40	65	O	●	1892	1212	3104	144	146	212
SM6H15	6GF	37	50	79,3	●	●	1997	1180	3177	141	146	206,8
	TR6	37	50	80	O	●	1997	1312	3309	144	146	228
SM6H16	6GF	37	50	79,3	●	●	2102	1180	3282	141	146	212,8
	TR6	37	50	80	O	●	2102	1312	3414	144	146	234
SM6H17	6GF	37	50	79,3	●	●	2207	1180	3387	141	146	218,8
	TR6	37	50	80	O	●	2207	1312	3519	144	146	240
SM6H18	TR6	45	60	93,1	●	●	2312	1457	3769	144	146	267
	TR8	45	60	92	O	●	2312	1270	3582	192	146	309
SM6H19	TR6	45	60	93,1	●	●	2445	1457	3902	144	146	269
	TR8	45	60	92	O	●	2445	1270	3715	192	146	311
SM6H20	TR6	45	60	93,1	●	●	2550	1457	4007	144	146	275
	TR8	45	60	92	O	●	2550	1270	3820	192	146	317
SM6H21	TR8	55	75	109	O	●	2655	1350	4005	192	146	338
SM6H22	TR8	55	75	109	O	●	2760	1350	4110	192	146	344
SM6H23	TR8	55	75	109	O	●	2865	1350	4215	192	146	350
SM6H24	TR8	55	75	109	O	●	2970	1350	4320	192	146	356

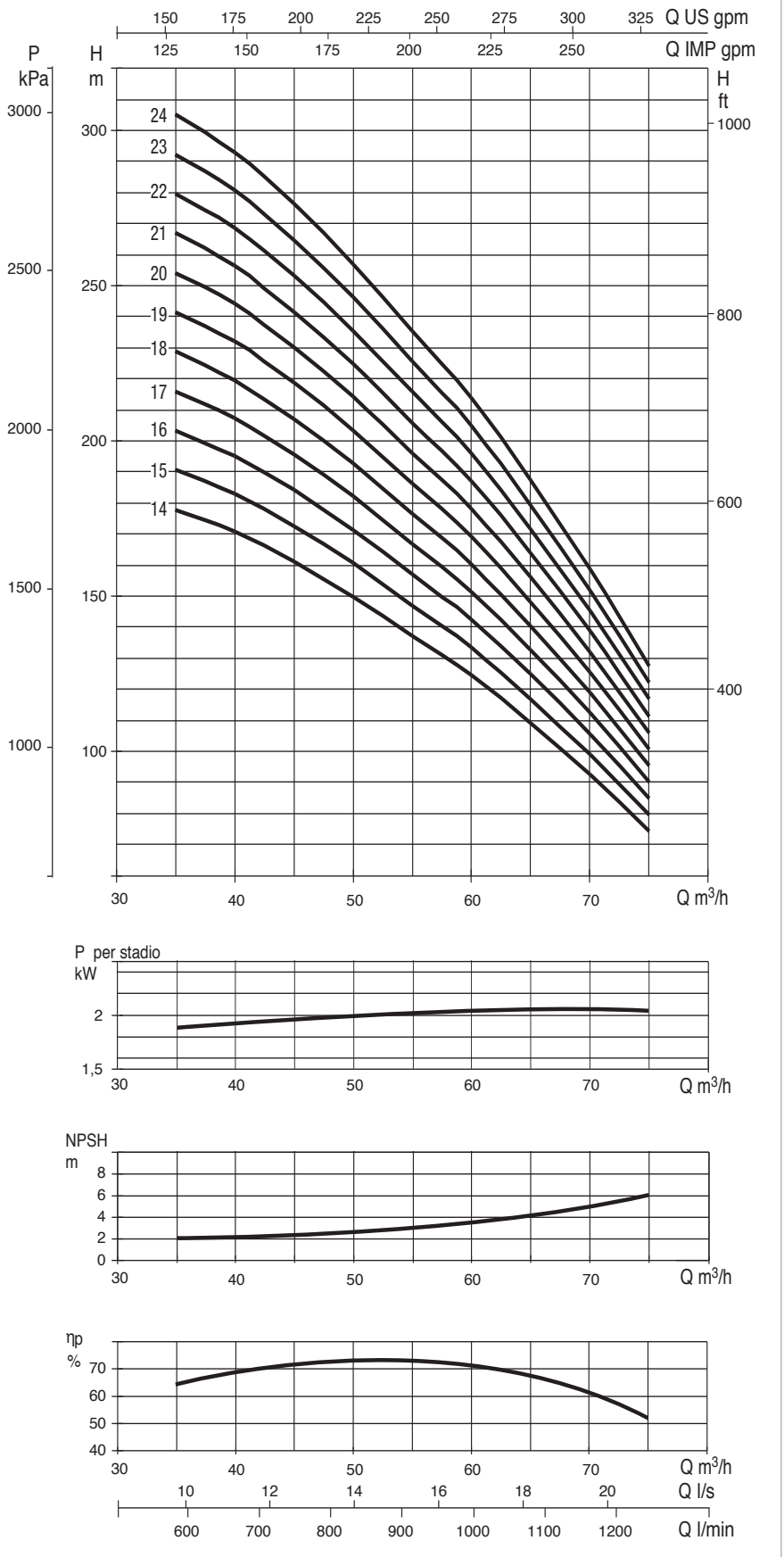
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM6H

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6L

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	40	50	55	60	65	70	75	80	85	
	kW	HP	Q=l/min	0	667	833	917	1000	1083	1167	1250	1333	1417	
SM6L2	5,5	7,5		31	25	23	22	20	19	17	15	12	10	6"
SM6L3	9,2	12,5		48	38	35	33	31	29	26	23	19	15	6"
SM6L4	11,0	15		64	51	47	45	42	39	35	31	26	20	6"
SM6L5	13,0	17,5		81	64	59	56	53	49	44	39	32	25	6"
SM6L6	18,5	25		98	78	72	68	64	59	54	47	39	30	6"
SM6L7	18,5	25		115	91	84	80	74	69	63	55	46	35	6"
SM6L8	22,0	30	H (mt)	131	104	96	91	85	79	72	63	52	40	6"
SM6L9	26,0	35		148	117	108	102	96	89	81	71	59	46	6"
SM6L10	26,0	35		164	130	120	114	106	99	90	79	66	51	6"
SM6L11	30,0	40		180	143	132	125	117	109	99	87	72	56	6"
SM6L12	37,0	50		197	156	144	136	128	118	108	94	79	61	6“
SM6L13	37,0	50		213	169	156	148	138	128	117	102	85	66	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

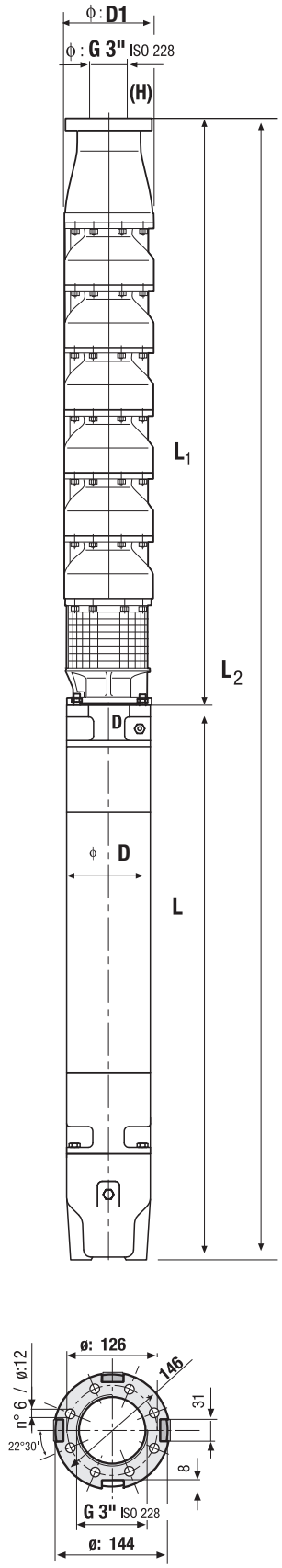
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6L2	6GF	5,5	7,5	14	●	●	632	631	1263	141	146	72,6
	TR6	5,5	7,5	13	O	●	632	807	1439	144	146	80
SM6L3	6GF	9,2	12,5	22	●	●	737	685	1422	141	146	84,6
	TR6	9,2	12,5	21	O	●	737	867	1604	144	146	91
SM6L4	6GF	11	15	25,5	●	●	842	730	1572	141	146	95
	TR6	11	15	25	O	●	842	897	1739	144	146	102
SM6L5	6GF	15	20	33,4	●	●	947	785	1732	141	146	107
	TR6	13	17,5	29	O	●	947	927	1874	144	146	113
SM6L6	6GF	18,5	25	41	●	●	1052	860	1912	141	146	121
	TR6	18,5	25	39	O	●	1052	1057	2109	144	146	137
SM6L7	6GF	18,5	25	41	●	●	1157	860	2017	141	146	127
	TR6	18,5	25	39	O	●	1157	1057	2214	144	146	143
SM6L8	6GF	22	30	47	●	●	1262	920	2182	141	146	136,6
	TR6	22	30	49	O	●	1262	1087	2349	144	146	161
SM6L9	6GF	30	40	61,5	●	●	1367	1050	2417	141	146	158,8
	TR6	26	35	58	O	●	1367	1157	2524	144	146	177
SM6L10	6GF	30	40	61,5	●	●	1472	1050	2522	141	146	164,8
	TR6	26	35	58	O	●	1472	1157	2629	144	146	183
SM6L11	6GF	30	40	61,5	●	●	1577	1050	2627	141	146	170,8
	TR6	30	40	65	O	●	1577	1212	2789	144	146	194
SM6L12	6GF	37	50	79,3	●	●	1682	1180	2862	141	146	188,8
	TR6	37	50	80	O	●	1682	1312	2994	144	146	210
SM6L13	6GF	37	50	79,3	●	●	1787	1180	2967	141	146	194,8
	TR6	37	50	80	O	●	1787	1312	3099	144	146	216

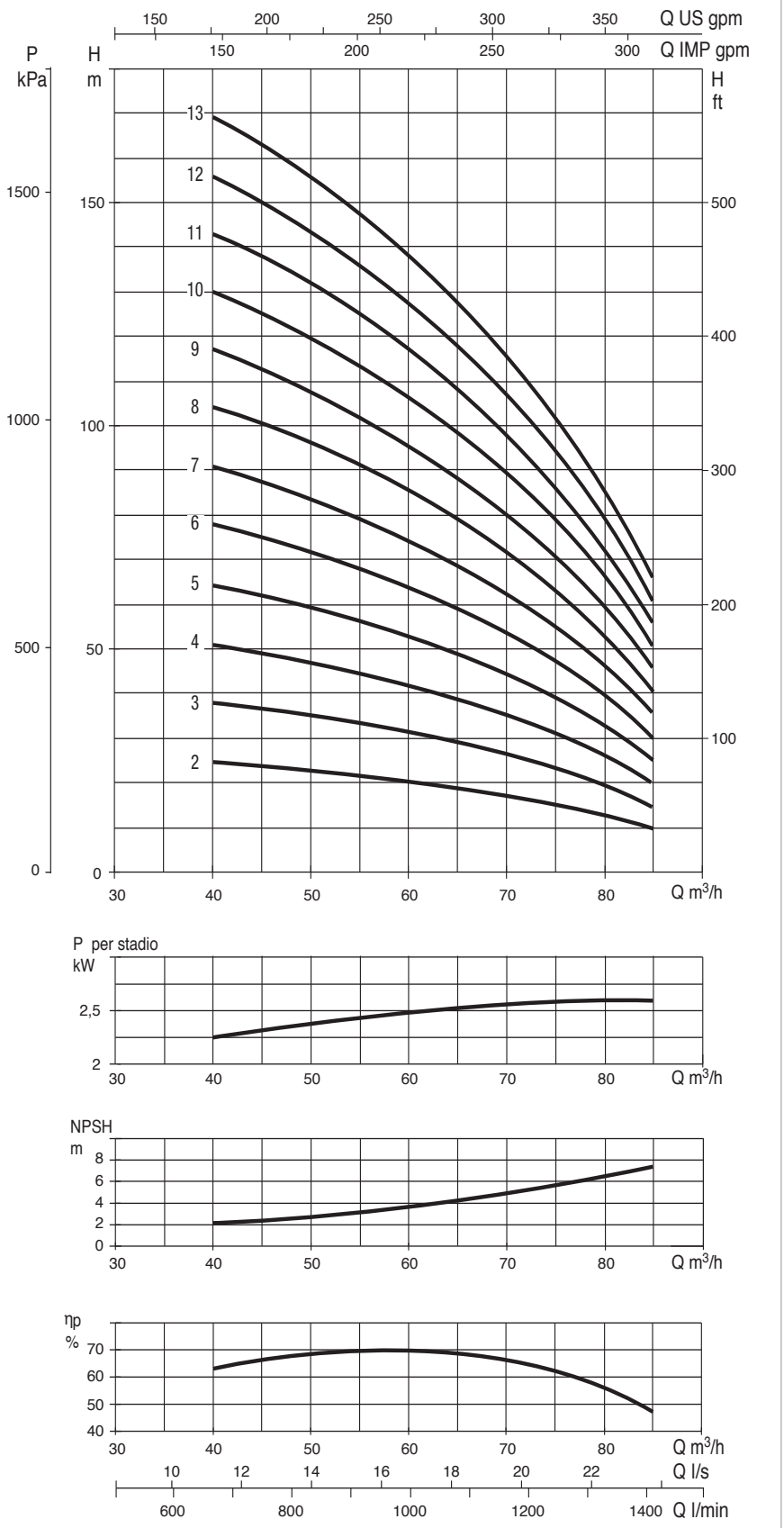
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM6L

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM6L

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	40	50	55	60	65	70	75	80	85	
	kW	HP	Q=l/min	0	667	833	917	1000	1083	1167	1250	1333	1417	
SM6L14	37,0	50	H (mt)	230	182	168	159	149	138	126	110	92	71	6"
SM6L15	45,0	60		246	195	180	171	159	148	135	118	98	76	8"
SM6L16	45,0	60		262	208	192	182	170	158	144	126	105	81	8"
SM6L17	45,0	60		279	221	203	193	181	168	152	134	112	86	8"
SM6L18	55,0	75		295	234	215	205	191	178	161	142	118	91	8"
SM6L19	55,0	75		312	247	227	216	202	188	170	150	125	96	8"
SM6L20	55,0	75		328	260	239	227	213	197	179	157	131	101	8"
SM6L21	55,0	75		344	273	251	239	223	207	188	165	138	106	8"
SM6L22	63,0	85		361	286	263	250	234	217	197	173	144	111	8"
SM6L23	63,0	85		377	299	275	262	244	227	206	181	151	116	8"
SM6L24	63,0	85		394	312	287	273	255	237	215	189	157	121	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

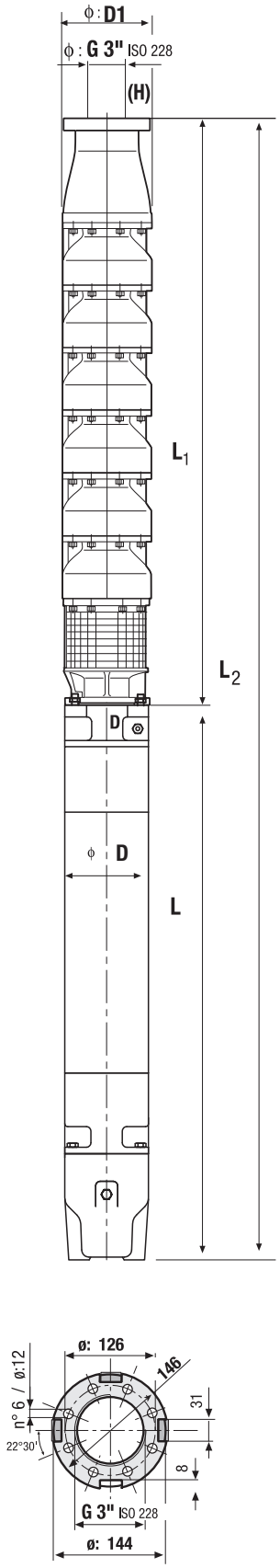
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM6L14	6GF	37	50	79,3	●	●	1892	1180	3072	141	146	200,8
	TR6	37	50	80	O	●	1892	1312	3204	144	146	222
SM6L15	TR6	45	60	93,1	●	●	1997	1457	3454	144	146	243
	TR8	45	60	92	O	●	1997	1270	3267	192	146	285
SM6L16	TR6	45	60	93,1	●	●	2102	1457	3559	144	146	249
	TR8	45	60	92	O	●	2102	1270	3372	192	146	291
SM6L17	TR6	45	60	93,1	●	●	2207	1457	3664	144	146	255
	TR8	45	60	92	O	●	2207	1270	3477	192	146	297
SM6L18	TR8	55	75	109	O	●	2312	1350	3662	192	146	324
SM6L19	TR8	55	75	109	O	●	2445	1350	3795	192	146	326
SM6L20	TR8	55	75	109	O	●	2550	1350	3900	192	146	332
SM6L21	TR8	55	75	109	O	●	2655	1350	4005	192	146	338
SM6L22	TR8	63	85	126	O	●	2760	1490	4250	192	146	370
SM6L23	TR8	63	85	126	O	●	2865	1490	4355	192	146	376
SM6L24	TR8	63	85	126	O	●	2970	1490	4460	192	146	382

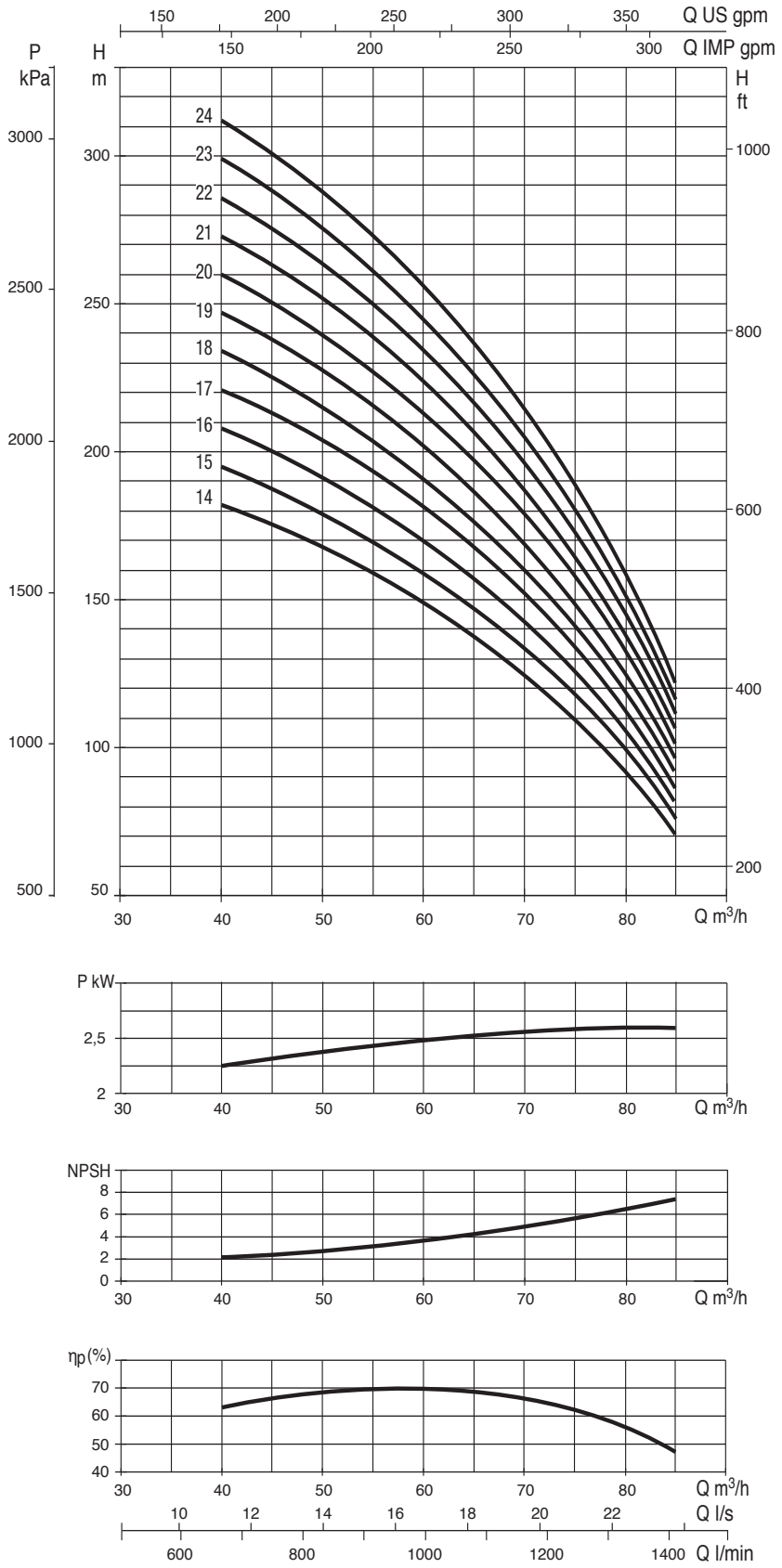
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM6L

SEMIAXIAL 6" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR8

RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

TECHNICAL DATA

Operating range: up to 80 m^3/h with head up to 770 m.
Pumped liquid: clean, free from solids or abrasive substances, chemically neutral, close to the characteristics of water.
Start-ups/hour: see the coupled motor.
Cooling flow: see the coupled motor.
Maximum permitted amount of sand: 30 g/m^3.
Ambient temperature: 30 °C.
Minimum recommended level on suction line: 1 m.
Installation: horizontal or vertical.

APPLICATIONS

Multistage semiaxial submersible electric pumps for wells measuring 8" or above, able to generate a broad range of heads.
They are used extensively for the lifting, distribution and pressurisation of industrial water systems, the supply of autoclaves and tanks, firefighting systems and irrigation systems.
Application with clean, non-aggressive water free from solids or abrasive substances.

CONSTRUCTION FEATURES OF THE PUMP

Pump body in cast iron with paint coating, impellers in cast iron. Dynamically balanced impellers coupled on the shaft with pull tab.
Shaft guided with coaxial bush bearings and fully protected with bushes.

Pump with check valve of low pressure loss.
Threaded discharge port.

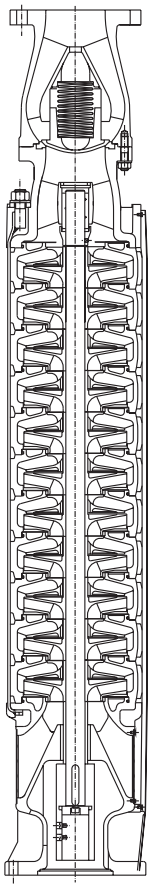
Coupling with motors of 6" or 8" depending on the required hydraulic power:
6GF: encapsulated 6" submersible motor.
TR6: rewindable 6" submersible motor.
TR8: rewindable 8" submersible motor.
For operation with inverter see the specifications of the coupled motor.

ON REQUEST

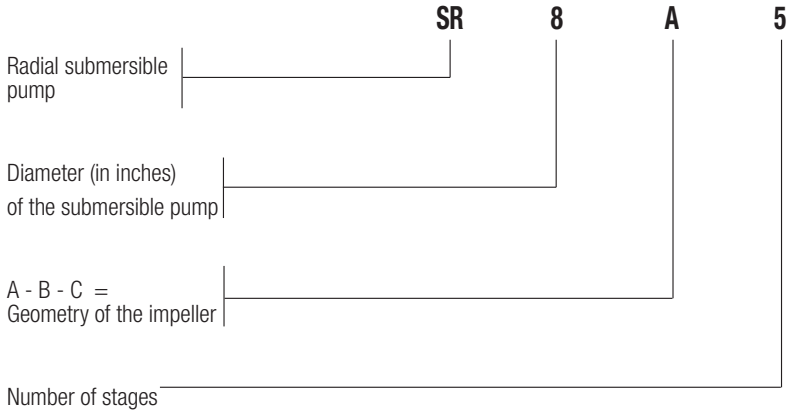
Impellers in microcast AISI 316 stainless steel or bronze.
Pump body without check valve for horizontal installation.
Non-standard pump/motor couplings.
Star/Delta starting version.
Motor version for high temperature of water.

MATERIALS

PARTS	MATERIALS
BODY OF VALVE	CAST IRON
PRESSURE CHAMBER	CAST IRON
BEARING ON PRESSURE SIDE	BRONZE
STAGE BODY	CAST IRON
FIXED WEAR RING	BRONZE
INTERMEDIATE BEARING	BRONZE
IMPELLER	CAST IRON
STAGE BODY GASKET	RUBBER
SUCTION GRID	STAINLESS STEEL
CABLE PROTECTION ELEMENT	STAINLESS STEEL
BEARING ON SUCTION SIDE	BRONZE
SUCTION CHAMBER	CAST IRON
TIE ROD	STEEL
SHAFT	AISI 420 STAINLESS STEEL
SPACER BUSH	STAINLESS STEEL
SCREWS	AISI 304 STAINLESS STEEL



– Legend:
(example)



SR8A

RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA								STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	15	20	25	30	35	40	45	
	kW	HP	Q=l/min	0	250	333	417	500	583	667	750	
SR8A2	5,5	7,5	H (m)	50	46	45	42	39	36	30	22	6"
SR8A3	9,2	12,5		76	71	68	65	60	54	46	34	6"
SR8A4	11	15		102	96	92	87	81	73	62	46	6"
SR8A5	15	20		129	121	116	110	102	93	78	58	6"
SR8A6	18,5	25		156	146	141	133	124	112	95	71	6"
SR8A7	18,5	25		182	171	165	155	144	131	111	83	6"
SR8A8	22	30		208	195	188	178	165	150	127	94	6"
SR8A9	30	40		235	220	212	200	186	168	143	106	6"
SR8A10	30	40		261	244	235	222	206	187	159	118	6"
SR8A11	30	40		287	268	259	244	227	206	174	130	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1,2	

ELECTRICAL DATA AND DIMENSIONS

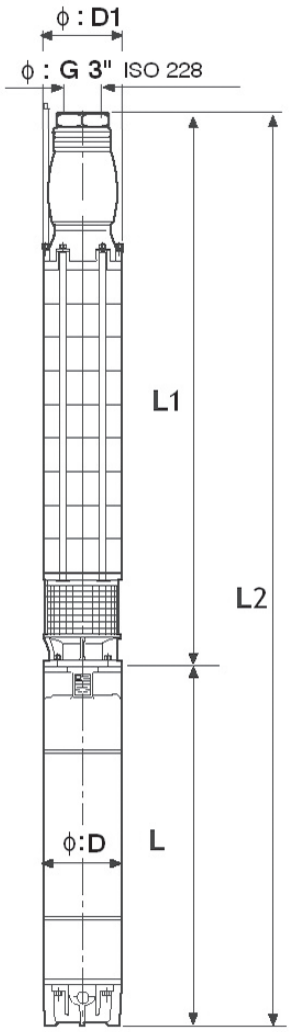
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR8A2	6GF	5,5	7,5	14	●	●	670	631	1301	141	198	89,6
	TR6	5,5	7,5	13	O	●	670	807	1477	144	198	97
SR8A3	6GF	9,2	12,5	22	●	●	730	685	1415	141	198	101,6
	TR6	9,2	12,5	21	O	●	730	867	1597	144	198	108
SR8A4	6GF	11	15	25,5	●	●	790	730	1520	141	198	112
	TR6	11	15	25	O	●	790	897	1687	144	198	119
SR8A5	6GF	15	20	33,4	●	●	850	785	1635	141	198	124
	TR6	13	17,5	29	O	●	850	927	1777	144	198	130
SR8A6	6GF	18,5	25	41	●	●	910	860	1770	141	198	138
	TR6	18,5	25	39	O	●	910	1057	1967	144	198	154
SR8A7	6GF	18,5	25	41	●	●	970	860	1830	141	198	144
	TR6	18,5	25	39	O	●	970	1057	2027	144	198	160
SR8A8	6GF	22	30	47	●	●	1030	920	1950	141	198	153,6
	TR6	22	30	49	O	●	1030	1087	2117	144	198	178
SR8A9	6GF	30	40	61,5	●	●	1090	1050	2140	141	198	175,8
	TR6	26	35	58	O	●	1090	1157	2247	144	198	194
SR8A10	6GF	30	40	61,5	●	●	1150	1050	2200	141	198	181,8
	TR6	26	35	58	O	●	1150	1157	2307	144	198	200
SR8A11	6GF	30	40	61,5	●	●	1288	1050	2338	141	198	192,8
	TR6	30	40	65	O	●	1288	1212	2500	144	198	216

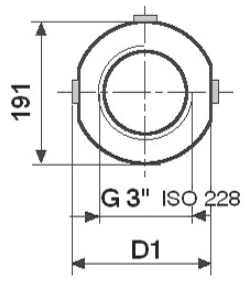
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

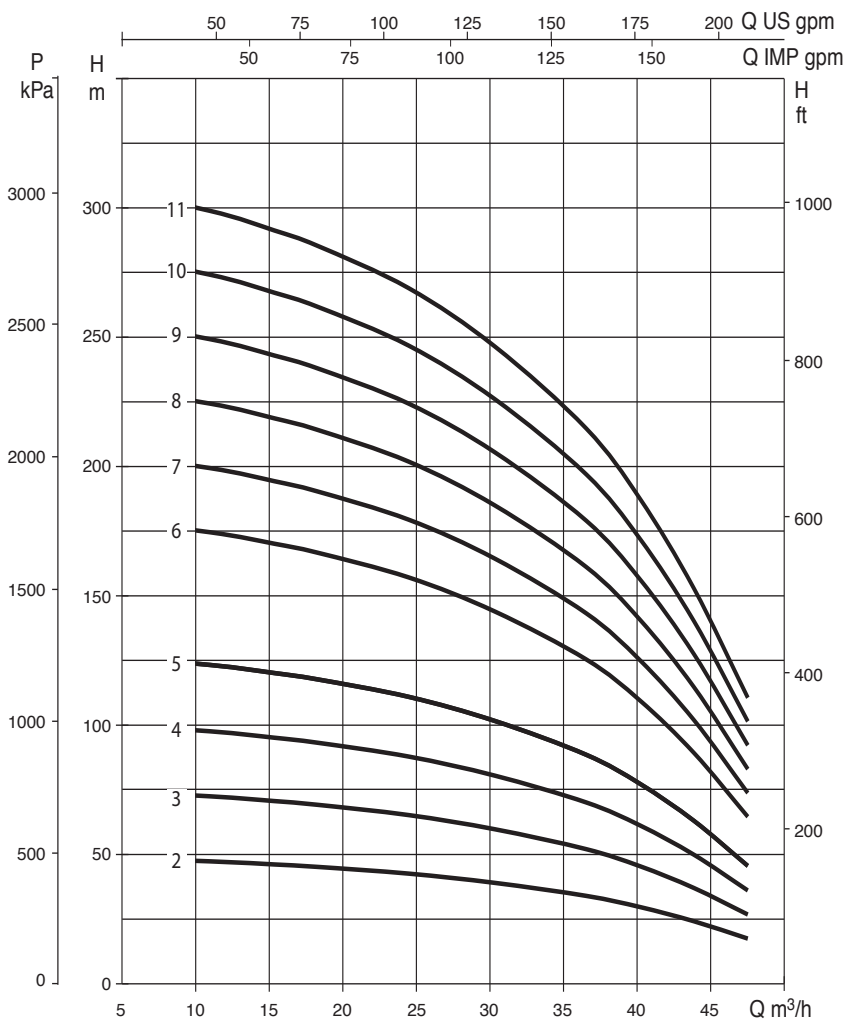
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

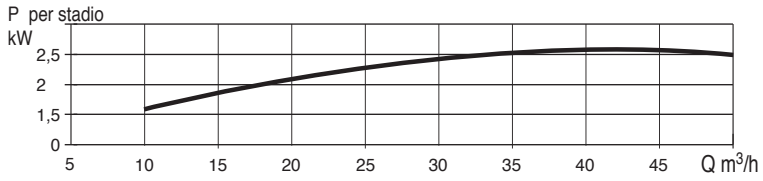
SR8A

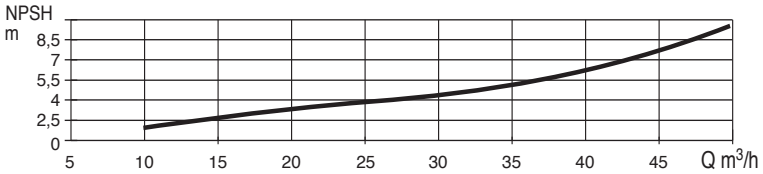
RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

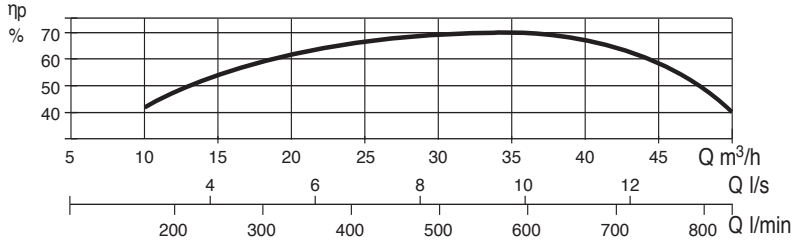












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR8A

RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA								STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	15	20	25	30	35	40	45	
	kW	HP	Q=l/min	0	250	333	417	500	583	667	750	
SR8A12	37	50	H (m)	313	293	282	266	247	224	190	142	6"
SR8A13	37	50		339	317	306	289	268	243	206	153	6"
SR8A14	37	50		365	342	329	311	289	262	222	165	6"
SR8A15	45	60		391	366	353	333	309	281	238	177	8"
SR8A16	45	60		417	390	376	355	330	299	254	189	8"
SR8A17	45	60		443	415	400	377	351	318	269	201	8"
SR8A18	55	75		469	439	423	400	371	337	285	212	8"
SR8A19	55	75		495	464	447	422	392	355	301	224	8"
SR8A20	55	75		521	488	470	444	412	374	317	236	8"
SR8A21	55	75		547	512	494	466	433	393	333	248	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1,2	

ELECTRICAL DATA AND DIMENSIONS

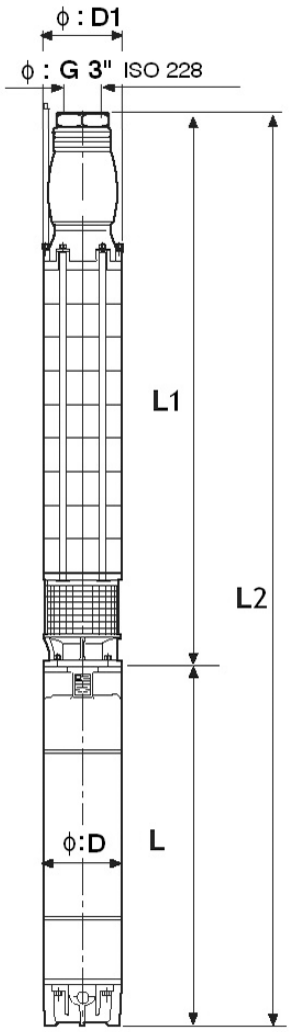
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR8A12	6GF	37	50	79,3	●	●	1348	1180	2528	141	198	210,8
	TR6	37	50	80	O	●	1348	1312	2660	144	198	232
SR8A13	6GF	37	50	79,3	●	●	1408	1180	2588	141	198	216,8
	TR6	37	50	80	O	●	1408	1312	2720	144	198	238
SR8A14	6GF	37	50	79,3	●	●	1468	1180	2648	141	198	222,8
	TR6	37	50	80	O	●	1468	1312	2780	144	198	244
SR8A15	TR6	45	60	93,1	●	●	1528	1457	2985	144	198	265
	TR8	45	60	92	O	●	1528	1270	2798	192	198	307
SR8A16	TR6	45	60	93,1	●	●	1616	1457	3073	144	198	275
	TR8	45	60	92	O	●	1616	1270	2886	192	198	317
SR8A17	TR6	45	60	93,1	●	●	1676	1457	3133	144	198	281
	TR8	45	60	92	O	●	1676	1270	2946	192	198	323
SR8A18	TR8	55	75	109	O	●	1736	1350	3086	192	198	344
SR8A19	TR8	55	75	109	O	●	1796	1350	3146	192	198	350
SR8A20	TR8	55	75	109	O	●	1856	1350	3206	192	198	356
SR8A21	TR8	55	75	109	O	●	1994	1350	3344	192	198	367

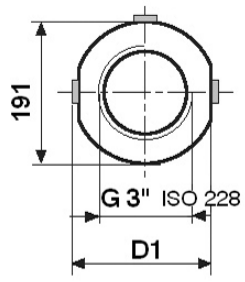
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

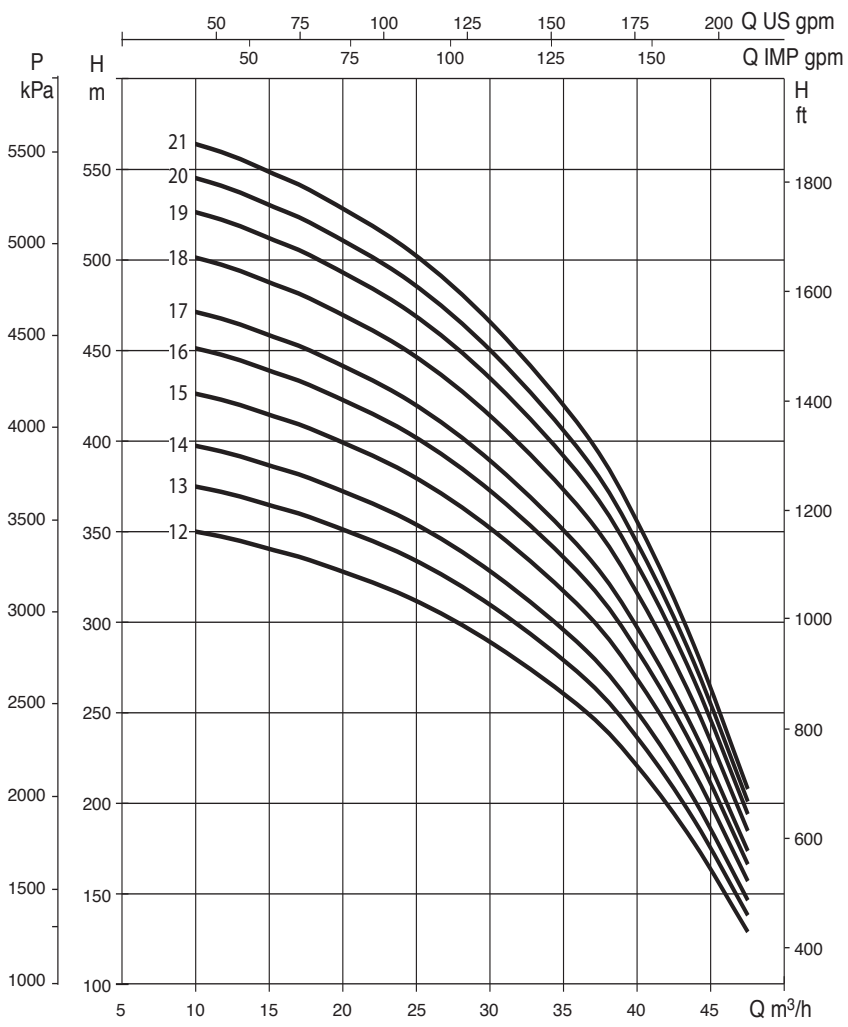
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

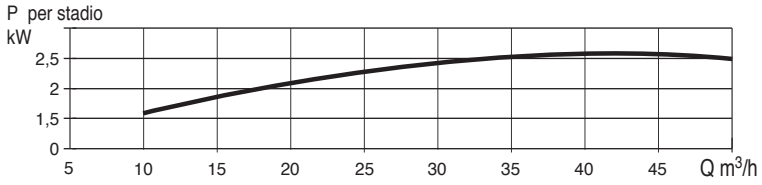
SR8A

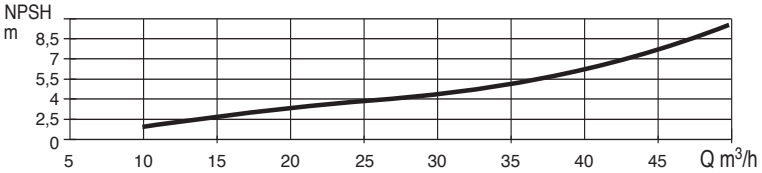
RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

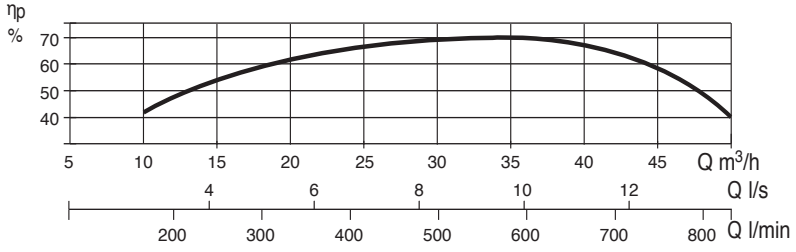












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR8A

RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA								STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	15	20	25	30	35	40	45	
	kW	HP	Q=l/min	0	250	333	417	500	583	667	750	
SR8A22	63	85	H (m)	568	531	512	484	449	407	345	257	8"
SR8A23	63	85		587	550	530	500	465	421	357	266	8"
SR8A24	63	85		600	562	541	511	475	431	365	272	8"
SR8A25	75	100		645	604	582	549	510	463	392	292	8"
SR8A26	75	100		664	622	599	566	525	476	404	301	8"
SR8A27	75	100		683	639	615	581	540	490	415	309	8"
SR8A28	75	100		700	656	632	597	554	503	426	317	8"
SR8A29	75	100		741	693	668	631	586	531	450	335	8"
SR8A30	92	125		758	710	684	646	600	544	461	343	8"
SR8A31	92	125		776	726	699	661	614	557	472	351	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1,2	

ELECTRICAL DATA AND DIMENSIONS

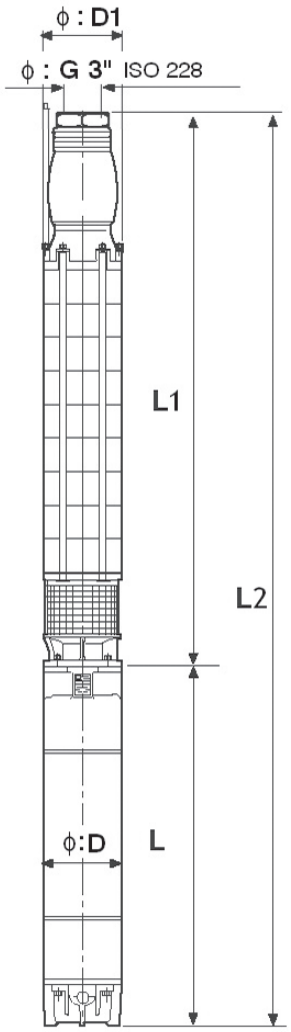
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR8A22	TR8	63	85	126	O	●	2054	1490	3544	192	198	399
SR8A23	TR8	63	85	126	O	●	2114	1490	3604	192	198	405
SR8A24	TR8	63	85	126	O	●	2174	1490	3664	192	198	411
SR8A25	TR8	75	100	145	O	●	2234	1590	3824	192	198	436
SR8A26	TR8	75	100	145	O	●	2294	1590	3884	192	198	442
SR8A27	TR8	75	100	145	O	●	2354	1590	3944	192	198	448
SR8A28	TR8	75	100	145	O	●	2414	1590	4004	192	198	454
SR8A29	TR8	75	100	145	O	●	2474	1590	4064	192	198	460
SR8A30	TR8	92	125	177	O	●	2534	1830	4364	192	198	512
SR8A31	TR8	92	125	177	O	●	2594	1830	4424	192	198	518

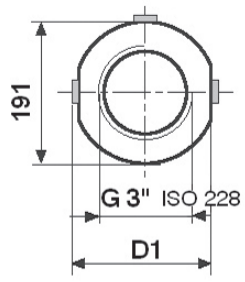
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

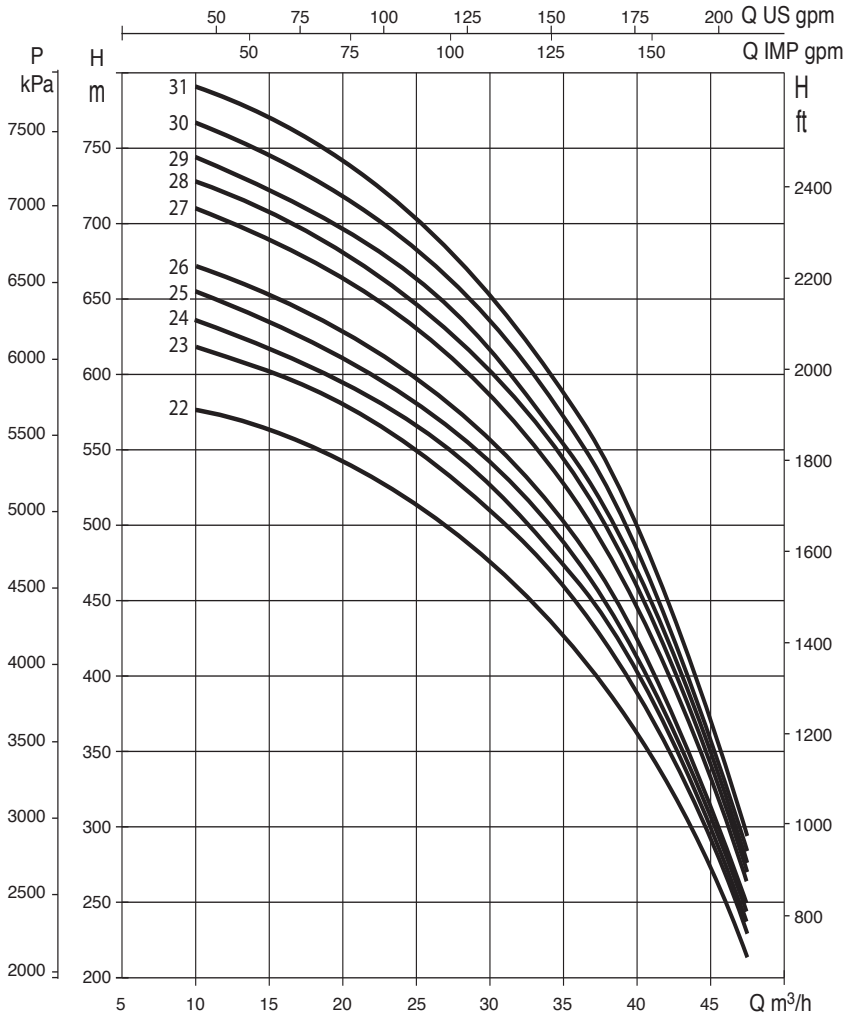
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

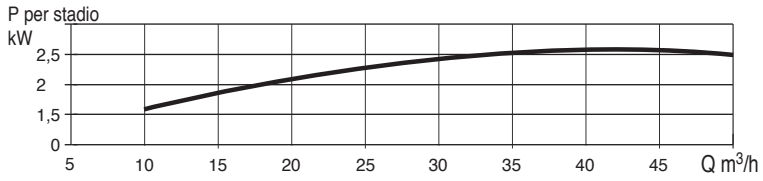
SR8A

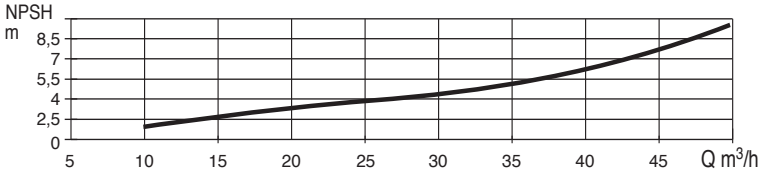
RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

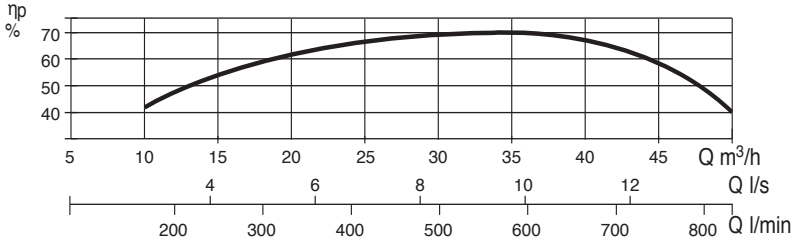












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR8B

RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA									STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	20	30	40	50	60	70	80	
	kW	HP	Q=l/min	0	333	500	667	833	1000	1067	1333	
SR8B2	7,5	10	H (m)	47	43	41	39	35	31	25	17	6"
SR8B3	11	15		72	66	63	59	54	47	38	27	6"
SR8B4	15	20		97	90	85	80	73	63	51	36	6"
SR8B5	18,5	25		122	113	107	101	92	80	65	46	6"
SR8B6	22	30		148	137	130	122	112	97	79	55	6"
SR8B7	30	40		173	160	152	143	130	113	92	64	6"
SR8B8	30	40		198	183	174	163	149	129	105	74	6"
SR8B9	37	50		222	206	195	184	167	145	118	83	6"
SR8B10	37	50		247	229	217	204	186	161	131	92	6"
SR8B11	45	60		272	251	239	224	205	17	144	101	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1,5	3	

ELECTRICAL DATA AND DIMENSIONS

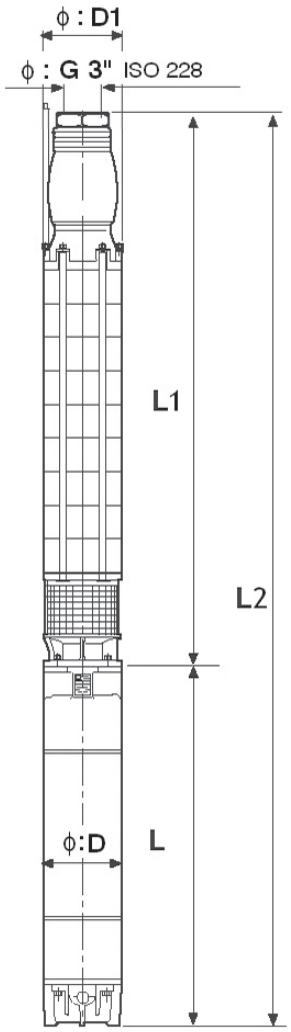
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR8B2	6GF	7,5	10	18	●	●	670	660	1330	141	198	92,2
	TR6	7,5	10	18	O	●	670	837	1507	144	198	100
SR8B3	6GF	11	15	25,5	●	●	730	730	1460	141	198	106
	TR6	11	15	25	O	●	730	897	1627	144	198	113
SR8B4	6GF	15	20	33,4	●	●	790	785	1575	141	198	118
	TR6	15	20	32	O	●	790	997	1787	144	198	136
SR8B5	6GF	18,5	25	41	●	●	850	860	1710	141	198	132
	TR6	18,5	25	39	O	●	850	1057	1907	144	198	148
SR8B6	6GF	22	30	47	●	●	910	920	1830	141	198	141,6
	TR6	22	30	49	O	●	910	1087	1997	144	198	166
SR8B7	6GF	30	40	61,5	●	●	970	1050	2020	141	198	163,8
	TR6	26	35	58	O	●	970	1157	2127	144	198	182
SR8B8	6GF	30	40	61,5	●	●	1030	1050	2080	141	198	169,8
	TR6	30	40	65	O	●	1030	1212	2242	144	198	193
SR8B9	6GF	37	50	79,3	●	●	1090	1180	2270	141	198	187,8
	TR6	37	50	80	O	●	1090	1312	2402	144	198	209
SR8B10	6GF	37	50	79,3	●	●	1150	1180	2330	141	198	193,8
	TR6	37	50	80	O	●	1150	1312	2462	144	198	215
SR8B11	TR6	45	60	93,1	●	●	1288	1457	2745	144	198	241
	TR8	45	60	92	O	●	1348	1270	2618	192	198	289

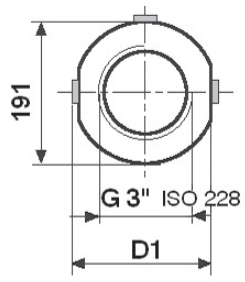
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

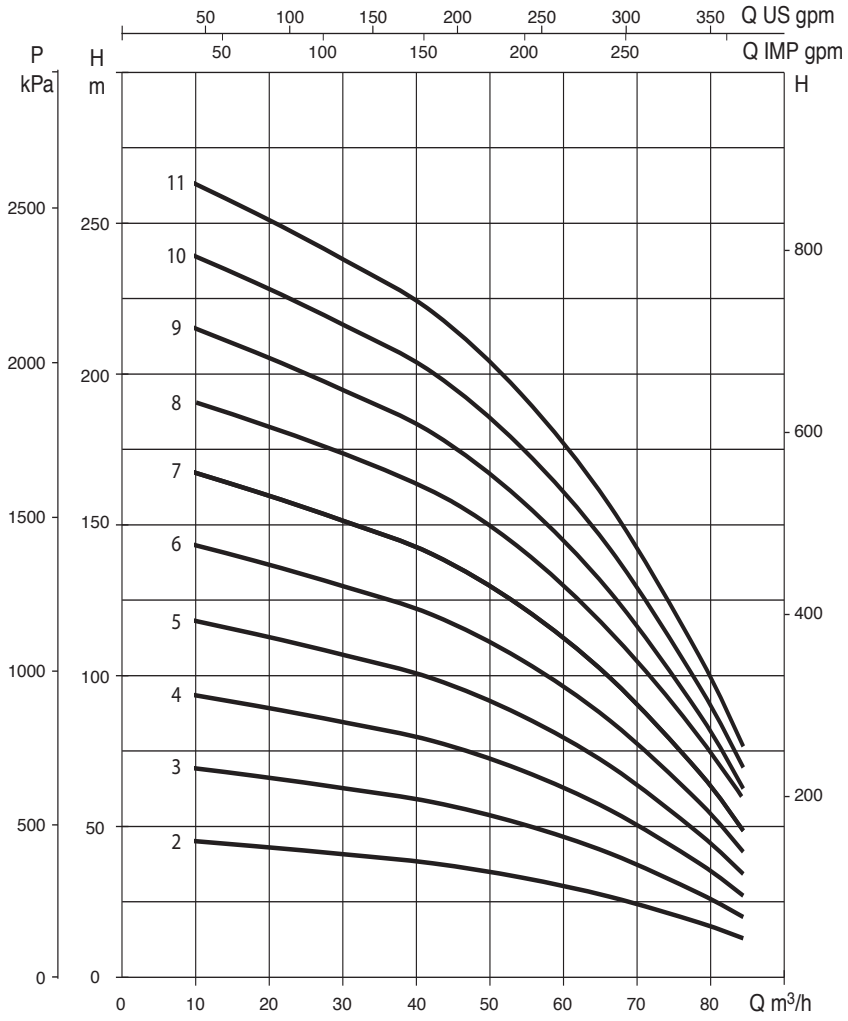
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

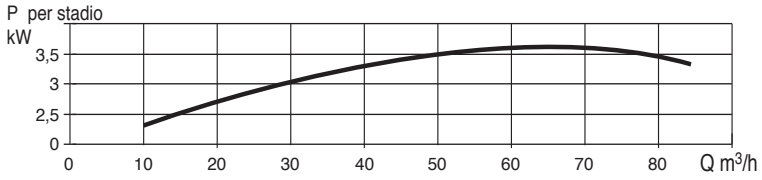
SR8B

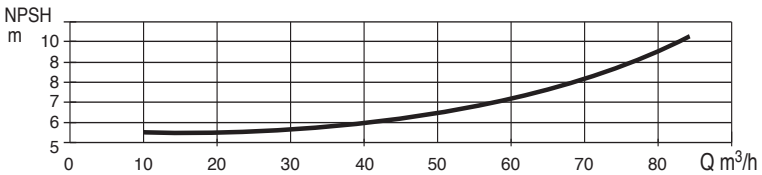
RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

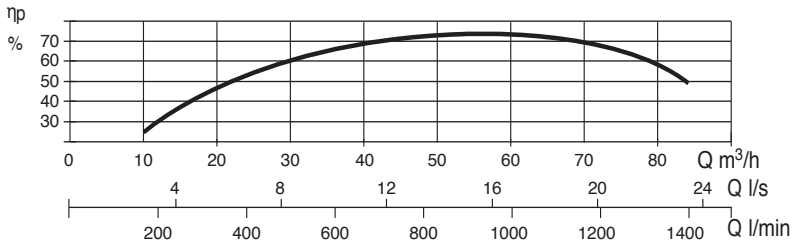












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SR8B

RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA								STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	20	30	40	50	60	70	80	
	kW	HP	Q=l/min	0	333	500	667	833	1000	1067	1333	
SR8B12	45	60	H (m)	296	274	260	245	223	193	157	110	8"
SR8B13	55	75		321	297	282	265	242	209	170	120	8"
SR8B14	55	75		346	320	304	286	260	225	183	129	8"
SR8B15	55	75		371	343	326	306	279	242	197	138	8"
SR8B16	63	85		395	366	347	326	298	258	210	147	8"
SR8B17	63	85		420	388	369	347	316	274	223	156	8"
SR8B18	75	100		445	411	391	367	335	290	236	166	8"
SR8B19	75	100		469	434	412	388	353	306	249	175	8"
SR8B20	75	100		494	457	434	408	372	322	262	184	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1,5	3	

ELECTRICAL DATA AND DIMENSIONS

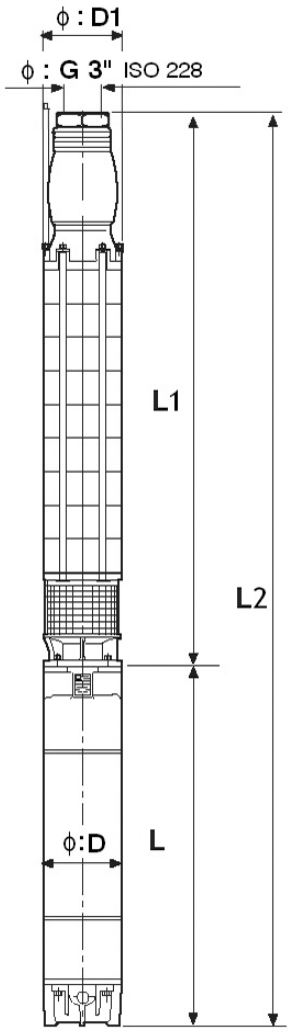
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SR8B12	TR6	45	60	93,1	●	●	1348	1457	2805	144	198	247
	TR8	45	60	92	O	●	1288	1270	2558	192	198	283
SR8B13	TR8	55	75	109	O	●	1408	1350	2758	192	198	310
SR8B14	TR8	55	75	109	O	●	1468	1350	2818	192	198	316
SR8B15	TR8	55	75	109	O	●	1528	1350	2878	192	198	322
SR8B16	TR8	63	85	126	O	●	1616	1490	3106	192	198	358
SR8B17	TR8	63	85	126	O	●	1676	1490	3166	192	198	364
SR8B18	TR8	75	100	145	O	●	1736	1590	3326	192	198	389
SR8B19	TR8	75	100	145	O	●	1796	1590	3386	192	198	395
SR8B20	TR8	75	100	145	O	●	1856	1590	3446	192	198	401

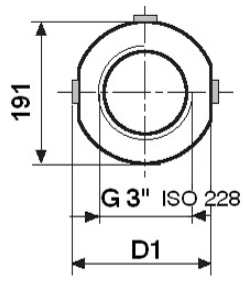
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

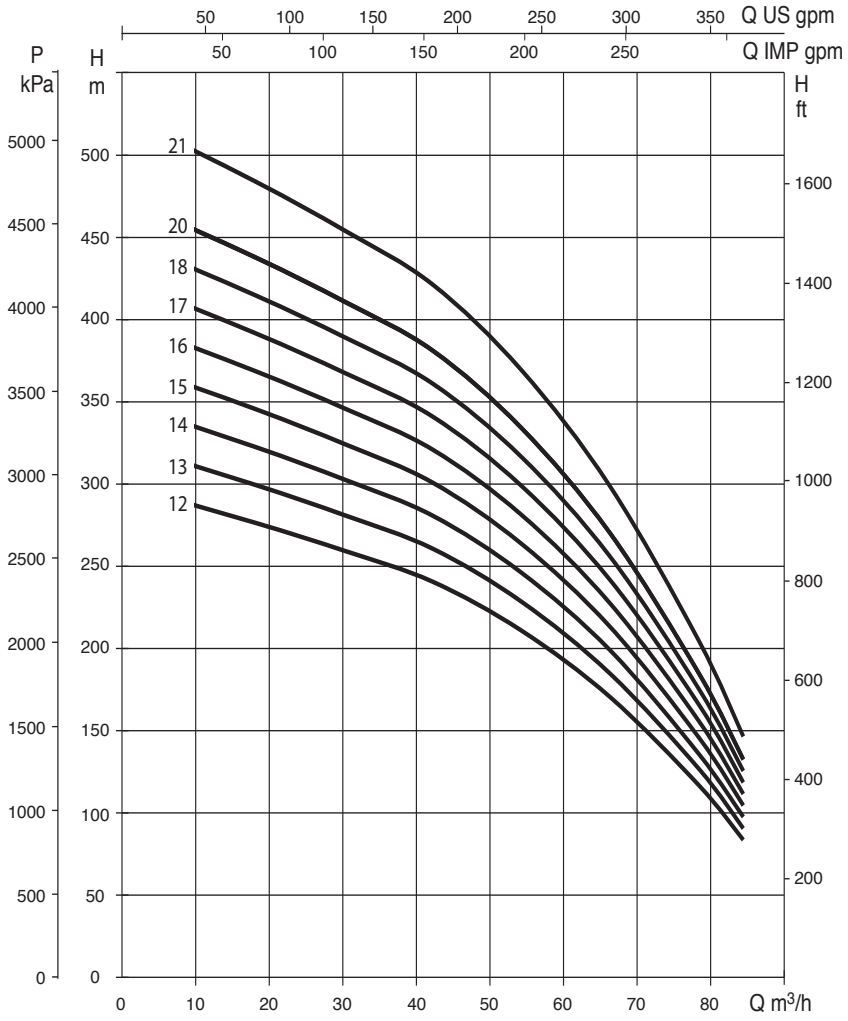
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

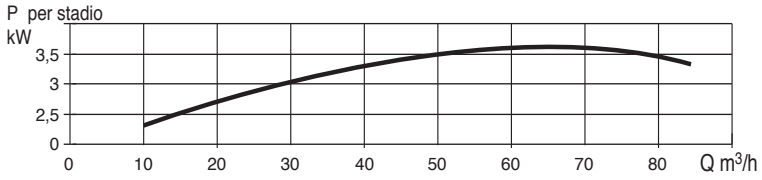
SR8B

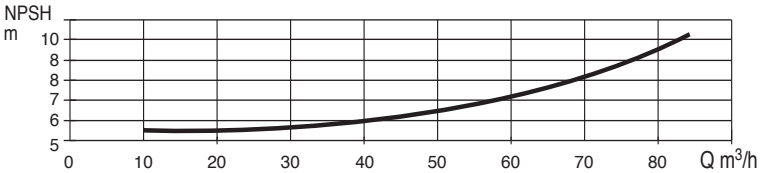
RADIAL 8" SUBMERSIBLE ELECTRIC PUMPS

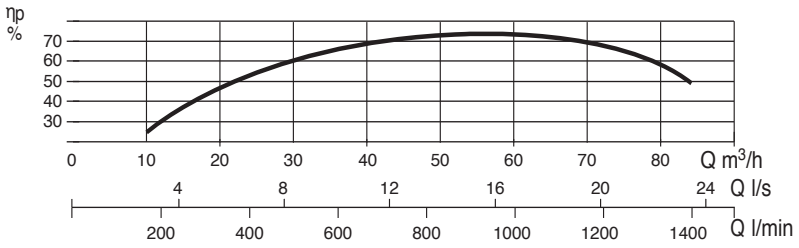












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM8

SEMIAXIAL 8” SUBMERSIBLE ELECTRIC PUMPS

TECHNICAL DATA

Operating range: up to 160 m^3/h with head up to 380 m.
Pumped liquid: clean, free from solids or abrasive substances, chemically neutral, close to the characteristics of water.
Start-ups/hour: see the coupled motor.
Cooling flow: see the coupled motor.
Maximum permitted amount of sand: 50 g/m^3.
Ambient temperature: 30 °C.
Minimum recommended level on suction line: 1/-2 m depending on the working point of the electric pump.
Installation: horizontal or vertical.

APPLICATIONS

Multistage semiaxial submersible electric pumps for wells measuring 8” or above, able to generate a broad range of flow rates and heads.
They are used extensively for the lifting, distribution and pressurisation of industrial water systems, the supply of autoclaves and tanks, firefighting systems and irrigation systems.
Application with clean, non-aggressive water free from solids or abrasive substances.

CONSTRUCTION FEATURES OF THE PUMP

Pump body in cast iron with paint coating, impellers in cast iron. Dynamically balanced impellers coupled on the shaft with pull tab.
Shaft guided with coaxial bush bearings and fully protected with bushes.

Pump with check valve of low pressure loss.
Flanged and threaded discharge port.

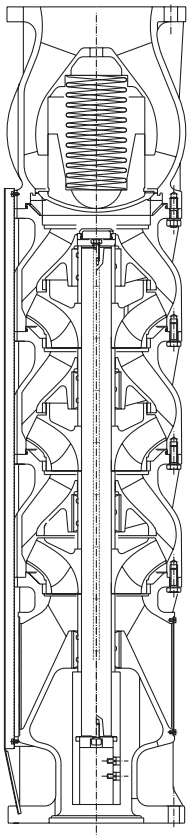
Coupling with motors of 6”, 8” or 10” depending on the required hydraulic power:
6GF: encapsulated 6” submersible motor.
TR6: rewindable 6” submersible motor.
TR8: rewindable 8” submersible motor.
TR10: rewindable 10” submersible motor.
For operation with inverter see the specifications of the coupled motor.

ON REQUEST

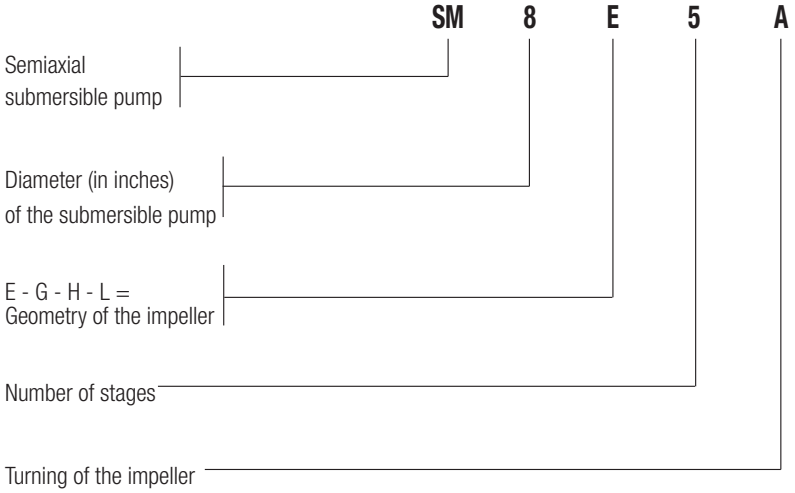
Pump body in microcast AISI 316 stainless steel for use in aggressive water.
Impellers in microcast AISI 316 stainless steel or bronze.
Pump body without check valve for horizontal installation.
Motor in AISI 316 stainless steel for use in aggressive water.
Non-standard pump/motor couplings.
Star/Delta starting version.
Motor version for high temperature of water.

MATERIALS

PARTS	MATERIALS
BODY OF VALVE	CAST IRON
PRESSURE CHAMBER	CAST IRON
BEARING ON PRESSURE SIDE	BRONZE
STAGE BODY	CAST IRON
FIXED WEAR RING	STEEL AND RUBBER
INTERMEDIATE BEARING	STEEL AND RUBBER
IMPELLER	CAST IRON
STAGE BODY GASKET	RUBBER
SUCTION GRID	STAINLESS STEEL
CABLE PROTECTION ELEMENT	STAINLESS STEEL
BEARING ON SUCTION SIDE	STEEL AND RUBBER
SUCTION CHAMBER	CAST IRON
SHAFT	AISI 420 STAINLESS STEEL
SPACER BUSH	STAINLESS STEEL
SCREWS	AISI 304 STAINLESS STEEL



– Legend:
(example)



SM8E

SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA										STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	30	40	50	60	70	80	90	100	
	kW	HP	Q=l/min	0	500	667	833	1000	1167	1333	1500	1667	
SM8E1A	5,5	7,5	H (m)	24	21	20	18	17	16	14	12	9	6"
SM8E2A	9,2	12,5		48	41	39	37	34	31	28	24	18	6"
SM8E3A	13,0	17,5		74	63	60	56	52	48	42	36	28	6"
SM8E4A	18,5	25,0		100	85	81	76	70	64	57	49	38	6"
SM8E5A	22,0	30,0		126	108	102	96	89	81	72	61	48	6"
SM8E6A	26,0	35,0		153	131	124	116	107	98	88	74	58	6"
SM8E7A	30,0	40,0		179	153	144	135	125	113	100	85	67	6"
SM8E8A	37,0	50,0		204	174	165	154	143	131	117	99	77	6"
SM8E9A	45,0	60,0		230	196	185	174	161	148	131	112	86	8"
SM8E10A	45,0	60,0		255	218	206	193	179	164	146	124	96	8"
SM8E11A	55,0	75,0		281	240	227	212	197	180	161	136	106	8"
SM8E12A	55,0	75,0		306	262	247	232	215	197	175	149	115	8"
SM8E13A	63,0	85,0		332	283	268	251	233	213	190	161	125	8"
SM8E14A	63,0	85,0		357	305	288	270	251	230	204	174	134	8"
SM8E15A	75,0	100		383	327	309	290	269	246	219	186	144	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

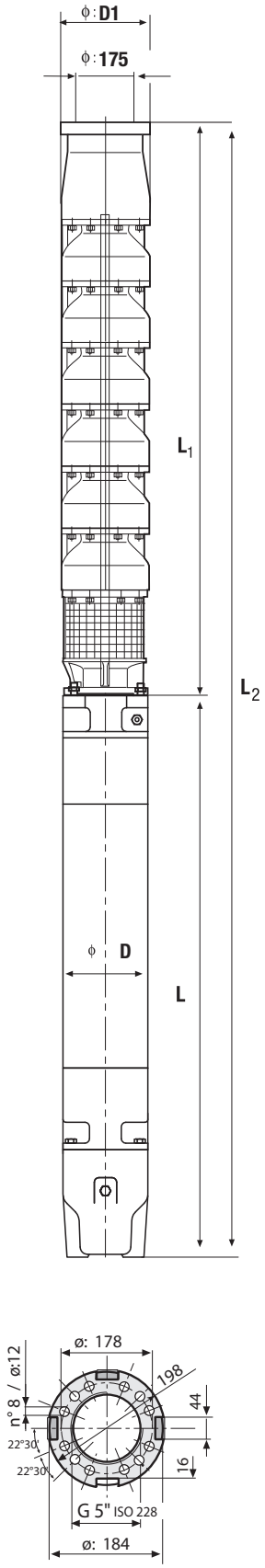
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM8E1A	6GF	5,5	7,5	14	●	●	604	631	1235	141	198	84,6
	TR6	5,5	7,5	13	O	●	604	807	1411	144	198	92
SM8E2A	6GF	9,2	12,5	22	●	●	736	685	1421	141	198	100,6
	TR6	9,2	12,5	21	O	●	736	867	1603	144	198	107
SM8E3A	6GF	15	20	33,4	●	●	868	785	1653	141	198	121
	TR6	13	17,5	29	O	●	868	927	1795	144	198	127
SM8E4A	6GF	18,5	25	41	●	●	1000	860	1860	141	198	139
	TR6	18,5	25	39	O	●	1000	1057	2057	144	198	155
SM8E5A	6GF	22	30	47	●	●	1132	920	2052	141	198	152,6
	TR6	22	30	49	O	●	1132	1087	2219	144	198	177
SM8E6A	6GF	30	40	61,5	●	●	1264	1050	2314	141	198	178,8
	TR6	26	35	58	O	●	1264	1157	2421	144	198	197
SM8E7A	6GF	30	40	61,5	●	●	1396	1050	2446	141	198	188,8
	TR6	30	40	65	O	●	1396	1212	2608	144	198	212
SM8E8A	6GF	37	50	79,3	●	●	1528	1180	2708	141	198	210,8
	TR6	37	50	80	O	●	1528	1312	2840	144	198	232
SM8E9A	TR6	45	60	93,1	●	●	1688	1457	3145	144	198	260
	TR8	45	60	92	O	●	1688	1270	2958	192	198	302
SM8E10A	TR6	45	60	93,1	●	●	1820	1457	3277	144	198	270
	TR8	45	60	92	O	●	1820	1270	3090	192	198	312
SM8E11A	TR8	55	75	109	O	●	1952	1350	3302	192	198	337
SM8E12A	TR8	55	75	109	O	●	2084	1350	3434	192	198	347
SM8E13A	TR8	63	85	126	O	●	2216	1490	3706	192	198	383
SM8E14A	TR8	63	85	126	O	●	2348	1490	3838	192	198	393
SM8E15A	TR8	75	100	145	O	●	2480	1590	4070	192	198	422

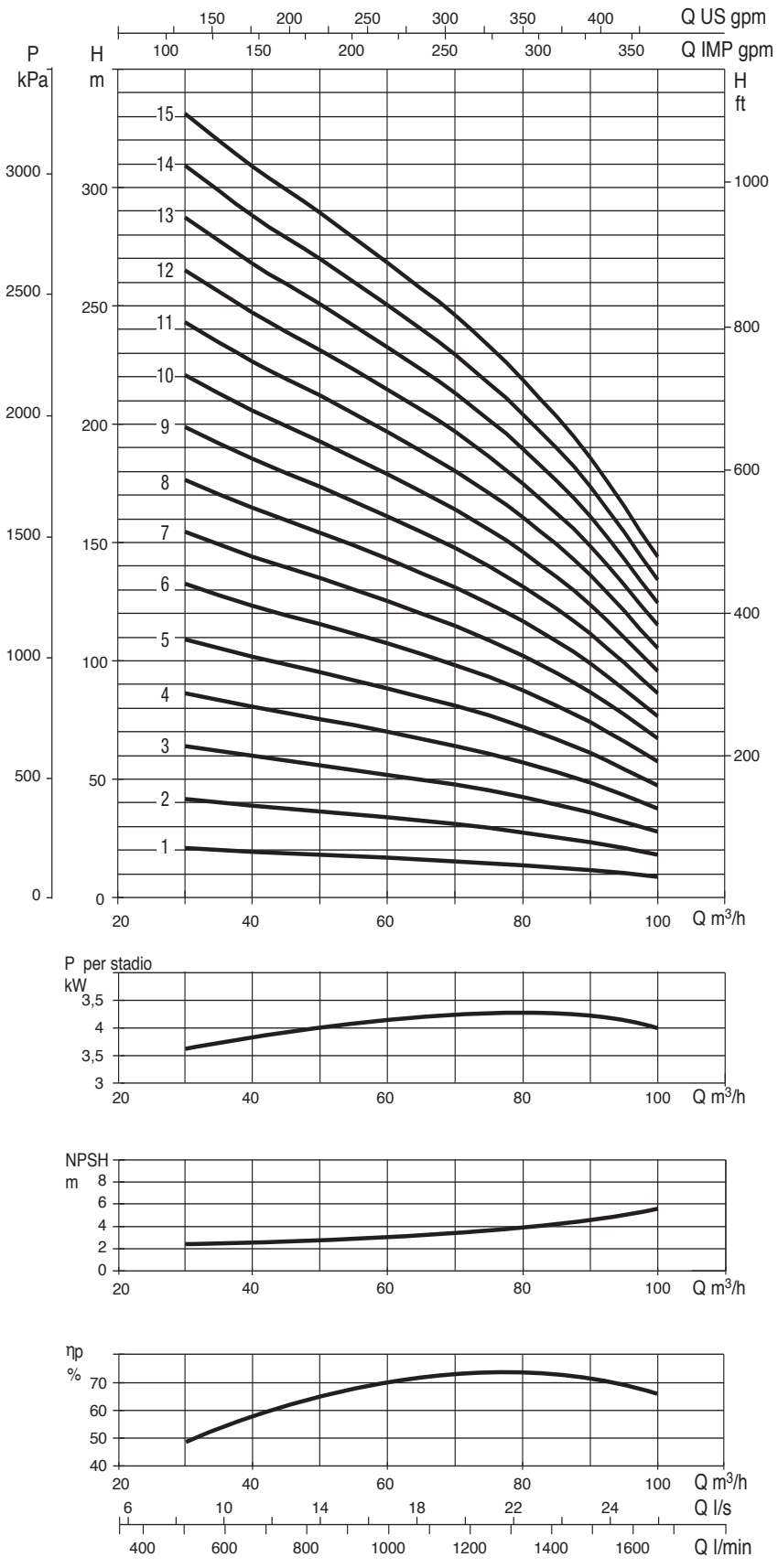
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM8E

SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS





Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM8G

SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	40	50	60	70	80	90	100	110	120	
	kW	HP	Q=l/min	0	667	833	1000	1167	1333	1500	1667	1833	2000	
SM8G1A	5,5	7,5	H (m)	26	21	20	19	18	16	15	14	12	9	6"
SM8G2A	11,0	15,0		51	42	40	38	35	33	30	27	23	18	6"
SM8G3A	18,5	25,0		79	65	62	58	54	50	47	42	36	28	6"
SM8G4A	22,0	30,0		106	88	83	78	73	68	63	56	48	38	6"
SM8G5A	26,0	35,0		134	111	105	99	92	86	79	71	61	48	6"
SM8G6A	37,0	50,0		162	134	127	119	112	104	96	86	74	58	6"
SM8G7A	37,0	50,0		189	156	148	139	130	121	112	101	86	68	6"
SM8G8A	45,0	60,0		216	179	170	159	149	138	128	115	98	78	8"
SM8G9A	55,0	75,0		243	201	191	179	167	156	144	130	111	87	8"
SM8G10A	55,0	75,0		270	224	212	199	186	173	160	144	123	97	8"
SM8G11A	63,0	85,0		297	246	233	219	205	190	176	158	135	107	8"
SM8G12A	63,0	85,0		324	268	254	239	223	208	192	173	148	116	8"
SM8G13A	75,0	100		351	291	276	259	242	225	208	187	160	126	8"
SM8G14A	75,0	100		378	313	297	279	260	242	224	202	172	136	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

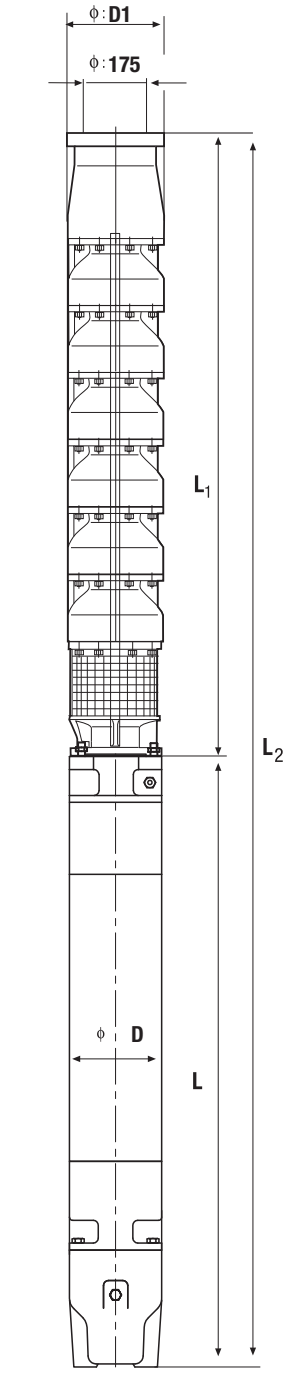
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM8G1A	6GF	5,5	7,5	14	●	●	604	631	1235	141	198	84,6
	TR6	5,5	7,5	13	O	●	604	807	1411	144	198	92
SM8G2A	6GF	11	15	25,5	●	●	736	730	1466	141	198	105
	TR6	11	15	25	O	●	736	897	1633	144	198	112
SM8G3A	6GF	18,5	25	41	●	●	868	860	1728	141	198	129
	TR6	18,5	25	39	O	●	868	1057	1925	144	198	145
SM8G4A	6GF	22	30	47	●	●	1000	920	1920	141	198	142,6
	TR6	22	30	49	O	●	1000	1087	2087	144	198	167
SM8G5A	6GF	30	40	61,5	●	●	1132	1050	2182	141	198	168,8
	TR6	26	35	58	O	●	1132	1157	2289	144	198	187
SM8G6A	6GF	37	50	79,3	●	●	1264	1180	2444	141	198	190,8
	TR6	37	50	80	O	●	1264	1312	2576	144	198	212
SM8G7A	6GF	37	50	79,3	●	●	1396	1180	2576	141	198	200,8
	TR6	37	50	80	O	●	1396	1312	2708	144	198	222
SM8G8A	TR6	45	60	93,1	●	●	1556	1457	3013	144	198	250
	TR8	45	60	92	O	●	1556	1270	2826	192	198	292
SM8G9A	TR8	55	75	109	O	●	1688	1350	3038	192	198	317
SM8G10A	TR8	55	75	109	O	●	1820	1350	3170	192	198	327
SM8G11A	TR8	62	85	126	O	●	1952	1490	3442	192	198	363
SM8G12A	TR8	62	85	126	O	●	2084	1490	3574	192	198	373
SM8G13A	TR8	75	100	145	O	●	2216	1590	3806	192	198	402
SM8G14A	TR8	75	100	145	O	●	2348	1590	3938	192	198	412

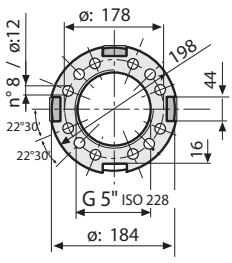
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

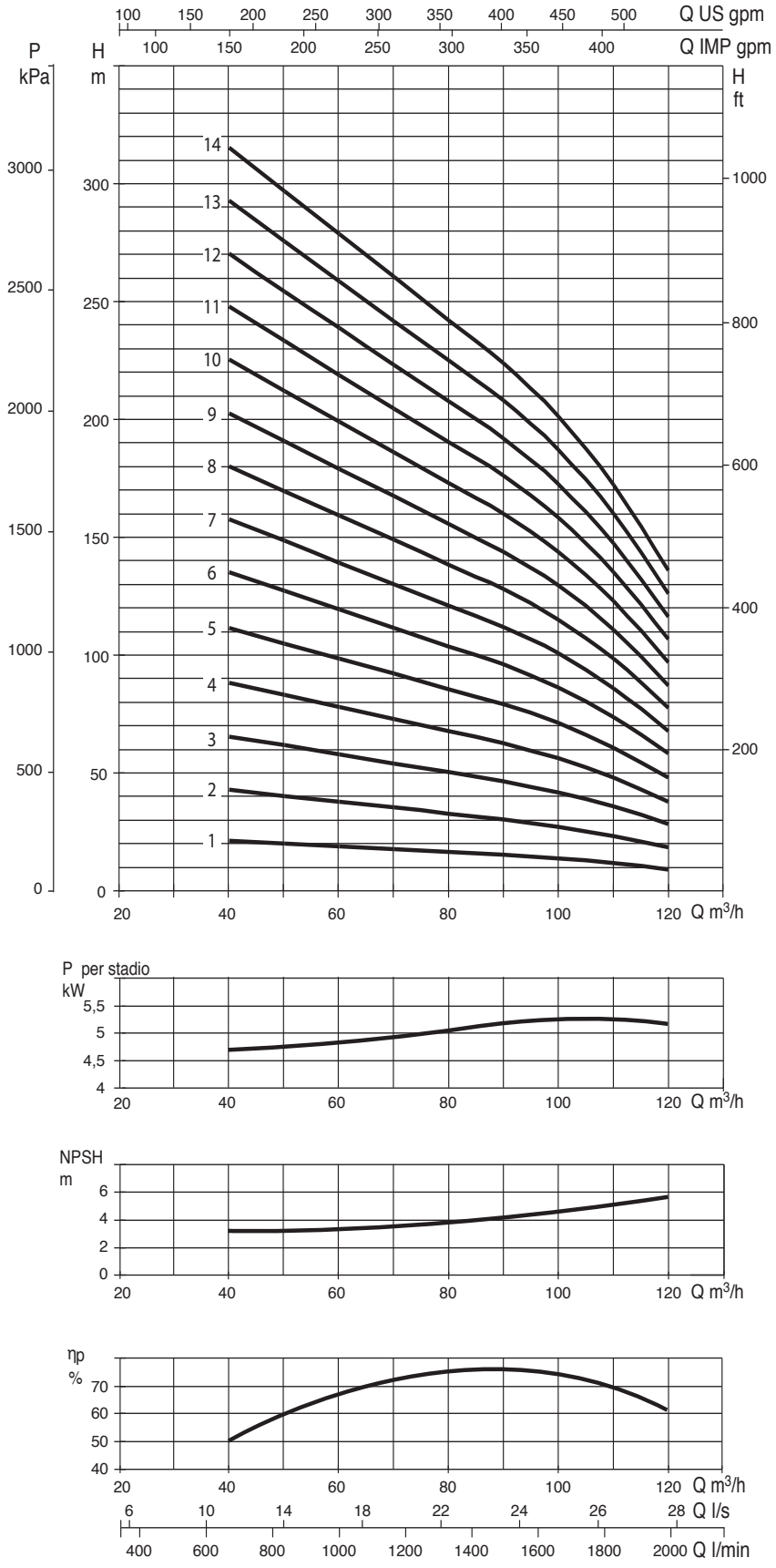
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM8G

SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM8H

SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	60	70	80	90	100	110	120	130	140	
	kW	HP	Q=l/min	0	1000	1167	1333	1500	1667	1833	2000	2167	2333	
SM8H1A	7,5	10,0	H (m)	24	20	19	18	17	16	15	14	12	11	6"
SM8H2A	13,0	17,5		49	40	38	36	34	32	30	28	25	22	6"
SM8H3A	22,0	30,0		74	61	58	55	52	49	46	42	38	33	6"
SM8H4A	26,0	35,0		100	82	78	74	71	67	62	57	51	45	6"
SM8H5A	37,0	50,0		127	104	99	94	89	84	79	72	65	56	6"
SM8H6A	45,0	60,0		154	126	120	113	108	102	95	88	79	68	8"
SM8H7A	45,0	60,0		179	147	140	132	126	119	111	102	92	80	8"
SM8H8A	55,0	75,0		205	168	160	151	144	136	127	117	105	91	8"
SM8H9A	63,0	85,0		230	189	180	170	162	153	143	131	118	103	8"
SM8H10A	75,0	100		256	210	200	189	180	170	159	146	131	114	8"
SM8H11A	75,0	100		282	231	220	208	198	187	175	161	144	125	8"
SM8H12A	92,0	125		307	252	240	227	216	204	191	175	157	137	8"
SM8H13A	92,0	125		333	273	260	246	234	221	207	190	170	148	8"
SM8H14A	92,0	125		358	294	280	265	252	238	223	204	183	160	8"
SM8H15A	110	150		384	315	300	284	270	255	239	219	197	171	8"
Minimum recommended level on suction line (m)					1	1	1	1	1,3	1,4	1,5	1,7	1,8	

ELECTRICAL DATA AND DIMENSIONS

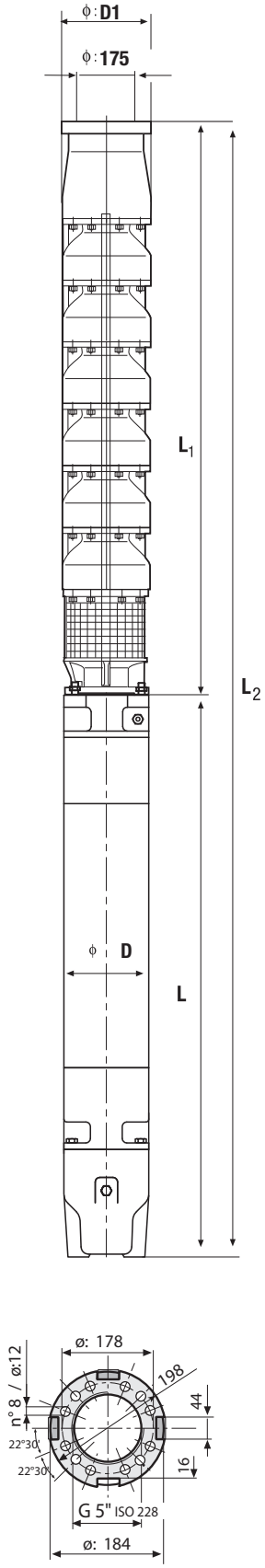
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM8H1A	6GF	7,5	10	18	●	●	604	660	1264	141	198	87,2
	TR6	7,5	10	18	O	●	604	837	1441	144	198	95
SM8H2A	6GF	15	20	33,4	●	●	736	785	1521	141	198	111
	TR6	13	17,5	29	O	●	736	927	1663	144	198	117
SM8H3A	6GF	22	30	47	●	●	868	920	1788	141	198	132,6
	TR6	22	30	49	O	●	868	1087	1955	144	198	157
SM8H4A	6GF	30	40	61,5	●	●	1000	1050	2050	141	198	158,8
	TR6	26	35	58	O	●	1000	1157	2157	144	198	177
SM8H5A	6GF	37	50	79,3	●	●	1132	1180	2312	141	198	180,8
	TR6	37	50	80	O	●	1132	1312	2444	144	198	202
SM8H6A	TR6	45	60	93,1	●	●	1292	1457	2749	144	198	230
	TR8	45	60	92	O	●	1292	1270	2562	192	198	272
SM8H7A	TR6	45	60	93,1	●	●	1424	1457	2881	144	198	240
	TR8	45	60	92	O	●	1424	1270	2694	192	198	282
SM8H8A	TR8	55	75	109	O	●	1556	1350	2906	192	198	307
SM8H9A	TR8	63	85	126	O	●	1688	1490	3178	192	198	343
SM8H10A	TR8	75	100	145	O	●	1820	1590	3410	192	198	372
SM8H11A	TR8	75	100	145	O	●	1952	1590	3542	192	198	382
SM8H12A	TR8	92	125	177	O	●	2084	1830	3914	192	198	438
SM8H13A	TR8	92	125	177	O	●	2216	1830	4046	192	198	448
SM8H14A	TR8	92	125	177	O	●	2348	1830	4178	192	198	458
SM8H15A	TR8	110	150	213	O	Δ	2480	2060	4540	192	198	518

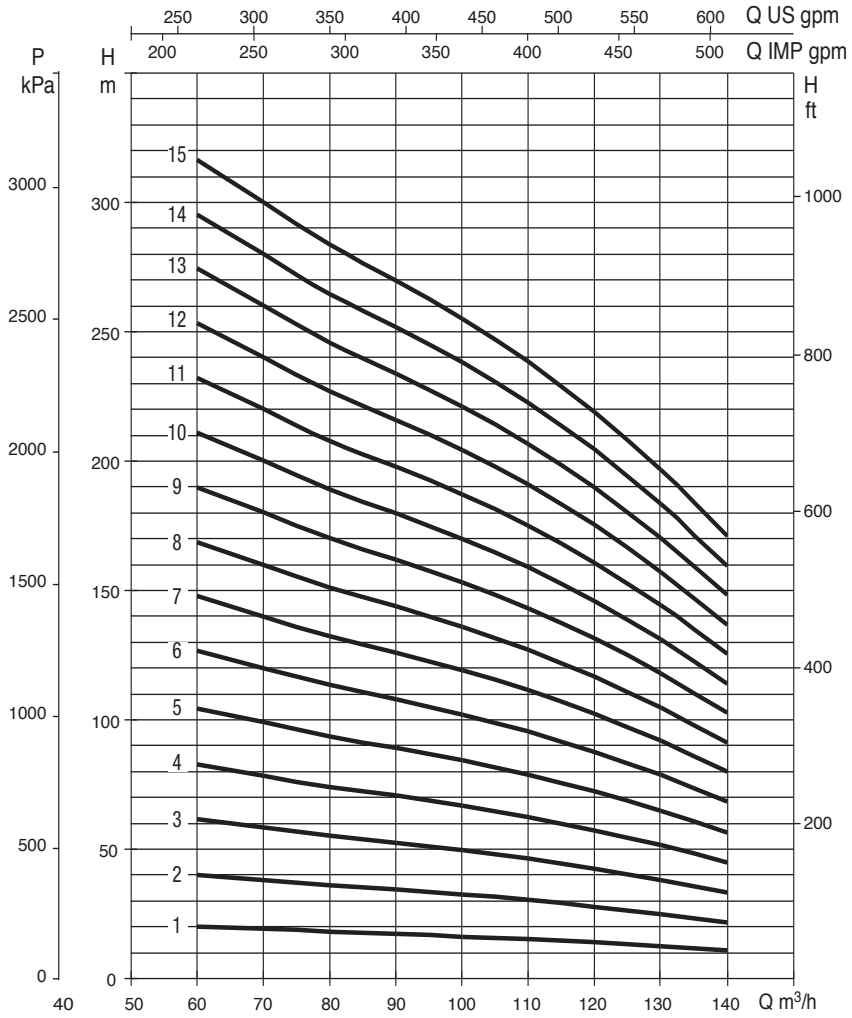
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

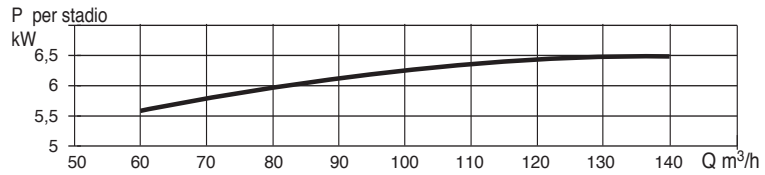
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

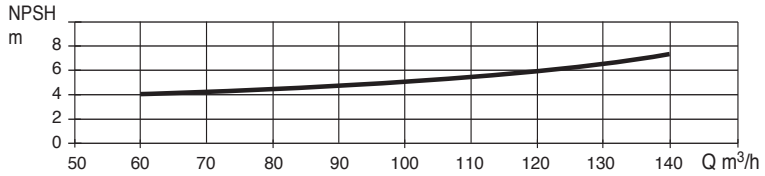
SM8H

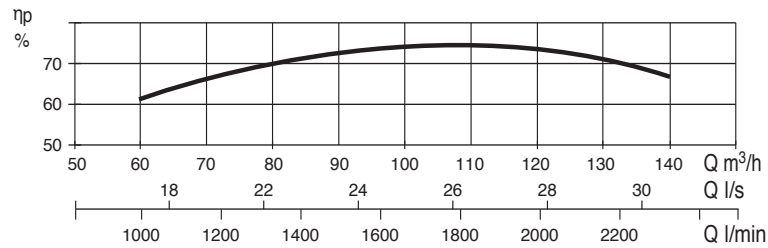
SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS











Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM8L

SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	70	90	100	110	120	130	140	150	160	
	kW	HP	Q=l/min	0	1167	1500	1667	1833	2000	2167	2333	2500	2667	
SM8L1A	9,2	12,5	H (m)	25	20	19	18	17	17	16	15	13	12	6"
SM8L2A	18,5	25,0		50	41	38	36	35	33	32	29	27	24	6"
SM8L3A	26,0	35,0		77	63	58	56	54	51	49	45	41	36	6"
SM8L4A	37,0	50,0		103	84	78	75	72	69	65	60	55	49	6"
SM8L5A	45,0	60,0		131	106	99	95	91	87	83	76	69	61	6"
SM8L6A	55,0	75,0		158	129	119	115	110	106	100	92	84	74	6"
SM8L7A	63,0	85,0		185	151	139	134	129	123	117	108	98	87	6"
SM8L8A	75,0	100		211	172	159	154	147	141	134	123	112	99	6"
SM8L9A	75,0	100		238	194	179	173	166	158	150	139	126	112	6"
SM8L10A	92,0	125		264	215	199	192	184	176	167	154	140	124	6"
SM8L11A	92,0	125		290	237	219	211	202	194	184	169	154	136	6"
SM8L12A	110	150		317	258	239	230	221	211	200	185	168	149	6"
SM8L13A	110	150		343	280	259	250	239	229	217	200	182	161	6"
SM8L14A	132	180		370	301	279	269	258	246	234	216	196	174	6"
Minimum recommended level on suction line (m)					1	1	1	1	1	1,1	1,1	1,2	1,4	

ELECTRICAL DATA AND DIMENSIONS

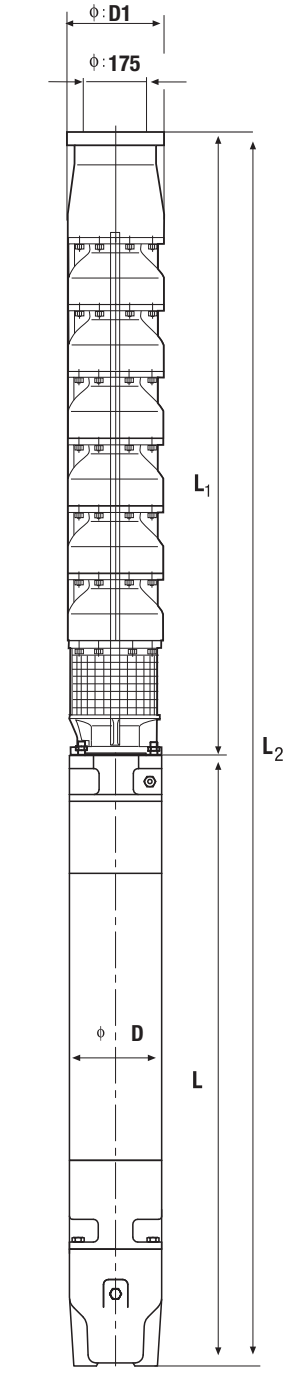
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM8L1A	6GF	9,2	12,5	22	●	●	604	685	1289	141	198	90,6
	TR6	9,2	12,5	21	O	●	604	867	1471	144	198	97
SM8L2A	6GF	18,5	25	41	●	●	736	860	1596	141	198	119
	TR6	18,5	25	39	O	●	736	1057	1793	144	198	135
SM8L3A	6GF	30	40	61,5	●	●	868	1050	1918	141	198	148,8
	TR6	26	35	58	O	●	868	1157	2025	144	198	167
SM8L4A	6GF	37	50	79,3	●	●	1000	1180	2180	141	198	170,8
	TR6	37	50	80	O	●	1000	1312	2312	144	198	192
SM8L5A	TR6	45	60	93,1	●	●	1132	1457	2402	144	198	217
	TR8	45	60	92	O	●	1132	1270	2402	192	198	259
SM8L6A	TR8	55	75	109	O	●	1292	1350	2642	192	198	287
SM8L7A	TR8	63	85	126	O	●	1424	1490	2914	192	198	323
SM8L8A	TR8	75	100	145	O	●	1556	1590	3146	192	198	352
SM8L9A	TR8	75	100	145	O	●	1688	1590	3278	192	198	362
SM8L10A	TR8	92	125	177	O	●	1820	1830	3650	192	198	418
SM8L11A	TR8	92	125	177	O	●	1952	1830	3782	192	198	428
SM8L12A	TR8	110	150	213	O	Δ	2084	2060	4144	192	198	488
SM8L13A	TR8	110	150	213	O	Δ	2216	2060	4276	192	198	498
SM8L14A	TR8	132	180	257	O	●	2348	1870	4218	232	198	610

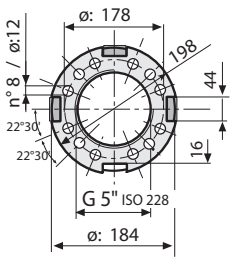
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

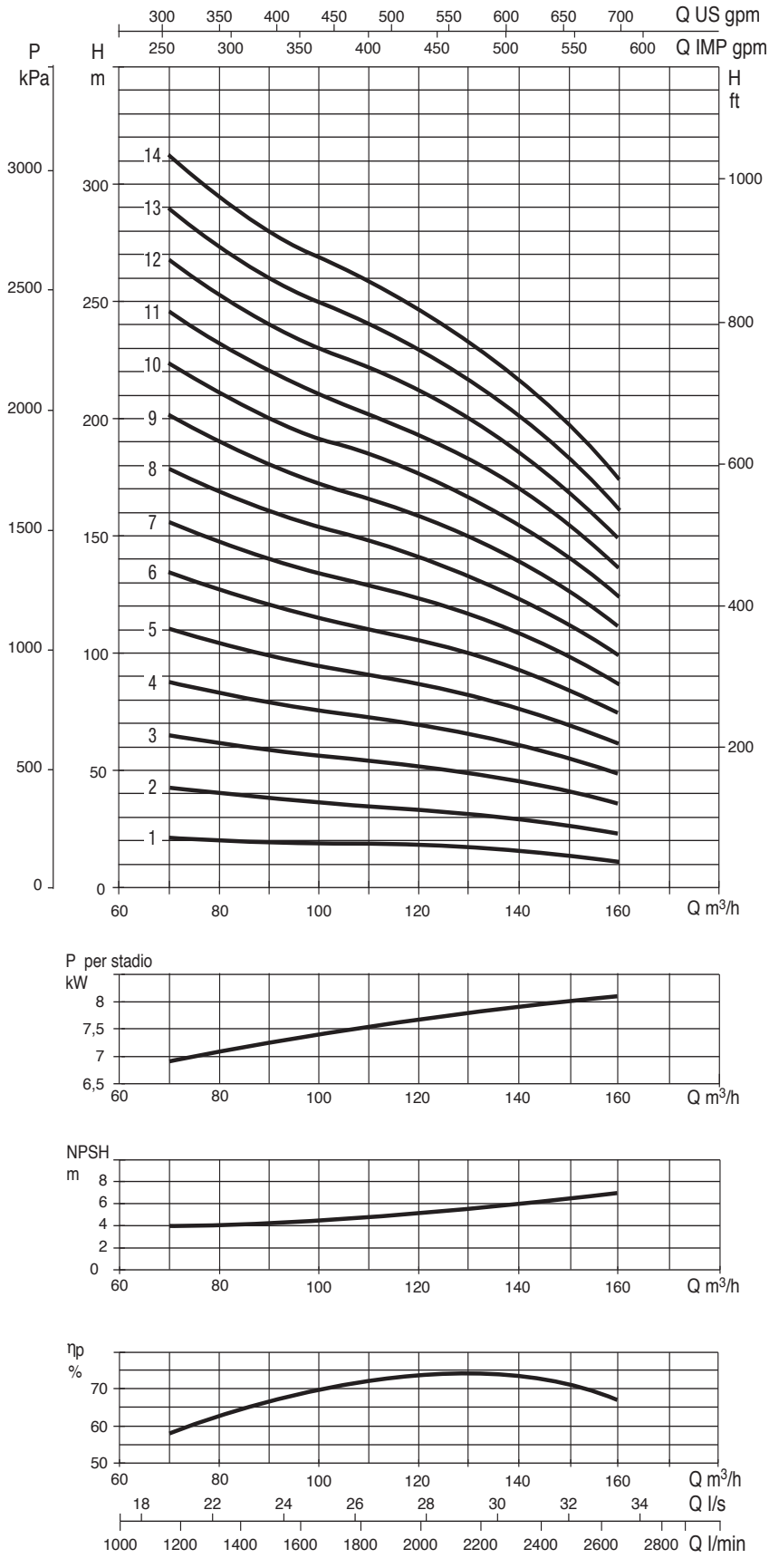
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM8L

SEMIAXIAL 8" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM10

SEMIAXIAL 10” SUBMERSIBLE ELECTRIC PUMPS

TECHNICAL DATA

Operating range: up to 360 m^3/h with head up to 300 m.
Pumped liquid: clean, free from solids or abrasive substances, chemically neutral, close to the characteristics of water.
Start-ups/hour: see the coupled motor.
Cooling flow: see the coupled motor.
Maximum permitted amount of sand: 50 g/m^3.
Ambient temperature: 30 °C.
Minimum recommended level on suction line: 1 m - depending on the working point of the electric pump.
Installation: horizontal or vertical.

APPLICATIONS

Multistage semiaxial submersible electric pumps for wells measuring 10” or above, able to generate a broad range of flow rates and heads.
They are used extensively for the lifting, distribution and pressurisation of industrial water systems, the supply of autoclaves and tanks, firefighting systems and irrigation systems.
Application with clean, non-aggressive water free from solids or abrasive substances.

CONSTRUCTION FEATURES OF THE PUMP

Pump body in cast iron with paint coating, impellers in cast iron. Dynamically balanced impellers coupled on the shaft with pull tab.
Shaft guided with coaxial bush bearings and fully protected with bushes.

Pump with check valve of low pressure loss.
Flanged and threaded discharge port.

Coupling with motors of 6”, 8”, 10” or 12” depending on the required hydraulic power:
6GF: encapsulated 6” submersible motor.
TR6: rewindable 6” submersible motor.
TR8: rewindable 8” submersible motor.
TR10: rewindable 10” submersible motor.
TR12: rewindable 12” submersible motor.
For operation with inverter see the specifications of the coupled motor.

ON REQUEST

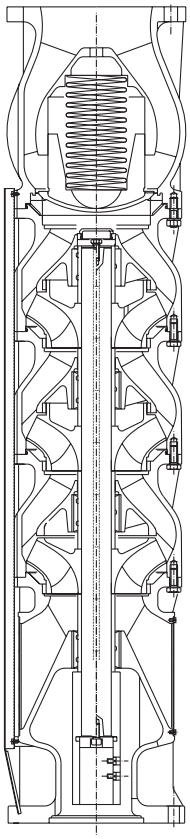
Pump body in microcast AISI 316 stainless steel for use in aggressive water.
Impellers in microcast AISI 316 stainless steel or bronze.
Pump body without check valve for horizontal installation.
Motor in AISI 316 stainless steel for use in aggressive water.
Non-standard pump/motor couplings.
Star/Delta starting version.
Motor version for high temperature of water.

SM10

SEMIAXIAL 10” SUBMERSIBLE ELECTRIC PUMPS

MATERIALS

PARTS	MATERIALS
BODY OF VALVE	CAST IRON
PRESSURE CHAMBER	CAST IRON
BEARING ON PRESSURE SIDE	BRONZE
STAGE BODY	CAST IRON
FIXED WEAR RING	STEEL AND RUBBER
INTERMEDIATE BEARING	STEEL AND RUBBER
IMPELLER	CAST IRON
STAGE BODY GASKET	RUBBER
SUCTION GRID	STAINLESS STEEL
CABLE PROTECTION ELEMENT	STAINLESS STEEL
BEARING ON SUCTION SIDE	STEEL AND RUBBER
SUCTION CHAMBER	CAST IRON
SHAFT	AISI 420 STAINLESS STEEL
SPACER BUSH	STAINLESS STEEL
SCREWS	AISI 304 STAINLESS STEEL



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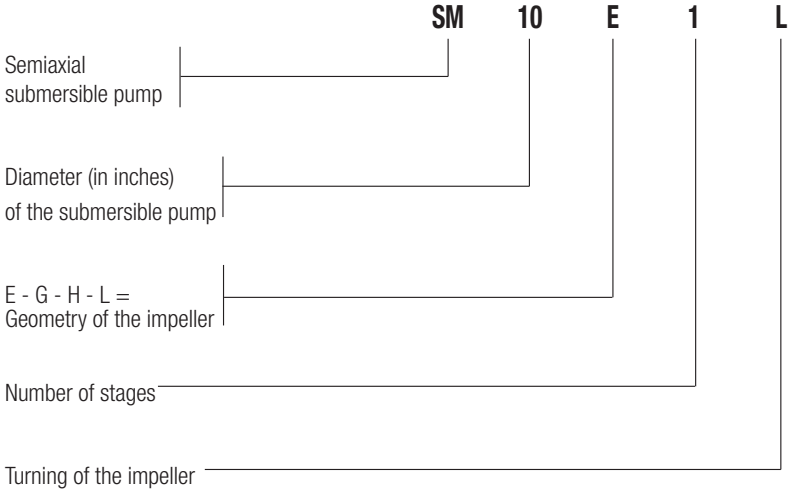
(example)



SM10E

SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											COUPLING STANDARD MOTOR
	P2 NOMINAL		Q=m³/h	0	80	100	120	140	150	160	170	180	190	
	kW	HP	Q=l/min	0	1333	1667	2000	2333	2500	2667	2833	3000	3167	
SM10E1L	9,2	12,5	H (m)	32	25	23	20	17	15	13	11			6"
SM10E1F	11,0	15,0		35	28	26	24	21	19	17	16	14		6"
SM10E1A	15,0	20,0		38	31	30	28	25	24	22	21	19	17	6"
SM10E2G	22,0	30,0		68	53	49	44	39	35	31	27			6"
SM10E2A	30,0	40,0		76	63	60	56	51	48	45	42	38	34	6"
SM10E3L	30,0	40,0		98	76	70	62	53	47	41	34			6"
SM10E3F	37,0	50,0		108	87	81	74	65	60	54	48	42		6"
SM10E3A	45,0	60,0		117	97	92	86	78	74	69	64	58	52	8"
SM10E4G	45,0	60,0		138	108	100	91	79	72	64	56			8"
SM10E4D	55,0	75,0		152	122	114	106	94	87	80	72	63	55	8"
SM10E4A	55,0	75,0		156	129	123	114	104	98	92	85	77	69	8"
SM10E5D	63,0	85,0		190	152	143	132	118	109	100	90	79	69	8"
SM10E5A	75,0	100,0		195	161	153	143	130	123	115	106	96	86	8"
SM10E6D	75,0	100,0		228	182	171	158	142	131	120	108	95	83	8"
SM10E6A	92,0	125,0		234	194	184	171	156	147	137	128	116	103	8"
SM10E7A	110,0	150,0		273	226	215	200	182	172	160	149	135	120	8"
SM10E8A	132,0	180,0		312	258	245	228	208	196	183	170	154	137	10"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1	1	1	

ELECTRICAL DATA AND DIMENSIONS

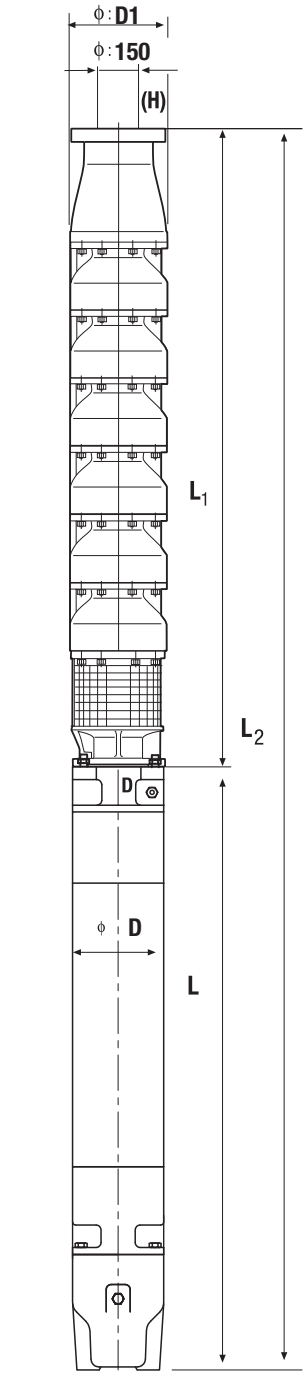
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM10E1L	6GF	9,2	12,5	22	●	●	738	685	1423	141	246	118,6
	TR6	9,2	12,5	21	O	●	738	867	1605	144	246	125
SM10E1F	6GF	11	15	25,5	●	●	738	730	1468	141	246	123
	TR6	11	15	25	O	●	738	897	1635	144	246	130
SM10E1A	6GF	15	20	33,4	●	●	738	785	1523	141	246	129
	TR6	15	20	32	O	●	738	997	1735	144	246	147
SM10E2G	6GF	22	30	47	●	●	903	920	1823	141	246	161,6
	TR6	22	30	49	O	●	903	1087	1990	144	246	186
SM10E2A	6GF	30	40	61,5	●	●	903	1050	1953	141	246	177,8
	TR6	30	40	65	O	●	903	1212	2115	144	246	201
SM10E3L	6GF	30	40	61,5	●	●	1068	1050	2118	141	246	198,8
	TR6	30	40	65	O	●	1068	1212	2280	144	246	222
SM10E3F	6GF	37	50	79,3	●	●	1068	1180	2248	141	246	210,8
	TR6	37	50	80	O	●	1068	1312	2380	144	246	232
SM10E3A	TR6	45	60	93,1	●	●	1096	1457	2553	144	246	249
	TR8	45	60	92	O	●	1096	1270	2366	192	246	291
SM10E4G	TR6	45	60	93,1	●	●	1261	1457	2718	144	246	270
	TR8	45	60	92	O	●	1261	1270	2531	192	246	312
SM10E4D	TR8	55	75	109	O	●	1261	1350	2611	192	246	327
SM10E4A	TR8	55	75	109	O	●	1261	1350	2611	192	246	327
SM10E5D	TR8	63	85	126	O	●	1426	1490	2916	192	246	374
SM10E5A	TR8	75	100	145	O	●	1426	1590	3016	192	246	393
SM10E6D	TR8	75	100	145	O	Δ	1591	1590	3181	192	246	414
SM10E6A	TR8	92	125	144	O	Δ	1591	1830	3421	192	246	460
SM10E7A	TR8	110	150	213	O	●	1756	2060	3816	192	246	531
SM10E8A	TR10	132	180	257	O	●	1921	1870	3791	232	246	655

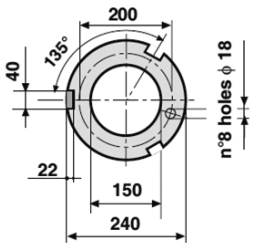
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

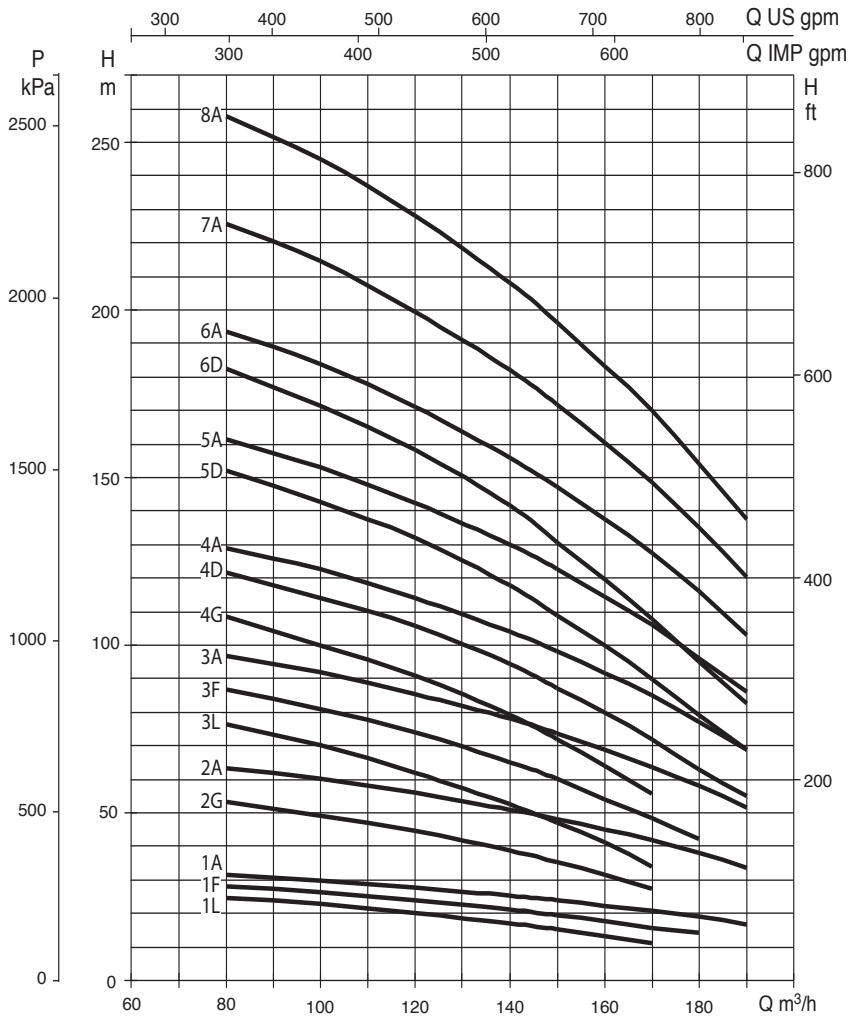
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

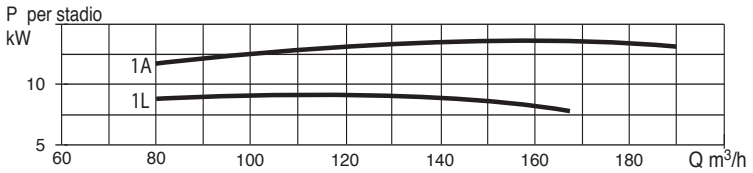
SM10E

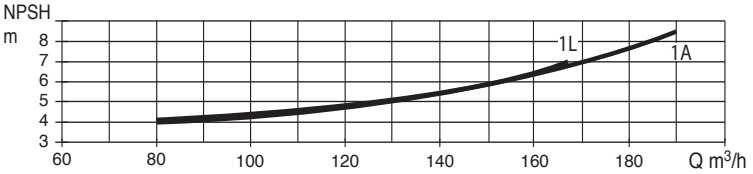
SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

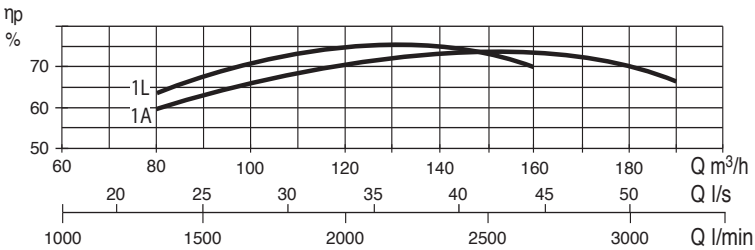












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM10G

SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	90	100	120	140	160	180	200	220	240	
	kW	HP	Q=l/min	0	1500	1667	2000	2333	2667	3000	3333	3667	4000	
SM10G1N	11,0	15,0	H (m)	31	23	22	21	19	17	15	12	8	5	6"
SM10G1G	13,0	17,5		36	27	26	25	23	21	20	17	14	11	6"
SM10G1A	18,5	25,0		42	34	33	31	29	28	26	24	21	18	6"
SM10G2L	22,0	30,0		68	51	49	46	42	39	34	29	23	15	6"
SM10G2F	30,0	40,0		78	60	58	54	51	48	44	39	34	28	6"
SM10G2A	37,0	50,0		84	69	67	63	60	56	53	48	43	36	6"
SM10G3F	45,0	60,0		119	92	89	83	78	73	68	60	52	42	8"
SM10G3A	55,0	75,0		129	105	102	97	91	86	81	74	66	56	8"
SM10G4F	55,0	75,0		159	123	118	111	104	98	90	80	70	56	8"
SM10G4A	75,0	100,0		172	140	136	129	122	115	108	99	88	74	8"
SM10G5F	75,0	100,0		199	154	148	139	131	122	113	101	87	71	8"
SM10G5A	92,0	125,0		215	175	171	161	152	144	135	124	110	93	8"
SM10G6F	92,0	125,0		239	185	179	167	157	146	135	121	104	85	8"
SM10G6D	110,0	150,0		248	196	191	179	169	160	149	135	118	98	8"
SM10G6A	110,0	150,0		258	210	205	193	182	172	161	148	131	112	8"
SM10G7D	132,0	180,0		290	228	222	209	197	186	174	158	138	114	10"
SM10G7A	132,0	180,0		301	245	239	225	213	201	188	173	153	130	10"
Minimum recommended level on suction line (m)					1	1	1	1	1	1	1,3	1,6	2	

ELECTRICAL DATA AND DIMENSIONS

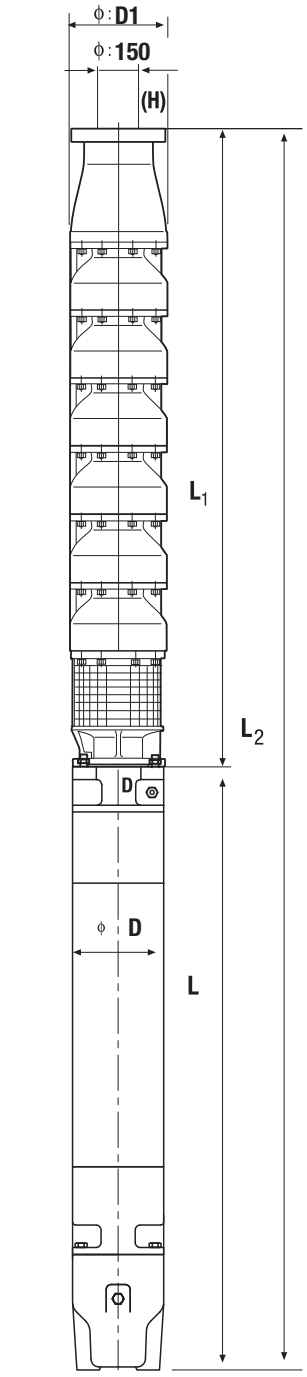
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM10G1N	6GF	11	15	25,5	●	●	738	730	1468	141	246	123
	TR6	11	15	25	O	●	738	897	1635	144	246	130
SM10G1G	6GF	15	20	33,4	●	●	738	785	1523	141	246	129
	TR6	13	17,5	29	O	●	738	927	1665	144	246	135
SM10G1A	6GF	18,5	25	41	●	●	738	860	1598	141	246	137
	TR6	18,5	25	39	O	●	738	1057	1795	144	246	153
SM10G2L	6GF	22	30	47	●	●	903	920	1823	141	246	161,6
	TR6	22	30	49	O	●	903	1087	1990	144	246	186
SM10G2F	6GF	30	40	61,5	●	●	903	1050	1953	141	246	177,8
	TR6	30	40	65	O	●	903	1212	2115	144	246	201
SM10G2A	6GF	37	50	79,3	●	●	903	1180	2083	141	246	189,8
	TR6	37	50	80	O	●	903	1312	2215	144	246	211
SM10G3F	TR6	45	60	93,1	●	●	1096	1457	2553	144	246	249
	TR8	45	60	92	O	●	1096	1270	2366	192	246	291
SM10G3A	TR8	55	75	109	O	●	1096	1350	2446	192	246	306
SM10G4F	TR8	55	75	109	O	●	1261	1350	2611	192	246	327
SM10G4A	TR8	75	100	145	O	●	1261	1590	2851	192	246	372
SM10G5F	TR8	75	100	145	O	●	1426	1590	3016	192	246	393
SM10G5A	TR8	92	125	144	O	●	1426	1830	3256	192	246	439
SM10G6F	TR8	92	125	144	O	●	1591	1830	3421	192	246	460
SM10G6D	TR8	110	150	213	O	Δ	1591	2060	3651	192	246	510
SM10G6A	TR8	110	150	213	O	Δ	1591	2060	3651	192	246	510
SM10G7D	TR10	132	180	257	O	●	1756	1870	3626	232	246	633
SM10G7A	TR10	132	180	257	O	●	1756	1870	3626	232	246	633

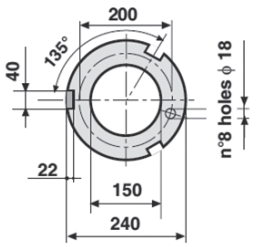
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

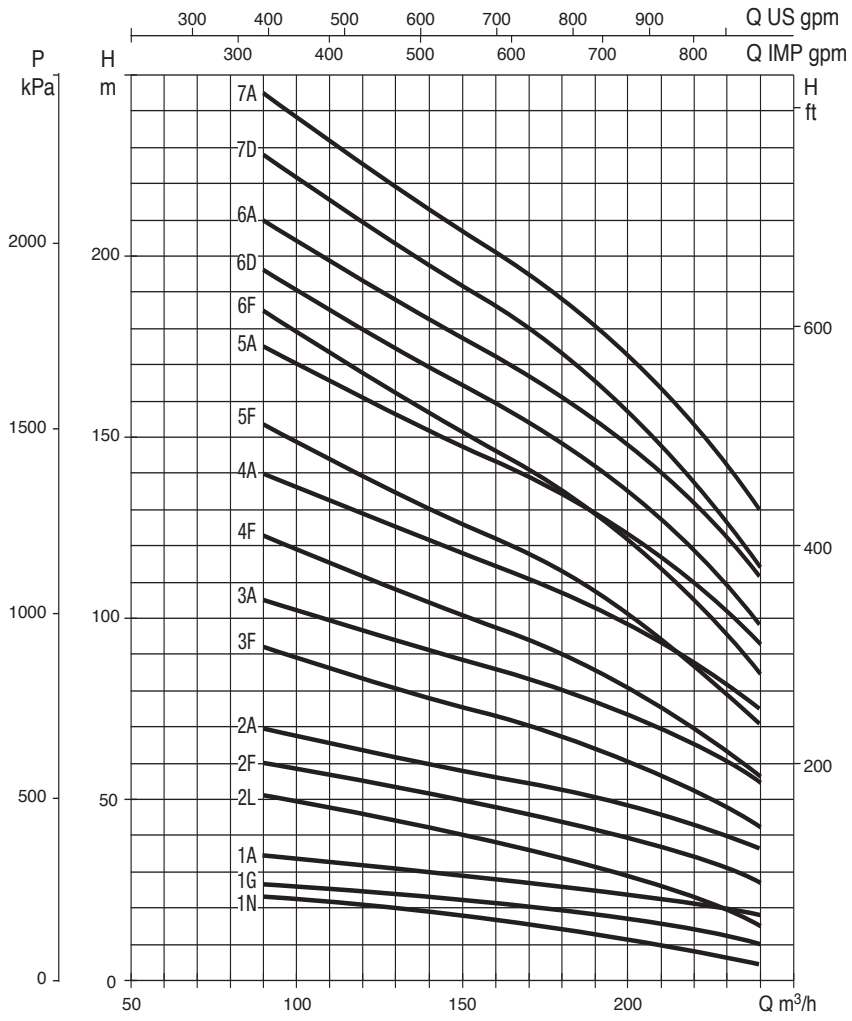
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

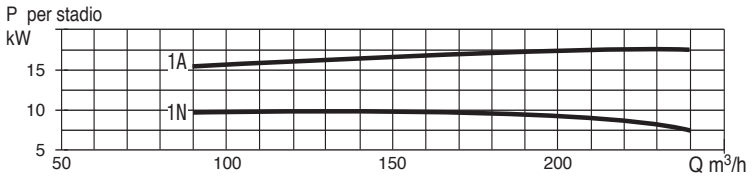
SM10G

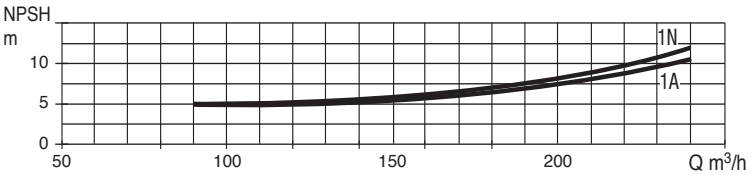
SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

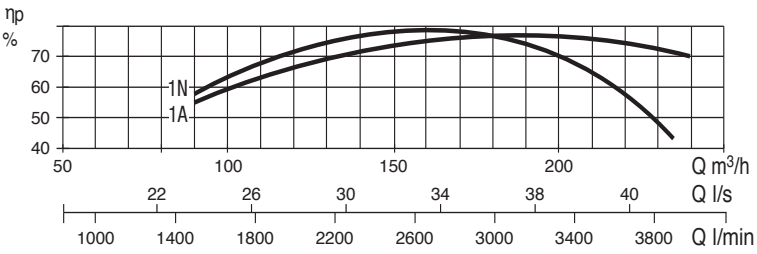












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM10H

SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											COUPLING STANDARD MOTOR
	P2 NOMINAL		Q=m³/h	0	100	120	140	160	180	200	220	240	260	
	kW	HP	Q=l/min	0	1667	2000	2333	2667	3000	3333	3667	4000	4333	
SM10H1L	15,0	20,0	H (m)	34	27	26	25	24	23	21	19	16	13	6"
SM10H1F	18,5	25,0		38	31	30	29	28	27	25	23	21	18	6"
SM10H1A	26,0	35,0		42	36	35	33	32	31	29	28	26	24	6"
SM10H2N	26,0	35,0		63	50	48	45	44	41	37	33	26	20	6"
SM10H2L	30,0	40,0		68	55	52	50	48	46	43	39	33	26	6"
SM10H2F	37,0	50,0		76	64	61	59	56	54	51	47	43	37	6"
SM10H2A	55,0	75,0		84	72	70	67	64	62	59	56	53	48	8"
SM10H3G	55,0	75,0		111	92	88	84	81	77	72	66	58	49	8"
SM10H3F	55,0	75,0		117	97	94	90	86	82	78	72	65	56	8"
SM10H3A	75,0	100,0		129	111	107	102	98	95	91	86	81	74	8"
Minimum recommended level on suction line (m)					1	1	1	1	1	1,2	1,4	1,6	1,8	

ELECTRICAL DATA AND DIMENSIONS

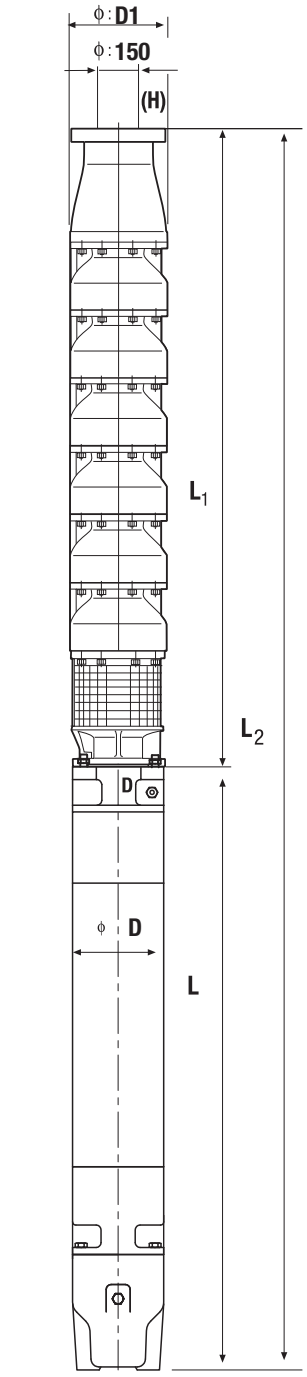
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM10H1L	**6GF**	15	20	33,4	●	●	738	785	1523	141	246	129
	TR6	15	20	32	O	●	738	997	1735	144	246	147
SM10H1F	**6GF**	18,5	25	41	●	●	738	860	1598	141	246	137
	TR6	18,5	25	39	O	●	738	1057	1795	144	246	153
SM10H1A	**6GF**	30	40	61,5	●	●	738	1050	1788	141	246	156,8
	TR6	26	35	58	O	●	738	1157	1895	144	246	175
SM10H2N	**6GF**	30	40	61,5	●	●	903	1050	1953	141	246	177,8
	TR6	26	35	58	O	●	903	1157	2060	144	246	196
SM10H2L	**6GF**	30	40	61,5	●	●	903	1050	1953	141	246	177,8
	TR6	30	40	65	O	●	903	1212	2115	144	246	201
SM10H2F	**6GF**	37	50	79,3	●	●	903	1180	2083	141	246	189,8
	TR6	37	50	80	O	●	903	1312	2215	144	246	211
SM10H2A	**TR8**	55	75	109	O	●	931	1350	2281	192	246	285
SM10H3G	**TR8**	55	75	109	O	●	1096	1350	2446	192	246	306
SM10H3F	**TR8**	55	75	109	O	●	1096	1350	2446	192	246	306
SM10H3A	**TR8**	75	100	145	O	●	1096	1590	2686	192	246	351

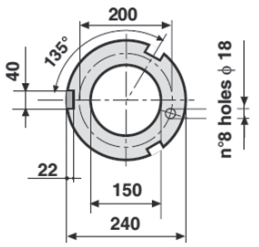
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

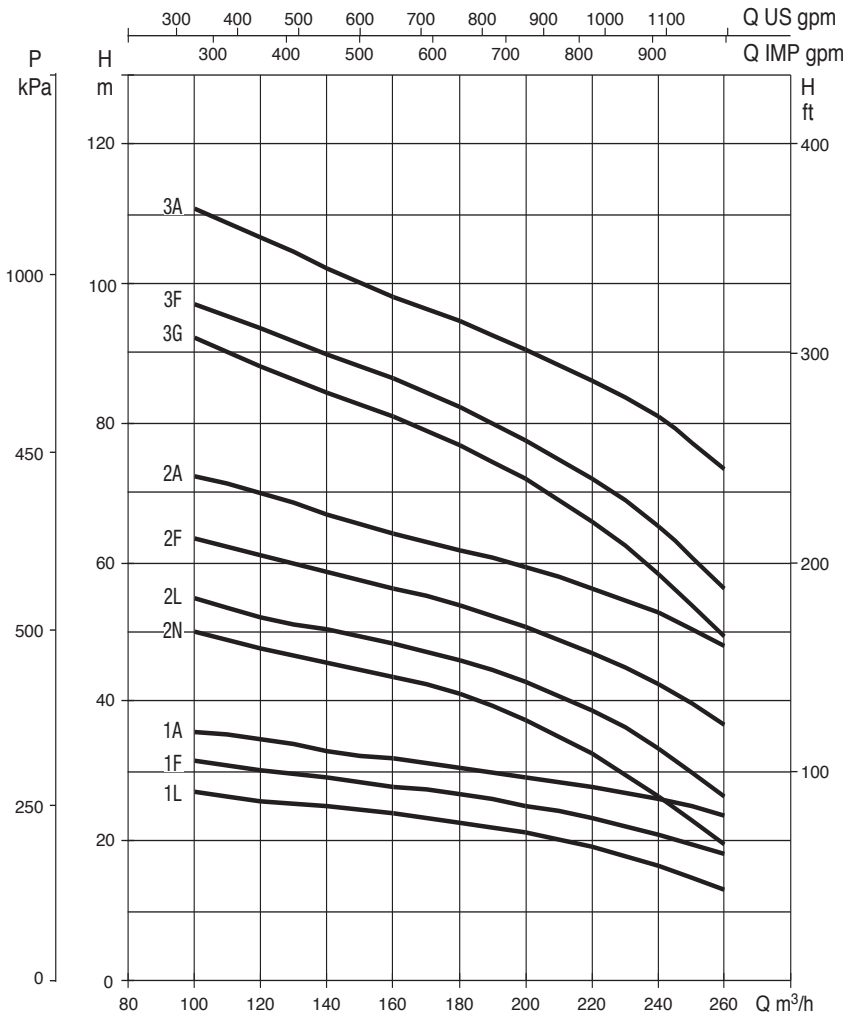
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

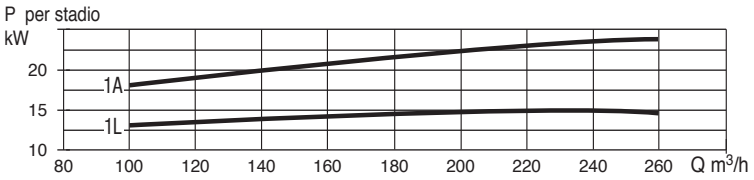
SM10H

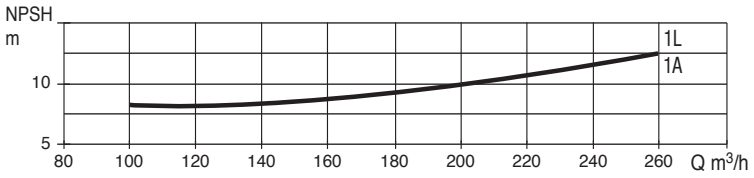
SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

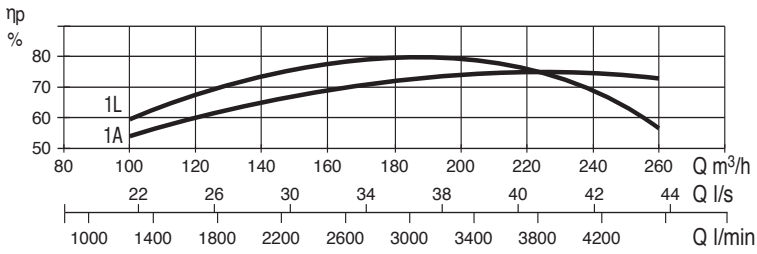












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM10H

SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	100	120	140	160	180	200	220	240	260	
	kW	HP	Q=l/min	0	1667	2000	2333	2667	3000	3333	3667	4000	4333	
SM10H4F	75,0	100,0	H (m)	156	130	125	120	115	110	103	96	87	75	8"
SM10H5G	92,0	125,0		185	154	147	141	135	128	120	110	97	82	8"
SM10H5F	92,0	125,0		195	162	156	150	144	137	129	120	109	94	8"
SM10H5D	110,0	150,0		201	171	165	158	151	145	139	132	122	109	10"
SM10H6F	132,0	180,0		234	194	187	180	173	165	155	144	130	113	10"
SM10H6D	132,0	180,0		241	205	198	189	181	174	167	158	146	131	10"
SM10H7F	132,0	180,0		273	227	218	210	201	192	181	168	152	131	10"
SM10H7D	147,0	200,0		281	239	231	221	211	203	195	184	170	152	10"
SM10H7A	170,0	230,0		300	258	249	239	229	221	211	201	189	172	10"
Minimum recommended level on suction line (m)					1	1	1	1	1	1,2	1,4	1,6	1,8	

ELECTRICAL DATA AND DIMENSIONS

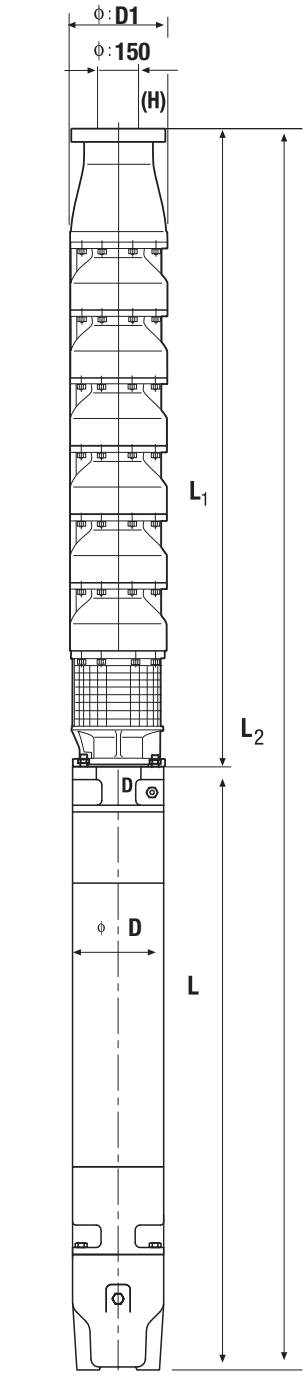
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM10H4F	**TR8**	75	100	145	O	●	1261	1590	2851	192	246	372
SM10H5G	**TR8**	92	125	144	O	●	1426	1830	3256	192	246	439
SM10H5F	**TR8**	92	125	144	O	●	1426	1830	3256	192	246	439
SM10H5D	**TR8**	110	150	213	O	Δ	1426	2060	3486	192	246	489
SM10H6F	**TR10**	132	180	257	O	●	1591	1870	3461	232	246	614
SM10H6D	**TR10**	132	180	257	O	●	1591	1870	3461	232	246	614
SM10H7F	**TR10**	132	180	257	O	●	1756	1870	3626	232	246	635
SM10H7D	**TR10**	147	200	300	O	●	1756	2070	3826	232	246	700
SM10H7A	**TR10**	170	230	348	●	●	1756	2220	3976	232	246	740

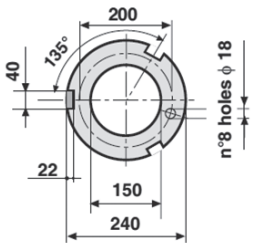
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

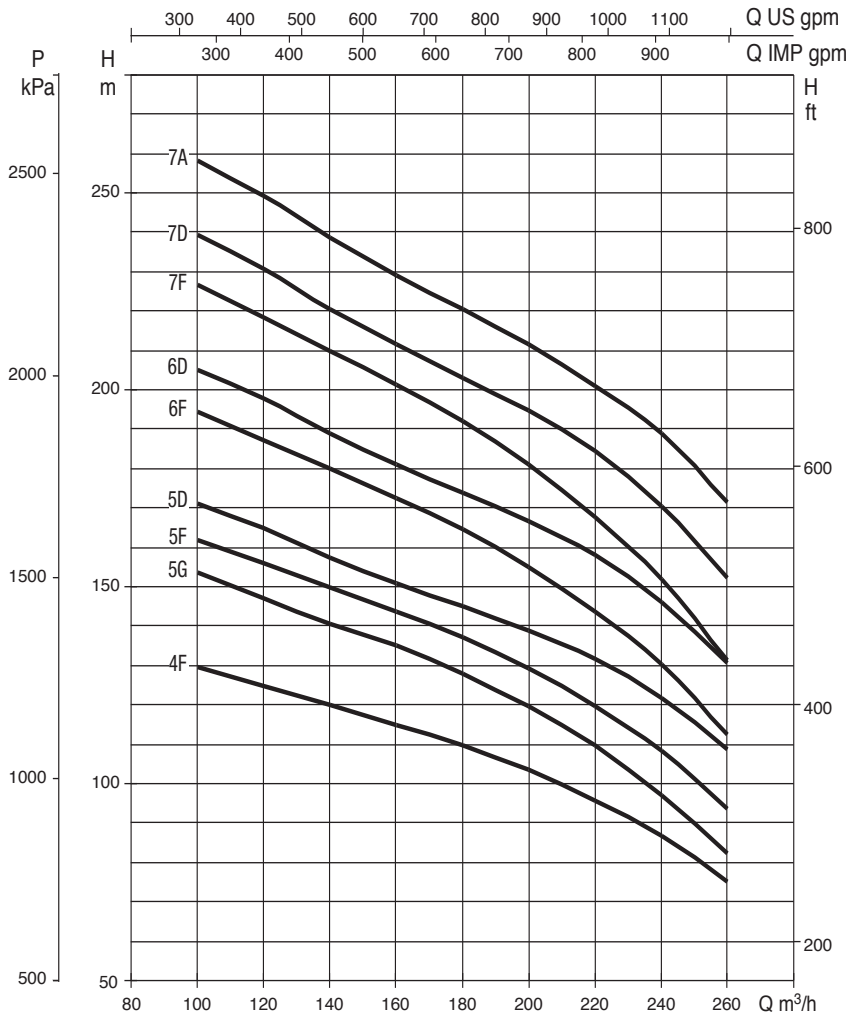
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

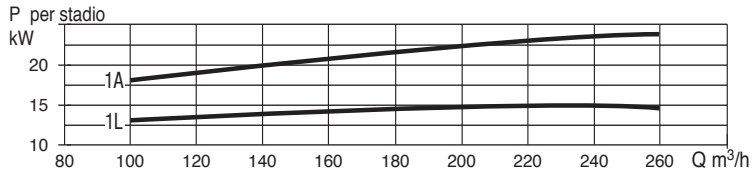
SM10H

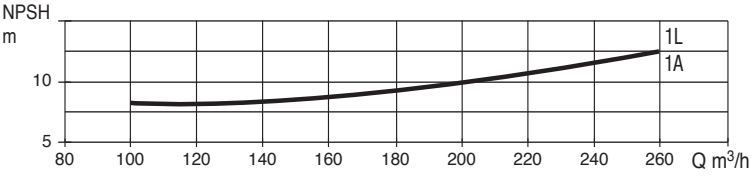
SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

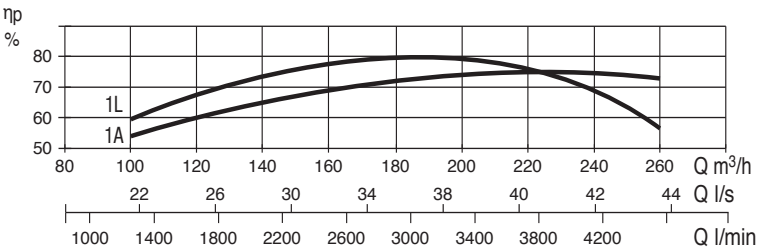












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM10L

SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	160	180	220	260	280	300	320	340	360	
	kW	HP	Q=l/min	0	2667	3000	3667	4333	4667	5000	5333	5667	6000	
SM10L1G	26,0	35,0		35	28	27	26	23	21	19	17	15	12	6"
SM10L1A	30,0	40,0		41	34	33	31	29	27	26	23	21	18	6"
SM10L2N	37,0	50,0		63	49	48	45	39	35	30	25			6"
SM10L2G	45,0	60,0		72	57	55	52	47	43	39	35	29	23	8"
SM10L2A	63,0	85,0		82	69	67	63	58	55	52	47	42	36	8"
SM10L3L	63,0	85,0		106	81	79	74	66	60	53	45	36		8"
SM10L3F	75,0	100,0		116	95	92	86	78	72	66	59	51	41	8"
SM10L3A	92,0	125,0		126	106	103	97	89	85	79	72	64	55	8"
SM10L4G	92,0	125,0		146	117	113	106	96	88	80	71	60	48	8"
SM10L4D	110,0	150,0	H (m)	157	132	129	121	112	104	96	88	77	64	8"
SM10L4A	132,0	180,0		168	141	137	129	119	113	105	96	85	73	10"
SM10L5G	110,0	150,0		183	146	142	133	120	110	100	89	75	60	10"
SM10L5D	132,0	180,0		197	166	161	151	140	130	120	110	96	80	10"
SM10L6G	132,0	180,0		219	175	170	159	143	132	120	106	90	72	10"
SM10L7L	147,0	200,0		248	190	183	172	154	140	124	105	84		10"
SM10L7F	170,0	230,0		270	221	214	201	182	169	154	137	119	95	10"
SM10L7D	190,0	260,0		275	232	225	211	195	182	168	154	134	112	10"
SM10L7A	220,0	300,0		294	246	240	225	209	197	184	167	148	127	12"
Minimum recommended level on suction line (m)					1	1	1,5	1,7	2	2,3	2,5	3	4,5	

ELECTRICAL DATA AND DIMENSIONS

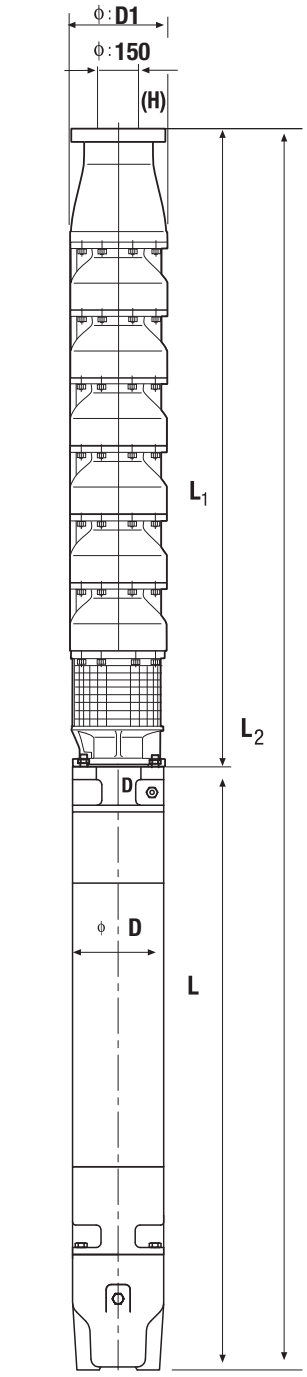
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM10L1G	6GF	30	40	61,5	●	●	738	1050	1788	141	246	156,8
	TR6	26	35	58	O	●	738	1157	1895	144	246	175
SM10L1A	6GF	30	40	61,5	●	●	738	1050	1788	141	246	156,8
	TR6	30	40	65	O	●	738	1212	1950	144	246	180
SM10L2N	6GF	37	50	79,3	●	●	903	1180	2083	141	246	189,8
	TR6	37	50	80	O	●	903	1312	2215	144	246	211
SM10L2G	TR6	45	60	93,1	●	●	931	1457	2388	144	246	228
	TR8	45	60	92	O	●	931	1270	2201	192	246	270
SM10L2A	TR8	62	85	126	O	●	931	1490	2421	192	246	311
SM10L3L	TR8	62	85	126	O	●	1096	1490	2586	192	246	332
SM10L3F	TR8	75	100	145	O	●	1096	1590	2686	192	246	351
SM10L3A	TR8	92	125	144	O	●	1096	1830	2926	192	246	397
SM10L4G	TR8	92	125	144	O	●	1261	1830	3091	192	246	418
SM10L4D	TR8	110	150	213	O	Δ	1261	2060	3321	192	246	468
SM10L4A	TR10	132	180	257	O	●	1261	1870	3131	232	246	570
SM10L5G	TR10	110	150	213	O	●	1426	2060	3486	232	246	491
SM10L5D	TR10	132	180	257	O	●	1426	1870	3296	232	246	593
SM10L6G	TR10	132	180	257	O	●	1591	1870	3461	232	246	614
SM10L7L	TR10	150	200	300	O	●	1756	2070	3826	232	246	700
SM10L7F	TR10	170	230	348	●	●	1756	2220	3976	232	246	740
SM10L7D	TR10	192	260	405	●	Δ	1756	2400	4156	232	246	780
SM10L7A	TR12	220	300	424	O	●	1781	2110	3891	286	246	906

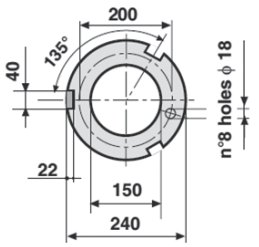
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

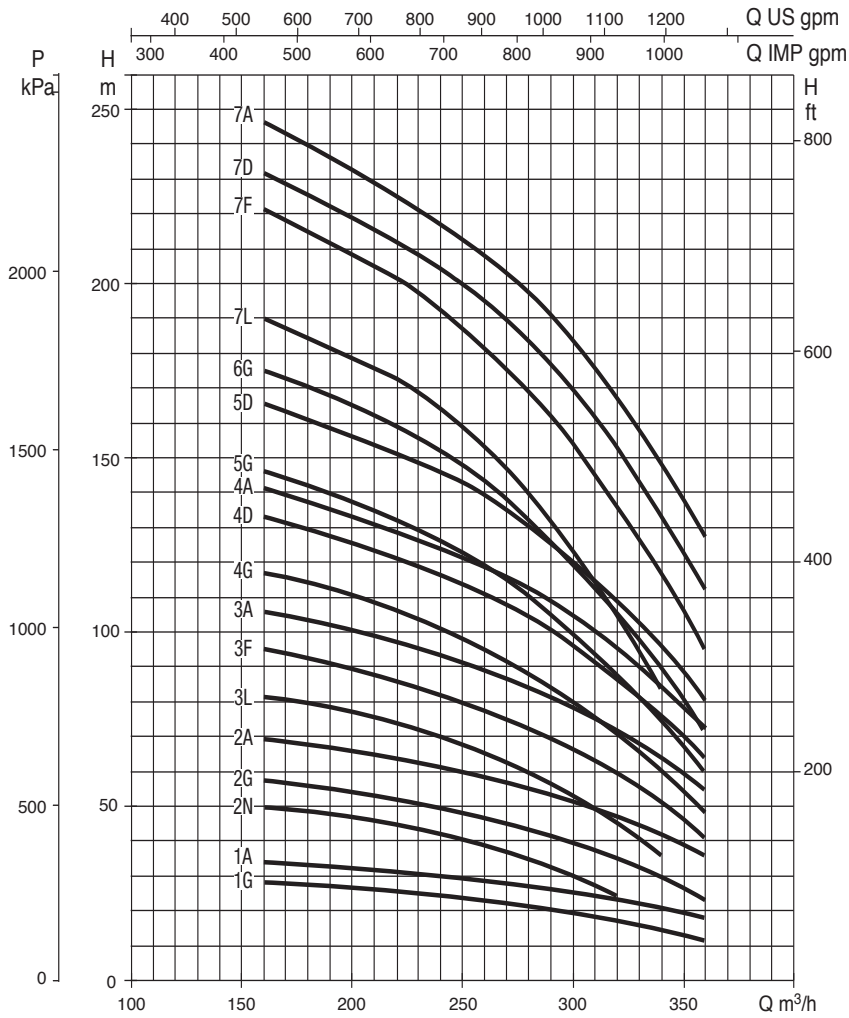
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

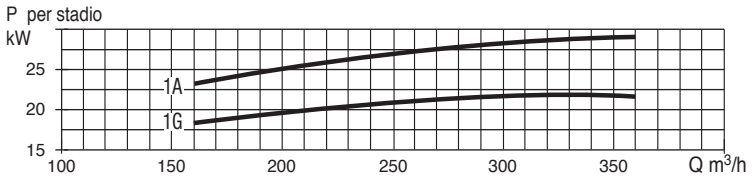
SM10L

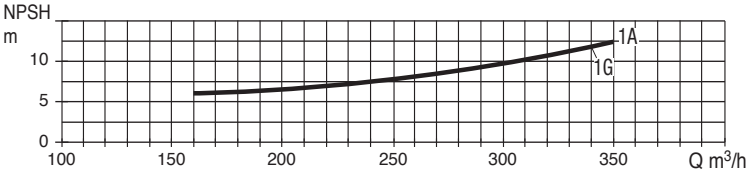
SEMIAXIAL 10" SUBMERSIBLE ELECTRIC PUMPS

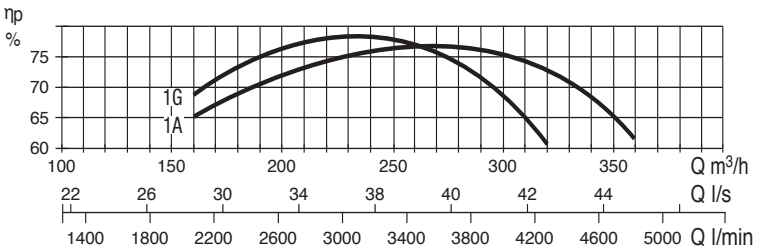












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM12

SEMIAXIAL 12” SUBMERSIBLE ELECTRIC PUMPS

TECHNICAL DATA

Operating range: up to 510 m^3/h with head up to 350 m.
Pumped liquid: clean, free from solids or abrasive substances, chemically neutral, close to the characteristics of water.
Start-ups/hour: see the coupled motor.
Cooling flow: see the coupled motor.
Maximum permitted amount of sand: 50 g/m^3.
Ambient temperature: 30 °C.
Minimum recommended level on suction line: 1 m - depending on the working point of the electric pump.
Installation: horizontal or vertical.

APPLICATIONS

Multistage semiaxial submersible electric pumps for wells measuring 12” or above, able to generate a broad range of flow rates and heads.
They are used extensively for the lifting, distribution and pressurisation of industrial water systems, the supply of autoclaves and tanks, firefighting systems and irrigation systems.
Application with clean, non-aggressive water free from solids or abrasive substances.

CONSTRUCTION FEATURES OF THE PUMP

Pump body in cast iron with paint coating, impellers in bronze. Dynamically balanced impellers coupled on the shaft with pull tab.
Shaft guided with coaxial bush bearings and fully protected with bushes.

Pump with check valve of low pressure loss.
Flanged and threaded discharge port.

Coupling with motors of 8”, 10” or 12” depending on the required hydraulic power:

TR8: rewindable 8” submersible motor.
TR10: rewindable 10” submersible motor.
TR12: rewindable 12” submersible motor.
For operation with inverter see the specifications of the coupled motor.

ON REQUEST

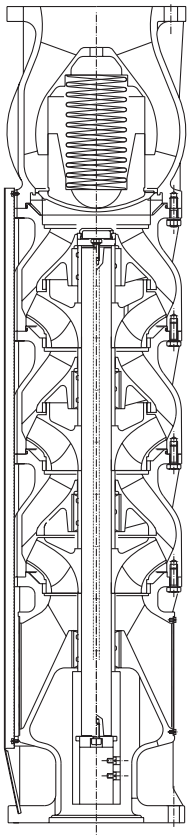
Pump body in microcast AISI 316 stainless steel for use in aggressive water.
Impellers in microcast AISI 316 stainless steel.
Pump body without check valve for horizontal installation.
Motor in AISI 316 stainless steel for use in aggressive water.
Non-standard pump/motor couplings.
Star/Delta starting version.
Motor version for high temperature of water.

SM12

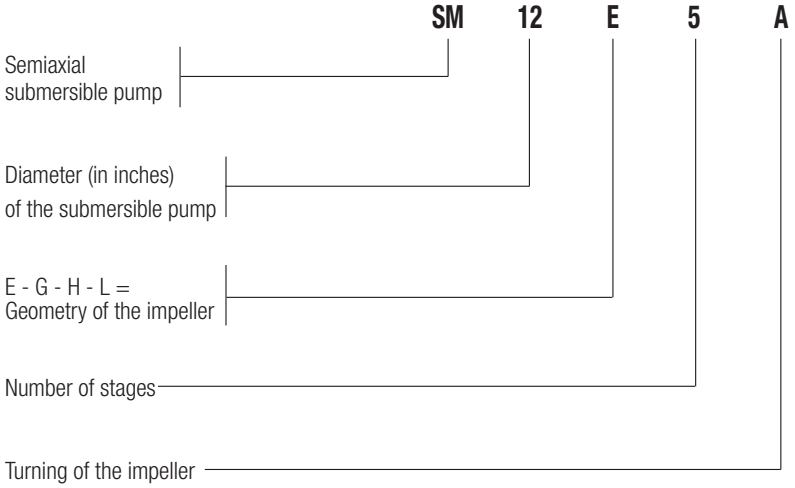
SEMIAXIAL 12” SUBMERSIBLE ELECTRIC PUMPS

MATERIALS

PARTS	MATERIALS
BODY OF VALVE	CAST IRON
PRESSURE CHAMBER	CAST IRON
BEARING ON PRESSURE SIDE	BRONZE
STAGE BODY	CAST IRON
FIXED WEAR RING	BRONZE
INTERMEDIATE BEARING	STEEL AND RUBBER
IMPELLER	BRONZE
STAGE BODY GASKET	RUBBER
SUCTION GRID	STAINLESS STEEL
CABLE PROTECTION ELEMENT	STAINLESS STEEL
BEARING ON SUCTION SIDE	STEEL AND RUBBER
SUCTION CHAMBER	CAST IRON
SHAFT	AISI 420 STAINLESS STEEL
SPACER BUSH	STAINLESS STEEL
SCREWS	AISI 304 STAINLESS STEEL



– Legend:
(example)



SM12E

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	140	160	200	220	240	260	280	300	320	
	kW	HP	Q=l/min	0	2333	2667	3333	3667	4000	4333	4667	5000	5333	
SM12E1F	22	30	H (m)	44	33	31	27	25	23	20	16	11		8"
SM12E1A	26	35		48	37	35	32	30	28	25	22	18	13	8"
SM12E2L	37	50		78	55	53	45	41	35	29	22			8"
SM12E2F	45	60		88	66	63	55	51	46	40	32	23		8"
SM12E2A	55	75		97	74	71	64	61	56	51	44	36	27	8"
SM12E3F	63	85		135	101	96	85	78	70	61	50	35		8"
SM12E3D	75	100		140	106	102	92	85	78	69	59	45	29	8"
SM12E3A	92	125		148	113	109	98	93	86	78	67	55	42	8"
SM12E4D	92	125		187	142	136	122	113	104	92	79	60	39	8"
SM12E4A	110	150		197	151	145	131	124	114	103	89	73	55	8"
SM12E5D	110	150		234	177	170	153	142	130	116	99	75	49	8"
SM12E5A	132	180		247	189	182	164	155	143	129	111	92	69	10"
SM12E6D	147	200		281	213	204	183	170	156	139	118	90	59	10"
SM12E7F	147	200		315	236	223	197	182	163	141	116	81		10"
SM12E7D	170	230		327	248	238	214	198	182	162	138	105	69	10"
SM12E8F	170	230		360	270	255	226	208	186	162	132	92		10"
SM12E8D	190	260		374	284	272	244	226	208	185	158	120	78	10"
SM12E8A	220	300		394	302	290	262	247	229	206	178	146	111	12"
SM12E9A	250	340		444	340	327	295	278	257	232	200	165	125	12"
Minimum recommended level on suction line (m)					1	1	1	1	1	1,3	1,5	2,5	4	

ELECTRICAL DATA AND DIMENSIONS

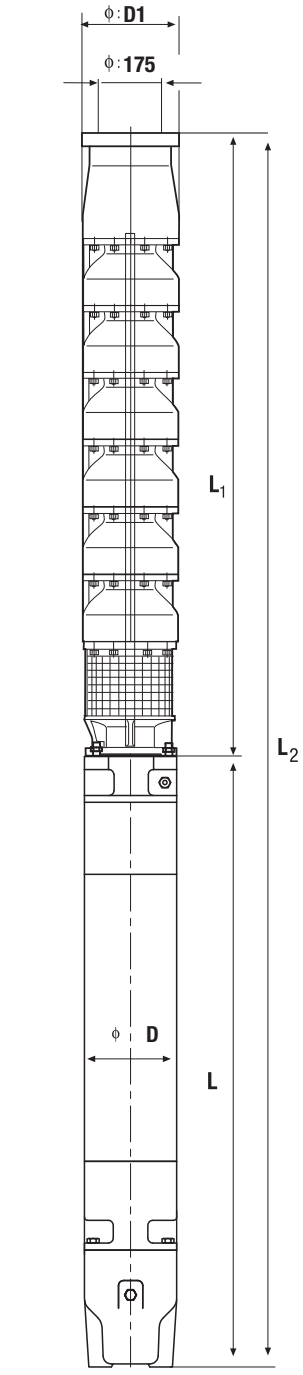
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM12E1F	TR8	30	40	61	O	●	881	1010	1891	192	290	241
SM12E1A	TR8	30	40	61	O	●	881	1050	1931	192	290	249
SM12E2L	TR8	37	50	75	O	●	1061	1160	2221	192	290	298
SM12E2F	TR8	45	60	92	O	●	1061	1270	2331	192	290	319
SM12E2A	TR8	55	75	109	O	●	1061	1350	2411	192	290	334
SM12E3F	TR8	62	85	126	O	●	1241	1490	2731	192	290	387
SM12E3D	TR8	75	100	145	O	●	1241	1590	2831	192	290	406
SM12E3A	TR8	92	125	177	O	●	1241	1830	3071	192	290	452
SM12E4D	TR8	92	125	177	O	●	1421	1830	3251	192	290	479
SM12E4A	TR8	110	150	213	O	Δ	1421	2060	3481	192	290	529
SM12E5D	TR8	110	150	213	O	Δ	1601	2060	3661	192	290	556
SM12E5A	TR10	132	180	257	O	●	1601	1870	3471	232	290	663
SM12E6D	TR10	150	200	300	O	●	1781	2070	3851	232	290	755
SM12E7F	TR10	150	200	300	O	●	1961	2070	4031	232	290	782
SM12E7D	TR10	170	230	348	O	●	1961	2220	4181	232	290	822
SM12E8F	TR10	170	230	348	●	●	2141	2220	4361	232	290	849
SM12E8D	TR10	192	260	405	●	Δ	2141	2400	4541	232	290	889
SM12E8A	TR12	220	300	424	●	Δ	2167	2110	4277	286	290	1019
SM12E9A	TR12	250	340	481	●	Δ	2347	2280	4627	286	290	1121

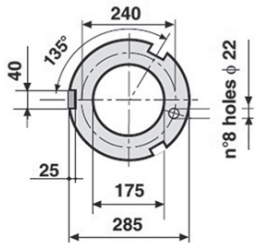
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

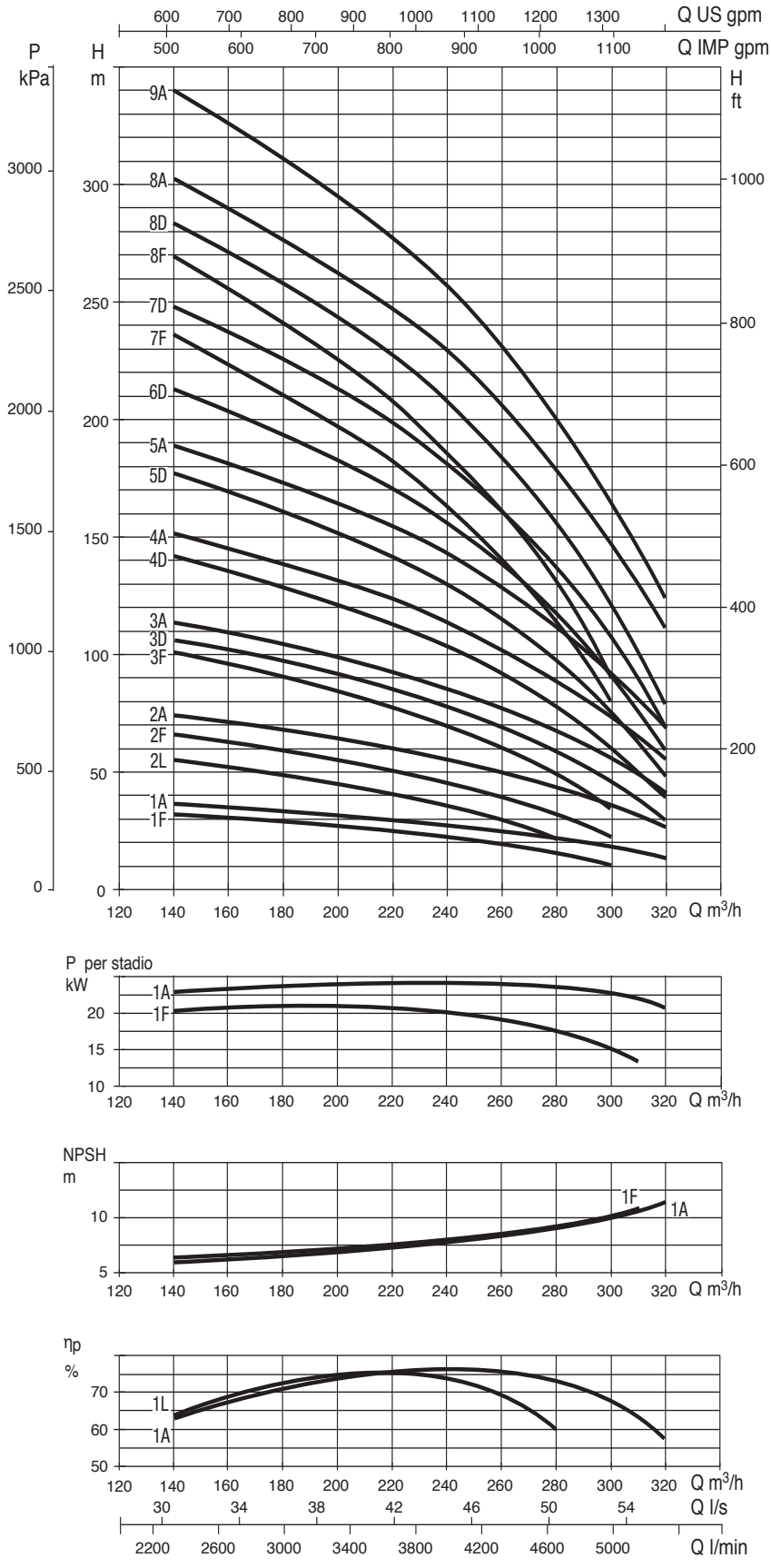
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM12E

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM12G

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	160	200	240	260	280	300	320	340	360	
	kW	HP	Q=l/min	0	2667	3333	4000	4333	4667	5000	5333	5667	6000	
SM12G1G	22	30	H (m)	43	31	28	25	24	22	19	17	14		8"
SM12G1F	26	35		47	33	30	28	26	25	23	20	17	15,0	8"
SM12G1D	30	40		49	36	33	30	29	27	25	23	20	17	8"
SM12G1A	37	50		52	38	35	32	31	29	27	25	23	20	8"
SM12G2N	37	50		74	52	47	41	37	32	27	21	15		8"
SM12G2G	45	60		87	62	57	51	48	44	39	34	28		8"
SM12G2D	55	75		100	72	66	61	58	55	51	46	41	35	8"
SM12G2A	63	85		104	76	70	65	62	59	55	51	46	41	8"
SM12G3F	75	100		145	103	94	87	82	76	70	63	54	45	8"
SM12G3A	92	125		160	116	107	99	95	90	85	78	71	63	8"
SM12G4D	110	150		204	147	134	124	118	112	104	94	84	72	10"
SM12G4A	132	180		213	155	143	132	126	120	113	104	94	84	10"
SM12G6G	132	180		268	191	174	157	147	134	120	104	87		10"
SM12G6F	147	200		291	206	187	174	164	152	140	126	108	90	10"
SM12G6A	190	260		319	233	215	198	189	180	169	156	141	126	10"
SM12G6D	170	230		306	220	202	186	177	168	156	142	126	108	10"
SM12G7D	190	260		357	257	235	217	207	196	182	165	147	126	10"
SM12G7A	220	300		372	272	251	231	221	210	197	182	165	147	12"
SM12G8A	250	340		426	310	286	264	252	240	226	208	188	168	12"
Minimum recommended level on suction line (m)					1	1	1	1	1	2	2,5	3,5	4	

ELECTRICAL DATA AND DIMENSIONS

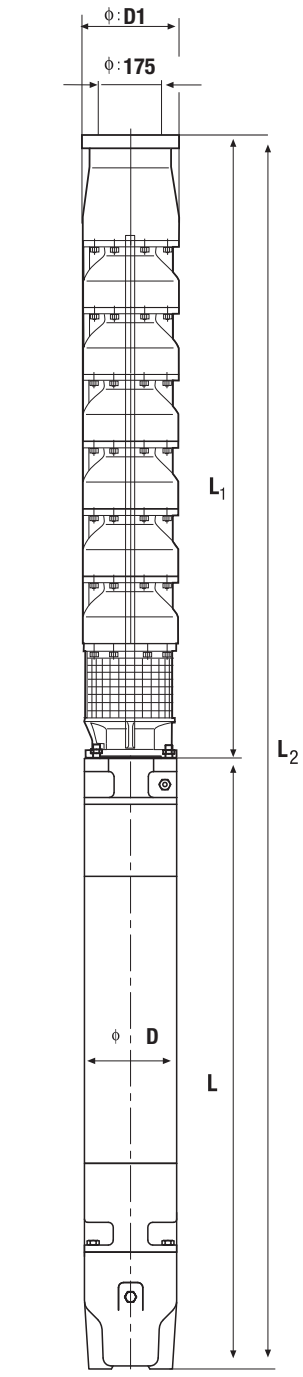
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM12G1G	TR8	30	40	61	O	●	881	1010	1891	192	290	241
SM12G1F	TR8	30	40	61	O	●	881	1050	1931	192	290	249
SM12G1D	TR8	30	40	61	O	●	881	1110	1991	192	290	261
SM12G1A	TR8	37	50	75	O	●	881	1160	2041	192	290	271
SM12G2N	TR8	37	50	75	O	●	1061	1160	2221	192	290	298
SM12G2G	TR8	45	60	92	O	●	1061	1270	2331	192	290	319
SM12G2D	TR8	55	75	109	O	●	1061	1350	2411	192	290	334
SM12G2A	TR8	62	85	126	O	●	1061	1490	2551	192	290	360
SM12G3F	TR8	75	100	145	O	●	1241	1590	2831	192	290	406
SM12G3A	TR8	92	125	177	O	●	1241	1830	3071	192	290	452
SM12G4D	TR8	110	150	213	O	Δ	1421	2060	3481	192	290	529
SM12G4A	TR10	132	180	257	O	●	1421	1870	3291	232	290	631
SM12G6G	TR10	132	180	257	O	●	1781	1870	3651	232	290	690
SM12G6F	TR10	150	200	300	O	●	1781	2070	3851	232	290	755
SM12G6D	TR10	170	230	348	●	●	1781	2220	4001	232	290	795
SM12G6A	TR10	192	260	405	●	Δ	1781	2400	4181	232	290	835
SM12G7D	TR10	192	260	405	●	Δ	1961	2400	4361	232	290	862
SM12G7A	TR12	220	300	424	●	Δ	1987	2110	4097	286	290	992
SM12G8A	TR12	250	340	481	●	Δ	2167	2280	4447	286	290	1094

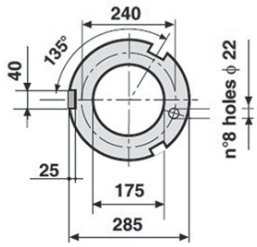
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

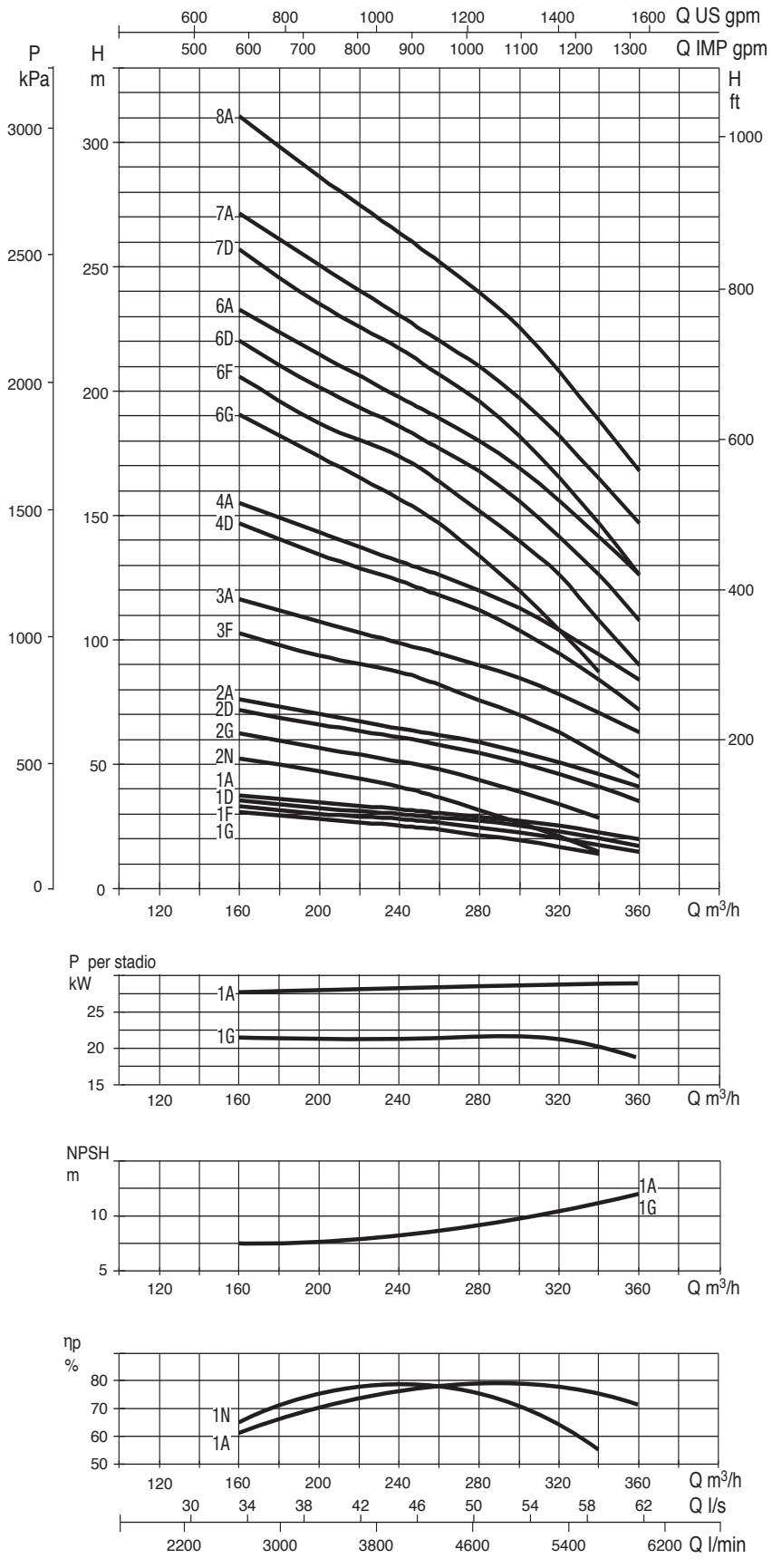
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM12G

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM12H

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	200	250	300	320	340	360	380	400	420	
	kW	HP	Q=l/min	0	3333	4167	5000	5333	5667	6000	6333	6667	7000	
SM12H1N	26	35	H (m)	36	27	24	21	19	17	14	12	9		8"
SM12H1L	30	40		40	29	27	24	22	20	18	16	12		8"
SM12H1D	37	50		48	36	34	32	30	29	27	25	22		8"
SM12H1A	45	60		49	38	36	34	32	31	29	27	25	23	8"
SM12H2N	55	75		73	54	49	43	39	34	29	23	17		8"
SM12H2F	63	85		92	69	65	59	57	53	49	45	40		8"
SM12H2D	75	100		96	74	69	64	62	58	55	50	45		8"
SM12H3N	75	100		112	83	75	66	59	52	45	36	27		8"
SM12H3G	92	125		132	99	92	83	78	72	65	58	50		8"
SM12H3D	110	150		147	113	106	99	94	89	84	77	69		8"
SM12H3A	132	180		151	118	111	104	101	96	91	84	78	70	10"
SM12H4G	132	180		176	131	122	110	104	96	87	77	66		10"
Minimum recommended level on suction line (m)					1	1	1	1	2,5	3	3,8	5	6	

ELECTRICAL DATA AND DIMENSIONS

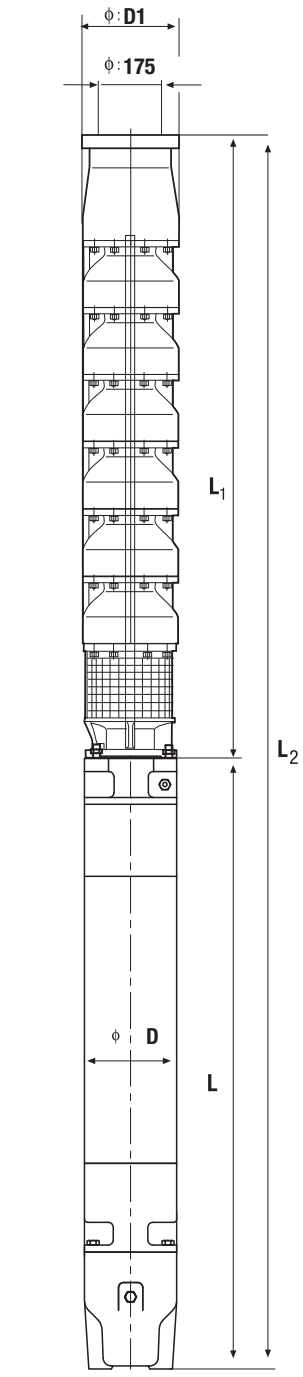
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM12H1N	TR8	30	40	61	O	●	881	1050	1931	192	290	249
SM12H1L	TR8	30	40	61	O	●	881	1110	1991	192	290	261
SM12H1D	TR8	37	50	75	O	●	881	1160	2041	192	290	271
SM12H1A	TR8	45	60	92	O	●	881	1270	2151	192	290	292
SM12H2N	TR8	55	75	109	O	●	1061	1350	2411	192	290	334
SM12H2F	TR8	62	85	126	O	●	1061	1490	2551	192	290	360
SM12H2D	TR8	75	100	145	O	●	1061	1590	2651	192	290	379
SM12H3N	TR8	75	100	145	O	●	1241	1590	2831	192	290	406
SM12H3G	TR8	92	125	177	O	●	1241	1830	3071	192	290	452
SM12H3D	TR8	110	150	213	O	Δ	1241	2060	3301	192	290	502
SM12H3A	TR10	132	180	257	O	●	1241	1870	3111	232	290	609
SM12H4G	TR10	132	180	257	O	●	1421	1870	3291	232	290	636

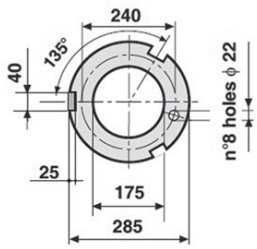
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

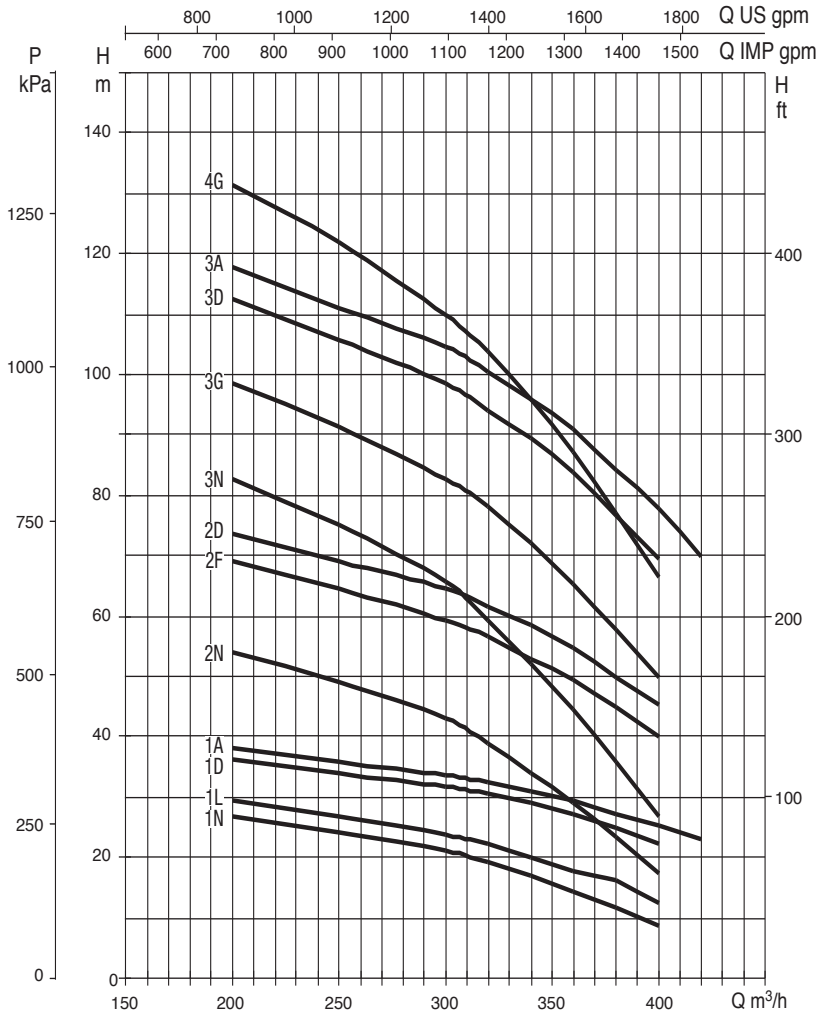
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

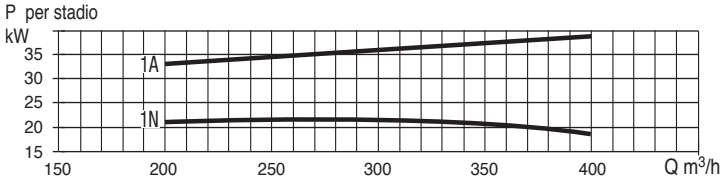
SM12H

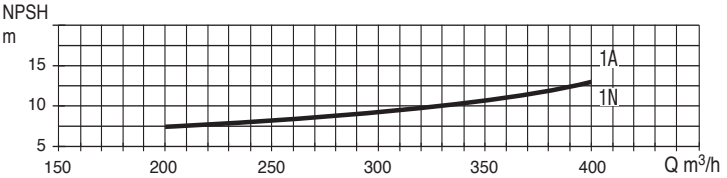
SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS

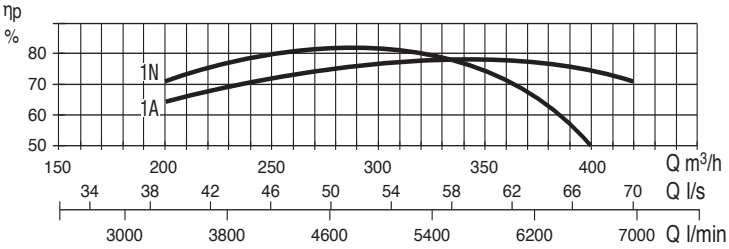












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM12H

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	200	250	300	320	340	360	380	400	420	
	kW	HP	Q=l/min	0	3333	4167	5000	5333	5667	6000	6333	6667	7000	
SM12H4F	132	180	H (m)	188	141	132	121	115	108	101	92	82		10"
SM12H4D	147	200		196	150	141	131	126	119	112	102	92		10"
SM12H5G	147	200		220	164	153	138	130	120	109	97	83		10"
SM12H5F	170	230		235	177	165	152	144	135	126	115	102		10"
SM12H5D	190	260		245	188	176	164	157	149	140	128	116		10"
SM12H5A	190	260		252	197	185	174	168	160	152	141	130	116	10"
SM12H6F	190	260		282	212	198	182	173	162	151	138	122		10"
SM12H6D	220	300		294	225	211	197	188	179	167	153	139		12"
SM12H6A	250	340		302	236	222	209	201	192	182	169	155	139	12"
SM12H7D	250	340		343	263	246	230	220	209	195	179	162		12"
SM12H8F	250	340		376	282	264	242	231	216	201	184	163		12"
Minimum recommended level on suction line (m)					1	1	1	1	2,5	3	3,8	5	6	

ELECTRICAL DATA AND DIMENSIONS

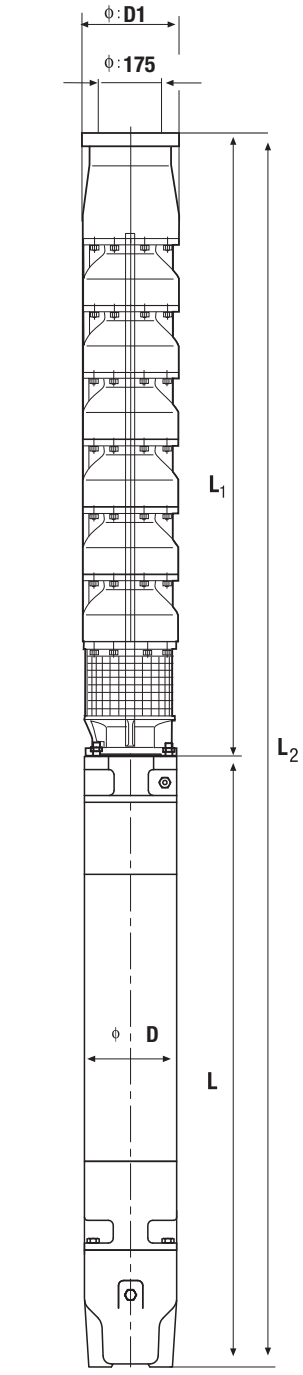
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM12H4F	TR10	132	180	257	O	●	1421	1870	3291	232	290	636
SM12H4D	TR10	150	200	300	O	●	1421	2070	3491	232	290	701
SM12H5G	TR10	150	200	300	O	●	1601	2070	3671	232	290	728
SM12H5F	TR10	170	230	348	●	●	1601	2220	3821	232	290	768
SM12H5D	TR10	192	260	405	●	Δ	1601	2400	4001	232	290	808
SM12H5A	TR10	192	260	405	●	Δ	1601	2400	4001	232	290	808
SM12H6F	TR10	192	260	405	●	Δ	1781	2400	4181	232	290	835
SM12H6D	TR12	220	300	424	●	Δ	1807	2110	3917	286	290	965
SM12H6A	TR12	250	340	481	●	Δ	1807	2280	4087	286	290	1040
SM12H7D	TR12	250	340	481	●	Δ	1987	2280	4267	286	290	1067
SM12H8F	TR12	250	340	481	●	Δ	2167	2280	4447	286	290	1094

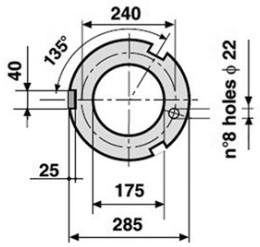
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

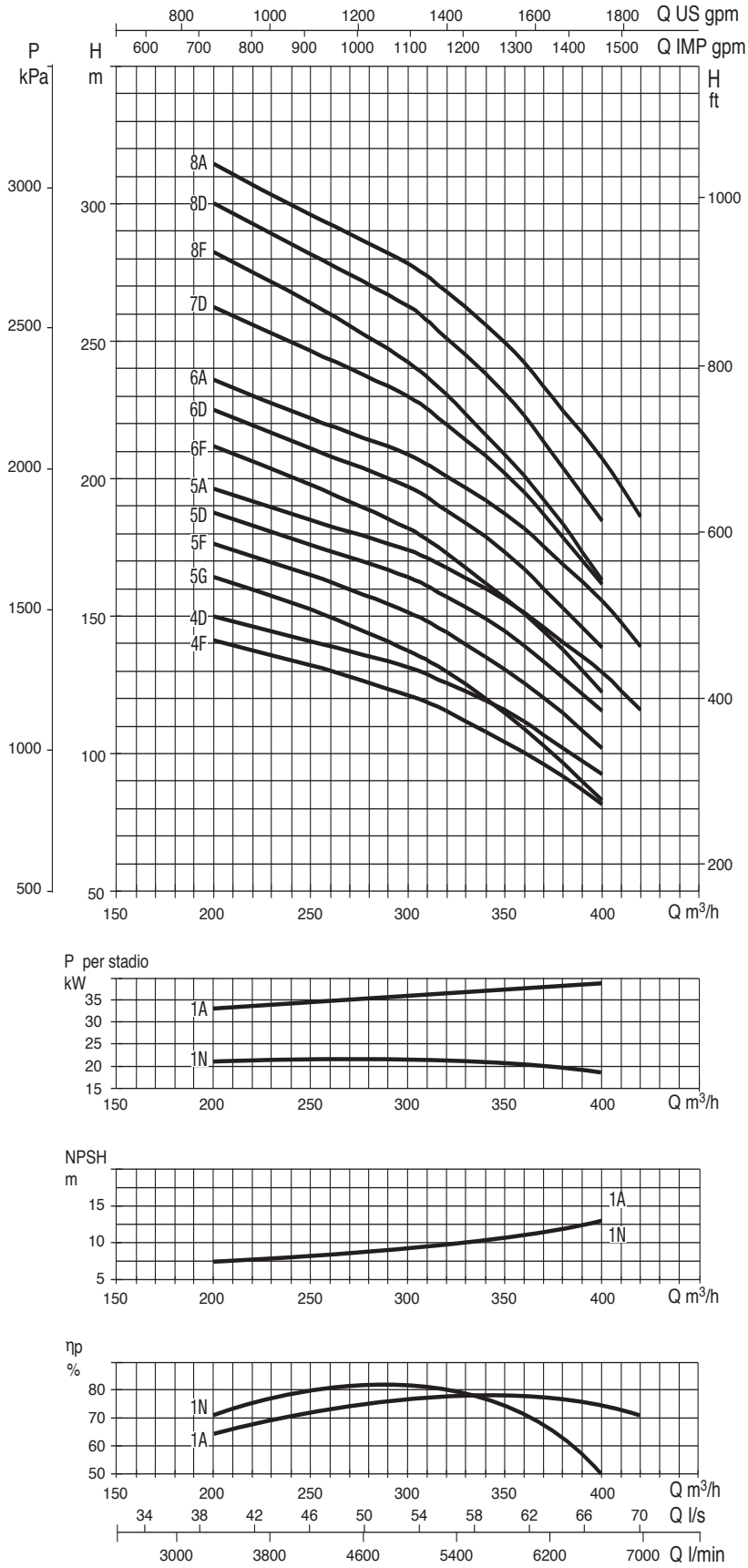
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

SM12H

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS







Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

SM12L

SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS

PERFORMANCE AT 50 Hz - 2 POLES

MODEL	ELECTRICAL DATA		HYDRAULIC DATA											STANDARD MOTOR COUPLING
	P2 NOMINAL		Q=m³/h	0	250	300	340	360	380	400	440	480	510	
	kW	HP	Q=l/min	0	4167	5000	5667	6000	6333	6667	7333	8000	8500	
SM12L1L	37	50	H (m)	40	30	28	26	25	23	22	17	13		8"
SM12L1F	45	60		47	35	33	32	31	30	29	26	21	16	8"
SM12L1A	55	75		49	39	37	36	36	35	33	30	26	22	8"
SM12L2N	63	85		74	56	51	47	45	42	39	30	19		8"
SM12L2L	75	100		81	61	57	53	50	47	44	35	26		8"
SM12L2F	92	125		95	71	67	64	63	61	58	52	42	33	8"
SM12L2A	110	150		100	79	75	73	72	70	67	61	53	44	8"
SM12L3L	110	150		124	93	87	81	77	72	67	54	40		8"
SM12L3G	132	180		134	101	95	89	85	81	78	67	54		10"
SM12L3F	132	180		145	108	102	99	96	93	88	79	65	51	10"
SM12L3D	147	200		149	115	109	104	101	98	95	87	73	60	10"
SM12L3A	170	230		153	121	116	112	110	107	103	94	81	68	10"
SM12L4G	170	230		179	135	126	118	113	108	104	90	72		10"
SM12L4F	170	230		193	144	136	132	128	124	118	106	86	68	10"
SM12L4D	190	260		199	154	145	138	134	130	126	116	97	80	10"
SM12L5G	190	260		224	169	158	148	141	135	130	112	90		10"
SM12L5F	220	300		242	180	171	165	161	155	148	132	108	85	12"
SM12L5D	250	340		249	192	182	173	168	163	158	145	121	100	12"
SM12L6F	250	340		290	216	205	197	192	186	177	158	130	102	12"
Minimum recommended level on suction line (m)					1	1,2	1,5	2	2,5	3	4,3	6	8	

ELECTRICAL DATA AND DIMENSIONS

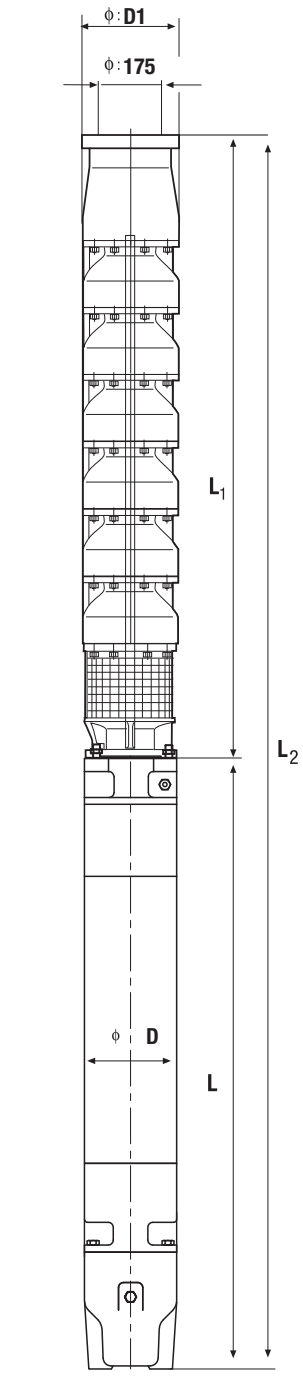
HYDRAULIC SECTION	MOTOR *	ELECTRICAL DATA				HORIZONTAL INSTALLATION	L1 mm	L mm	L2 mm	D mm	D1 mm	TOTAL WEIGHT kg
		P2 NOMINAL		In A	OPERATION WITH INVERTER							
		kW	HP									
SM12L1L	TR8	37	50	75	O	●	881	1160	2041	192	290	271
SM12L1F	TR8	45	60	92	O	●	881	1270	2151	192	290	292
SM12L1A	TR8	55	75	109	O	●	881	1350	2231	192	290	307
SM12L2N	TR8	62	85	126	O	●	1061	1490	2551	192	290	360
SM12L2L	TR8	75	100	145	O	●	1061	1590	2651	192	290	379
SM12L2F	TR8	92	125	177	O	●	1061	1830	2891	192	290	425
SM12L2A	TR8	110	150	213	O	Δ	1061	2060	3121	192	290	475
SM12L3L	TR8	110	150	213	O	Δ	1241	2060	3301	192	290	502
SM12L3G	TR10	132	180	257	O	●	1241	1870	3111	232	290	609
SM12L3F	TR10	132	180	257	O	●	1241	1870	3111	232	290	609
SM12L3D	TR10	150	200	300	O	●	1241	2070	3311	232	290	674
SM12L3A	TR10	170	230	348	●	●	1241	2220	3461	232	290	714
SM12L4G	TR10	170	230	348	●	●	1421	2220	3641	232	290	741
SM12L4F	TR10	170	230	348	●	●	1421	2220	3641	232	290	741
SM12L4D	TR10	192	260	405	●	Δ	1421	2400	3821	232	290	781
SM12L5G	TR10	192	260	405	●	Δ	1601	2400	4001	232	290	808
SM12L5F	TR12	220	300	424	●	Δ	1601	2110	3711	286	290	928
SM12L5D	TR12	250	340	481	●	Δ	1601	2280	3881	286	290	1003
SM12L6F	TR12	250	340	481	●	Δ	1781	2280	4061	286	290	1030

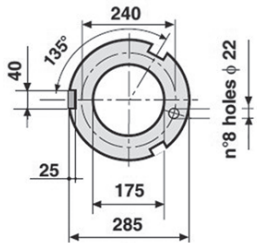
*** 6GF motor:** 6" encapsulated in water bath.
TR motor: 6"-12" rewindable in water bath.

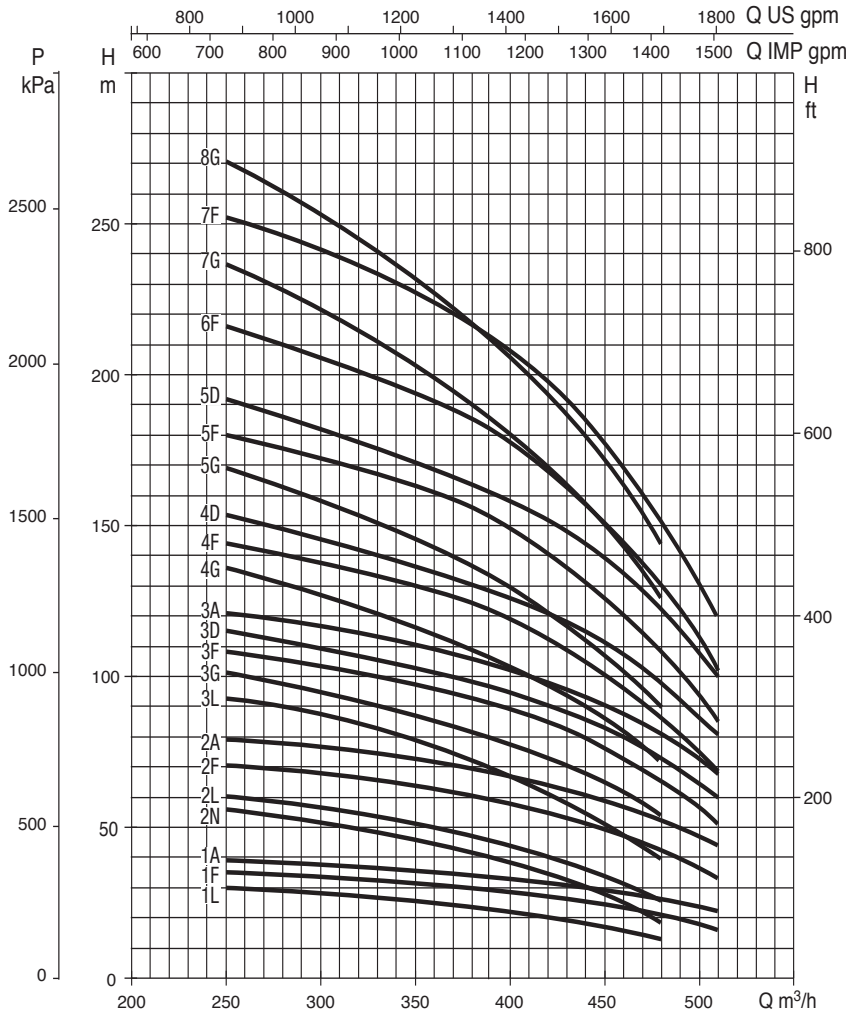
●	Permitted
O	Only version PE2 + PA
Δ	Contact our sales network

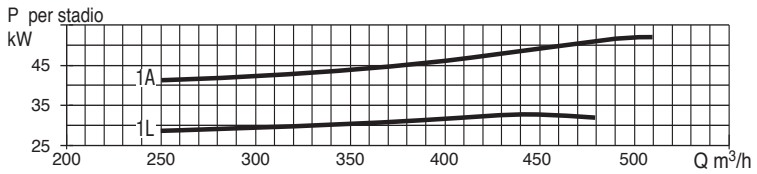
SM12L

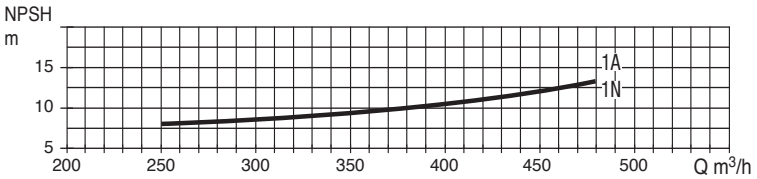
SEMIAXIAL 12" SUBMERSIBLE ELECTRIC PUMPS

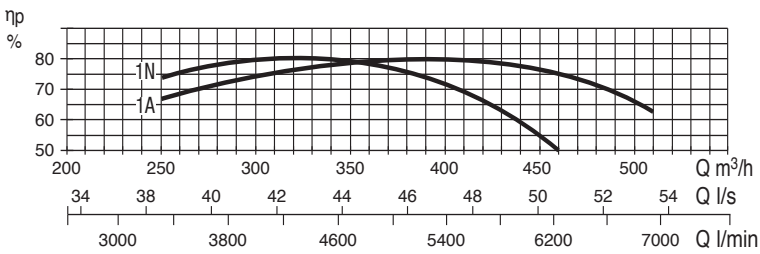












Performance at 50 Hz 2 poles. The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

3GF - 3GS

3” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: 3”.
Insulation class: F.
Protection class: IP68.
Cooling flow speed: min. 0,3 m/s 35 °C.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 20/h.
Max operating depth: 150 m.
Horizontal operation: 0,5 HP - 1 HP.

GENERAL DATA

3” submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel and brass. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Kingsbury self-centring thrust block designed to withstand significant axial loads. Stator housed in an airtight stainless steel casing with internal sleeve and outer casing and flanges. The 3GS version entirely in AISI 304 stainless steel is available on request. The cable connector is removable for the purpose of quick and easy maintenance. The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50/60 Hz). Overload protection is included in the motor for the single-phase version. Overload protection to be provided by the user for the three-phase version.

On request: cables of different lengths and voltage supply.

CONSTRUCTION FEATURES

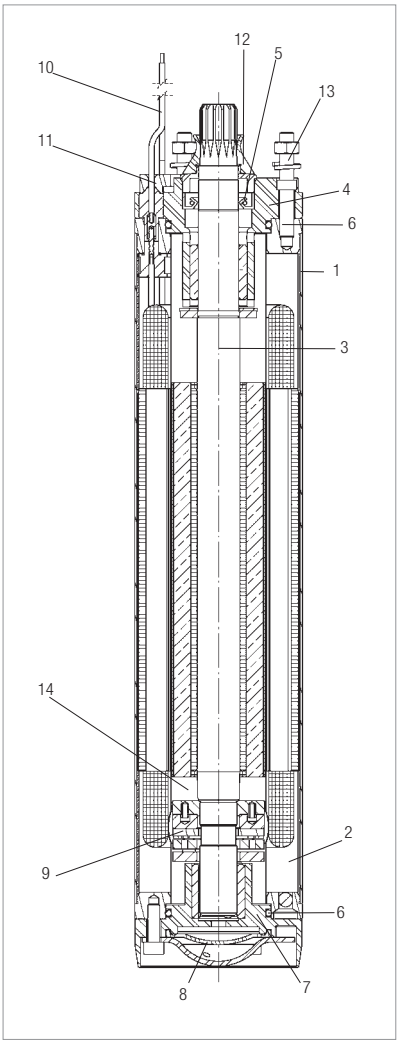
Stator housed in an outer casing in AISI 304. The stator has 18 slots to ensure better elasticity and smooth operation; the copper conductors have a double layer of Class H insulating enamel. Overload protection is included (single-phase version).

Kingsbury thrust block equipped with carbon clearance ring and oscillating pads in high-strength stainless steel machined by Tesla with a spherical lapping process.
From 0,5 HP to 1 HP: 2000 N

Shaft with special surface hardening and polishing in the work area of the bushings, shaft in AISI 431 stainless steel, squirrel cage rotor in copper for all power ratings.

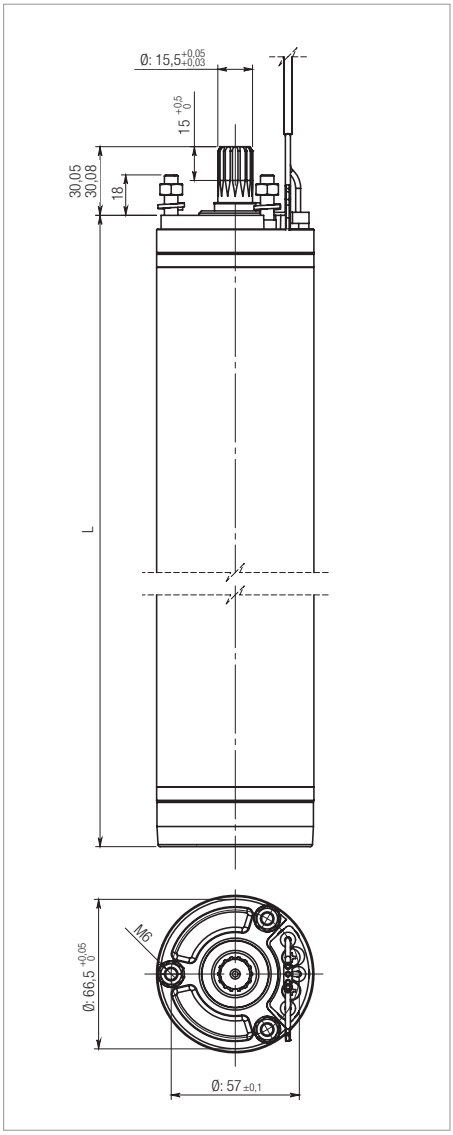
3GF - 3GS

3” SUBMERSIBLE MOTOR



MATERIALS

N.	PARTS	VERSION 3GF	VERSION 3GS
1	INTERNAL SLEEVE AND OUTER CASING	AISI 304	AISI 304
2	STATOR	AISI 304L	AISI 304L
3	SHAFT	AISI 431	AISI 304
4	UPPER SUPPORT	BRASS	AISI 304
5	LIP SEAL	NBR	EPDM
6	GASKETS	NBR	EPDM
7	LOWER SUPPORT	BRASS	AISI 304
8	BELLOW SEAL	EPDM	EPDM
9	THRUST BLOCK	STEEL - GRAPHITE	STEEL - GRAPHITE
10	CABLE	EPDM	EPDM
11	CONNECTOR PLUG	AISI 304	AISI 304
12	SAND GUARD	NBR	EPDM
13	SCREWS	AISI 304	AISI 304
14	COOLANT	ANTIFREEZE + WATER	ANTIFREEZE + WATER



DIMENSIONS - SINGLE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	0,5	0,37	331	6,1	2000
	0,75	0,55	351	6,6	2000
	1	0,75	391	7,6	2000

DIMENSIONS - THREE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	0,5	0,37	331	6,3	2000
	0,75	0,55	351	6,8	2000
	1	0,75	391	7,8	2000

ELECTRICAL DATA - SINGLE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	C µF	CABLE	
	hp	kW				Ø mm²	LC m
3GF/3GS - 0,37 kW - M	0,5	0,37	230 V	3,3	12	4x1	1
3GF/3GS - 0,55 kW - M	0,75	0,55	230 V	5,1	16	4x1	1,2
3GF/3GS - 0,75 kW - M	1	0,75	230 V	6,1	20	4x1	1,4

ELECTRICAL DATA - THREE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	C µF	CABLE	
	hp	kW				Ø mm²	LC m
3GF/3GS - 0,37 kW - T	0,5	0,37	400 V	1,3	-	4x1	1
3GF/3GS - 0,55 kW - T	0,75	0,55	400 V	1,9	-	4x1	1,2
3GF/3GS - 0,75 kW - T	1	0,75	400 V	2,4	-	4x1	1,4

P2: Nominal power
V: Nominal voltage
In: Nominal current
C: Capacitor
Ø: Cable cross section
LC: Cable length

Winding resistance: see technical appendix on page 200

4GG - 4GX

4” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: NEMA 4".
Insulation class: F.
Protection class: IP68.
Cooling flow speed: min. 0,3 m/s 35 °C.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 20/h.
Max operating depth: 300 m.
Horizontal operation: 0,5 HP - 10 HP.

GENERAL DATA

4” submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel for the parts in contact with water. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Kingsbury self-centring thrust block designed to withstand significant axial loads. Stator housed in an airtight AISI 304L stainless steel casing with internal sleeve and outer casing and flanges.
The 4GX version completely in AISI 316 stainless steel is available on request.
The cable connector is removable for the purpose of quick and easy maintenance. The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50 Hz). For the 50 Hz single-phase version, the capacitor and manually resettable overload protection are in the electrical control box provided separately. Overload protection to be provided by the user for the three-phase version.

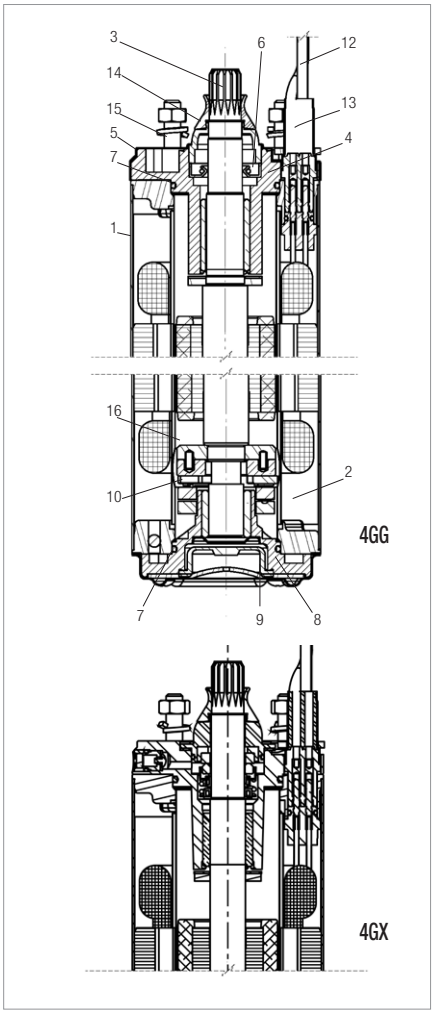
On request: cables of a different length, different voltage supply, thermal protection device (50 Hz - PSC - of 0,5 HP to 1,5 HP).

CONSTRUCTION FEATURES

Stator housed in an outer casing and flanges in AISI 304L. The stator has 24 slots to ensure better elasticity and smooth operation; the copper conductors have a double layer of Class H insulating enamel.

Kingsbury thrust block equipped with carbon clearance ring and oscillating pads in high-strength stainless steel machined by Tesla with a spherical lapping process.
From 0,5 HP to 1.5 HP: 2000 N
From 2 HP to 3 HP: 3000 N
From 4 HP to 10 HP: 6000 N

Shafts with terminal in AISI 304/Duplex, with special surface hardening and polishing in the work area of the bushings. Squirrel cage rotor in aluminium for power ratings up to 3 HP and in copper for motors of power above 4 HP.



MATERIALS

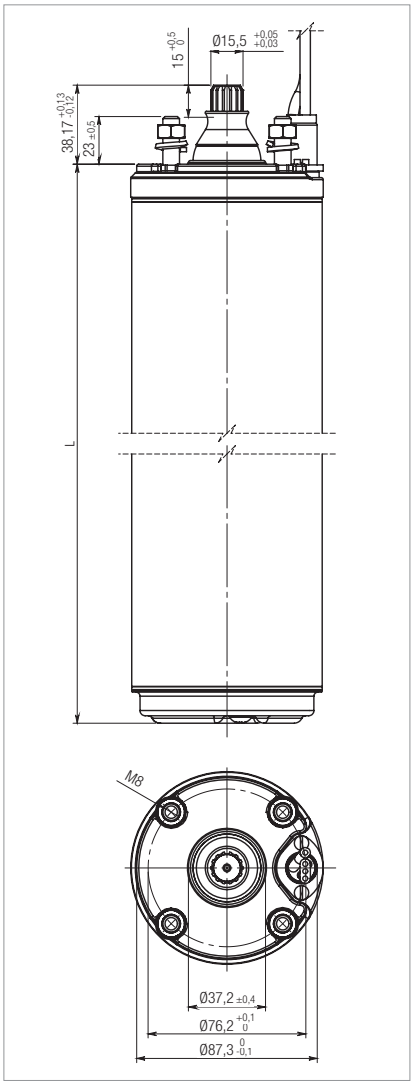
N.	PARTS	VERSION 4GG	VERSION 4GX
1	INTERNAL SLEEVE AND OUTER CASING	AISI 304	AISI 316
2	STATOR	AISI 304L	AISI 316 TI
3	SHAFT EXTENSION	AISI 304 / DUPLEX	DUPLEX
4	UPPER SUPPORT	TEFLON COATED CAST IRON	AISI 316
5	SUPPORT COVER	AISI 304	-
6	LIP SEAL	NBR	-
7	GASKETS	NBR	VITON
8	LOWER SUPPORT	TEFLON COATED CAST IRON	AISI 316
9	BELLOW SEAL	EPDM	EPDM
10	THRUST BLOCK	STEEL - GRAPHITE	STEEL - GRAPHITE
11	VALVE	AISI 303	AISI 316
12	CABLE	EPDM	EPDM
13	CONNECTOR PLUG	AISI 316	AISI 316
14	SAND GUARD	NBR	EPDM
15	SCREWS	AISI 304	AISI 316
16	COOLANT	ANTIFREEZE + WATER	ANTIFREEZE + WATER
17	MECHANICAL SEAL	-	SIC/SIC

DIMENSIONS - SINGLE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT 4GG	WEIGHT 4GX	AXIAL THRUST N
	hp	kW				
50 Hz	0,5	0,37	236	6,9	7,3	2000
	0,75	0,55	266	8,1	8,5	2000
	1	0,75	286	9,1	9,4	2000
	1,5	1,1	331	11	11,4	2000
	2	1,5	393	13,2	13,6	3000
	3	2,2	413	13,9	14,2	3000
50 Hz	5	3,7	684	27	26,7	6000

DIMENSIONS - THREE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT 4GG	WEIGHT 4GX	AXIAL THRUST N
	hp	kW				
50 Hz	0,5	0,37	216	6,2	6,6	2000
	0,75	0,55	236	6,9	7,3	2000
	1	0,75	266	8,1	8,5	2000
	1,5	1,1	286	9,1	9,4	2000
	2	1,5	348	11	11,4	3000
	3	2,2	393	13,2	13,6	3000
	4	3	544	19,9	20	6000
50 Hz	5,5	4	614	22,9	23	6000
	7,5	5,5	684	26,8	27	6000
	10	7,5	764	30,6	30,7	6000



ELECTRICAL DATA - SINGLE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	Cs/Cn	P1 W	N min-1	Cos φ	η %	C µF	CABLE	
	hp	kW										Ø mm2	LC m
4GG / 4 GX - 0,37 kW - 230 V - M	0,5	0,37	230	3,3	2,7	0,69	740	2820	0,97	50	16	4x1,5	1,7
4GG / 4 GX - 0,55 kW - 230 V - M	0,75	0,55	230	4,6	3,3	0,68	1000	2820	0,94	56	20	4x1,5	1,7
4GG / 4 GX - 0,75 kW - 230 V - M	1	0,75	230	6,2 W	3,2	0,66	1300	2820	0,92	58	25	4x1,5	1,7
4GG / 4 GX - 1,1 kW - 230 V - M	1,5	1,1	230	8,6	3,6	0,68	1820	2830	0,90	62	35	4x1,5	1,7
4GG / 4 GX - 1,5 kW - 230 V - M	2	1,5	230	11	3,7	0,62	2320	2830	0,91	65	40	4x1,5	1,7
4GG / 4 GX - 2,2 kW - 230 V - M	3	2,2	230	16	3,1	0,6	3460	2810	0,89	65	60	4x1,5	1,7
4GG / 4 GX - 3,7 kW - 230 V - M	5	3,7	230	25	3,6	0,51	5500	2850	0,95	65	90	4x2	2,7

ELECTRICAL DATA - THREE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	Cs/Cn	P1 W	N min-1	η %	C µF	CABLE	
	hp	kW									Ø mm2	LC m
4GG / 4 GX - 0,37 kW - 230 V - T	0,5	0,37	230	2,7	3,7	3	710	2820	53	-	4x1,5	1,7
4GG / 4 GX - 0,37 kW - 400 V - T			400	1,4	3,8	3	710	2820	53	-	4x1,5	1,7
4GG / 4 GX - 0,55 kW - 230 V - T	0,75	0,55	230	3,3	4,2	3,1	920	2830	60	-	4x1,5	1,7
4GG / 4 GX - 0,55 kW - 400 V - T			400	1,9	4,2	3,1	920	2830	60	-	4x1,5	1,7
4GG / 4 GX - 0,75 kW - 230 V - T	1	0,75	230	4,1	5,1	3,2	1190	2830	63	-	4x1,5	1,7
4GG / 4 GX - 0,75 kW - 400 V - T			400	2,4	5,0	3,2	1190	2830	63	-	4x1,5	1,7
4GG / 4 GX - 1,1 kW - 230 V - T	1,5	1,1	230	5,7	4,2	3,3	1720	2830	64	-	4x1,5	1,7
4GG / 4 GX - 1,1 kW - 400 V - T			400	3,4	4,1	3,3	1720	2830	64	-	4x1,5	1,7
4GG / 4 GX - 1,5 kW - 230 V - T	2	1,5	230	7,6	4,3	3,4	2200	2830	68	-	4x1,5	1,7
4GG / 4 GX - 1,5 kW - 400 V - T			400	4,4	4,3	3,4	2200	2830	68	-	4x1,5	1,7
4GG / 4 GX - 2,2 kW - 230 V - T	3	2,2	230	10,2	4,4	3,2	3170	2820	71	-	4x1,5	1,7
4GG / 4 GX - 2,2 kW - 400 V - T			400	5,9	4,4	3,2	3170	2820	71	-	4x1,5	1,7
4GG / 4 GX - 3,0 kW - 230 V - T	4	3	230	14,3	4,6	3,3	4050	2840	74	-	4x1,5	2,7
4GG / 4 GX - 3,0 kW - 400 V - T			400	8,3	4,6	3,3	4050	2840	74	-	4x1,5	2,7
4GG / 4 GX - 4,0 kW - 230 V - T	5,5	4	230	17,3	5,6	3,4	5340	2850	75	-	4x2	2,7
4GG / 4 GX - 4,0 kW - 400 V - T			400	10	5,6	3,4	5340	2850	75	-	4x1,5	2,7
4GG / 4 GX - 5,5 kW - 230 V - T	7,5	5,5	230	24,2	5,5	3,4	7110	2850	77	-	4x2	2,7
4GG / 4 GX - 5,5 kW - 400 V - T			400	14	5,5	3,4	7110	2850	77	-	4x1,5	2,7
4GG / 4 GX - 7,5 kW - 400 V - T	10	7,5	400	17,4	4,8	2,9	9520	2850	79	-	4x2	3,5

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
Cs/Cn: Starting torque/Nominal torque
P1: Absorbed power
N: Rotations per minute - R.p.m

Cos φ: Power factor
η: Yield
C: Capacitor
Ø: Cable cross section
LC: Cable length

Winding resistance: see technical appendix on page 200

TECHNICAL DATA

Flanging: NEMA 4".
Insulation class: F.
Protection class: IP68.
Cooling flow speed: min. 0,3 m/s 35 °C.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 20/h.
Max operating depth: 300 m.
Horizontal operation: 0,5 HP - 1,5 HP.

GENERAL DATA

4” submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel for the parts in contact with water. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Kingsbury self-centring thrust block designed to withstand significant axial loads. Stator housed in an airtight AISI 304L stainless steel casing with internal sleeve and outer casing and flanges.
The 4TWX version entirely in AISI 316 stainless steel is available on request.
The cable connector is removable for the purpose of quick and easy maintenance. The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50 Hz). The capacitor is included in the Noryl cartridge under the motor, and the motor does not therefore require the use of a control box. Thermal protection included in the motor of 0,5 HP to 1,5 HP in the 50 Hz version.

On request: cables of different lengths and different voltage supply.

CONSTRUCTION FEATURES

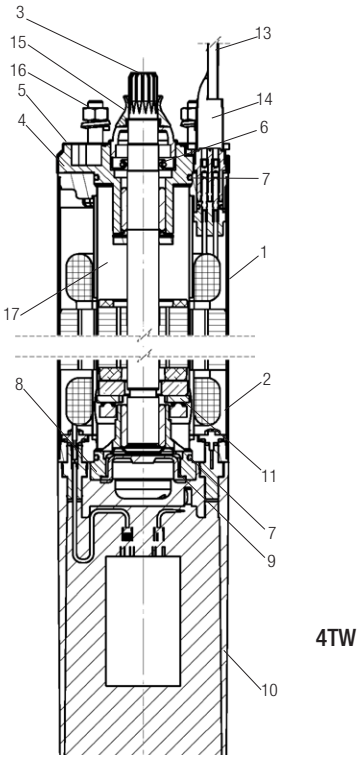
Stator housed in an outer casing in AISI 304L. The stator has 24 slots to ensure better elasticity and smooth operation; the copper conductors have a double layer of Class H insulating enamel. Thermal protection is included in the motor of 0,5 HP to 1,5 HP in the 50 Hz version of 0,5 HP.

Kingsbury thrust block equipped with carbon clearance ring and oscillating pads in high-strength stainless steel machined by Tesla with a spherical lapping process.
From 0,5 HP to 1,5 HP: 2000 N

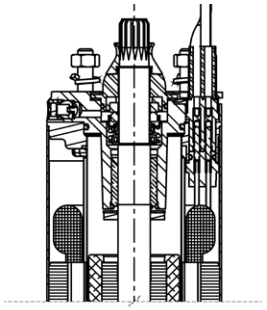
Shafts with terminal in AISI 304, with special surface hardening and polishing in the work area of the bushings; squirrel cage rotor in aluminium.

4TW - 4TWX

4" SUBMERSIBLE MOTOR



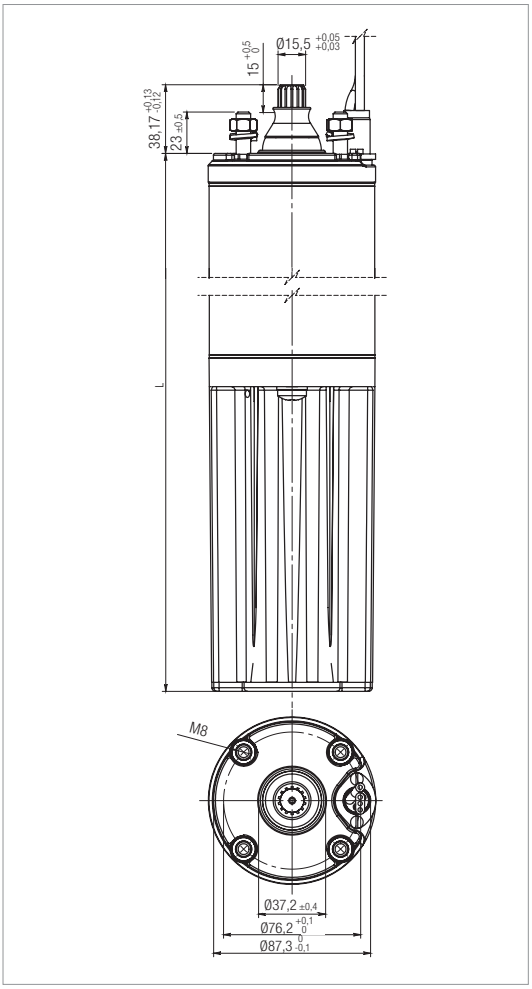
4TW



4TWX

MATERIALS

N.	PARTS	VERSION 4TW	VERSION 4TWX
1	INTERNAL SLEEVE AND OUTER CASING	AISI 304	AISI 316
2	STATOR	AISI 304L	AISI 316 TI
3	SHAFT EXTENSION	AISI 304	DUPLEX
4	UPPER SUPPORT	TEFLON COATED CAST IRON	AISI 316
5	SUPPORT COVER	AISI 304	-
6	LIP SEAL	NBR	-
7	GASKETS	NBR	VITON
8	LOWER SUPPORT	TEFLON COATED CAST IRON	AISI 316
9	BELLOW SEAL	EPDM	EPDM
10	CAPACITOR ENCLOSURE	NORYL	NORYL
11	THRUST BLOCK	STEEL - GRAPHITE	STEEL - GRAPHITE
12	VALVE	AISI 303	AISI 316
13	CABLE	EPDM	EPDM
14	CONNECTOR PLUG	AISI 316	AISI 316
15	SAND GUARD	NBR	EPDM
16	SCREWS	AISI 304	AISI 316
17	COOLANT	ANTIFREEZE + WATER	ANTIFREEZE + WATER
18	MECHANICAL SEAL	-	SIC/SIC



DIMENSIONS - SINGLE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT 4TW	WEIGHT 4WX	AXIAL THRUST N
	hp	kW				
50 Hz	0,5	0,37	405	7,4	7,9	2000
	0,75	0,55	435	8,7	9,2	2000
	1	0,75	455	9,6	10,1	2000
	1,5	1,1	500	11,5	12	2000

ELECTRICAL DATA - SINGLE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	Cs/Cn	P1 W	N min-1	Cos φ	η %	C µF	CABLE	
	hp	kW										Ø mm²	LC m
4TW / 4 TWX - 0,37 kW - 230 V - M	0,5	0,37	230	3,3	2,7	0,69	740	2820	0,97	50	16	3x1,5	1,7
4TW / 4 TWX - 0,55 kW - 230 V - M	0,75	0,55	230	4,6	3,3	0,68	1000	2820	0,94	56	20	3x1,5	1,7
4TW / 4 TWX - 0,75 kW - 230 V - M	1	0,75	230	6,2 W	3,2	0,66	1300	2820	0,92	58	25	3x1,5	1,7
4TW / 4 TWX - 1,1 kW - 230 V - M	1,5	1,1	230	8,6	3,6	0,68	1820	2830	0,90	62	35	3x1,5	1,7

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
Cs/Cn: Starting torque/Nominal torque
P1: Absorbed power
N: Rotations per minute - R.p.m

Cos φ: Power factor
η: Yield
C: Capacitor
Ø: Cable cross section
LC: Cable length

40L

4” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: NEMA 4".
Insulation class: F.
Protection class: IP68.
Cooling flow speed: min. 0,3 m/s 35 °C.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 20/h.
Max operating depth: 250 m.
Horizontal operation: 0,5 HP - 10 HP.

GENERAL DATA

4" rewindable submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel for the parts in contact with water. Cooling and lubrication of ball bearings is assured by a special FDA approved coolant. Stator housed in a AISI 304L stainless steel casing fixed with steel pins to the upper support of the motor. The cable connector is removable for the purpose of quick and easy maintenance. The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50/60 Hz). For the single-phase version, the capacitor and manually resettable overload protection are in the electrical control box provided separately;
there is also a 4OLTW version with capacitor included in the motor.
Overload protection to be provided by the user for the three-phase version.

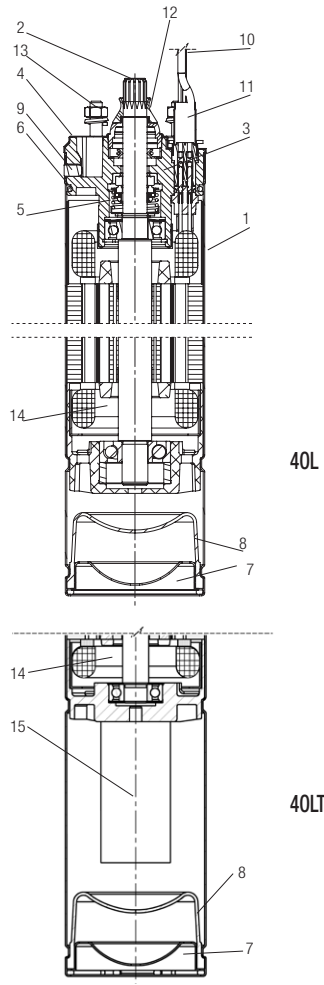
On request: cables of a different length, different voltage supply, thermal protection device (up to 1,5 HP, 50 Hz).

CONSTRUCTION FEATURES

Rewindable stator housed in an outer casing in AISI 304L. The stator has 24 slots to ensure better elasticity and smooth operation;
copper conductors with a double layer of Class H insulating enamel.

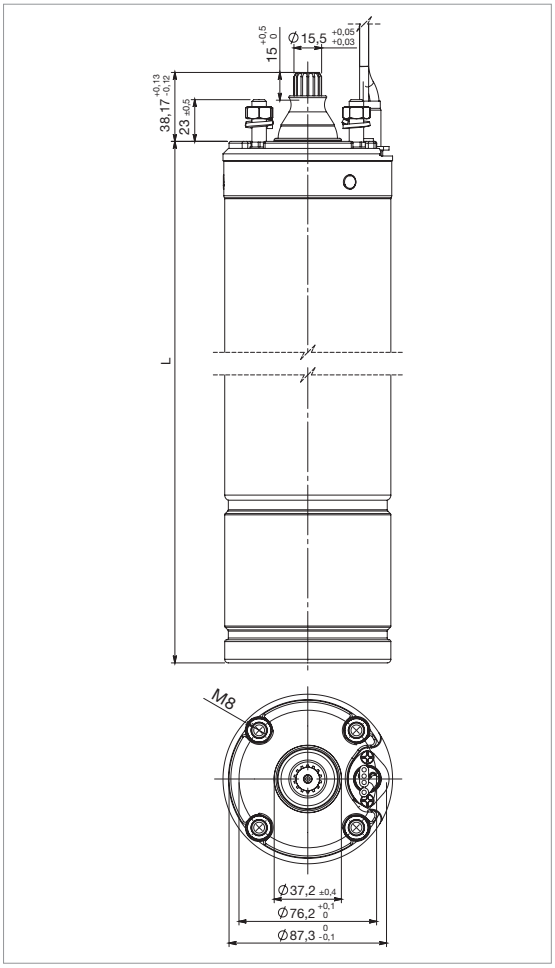
Oversized ball bearings of high axial load.
From 0,5 HP to 2 HP: 2000 N
3 HP: 3000 N
From 4 HP to 5,5 HP: 4000 N
From 7,5 HP to 10 HP: 5000 N

Shafts with terminal in AISI 304/Duplex, with special surface hardening process. Squirrel cage rotor in aluminium for power ratings up to 3 HP and in copper for motors of power above 4 HP.



MATERIALS

N.	PARTS	MATERIAL
1	OUTER CASING	AISI 304L
2	SHAFT EXTENSION	AISI 304 / DUPLEX
3	UPPER SUPPORT	NICKEL-PLATED CAST IRON
4	SUPPORT COVER	AISI 304
5	MECHANICAL SEAL	CARBON - CERAMIC
6	GASKETS	NBR
7	CAP	AISI 304
8	BELLOW SEAL	EPDM
9	PINS	AISI 304
10	CABLE	EPDM
11	CONNECTOR PLUG	AISI 316
12	SAND GUARD	NBR
13	SCREWS	AISI 304
14	COOLANT	MINERAL OIL
15	CAPACITOR	ONLY 4OL/4TW



DIMENSIONS - SINGLE-PHASE MOTORS

TYPE	P2		LENGTH (mm)	WEIGHT (kg)	AXIAL THRUST (N)
	hp	kW			
50 Hz	0,5	0,37	284	6,5	2000
	0,75	0,55	304	74	2000
	1	0,75	334	8,7	2000
	1,5	1,1	354	9,7	2000
	2	2,2	400	11,7	2000
50 Hz	3	2,2	478	14,5	3000/4000

DIMENSIONS - THREE-PHASE MOTORS

TYPE	P2		LENGTH (mm)	WEIGHT (kg)	AXIAL THRUST (N)
	hp	kW			
50 Hz	0,5	0,37	284	6,5	2000
	0,75	0,55	284	6,5	2000
	1	0,75	304	7,4	2000
	1,5	1,1	334	8,7	2000
	2	1,5	354	9,7	2000
	3	2,2	458	13,4	3000/4000
	4	3	518	15,9	4000
	5,5	4	588	17,1	4000
	7,5	5,5	658	23,9	5000
	10	7,5	738	27,9	5000

ELECTRICAL DATA - SINGLE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	Cs/Cn	P1 W	N min-1	Cos φ	η %	C µF	CABLE	
	hp	kW										Ø mm2	LC m
40L - 0,37 kW - 230 V - M	0,5	0,37	230	3,5	2,6	0,64	725	2800	0,9	51	16	4x1,5	1,7
40L - 0,55 kW - 230 V - M	0,75	0,55	230	4,5	2,7	0,60	950	2800	0,92	58	20	4x1,5	1,7
40L - 0,75 kW - 230 V - M	1	0,75	230	6,3	3,2	0,64	1275	2820	0,88	59	25	4x1,5	1,7
40L - 1,1 kW - 230 V - M	1,5	1,1	230	8,5	2,9	0,54	1780	2800	0,91	62	35	4x1,5	1,7
40L - 1,5 kW - 230 V - M	2	1,5	230	10,8	3,2	0,43	2160	2800	0,87	69	40	4x1,5	1,7
40L - 2,2 kW - 230 V - M	3	2,2	230	14	3,2	0,57	3060	2800	0,87	78	60	4x1,5	1,7
40L - 3,7 kW - 230 V - M	5	3,7	230	25,4	3,6	0,51	5130	2850	0,95	72	90	4x2	2,7

ELECTRICAL DATA - THREE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	Cs/Cn	P1 W	N min-1	η %	C µF	CABLE	
	hp	kW									Ø mm2	LC m
40L - 0,37 kW - 230 V - M	0,5	0,37	230	2,8	3,2	3,5	700	2820	53	-	4x1,5	1,7
40L - 0,37 kW - 400 V - M			400	1,6	3,3	3,5	700	2820	53	-	4x1,5	1,7
40L - 0,55 kW - 230 V - M	0,75	0,55	230	3,8	3,4	3,9	980	2820	56	-	4x1,5	1,7
40L - 0,55 kW - 400 V - M			400	2,2	3,4	3,9	980	2820	56	-	4x1,5	1,7
40L - 0,75 kW - 230 V - M	1	0,75	230	4,5	3,8	3,7	1200	2820	62	-	4x1,5	1,7
40L - 0,75 kW - 400 V - M			400	2,6	3,8	3,7	1200	2820	62	-	4x1,5	1,7
40L - 1,1 kW - 230 V - M	1,5	1,1	230	6,2	4,5	4,3	1700	2830	65	-	4x1,5	1,7
40L - 1,1 kW - 400 V - M			400	3,6	4,4	4,3	1700	2830	65	-	4x1,5	1,7
40L - 1,5 kW - 230 V - M	2	1,5	230	7,9	4,4	4,4	2160	2810	69	-	4x1,5	1,7
40L - 1,5 kW - 400 V - M			400	4,6	4,3	4,4	2160	2810	69	-	4x1,5	1,7
40L - 2,2 kW - 230 V - M	3	2,2	230	10,4	5,5	3,3	3050	2830	72	-	4x1,5	1,7
40L - 2,2 kW - 400 V - M			400	6,0	5,5	3,3	3050	2830	72	-	4x1,5	1,7
40L - 3,0 kW - 230 V - M	4	3	230	13,6	5,7	3,3	4000	2840	75	-	4x1,5	2,7
40L - 3,0 kW - 400 V - M			400	7,9	5,7	3,3	4000	2840	75	-	4x1,5	2,7
40L - 4,0 kW - 230 V - M	5,5	4	230	17,6	5,4	3,4	5260	2850	76	-	4x2	2,7
40L - 4,0 kW - 400 V - M			400	10,2	5,4	3,4	5260	2850	76	-	4x1,5	2,7
40L - 5,5 kW - 230 V - M	7,5	5,5	230	22,6	5,4	3,4	6900	2850	80	-	4x2	2,7
40L - 5,5 kW - 400 V - M			400	13,1	5,3	3,4	6900	2850	80	-	4x1,5	2,7
40L - 7,5 kW - 400 V - M	10	7,5	400	16,9	5,0	3	9030	2840	81	-	4x2	3,5

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
Cs/Cn: Starting torque/Nominal torque
P1: Absorbed power
N: Rotations per minute - R.p.m

Cos φ: Power factor
η: Yield
C: Capacitor
Ø: Cable cross section
LC: Cable length

Winding resistance: see technical appendix on page 201

6GF - 6GX

6” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: NEMA 6".
Insulation class: F.
Protection class: IP68.
Cooling flow speed: min. 0,3 m/s 35 °C.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 25/h.
Max operating depth: 300 m.
Horizontal operation: 5,5 HP - 50 HP.

GENERAL DATA

6” submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel and cast iron protected with an electrophoresic paint coating for the parts in contact with water. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Kingsbury self-centring thrust block designed to withstand significant axial loads. Stator housed in an airtight stainless steel casing. The cable connector is removable for the purpose of quick and easy maintenance. The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50). Available in a three-phase version with DOL or STAR-DELTA starting and the user must provide the motor protection.
The 6GX version completely in AISI 316 stainless steel with a silicon carbide mechanical seal can be fitted on request.
The motor is available in a version equipped with a PT100 or PTC (only DOL version) temperature sensor.

On request: cables of a different length, different voltage supply, single-phase version (up to 15 HP).

CONSTRUCTION FEATURES

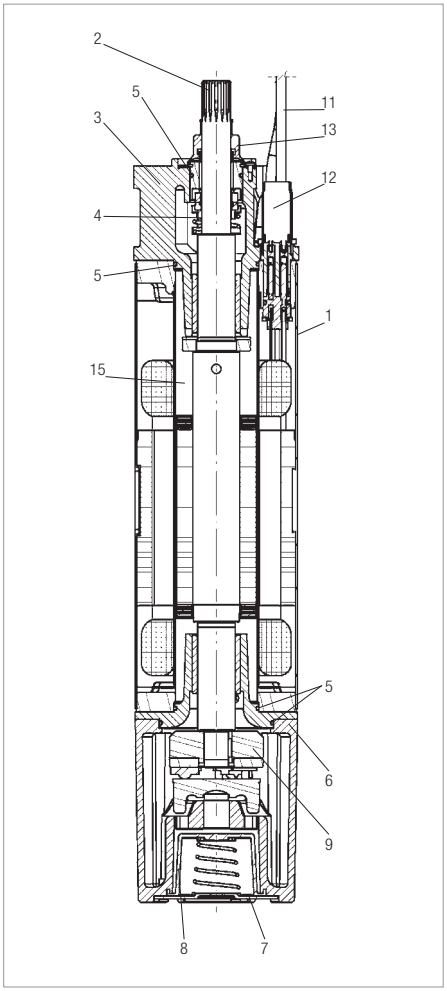
Canned-type stator in an airtight casing made of AISI 304L stainless steel and flanges treated with corrosion inhibitor. The stator has 24 slots to ensure better elasticity and smooth operation; the copper conductors have a double layer of Class H insulating enamel.

Kingsbury thrust block equipped with carbon clearance ring and oscillating pads in high-strength stainless steel machined by Tesla with a spherical lapping process.
From 5,5 HP to 30 HP: 16000 N
From 40 HP to 50 HP: 27000 N

Shaft in stainless steel, with extremity section in “Duplex”; squirrel cage rotor in copper for all power ratings.

6GF - 6GX

6" SUBMERSIBLE MOTOR



MATERIALS

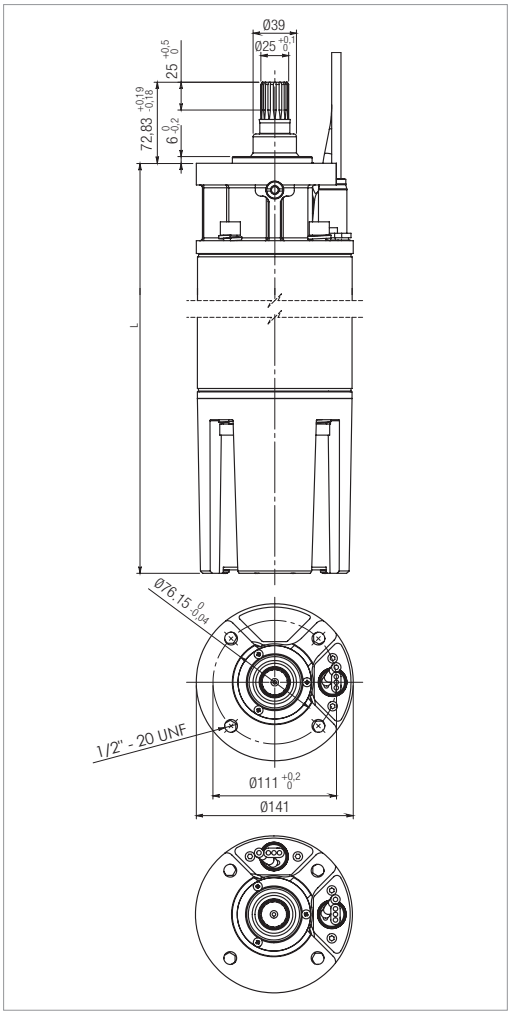
N.	PARTS	VERSION 6GF	VERSION 6GX
1	INTERNAL SLEEVE AND OUTER CASING	AISI 304L	AISI 316 TI
2	SHAFT EXTENSION	DUPLEX	DUPLEX
3	UPPER SUPPORT	CAST IRON WITH PAINT COATING	AISI 316
4	MECHANICAL SEAL	CARBON - CERAMIC	SIC/SIC
5	GASKETS	NBR	VITON
6	LOWER SUPPORT	CAST IRON WITH PAINT COATING	AISI 316
7	LOWER CAP	AISI 304	AISI 316
8	BELLOW SEAL	EPDM	EPDM
9	THRUST BLOCK	STEEL - GRAPHITE	STEEL - GRAPHITE
10	VALVE	BRASS	AISI 316
11	CABLE	EPDM	EPDM
12	CONNECTOR PLUG	AISI 316	AISI 316
13	SAND GUARD	NBR	EPDM
14	SCREWS	AISI 304	AISI 316
15	COOLANT	ANTIFREEZE + WATER	ANTIFREEZE + WATER

DIMENSIONS - SINGLE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT 6GF kg	WEIGHT 6GX kg	AXIAL THRUST N
	hp	kW				
50 Hz	5	3,7	660	46,2	45	16000
	7,5	5,5	730	52,8	51	16000
	10	7,5	785	59,2	57,8	16000
	15	11	860	67,2	65,4	16000

DIMENSIONS - THREE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT 6GF kg	WEIGHT 6GX kg	AXIAL THRUST N
	hp	kW				
50 Hz	5,5	4	600	39,4	38	16000
	7,5	5,5	631	42,6	41	16000
	10	7,5	660	45,2	44	16000
	12,5	9,3	685	48,6	47	16000
	15	11	730	53	51,8	16000
	20	15	785	59	57,6	16000
	25	18,5	860	67	65,2	16000
	30	22	920	70,6	71,2	16000
	40	30	1050	86,8	85,2	27000
	50	37	1180	98,8	97,6	27000
	60	45	1360	113,6	112,2	27000



ELECTRICAL DATA - THREE-PHASE MOTORS

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min^{-1}	Cos φ	η %	STARTING	CABLE	
	hp	kW									Ø mm^2	LC m
6GF/6GX - 4kW - 230V - T	5,5	4	230	18,3	4,0	5290	2845	0,75	76	Δ	4x4	4
6GF/6GX - 4kW - 400V - T			400	10,6	4,1	5290	2845	0,75	76	Y	4x4	4
6GF/6GX - 4kW - 415V - T			415	11	4,3	5500	2860	0,7	73	Y	4x4	4
6GF/6GX - 5,5kW - 230V - T	7,5	5,5	230	24,3	4,6	7270	2845	0,75	76	Δ	4x4	4
6GF/6GX - 5,5kW - 400V - T			400	14	4,6	7270	2845	0,75	76	Y	4x4	4
6GF/6GX - 5,5kW - 415V - T			415	14,6	4,8	7330	2860	0,71	73	Y	4x4	4
6GF/6GX - 7,5kW - 230V - T	10	7,5	230	31	4,1	9550	2840	0,78	78	Δ	4x4	4
6GF/6GX - 7,5kW - 400V - T			400	18	4,1	9550	2840	0,78	78	Y	4x4	4
6GF/6GX - 7,5kW - 415V - T			415	18,3	4,4	9700	2850	0,73	77	Y	4x4	4
6GF/6GX - 9,2kW - 230V - T	12,5	9,2	230	37,3	3,9	11460	2840	0,8	80	Δ	4x4	4
6GF/6GX - 9,2kW - 400V - T			400	22	3,9	11460	2840	0,8	80	Y	4x4	4
6GF/6GX - 9,2kW - 415V - T			415	22,8	4,2	11600	2850	0,79	79	Y	4x4	4
6GF/6GX - 11kW - 230V - T	15	11	230	44,2	4,4	13860	2840	0,82	79	Δ	4x6	4
6GF/6GX - 11kW - 400V - T			400	25,5	4,4	13860	2840	0,82	79	Y	4x4	4
6GF/6GX - 11kW - 415V - T			415	26	4,8	14100	2845	0,79	78	Y	4x4	4
6GF/6GX - 15kW - 230V - T	20	15	230	56	4,8	17960	2840	0,8	83	Δ	4x6	4
6GF/6GX - 15kW - 400V - T			400	33,4	4,8	17960	2840	0,8	83	Y	4x4	4
6GF/6GX - 15kW - 415V - T			415	34,2	5,0	18200	2850	0,76	82	Y	4x4	4
6GF/6GX - 18,5kW - 230V - T	25	18,5	230	71	5,2	22300	2845	0,8	83	Δ	4x8	4
6GF/6GX - 18,5kW - 400V - T			400	41	5,2	22300	2845	0,8	83	Y	4x6	4
6GF/6GX - 18,5kW - 415V - T			415	42	5,5	22450	2855	0,73	82	Y	4x4	4
6GF/6GX - 22kW - 230V - T	30	22	230	81,4	5,1	26500	2825	0,84	83	Δ	4x8	4
6GF/6GX - 22kW - 400V - T			400	47	5,1	26500	2825	0,84	83	Y	4x6	4
6GF/6GX - 22kW - 415V - T			415	47,5	5,4	26850	2835	0,80	82	Y	4x4	4
6GF/6GX - 30kW - 400V - T	40	30	400	61,5	4,6	35130	2830	0,85	85	Y	4x8	4
6GF/6GX - 30kW - 415V - T			415	63,5	4,7	35600	2840	0,8	84	Y	4x8	4
6GF/6GX - 37kW - 400V - T	50	37	400	79,3	3,7	44200	2830	0,84	82	Y	4x8	4
6GF/6GX - 37kW - 415V - T			415	80	3,9	44200	2840	0,80	81	Y	4x8	4
6GF/6GX - 45kW - 400V - T	60	45	400	95	5,5	55000	2840	0,83	82	Y	4x8	4
6GF/6GX - 45kW - 415V - T			415	95	5,5	55000	2850	0,8	82	Y	4x8	4

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
P1: Absorbed power
N: Rotations per minute - R.p.m
Cos φ: Power factor
η: Yield
Ø: Cable cross section
LC: Cable length

Winding resistance: see technical appendix on page 201

TR6

6” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: NEMA 6".
Protection class: IP68.
Cooling flow speed: 0,5 m/s.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 15/h.
Max operating depth: 300 m.
Max operating temperature: 60 bar.
Horizontal operation: 7,5 HP - 50 HP.

GENERAL DATA

Rewindable 6" submersible asynchronous two-pole electric motor available in standard version with casing in AISI 304 stainless steel and supports in cast iron. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Mitchell self-centring thrust block designed to withstand significant axial loads. The motor is also available in a version entirely in AISI 316 stainless steel and a version in AISI 904. There is also a version suitable for use with variable frequency drive (30 Hz - 50/60 Hz). The motor is equipped with a single-core cable of 5 m or 8 m (depending on the power) connected directly to the winding and earth cable, and is available in DOL or STAR-DELTA configuration. ACS, WRAS and KTW certified cable. The electrical protection must be provided by the user.

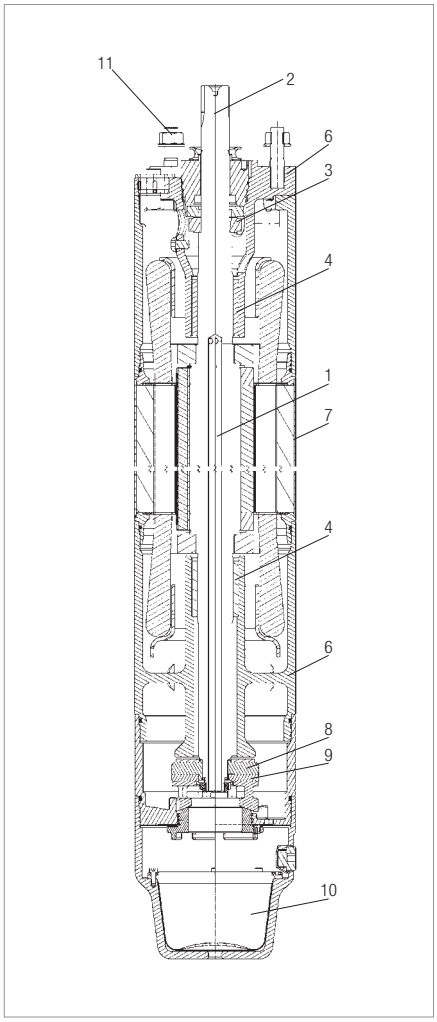
On request: cables of a different length, different voltage supply, PT100 and PTC temperature probes and a special shaft terminal.

CONSTRUCTION FEATURES

The rewindable stator is protected by an AISI 304 stainless steel jacket (AISI 316 or 904 on request). In the standard version the rotor is wound with PVC coated wire (60 HP in PE2+PA). On request, we can supply a version with a PE2+PA winding that makes the motor compatible with special applications and with the use of a variable frequency drive.

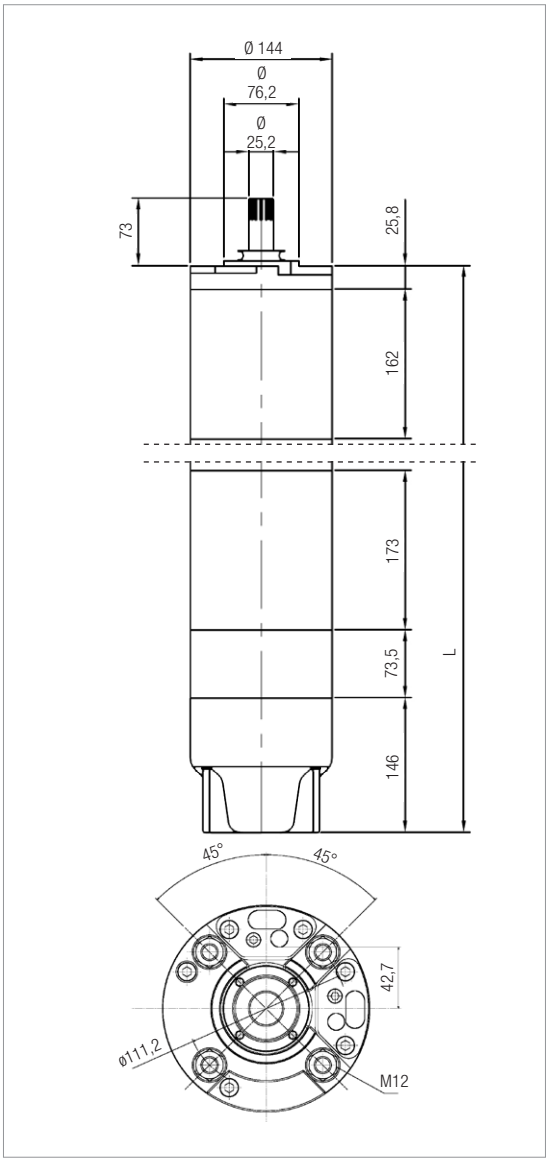
Mitchell type thrust bearings with lapped pads in stainless steel and graphite clearance ring.
from 5 HP to 20 HP: 15000 N
from 25 HP to 50 HP: 27500 N
Counter-thrust load: 6000 N

Rotor shaft in stainless steel with shaft extension to NEMA 6" standards. The rotor is made of die cast aluminium up to 20 HP and in copper for all other sizes. In the standard version the motor is supplied with a ceramic/carbon mechanical seal and is also equipped with a lip seal (IP 68). A silicon carbide (SiC/SiC) mechanical seal is available on request



MATERIALS

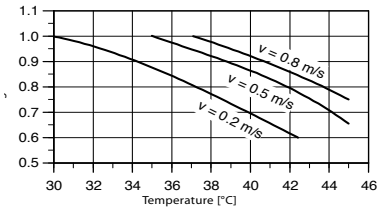
N.	PARTS	STD VERSION	VERSION 316 SS	VERSION 904 SS
1	SHAFT	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
2	SHAFT TERMINAL	AISI 304 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
3	MECHANICAL SEAL	CERAMIC/CARBON	SIC/SIC	SIC/SIC
4	BUSHES	GRAPHITE	GRAPHITE	GRAPHITE
5	CABLE	EPDM	EPDM	EPDM
6	STRUCTURAL PARTS	CAST IRON	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
7	JACKET	AISI 304 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
8	CLEARANCE RING	GRAPHITE	GRAPHITE	GRAPHITE
9	THRUST	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
10	DIAPHRAGM	EPDM	EPDM	EPDM
11	SCREWS	AISI 304 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL



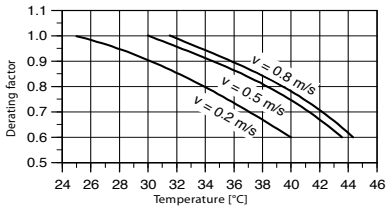
DIMENSIONS - THREE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	7,5	5,5	807	50	15000
	10	7,5	837	53	15000
	12,5	9,2	867	55	15000
	15	11	897	60	15000
	17,5	13	927	65	15000
	20	15	997	77	15000
	25	18,5	1057	83	27500
	30	22	1087	95	27500
	35	26	1157	105	27500
	40	30	1212	110	27500
	50	37	1312	120	27500
	60	45	1457	135	27500

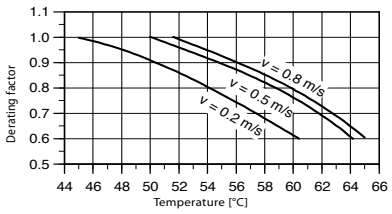
DOWNGRADING



PVC windings of 5,5 to 30 kW



PVC windings of 37 kW



PE2/PA windings of 5,5 to 37 kW

ELECTRICAL DATA - THREE-PHASE MOTORS - DOL

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min-1	Cos φ	η %	CABLE	
	hp	kW								Ø mm2	LC m
TR6 - 5,5 kW - 400 V - T	7,5	5,5	400	13	3,7	7432	2870	0,81	74	3x6 + 1x6	5
TR6 - 7,5 kW - 400 V - T	10	7,5	400	18	3,7	9740	2870	0,80	77	3x6 + 1x6	5
TR6 - 9,2 kW - 400 V - T	12,5	9,2	400	21	3,6	11948	2860	0,81	77	3x6 + 1x6	5
TR6 - 11 kW - 400 V - T	15	11	400	25	3,7	14103	2860	0,82	78	3x6 + 1x6	5
TR6 - 13 kW - 400 V - T	17,5	13	400	29	3,8	16250	2870	0,82	80	3x6 + 1x6	5
TR6 - 15 kW - 400 V - T	20	15	400	32	3,8	18519	2860	0,83	81	3x6 + 1x6	5
TR6 - 18,5 kW - 400 V - T	25	18,5	400	39	5,3	22024	2890	0,83	84	3x6 + 1x6	5
TR6 - 22 kW - 400 V - T	30	22	400	49	5,5	26506	2880	0,79	83	3x6 + 1x6	5
TR6 - 26 kW - 400 V - T	35	26	400	58	5,7	31325	2880	0,79	83	3x10 + 1 x10	5
TR6 - 30 kW - 400 V - T	40	30	400	65	5,0	35714	2870	0,81	84	3x10 + 1 x10	8
TR6 - 37 kW - 400 V - T	50	37	400	80	5,0	44578	2860	0,81	83	3x10 + 1 x10	8
TR6 - 45 kW - 400 V - T	60	45	400	93,1	5,1	54127	2825	0,85	83	3x10 + 1 x10	8

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
P1: Absorbed power
N: Rotations per minute - R.p.m
Cos φ: Power factor
η: Yield
Ø: Cable cross section
LC: Cable length

TR8

8” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: NEMA 8".
Protection class: IP58 (IP68 on request).
Cooling flow speed: 0,5 m/s.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 10/h.
Max operating depth: 300 m.
Max operating temperature: 60 bar.
Horizontal operation: 30 HP - 125 HP.

GENERAL DATA

Rewindable 8" submersible asynchronous two or four-pole electric motor available in standard version with casing in AISI 316 stainless steel and supports in cast iron. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Mitchell self-centring thrust block designed to withstand significant axial loads. The motor is also available in a version entirely in AISI 316 stainless steel and a version in AISI 904. There is also a version suitable for use with variable frequency drive (30 Hz - 50/60 Hz). The motor is equipped with a single-core cable of 8 m connected directly to the winding, and is available in DOL or STAR-DELTA configuration. The cable is ACS, WRAS and KTW certified. The electrical protection must be provided by the user.

On request: PT100 and PTC temperature probes, cables of a different length, different voltage supply, special shaft terminals and protection class IP68.

CONSTRUCTION FEATURES

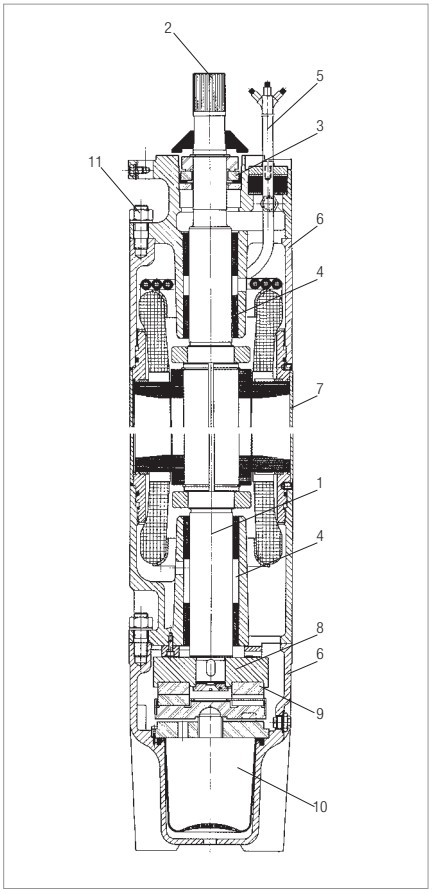
The rewindable stator is protected by an AISI 316 stainless steel jacket (AISI 904 on request). In the standard version the rotor is wound with PVC coated wire. On request, we can supply a version with a PE2+PA winding that makes the motor compatible with special applications and with the use of a variable frequency drive.

Mitchell type thrust bearings with lapped pads in graphite and ceramic clearance ring.
from 30 HP to 150 HP: 60000 N
Counter-thrust load: 12500 N

Rotor shaft in stainless steel with shaft extension to NEMA 8" standards. The rotor is in copper for all sizes. In the standard version the motor is supplied with a ceramic/carbon mechanical seal. A silicon carbide (SiC/SiC) mechanical seal is available on request. The motor can also be fitted with an additional lip seal (IP68).

TR8

8” SUBMERSIBLE MOTOR



MATERIALS

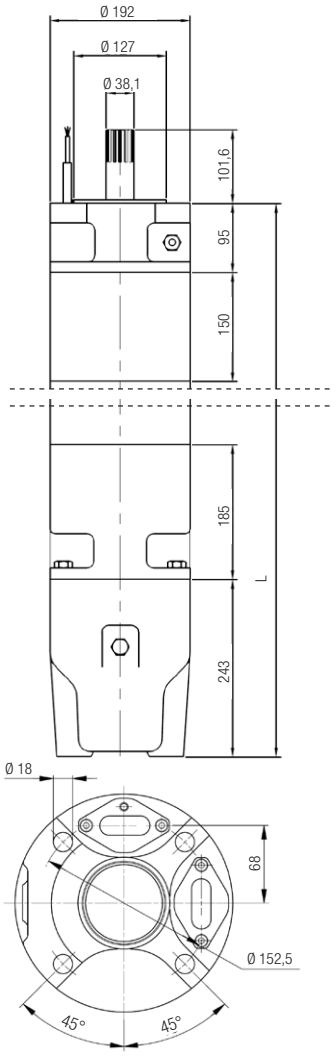
N.	PARTS	STD VERSION	VERSION 316 SS	VERSION 904 SS
1	SHAFT	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
2	SHAFT TERMINAL	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
3	MECHANICAL SEAL	CERAMIC/CARBON	SIC/SIC	SIC/SIC
4	BUSHES	GRAPHITE	GRAPHITE	GRAPHITE
5	CABLE	EPDM	EPDM	EPDM
6	STRUCTURAL PARTS	CAST IRON	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
7	JACKET	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
8	CLEARANCE RING	CERAMIC	CERAMIC	CERAMIC
9	THRUST	GRAPHITE	GRAPHITE	GRAPHITE
10	DIAPHRAGM	EPDM	EPDM	EPDM
11	SCREWS	AISI 304 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL

DIMENSIONS -THREE-PHASE MOTORS - 2 poles

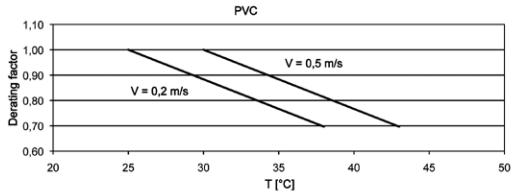
TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	30	22	1010	126	60000
	35	26	1050	134	60000
	40	30	1110	146	60000
	50	37	1160	156	60000
	60	45	1270	177	60000
	75	55	1350	192	60000
	85	63	1490	218	60000
	100	75	1590	237	60000
	125	92	1830	283	60000
	150	110	2060	333	60000

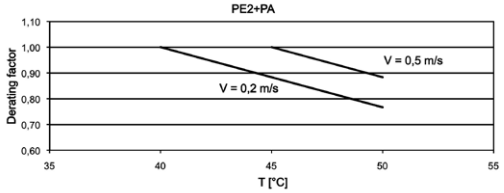
DIMENSIONS -THREE-PHASE MOTORS - 4 poles

TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	15	11	1110	146	60000
	20	15	1160	156	60000
	25	18,5	1270	177	60000
	30	22	1350	192	60000
	35	26	1490	218	60000
	40	30	1590	237	60000
	50	37	1830	283	60000



DOWNGRADING





For TR8 110 kW the maximum liquid temperature is 5 °C lower than that indicated in the graphs.

ELECTRICAL DATA - THREE-PHASE MOTORS - 2 POLES - DOL

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min-1	Cos φ	η %	CABLE	
	hp	kW								Ø mm2	LC m
TR8 - 22 kW - 400 V - T	30	22	400	46	5,3	26829	2890	0,84	82	3x16 + 1 x16	8
TR8 - 26 kW - 400 V - T	35	26	400	54	5,1	31707	2880	0,85	82	3x16 + 1 x16	8
TR8 - 30 kW - 400 V - T	40	30	400	61	5,7	35714	2890	0,85	84	3x16 + 1 x16	8
TR8 - 37 kW - 400 V - T	50	37	400	75	5,7	44048	2890	0,85	84	3x16 + 1 x16	8
TR8 - 45 kW - 400 V - T	60	45	400	92	6,0	52326	2910	0,82	86	3x16 + 1 x16	8
TR8 - 55 kW - 400 V - T	75	55	400	109	5,9	63953	2900	0,85	86	3x16 + 1 x16	8
TR8 - 63 kW - 400 V - T	85	63	400	126	5,7	72414	2910	0,83	87	3x16 + 1 x16	8
TR8 - 75 kW - 400 V - T	100	75	400	145	5,8	86207	2910	0,86	87	3x16 + 1 x16	8
TR8 - 92 kW - 400 V - T	125	92	400	177	5,9	105747	2890	0,86	87	3x25 + 1x25	8
TR8 - 110 kW - 400 V - T	150	110	400	213	5,8	126437	2890	0,87	87	3x25 + 1x25	8

ELECTRICAL DATA - THREE-PHASE MOTORS - 4 POLES - DOL

MODEL	P2		POWER SUPPLY 50Hz	In A	Is/In	P1 W	N min-1	Cos φ	η %	CABLE	
	hp	kW								Ø mm2	LC m
TR8 - 11 kW - 380 V - T	15	11	380	26	5,0	13750	1450	0,79	80	3x6 + 1x6	8
TR8 - 15 kW - 380 V - T	20	15	380	35	4,9	18519	1450	0,80	81	3x6 + 1x6	8
TR6 - 18,5 kW - 380 V - T	25	18,5	380	41	4,7	22561	1450	0,83	82	3x6 + 1x6	8
TR8 - 22 kW - 380 V - T	30	22	380	49	4,7	26829	1450	0,82	82	3x6 + 1x6	8
TR8 - 26 kW - 380 V - T	35	26	380	58	4,7	32099	1450	0,83	81	3x6 + 1x6	8
TR8 - 30 kW - 380 V - T	40	30	380	65	4,5	36585	1450	0,85	82	3x6 + 1x6	8
TR8 - 37 kW - 380 V - T	50	37	380	81	4,5	45122	1450	0,84	82	3x6 + 1x6	8

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
P1: Absorbed power
N: Rotations per minute - R.p.m
Cos φ: Power factor
η: Yield
Ø: Cable cross section
LC: Cable length

TR10

10” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: 10”.
Protection class: IP58 (IP68 on request).
Cooling flow speed: 0,5 m/s.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 8/h.
Max operating depth: 300 m.
Max operating temperature: 60 bar.
Horizontal operation: 100 HP - 230 HP.

GENERAL DATA

Rewindable 10" submersible asynchronous two or four-pole electric motor available in standard version with casing in AISI 316 stainless steel and supports in cast iron. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Mitchell self-centring thrust block designed to withstand significant axial loads. The motor is also available in a version entirely in AISI 316 stainless steel and a version in AISI 904. There is also a version suitable for use with variable frequency drive (30 Hz - 50/60 Hz). The motor is equipped with single-core cables of 8 m connected directly to the winding, and is available in DOL or STAR-DELTA configuration. The cables are ACS, WRAS and KTW certified. The electrical protection must be provided by the user.

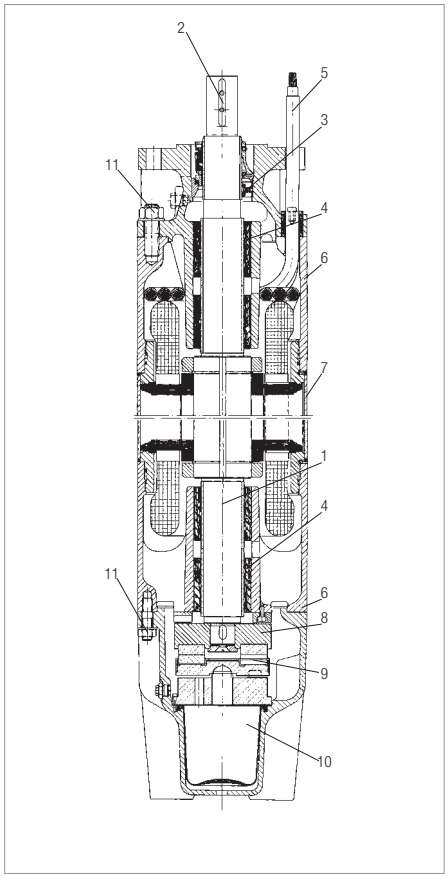
On request: PT100 and PTC temperature probes, cables of a different length, different voltage supply, special shaft terminals and protection class IP68.

CONSTRUCTION FEATURES

The rewindable stator is protected by an AISI 316 stainless steel jacket (AISI 904 on request). In the standard version the rotor is wound with PVC coated wire (230 HP and 260 HP in PE2+PA). On request, we can supply a version with a PE2+PA winding that makes the motor compatible with special applications and with the use of a variable frequency drive.

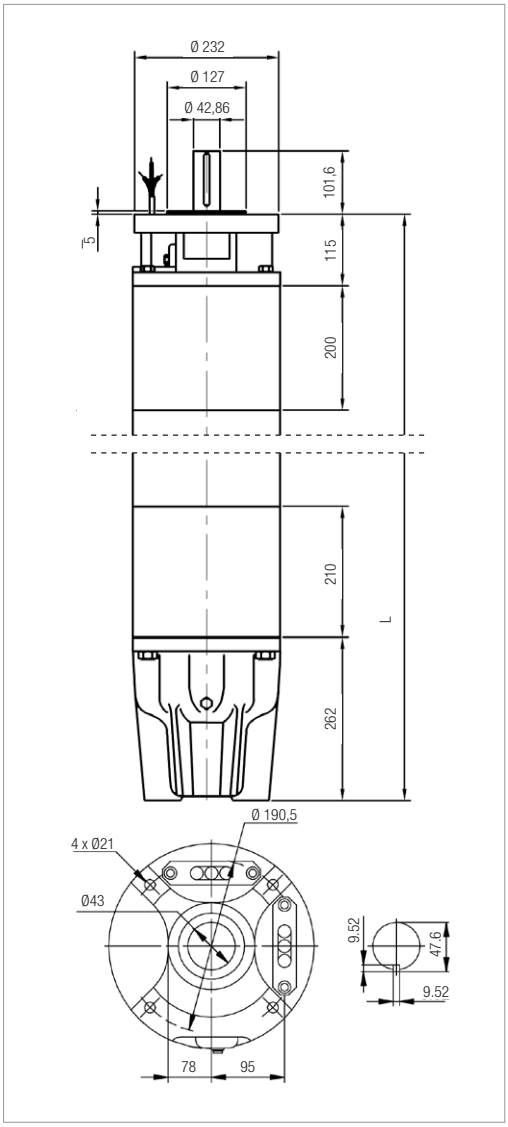
Mitchell type thrust bearings with lapped pads in graphite and ceramic clearance ring.
from 100 HP to 260 HP: 60000 N
Counter-thrust load: 12500 N

Rotor shaft in stainless steel, shaft extension with key connection. The rotor is in copper for all sizes.
In the standard version the motor is supplied with a ceramic/carbon mechanical seal. A silicon carbide (SiC/SiC) mechanical seal is available on request. The motor can also be fitted with an additional lip seal (IP68).



MATERIALS

N.	PARTS	STD VERSION	VERSION 316 SS	VERSION 904 SS
1	SHAFT	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
2	SHAFT TERMINAL	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
3	MECHANICAL SEAL	CERAMIC/CARBON	SIC/SIC	SIC/SIC
4	BUSHES	GRAPHITE	GRAPHITE	GRAPHITE
5	CABLE	EPDM	EPDM	EPDM
6	STRUCTURAL PARTS	CAST IRON	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
7	JACKET	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
8	CLEARANCE RING	CERAMIC	CERAMIC	CERAMIC
9	THRUST	GRAPHITE	GRAPHITE	GRAPHITE
10	DIAPHRAGM	EPDM	EPDM	EPDM
11	SCREWS	AISI 304 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL



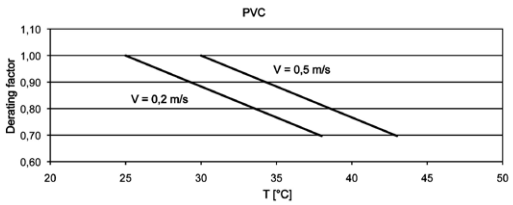
DIMENSIONS -THREE-PHASE MOTORS - 2 poles

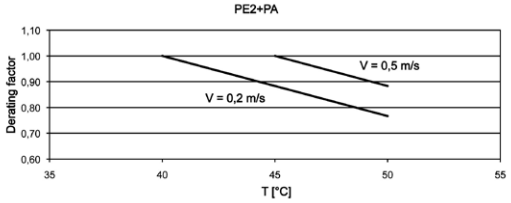
TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	100	75	1400	280	60000
	125	92	1500	330	60000
	150	110	1690	385	60000
	180	132	1870	435	60000
	200	147	2070	500	60000
	230	170	2220	540	60000
	260	190	2400	580	60000

DIMENSIONS -THREE-PHASE MOTORS - 4 poles

TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	40	30	1270	250	60000
	50	37	1400	280	60000
	60	45	1500	330	60000
	75	55	1690	385	60000
	100	75	1870	435	60000
	125	92	2070	500	60000

DOWNGRADING





For TR10 170 kW PE2+PA the maximum liquid temperature is 5 °C lower than that indicated in the graphs. For TR10 190 kW PE2+PA it is 10 °C lower.

ELECTRICAL DATA - THREE-PHASE MOTORS - 2 POLES - DOL

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min-1	Cos φ	η %	CABLE	
	hp	kW								Ø mm2	LC m
TR10 - 75 kW - 400 V - T	100	75	400	148	5,4	86207	2910	0,84	87	3x50+1x25	8
TR10 - 92 kW - 400 V - T	125	92	400	185	5,6	105747	2910	0,82	87	3x50+1x25	8
TR10 - 110 kW - 400 V - T	150	110	400	217	5,7	125000	2910	0,84	88	3x50+1x25	8
TR10 - 132 kW - 400 V - T	180	132	400	257	5,7	150000	2910	0,84	88	3x50+1x25	8
TR10 - 147 kW - 400 V - T	200	147	400	300	6,2	168966	2920	0,81	87	3x50+1x25	8
TR10 - 170 kW - 400 V - T	230	170	400	348	6,0	195402	2920	0,81	87	3x50+1x25	8
TR10 - 190 kW - 400 V - T	260	190	400	405	5,9	218391	2930	0,79	87	3x50+1x25	8

ELECTRICAL DATA - THREE-PHASE MOTORS - 4 POLES - DOL

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min-1	Cos φ	η %	CABLE	
	hp	kW								Ø mm2	LC m
TR10 - 30 kW - 380 V - T	40	30	380	64	5,3	35294	1450	0,83	85	3x50+1x25	8
TR10 - 37 kW - 380 V - T	50	37	380	75	5,5	43023	1450	0,87	86	3x50+1x25	8
TR10 - 45 kW - 380 V - T	60	45	380	92	4,6	51724	1450	0,84	87	3x50+1x25	8
TR10 - 55 kW - 380 V - T	75	55	380	113	5,3	62500	1450	0,85	88	3x50+1x25	8
TR10 - 75 kW - 380 V - T	100	75	380	153	5,4	86207	1450	0,84	87	3x50+1x25	8
TR10 - 90 kW - 380 V - T	125	90	380	190	5,3	103448	1450	0,85	87	3x50+1x25	8

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
P1: Absorbed power
N: Rotations per minute - R.p.m
Cos φ: Power factor
η: Yield
Ø: Cable cross section
LC: Cable length

TR12

12” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: 12”.
Protection class: IP58 (IP68 on request).
Cooling flow speed: 0,5 m/s.
Power supply tolerance: + 6 % / -10 %.
Max. starts: 5/h.
Max operating depth: 300 m.
Max operating temperature: 60 bar.
Horizontal operation: 180 HP - 260 HP.
Direction of rotation: to be specified in the order; the standard version turns anti-clockwise.

GENERAL DATA

Rewindable 12" submersible asynchronous two or four-pole electric motor available in standard version with casing in AISI 316 stainless steel and supports in cast iron. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Mitchell self-centring thrust block designed to withstand significant axial loads. The motor is also available in a version entirely in AISI 316 stainless steel and a version in AISI 904. There is also a version suitable for use with variable frequency drive (30 Hz - 50/60 Hz). The motor is equipped with single-core cables of 8 m connected directly to the winding, and is available in DOL or STAR-DELTA configuration. The cables are ACS, WRAS and KTW certified. The electrical protection must be provided by the user.

On request: PT100 and PTC temperature probes, cables of a different length, different voltage supply, special shaft terminals.

CONSTRUCTION FEATURES

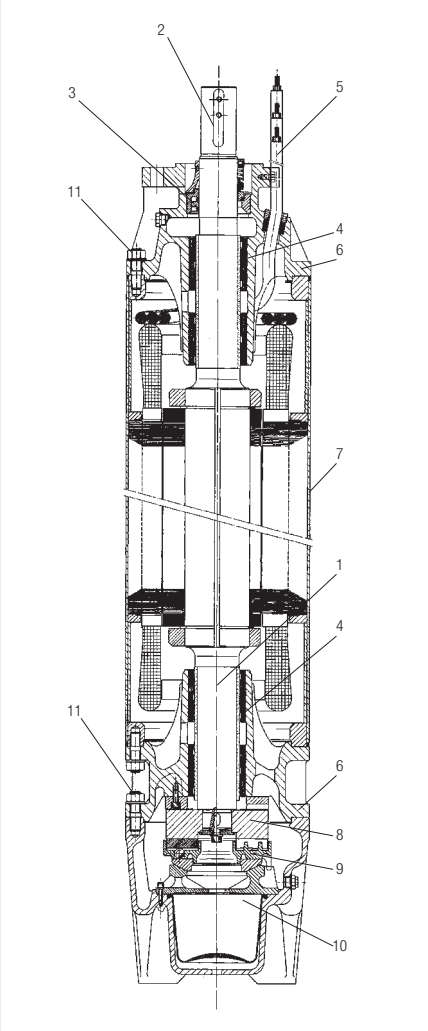
The rewindable stator is protected by an AISI 316 stainless steel jacket. In the standard version the rotor is wound with PVC coated wire (PE2+PA for 300 HP and 340 HP). On request, we can supply a version with a PE2+PA winding that makes the motor compatible with special applications and with the use of a variable frequency drive.

Mitchell type thrust bearings with pads in rubber coated steel and steel clearance ring.
from 200 HP to 340 HP:
70000 N (one-way)
35000 N (two-way)
Counter-thrust load: 15000 N

Rotor shaft in stainless steel, shaft extension with key connection. The rotor is in copper for all sizes.
In the standard version the motor is supplied with a ceramic/carbon mechanical seal. A silicon carbide (SiC/SiC) mechanical seal is available on request. The motor can also be fitted with an additional lip seal (IP68).

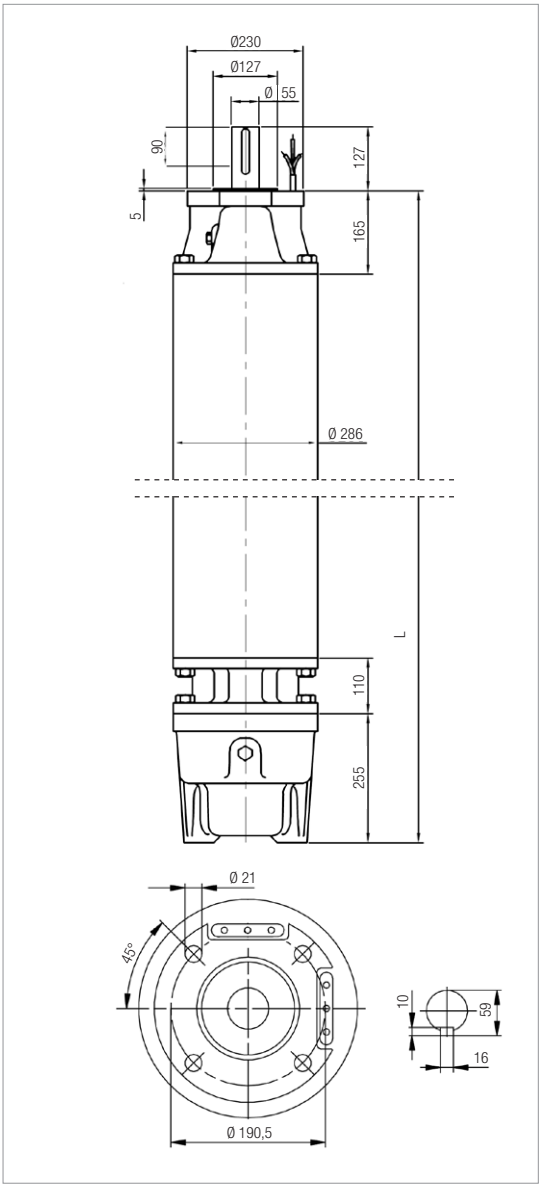
TR12

12” SUBMERSIBLE MOTOR



MATERIALS

N.	PARTS	STD VERSION	VERSION 316 SS	VERSION 904 SS
1	SHAFT	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
2	SHAFT TERMINAL	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
3	MECHANICAL SEAL	CERAMIC/CARBON	SIC/SIC	SIC/SIC
4	BUSHES	STEEL/NBR	STEEL/NBR	STEEL/NBR
5	CABLE	EPDM	EPDM	EPDM
6	STRUCTURAL PARTS	CAST IRON	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
7	JACKET	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
8	CLEARANCE RING	STEEL	STEEL	STEEL
9	THRUST	STEEL/NBR	STEEL/NBR	STEEL/NBR
10	DIAPHRAGM	EPDM	EPDM	EPDM
11	SCREWS	AISI 304 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL



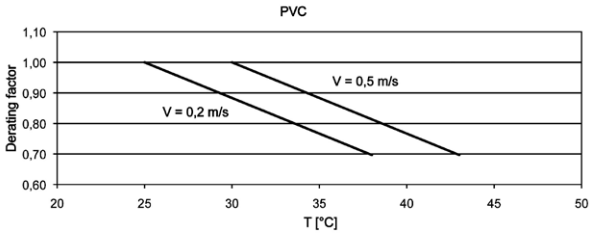
DIMENSIONS -THREE-PHASE MOTORS - 2 poles

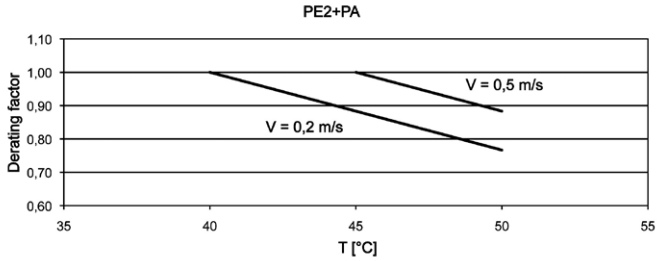
TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	180	132	1700	510	70000
	200	147	1790	565	70000
	230	170	1880	605	70000
	260	190	1980	650	70000
	300	220	2110	700	70000
	340	250	2280	775	70000
	400	300	2280	775	70000

DIMENSIONS -THREE-PHASE MOTORS - 4 poles

TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	100	75	1660	515	70000
	125	92	1790	565	70000
	150	110	1880	605	70000
	180	132	2110	700	70000
	200	147	2210	750	70000

DOWNGRADING





For TR12 220 kW PE2+PA and 250 kW PE2+PA 50 Hz and for all the TR12 60 Hz versions the maximum liquid temperature is 10 °C lower than that indicated in the graph.
For TR12 300kW PE2+PA the maximum liquid temperature is 25°C.

ELECTRICAL DATA - THREE-PHASE MOTORS - 2 POLES - DOL

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min^{-1}	Cos φ	η %	CABLE	
	hp	kW								Ø mm^2	LC m
TR12 - 132kW - 400V - T	180	132	400	266	5,0	150700	2930	0,82	88	3x70+1x50	8
TR12 - 147kW - 400V - T	200	147	400	290	6,2	167045	2930	0,83	88	3x70+1x50	8
TR12 - 170kW - 400V - T	230	170	400	329	6,1	193182	2920	0,85	88	3x70+1x50	8
TR12 - 190kW - 400V - T	260	190	400	371	6,2	215909	2930	0,84	88	3x70+1x50	8
TR12 - 220kW - 400V - T	300	220	400	424	6,1	250000	2920	0,85	88	3x70+1x50	8
TR12 - 250kW - 400V - T	340	250	400	481	5,9	284091	2920	0,85	88	3x70+1x50	8
TR12 - 300kW - 400V - T	400	300	400	575	6	341000	2905	0,87	88	3x70+1x50	8

ELECTRICAL DATA - THREE-PHASE MOTORS - 4 POLES - DOL

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min^{-1}	Cos φ	η %	CABLE	
	hp	kW								Ø mm^2	LC m
TR12 - 75 kW - 380 V - T	100	75	380	147	6,5	85227	1450	0,86	88	3x70+1x50	8
TR12 - 92 kW - 380 V - T	125	92	380	182	6,5	103371	1450	0,87	89	3x70+1x50	8
TR12 - 110 kW - 380 V - T	150	110	380	214	5,8	123596	1450	0,88	89	3x70+1x50	8
TR12 - 132 kW - 380 V - T	180	132	380	256	5,8	148315	1450	0,88	89	3x70+1x50	8
TR12 - 147 kW - 380 V - T	200	147	380	285	5,9	165169	1450	0,88	89	3x70+1x50	8

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
P1: Absorbed power
N: Rotations per minute - R.p.m
Cos φ: Power factor
η: Yield
Ø: Cable cross section
LC: Cable length

TR14

14” SUBMERSIBLE MOTOR

TECHNICAL DATA

Flanging: 14”.
Protection class: IP58 (IP68 on request).
Cooling flow speed: 0,5 m/s.
Power supply tolerance: + 6 % / -10 %.
Max. starts: PVC: 3/h - PE2+PA: 5/H.
Max operating depth: 300 m.
Max operating temperature: 60 bar.
Horizontal operation: 300 HP - 340 HP.
Direction of rotation: to specified in the order.

GENERAL DATA

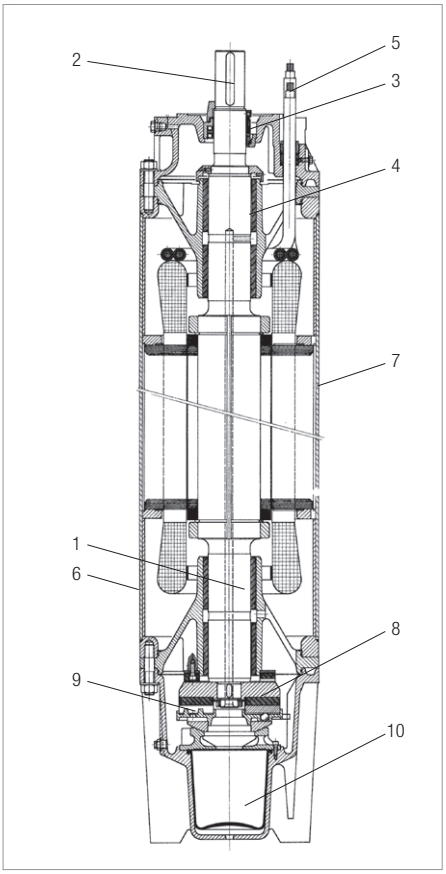
Rewindable 14" submersible asynchronous two or four-pole electric motor available in standard version with casing in AISI 316 stainless steel and supports in cast iron. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Mitchell self-centring thrust block designed to withstand significant axial loads. The motor is also available in a version entirely in AISI 316 stainless steel.
There is also a version suitable for use with variable frequency drive (30 Hz - 50).
The motor is equipped with single-core cables of 8 m connected directly to the winding, and is available in DOL or STAR-DELTA configuration.
The cables are ACS, WRAS and KTW certified. The electrical protection must be provided by the user.
PT100 and PTC temperature probes are available on request.

CONSTRUCTION FEATURES

The rewindable stator is protected by an AISI 316 stainless steel jacket.
In the standard version the rotor is wound with PVC coated wire. On request, we can supply a version with a PE2+PA winding that makes the motor compatible with special applications and with the use of a variable frequency drive.

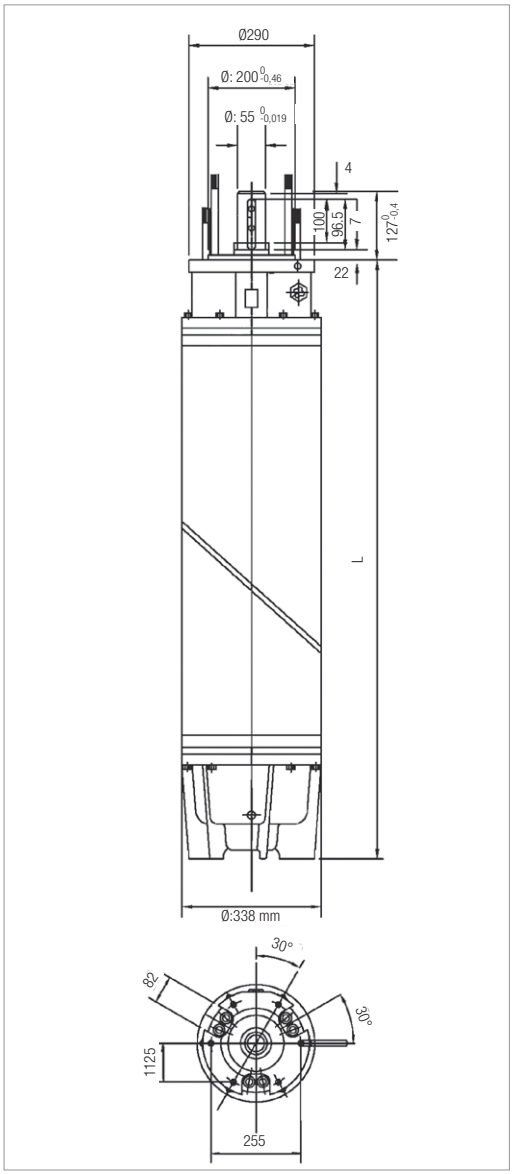
Mitchell type thrust bearings with pads in rubber coated steel and steel clearance ring.
From 300 HP to 550 HP:
70000 N (one-way)
35000 N (two-way)
Counter-thrust load: 15000 N

Rotor shaft in stainless steel, shaft extension with key connection.
The rotor is in copper for all sizes.
In the standard version the motor is supplied with a ceramic/carbon mechanical seal. A silicon carbide (SiC/SiC) mechanical seal is available on request.
The motor can also be fitted with an additional lip seal (IP68).



MATERIALS

N.	PARTS	STD VERSION	VERSION 316 SS
1	SHAFT	STAINLESS STEEL	STAINLESS STEEL
2	SHAFT TERMINAL	AISI 904 STAINLESS STEEL	AISI 904 STAINLESS STEEL
3	MECHANICAL SEAL	SIC/SIC	SIC/SIC
4	BUSHES	STEEL/NBR	STEEL/NBR
5	CABLE	EPDM	EPDM
6	STRUCTURAL PARTS	CAST IRON	AISI 316 STAINLESS STEEL
7	JACKET	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL
8	CLEARANCE RING	STEEL	STEEL
9	THRUST	STEEL/NBR	STEEL/NBR
10	DIAPHRAGM	EPDM	EPDM
11	SCREWS	AISI 304 STAINLESS STEEL	AISI 316 STAINLESS STEEL



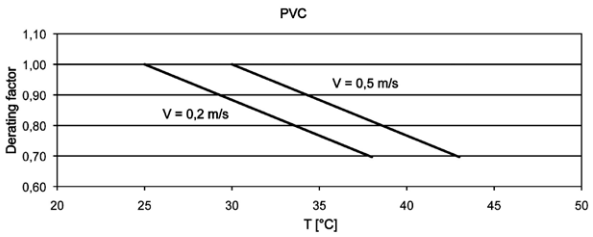
DIMENSIONS -THREE-PHASE MOTORS - 2 poles

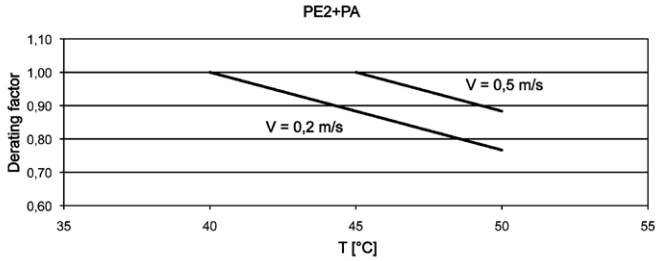
TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	300	220	1760	663	70000
	340	250	1910	784	70000
	400	294	2020	845	70000
	450	330	2160	906	70000
	500	367	2320	1010	70000
	550	404	2460	1105	70000

DIMENSIONS -THREE-PHASE MOTORS - 4 poles

TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	230	170	1910	776	70000
	260	190	2020	855	70000
	300	220	2160	950	70000
	350	257	2320	1065	70000
	400	300	2460	1108	70000

DOWNGRADING





For TR14 220 kW PE2+PA and 250 kW PE2+PA 50 Hz and for all the TR14 60 Hz versions the maximum liquid temperature is 10 °C lower than that indicated in the graph.

ELECTRICAL DATA - THREE-PHASE MOTORS - 2 POLES

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min^{-1}	Cos φ	η %	CABLE	
	hp	kW								Ø mm^2	LC m
TR14 - 220 kW - 380 V - T	300	220	380	423	5,5	247191	2900	0,89	89	6x70 + 1x50	8
TR14 - 250 kW - 380 V - T	340	250	380	479	6	528090	2900	0,89	89	6x70 + 1x50	8
TR14 - 294 kW - 380 V - T	400	294	380	551	5,8	326667	2900	0,9	90	6x95 + 1x50	8
TR14 - 330 kW - 380 V - T	450	330	380	620	6	366667	2900	0,9	90	6x95 + 1x50	8
TR14 - 367 kW - 380 V - T	500	367	380	693	6,4	405525	2900	0,89	90,5	6x95 + 1x50	8
TR14 - 404 kW - 380 V - T	550	404	380	798	6,8	446409	2900	0,85	90,5	6x95 + 1x50	8

ELECTRICAL DATA - THREE-PHASE MOTORS - 4 POLES

MODEL	P2		POWER INPUT 50 Hz	In A	Is/In	P1 W	N min^{-1}	Cos φ	η %	CABLE	
	hp	kW								Ø mm^2	LC m
TR14 - 170 kW - 380 V - T	230	170	380	356	4	191011	1450	0,81	89	6x70 + 1x50	8
TR14 - 190 kW - 380 V - T	260	190	380	397	4,2	213483	1450	0,82	89	6x70 + 1x50	8
TR14 - 220 kW - 380 V - T	300	220	380	450	4,1	245810	1450	0,83	89,5	6x70 + 1x50	8
TR14 - 257 kW - 380 V - T	350	257	380	525	4	287151	1450	0,83	89,5	6x95 + 1x50	8
TR14 - 294 kW - 380 V - T	400	294	380	612	3,8	326667	1450	0,81	90	6x95 + 1x50	8

P2: Nominal power
V: Nominal voltage
In: Nominal current
Is/In: Starting current/Nominal current
P1: Absorbed power
N: Rotations per minute - R.p.m
Cos φ: Power factor
η: Yield
Ø: Cable cross section
LC: Cable length

HYDRAULIC EFFICIENCY

GENERAL INFORMATION

With the aim of defining a comparable performance threshold value among all water pumps present on the market, an index has been created which considers the size of the pump, its specific speed and rotation speed: the MEI (Minimum Efficiency Index).
The regulation applies to centrifugal pumps for pumping clean water included in these product categories:

- Pumps with axial intake with support (ESOB)
- Pumps with monobloc horizontal axial intake (ESCC)
- Pumps with monobloc in-line axial intake (ESCCI)
- Multistage vertical pumps (MS-V)
- Multistage submerged pumps (MSS)

MEI represents a dimensionless indicator for hydraulic performance and is a measurement of the sizing of the pump with respect to its performance.
The higher the MEI value, the better the sizing of the pump with respect to its performance and the lower the yearly energy consumption due to use of the pump. The upper limit of the MEI values is theoretically open, and depends only on physical and technological limits.

The minimum efficiency index (MEI) is based on the maximum diameter of the impeller. Multistage submerged water pumps must undergo tests in a version with 9 stages.

The reference value for the most efficient water pumps is MEI $\geq$ 0.70.

The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller adapts the pump to a fixed work point, with a consequent lower energy consumption.

The operation of this water pump with variable operating points may be more efficient and economic if controlled, for example, by means of a variable speed motor which adapts pump operation to the system.

You can find information on reference efficiency at the address: **www.dabpumps.com** or contact our sales network.

The efficiency graphs for MEI=0.7 and MEI=0.4 for the different types of pumps are available on the site: **www.europump.org/efficiencycharts**

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
CS4A-12 M	12	$\geq$ 0,40	35,83%	38,59%	38,19%
CS4A-12 T			39,64%	42,13%	41,85%
CS4A-8 M	8		36%	39,50%	38,80%
CS4A-18 M	18		38,60%	43,40%	43%
CS4A-18 T			39,00%	43,50%	43,00%
CS4A-25 M	25		36%	40,80%	40,10%
CS4A-25 T			38%	41%	40,90%
CS4A-36 M	36		38,30%	41%	39,20%
CS4A-36 T			39%	43,50%	43%
CS4B-12 M	12	$\geq$ 0,40	53,81%	59,17%	58,42%
CS4B-12 T			54,86%	57%	56,41%
CS4B-5 M	5		57%	60,10%	59,50%
CS4B-8 M	8		45%	50%	48%
CS4B-8 T			55%	58,40%	58%
CS4B-16 M	16		43,50%	48,20%	47%
CS4B-16 T			46,20%	47%	46,80%
CS4B-24 M	24		46,20%	49,20%	48%
CS4B-24 T			51,80%	56%	54%

HYDRAULIC EFFICIENCY

EU REGULATION 547/2012 – MEI

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
CS4C-9 M	9	≥ 0,40	66,40%	67,87%	66,78%
CS4C-9 T			66,40%	67,87%	66,78%
CS4C-6 M	6		59%	61,10%	58%
CS4C-6 T			64%	66%	65,80%
CS4C-13 M	13		56,50%	61%	58,80%
CS4C-13 T			57%	60%	59%
CS4C-19 M	19		55%	60%	59%
CS4C-19 T			61,50%	65,50%	65%
CS4D-13 M	13	≥ 0,40	64%	66,74%	66,32%
CS4D-13 T			71,70%	75,77%	75,33%
CS4D-4 M	4		63,50%	66%	65%
CS4D-4 T			72,50%	74%	72%
CS4D-6 M	6		64,20%	65,80%	65%
CS4D-6 T			70,50%	74,50%	74%
CS4D-8 M	8		64%	68,30%	67%
CS4D-8 T			64%	68%	67%

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
S4A-12 M	12	≥ 0,40	42,53%	46,90%	46,10%
S4A-8 M	8		32,20%	34,40%	34%
S4A-18 M	18		43%	46,80%	46%
S4A-18 T			45%	47%	46,50%
S4A-25 M	25		40,50%	47,40%	46,90%
S4A-25 T			32,30%	33,50%	33%
S4A-36 M	36		34%	36%	35,80%
S4A-36 T			41%	42%	40,90%
S4A-50 M	50		41,50%	42%	41%
S4A-50 T			38,50%	39%	38,70%
S4B-12 M	12	≥ 0,40	38,50%	40,60%	39%
S4B-12 T			40,85%	42,88%	42,51%
S4B-5 M	5		46,50%	51%	50,50%
S4B-8 M	8		37,20%	42%	41%
S4B-16 M	16		43%	46,10%	45%
S4B-16 T			43,75%	48%	46,50%
S4B-24 M	24		41,20%	43,50%	43,20%
S4B-24 T			42%	44,80%	44%
S4B-32 M	32		49%	50%	49%
S4B-32 T			51%	54%	53%
S4B-40 M	40		48%	51,70%	50,60%
S4B-40 T			48,30%	51,70%	50,30%
S4B-48 M	48		48,50%	51%	50%
S4B-48 T			48,00%	52%	51%

HYDRAULIC EFFICIENCY

EU REGULATION 547/2012 – MEI

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
S4C-9 M	9	≥ 0,40	64,55%	67,22%	66,95%
S4C-9 T			65,57%	67,13%	66,96%
S4C-6 M	6		51%	55%	52,50%
S4C-13 M	13		54%	58,70%	58%
S4C-13 T			56%	60%	59%
S4C-19 M	19		52%	56%	56,50%
S4C-19 T			50,30%	54%	53%
S4C-25 M	25		58%	62%	61%
S4C-25 T			58,80%	62%	57%
S4C-32 M	32		60%	63%	62,70%
S4C-32 T			57,50%	59%	58%
S4C-39 M	39		57%	60%	59,35
S4C-39 T			54,20%	57,40%	56,70%
S4C-45 T	45		56%	58,60%	58%
S4C-51 T	51		56,80%	60,50%	60%
S4D-13 M	13	≥ 0,40	55,18%	59,66%	58,70%
S4D-13 T	13		57,95%	62,15%	61,22%
S4D-4 M	4		48,60%	53%	52,60%
S4D-6 M	6		49,90%	54%	53%
S4D-6 T			49,60%	53,50%	52,20%
S4D-8 M	8		63,50%	67,20%	65%
S4D-8 T			65,30%	69,10%	68%
S4D-17 M	17		66%	68,35%	69,10%
S4D-17 T			64%	68%	67,60%
S4D-21 M	21		68%	71,80%	71%
S4D-21 T			65%	68,30%	67,60%
S4D-25 M	25		63%	67%	66,70%
S4D-25 T			62%	64%	63,50%
S4D-29 T	29		60%	64,70%	64%
S4D-34 T	34		61%	65,60%	64,80%
S4D-38 T	38		59,50%	63,30%	62%
S4D-45 T	45		58,50%	64,40%	63%
S4E-12 M	12	≥ 0,40	60%	64,05%	62,93%
S4E-12 T			60,06%	63,61%	62,87%
S4E-6 M	6		56%	60%	59%
S4E-6 T			58,50%	60,00%	59%
S4E-8 M	8		58,00%	61,40%	60%
S4E-8 T			63%	66,70%	65,50%
S4E-17 M	17		56,40%	62%	60,40%
S4E-17 T			56%	60%	58,60%
S4E-20 T	20		55,80%	60,20%	58,50%
S4E-23 T	23		56,70%	60,10%	59,50%
S4E-27 T	27		57%	61,90%	58,70%
S4E-31 T	31		55,50%	60%	58%
S4E-36 T	36		53,50%	56,20%	54%
S4E-42 T	42		53%	58%	55,50%

HYDRAULIC EFFICIENCY

EU REGULATION 547/2012 – MEI

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
SS6A/09	9	≥ 0,40	67,01	70,60	69,74
SS6A/08	8		67,01	70,60	69,74
SS6A/10	10		67,01	70,60	69,74
SS6A/11	11		67,01	70,60	69,74
SS6A/12	12		67,01	70,60	69,74
SS6A/13	13		67,01	70,60	69,74
SS6A/14	14		67,01	70,60	69,74
SS6A/15	15		67,01	70,60	69,74
SS6A/16	16		67,01	70,60	69,74
SS6A/17	17		67,01	70,60	69,74
SS6A/18	18		67,01	70,60	69,74
SS6A/19	19		67,01	70,60	69,74
SS6A/20	20		67,01	70,60	69,74
SS6A/21	21		67,01	70,60	69,74
SS6A/22	22		67,01	70,60	69,74
SS6A/23	23		67,01	70,60	69,74
SS6A/24	24		67,01	70,60	69,74
SS6A/25	25		67,01	70,60	69,74
SS6A/26	26		67,01	70,60	69,74
SS6A/27	27		67,01	70,60	69,74
SS6A/28	28		67,01	70,60	69,74
SS6A/29	29		67,01	70,60	69,74
SS6A/30	30		67,01	70,60	69,74
SS6A/31	31		67,01	70,60	69,74
SS6A/32	32		67,01	70,60	69,74
SS6A/33	33		67,01	70,60	69,74
SS6A/34	34		67,01	70,60	69,74
SS6A/35	35		67,01	70,60	69,74
SS6A/36	36		67,01	70,60	69,74
SS6A/37	37		67,01	70,60	69,74
SS6A/38	38		67,01	70,60	69,74
SS6A/39	39		67,01	70,60	69,74
SS6A/40	40		67,01	70,60	69,74
SS6A/41	41		67,01	70,60	69,74
SS6A/42	42		67,01	70,60	69,74
SS6A/43	43		67,01	70,60	69,74
SS6A/44	44		67,01	70,60	69,74
SS6A/45	45		67,01	70,60	69,74
SS6A/46	46		67,01	70,60	69,74
SS6A/47	47		67,01	70,60	69,74
SS6A/48	48		67,01	70,60	69,74
SS6A/49	49		67,01	70,60	69,74
SS6A/50	50		67,01	70,60	69,74
SS6A/51	51		67,01	70,60	69,74
SS6A/52	52		67,01	70,60	69,74
SS6A/53	53		67,01	70,60	69,74
SS6A/54	54		67,01	70,60	69,74
SS6A/55	55		67,01	70,60	69,74
SS6A/56	56		67,01	70,60	69,74
SS6A/57	57		67,01	70,60	69,74
SS6A/58	58		67,01	70,60	69,74
SS6A/59	59		67,01	70,60	69,74
SS6A/60	60		67,01	70,60	69,74

HYDRAULIC EFFICIENCY

EU REGULATION 547/2012 – MEI

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
SS6B/09	9	≥ 0,40	70,72	74,52	73,68
SS6B/7	7		70,72	74,52	73,68
SS6B/8	8		70,72	74,52	73,68
SS6B/10	10		70,72	74,52	73,68
SS6B/11	11		70,72	74,52	73,68
SS6B/12	12		70,72	74,52	73,68
SS6B/13	13		70,72	74,52	73,68
SS6B/14	14		70,72	74,52	73,68
SS6B/15	15		70,72	74,52	73,68
SS6B/16	16		70,72	74,52	73,68
SS6B/17	17		70,72	74,52	73,68
SS6B/18	18		70,72	74,52	73,68
SS6B/19	19		70,72	74,52	73,68
SS6B/20	20		70,72	74,52	73,68
SS6B/21	21		70,72	74,52	73,68
SS6B/22	22		70,72	74,52	73,68
SS6B/23	23		70,72	74,52	73,68
SS6B/24	24		70,72	74,52	73,68
SS6B/25	25		70,72	74,52	73,68
SS6B/26	26		70,72	74,52	73,68
SS6B/27	27		70,72	74,52	73,68
SS6B/28	28		70,72	74,52	73,68
SS6B/29	29		70,72	74,52	73,68
SS6B/30	30		70,72	74,52	73,68
SS6B/31	31		70,72	74,52	73,68
SS6B/32	32		70,72	74,52	73,68
SS6B/33	33		70,72	74,52	73,68
SS6B/34	34		70,72	74,52	73,68
SS6B/35	35		70,72	74,52	73,68
SS6B/36	36		70,72	74,52	73,68
SS6B/37	37		70,72	74,52	73,68
SS6B/38	38		70,72	74,52	73,68
SS6B/39	39		70,72	74,52	73,68
SS6B/40	40		70,72	74,52	73,68
SS6B/41	41		70,72	74,52	73,68
SS6B/42	42		70,72	74,52	73,68
SS6B/43	43		70,72	74,52	73,68
SS6B/44	44		70,72	74,52	73,68
SS6B/45	45		70,72	74,52	73,68
SS6B/46	46		70,72	74,52	73,68
SS6B/47	47		70,72	74,52	73,68
SS6B/48	48		70,72	74,52	73,68
SS6B/49	49		70,72	74,52	73,68
SS6B/50	50		70,72	74,52	73,68
SS6B/51	51		70,72	74,52	73,68
SS6B/52	52		70,72	74,52	73,68
SS6B/53	53		70,72	74,52	73,68
SS6B/54	54		70,72	74,52	73,68
SS6B/55	55		70,72	74,52	73,68
SS6B/56	56		70,72	74,52	73,68
SS6B/57	57		70,72	74,52	73,68
SS6B/58	58		70,72	74,52	73,68
SS6B/59	59		70,72	74,52	73,68
SS6B/60	60		70,72	74,52	73,68

HYDRAULIC EFFICIENCY

EU REGULATION 547/2012 – MEI

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
SS6C/9	9	≥ 0,40	72,03	76,10	75,41
SS6C/4	4		71,03	75,10	74,41
SS6C/5	5		72,03	76,10	75,41
SS6C/6	6		72,03	76,10	75,41
SS6C/7	7		72,03	76,10	75,41
SS6C/8	8		72,03	76,10	75,41
SS6C/10	10		72,03	76,10	75,41
SS6C/11	11		72,03	76,10	75,41
SS6C/12	12		72,03	76,10	75,41
SS6C/13	13		72,03	76,10	75,41
SS6C/14	14		72,03	76,10	75,41
SS6C/15	15		72,03	76,10	75,41
SS6C/16	16		72,03	76,10	75,41
SS6C/17	17		72,03	76,10	75,41
SS6C/18	18		72,03	76,10	75,41
SS6C/19	19		72,03	76,10	75,41
SS6C/20	20		72,03	76,10	75,41
SS6C/21	21		72,03	76,10	75,41
SS6C/22	22		72,03	76,10	75,41
SS6C/23	23		72,03	76,10	75,41
SS6C/24	24		72,03	76,10	75,41
SS6C/25	25		72,03	76,10	75,41
SS6C/26	26		72,03	76,10	75,41
SS6C/27	27		72,03	76,10	75,41
SS6C/28	28		72,03	76,10	75,41
SS6C/29	29		72,03	76,10	75,41
SS6C/30	30		72,03	76,10	75,41
SS6C/31	31		72,03	76,10	75,41
SS6C/32	32		72,03	76,10	75,41
SS6C/33	33		72,03	76,10	75,41
SS6C/34	34		72,03	76,10	75,41
SS6C/35	35		72,03	76,10	75,41
SS6C/36	36		72,03	76,10	75,41
SS6C/37	37		72,03	76,10	75,41
SS6C/38	38		72,03	76,10	75,41
SS6C/39	39		72,03	76,10	75,41
SS6C/40	40		72,03	76,10	75,41
SS6C/41	41		72,03	76,10	75,41
SS6C/42	42		72,03	76,10	75,41
SS6C/43	43		72,03	76,10	75,41
SS6C/44	44		72,03	76,10	75,41
SS6C/45	45		72,03	76,10	75,41
SS6C/46	46		72,03	76,10	75,41
SS6C/47	47		72,03	76,10	75,41
SS6C/48	48		72,03	76,10	75,41
SS6C/49	49		72,03	76,10	75,41
SS6C/50	50		72,03	76,10	75,41
SS6C/51	51		72,03	76,10	75,41
SS6C/52	52		72,03	76,10	75,41
SS6C/53	53		72,03	76,10	75,41
SS6C/54	54		72,03	76,10	75,41

HYDRAULIC EFFICIENCY

EU REGULATION 547/2012 – MEI

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
SS6D/9	9	≥ 0,40	72,67	76,30	75,42
SS6D/3	3		70,67	74,30	73,42
SS6D/4	4		71,67	75,30	74,42
SS6D/5	5		72,67	76,30	75,42
SS6D/6	6		72,67	76,30	75,42
SS6D/7	7		72,67	76,30	75,42
SS6D/8	8		72,67	76,30	75,42
SS6D/10	10		72,67	76,30	75,42
SS6D/11	11		72,67	76,30	75,42
SS6D/12	12		72,67	76,30	75,42
SS6D/13	13		72,67	76,30	75,42
SS6D/14	14		72,67	76,30	75,42
SS6D/15	15		72,67	76,30	75,42
SS6D/16	16		72,67	76,30	75,42
SS6D/17	17		72,67	76,30	75,42
SS6D/18	18		72,67	76,30	75,42
SS6D/19	19		72,67	76,30	75,42
SS6D/20	20		72,67	76,30	75,42
SS6D/21	21		72,67	76,30	75,42
SS6D/22	22		72,67	76,30	75,42
SS6D/23	23		72,67	76,30	75,42
SS6D/24	24		72,67	76,30	75,42
SS6D/25	25		72,67	76,30	75,42
SS6D/26	26		72,67	76,30	75,42
SS6D/27	27		72,67	76,30	75,42
SS6D/28	28		72,67	76,30	75,42
SS6D/29	29		72,67	76,30	75,42
SS6D/30	30		72,67	76,30	75,42
SS6D/31	31		72,67	76,30	75,42
SS6D/32	32		72,67	76,30	75,42
SS6D/33	33		72,67	76,30	75,42

HYDRAULIC EFFICIENCY

EU REGULATION 547/2012 – MEI

PUMP MODEL	N° STAGES	MEI	η PL	η BEP	η OL
SS6E/9	9	≥ 0,40	72,40	77,30	75,51
SS6E/2	2		69,40	74,30	72,51
SS6E/3	3		70,40	75,30	73,51
SS6E/4	4		71,40	76,30	74,51
SS6E/5	5		72,40	77,30	75,51
SS6E/6	6		72,40	77,30	75,51
SS6E/7	7		72,40	77,30	75,51
SS6E/8	8		72,40	77,30	75,51
SS6E/10	10		72,40	77,30	75,51
SS6E/11	11		72,40	77,30	75,51
SS6E/12	12		72,40	77,30	75,51
SS6E/13	13		72,40	77,30	75,51
SS6E/14	14		72,40	77,30	75,51
SS6E/15	15		72,40	77,30	75,51
SS6E/16	16		72,40	77,30	75,51
SS6E/17	17		72,40	77,30	75,51
SS6E/18	18		72,40	77,30	75,51
SS6E/19	19		72,40	77,30	75,51
SS6E/20	20		72,40	77,30	75,51
SS6E/21	21		72,40	77,30	75,51
SS6E/22	22		72,40	77,30	75,51
SS6E/23	23		72,40	77,30	75,51
SS6E/24	24		72,40	77,30	75,51
SS6E/25	25		72,40	77,30	75,51
SS6E/26	26		72,40	77,30	75,51
SS6E/27	27		72,40	77,30	75,51
SS6E/28	28		72,40	77,30	75,51
SS6E/29	29		72,40	77,30	75,51
SS6E/30	30		72,40	77,30	75,51

NOTES

ACCESSORIES

To ensure correct splicing, the cross section of the cable should be equal to or greater than that of the motor cable.
The cross section of the cable to be spliced must be sized properly in relation to the required length of the cable.

SHIELDED CABLES	DESCRIPTION	MICRA	MICRA HS	S4	S6	SM +6GF	SR+6GF
	4 x 1,5 mm² 4-CORE SHIELDED CABLE PER METRE	•	•	•			
	4 x 2,5 mm² 4-CORE SHIELDED CABLE PER METRE	•	•	•			
	4 x 4 mm² 4-CORE SHIELDED CABLE PER METRE	•	•	•	•	•	•
Advisable in the case of applications with inverter.							

4-CORE CABLES	DESCRIPTION	MICRA	MICRA HS	S4	s6	SM +6GF	SR+6GF
	4 x 1,5 mm² 4-CORE CABLE PER METRE	•	•	•	•		
	4 x 2,5 mm² 4-CORE CABLE PER METRE	•	•	•	•		
	4 x 4 mm² 4-CORE CABLE PER METRE	•	•	•	•	•	•
	4 x 6 mm² 4-CORE CABLE PER METRE	•	•	•	•	•	•
	4 x 10 mm² 4-CORE CABLE PER METRE	•	•	•	•	•	•
	4 x 16 mm² 4-CORE CABLE PER METRE	•	•	•	•	•	•
	4 x 25 mm² 4-CORE CABLE PER METRE	•	•	•	•	•	•

PROBES	DESCRIPTION	MICRA	MICRA HS	S4	S6	SM +6GF	SR+6GF
	ELECTRODE PROBE For use with ES control boxes. Suitable for conductive liquids with temperature up to +40°C. To be connected using 1,5 mm² cable with 550 V insulation capacity. Sensitivity: ≤ 53 kohm			•	•	•	•
	1 x 1,5 mm² CABLE FOR ELECTRIC PROBES PER METRE			•	•	•	•
Accessories to be connected only to ES control boxes							

SPLICING	DESCRIPTION	MICRA	MICRA HS	S4	S6	SM +6GF	SR+6GF
	CABLE SPLICING KIT (for 4 x 1 mm² cables)	•	•				
	CABLE SPLICING KIT (for 4 x 1,5/2,5/4/6 mm² cables)			•	•	•	•
	CABLE SPLICING KIT (for 4 x 10/16/25 mm² cables)			•	•	•	•
	SPLICING OF ELECTRIC PUMP CABLE	•	•	•	•	•	•

MOTOR CABLE KIT	DESCRIPTION	4GG	4TW	40L
	20 M 4G1.5 CABLE WITH 4GG/40L 4” MOTOR CONNECTOR KIT	•		•
	40 M 4G1.5 CABLE WITH 4GG/40L 4” MOTOR CONNECTOR KIT	•		•
	20 M 4G2.5 CABLE WITH 4GG/40L 4” MOTOR CONNECTOR KIT	•		•
	40 M 4G2.5 CABLE WITH 4GG/40L 4” MOTOR CONNECTOR KIT	•		•
	30 M 3G1.5 CABLE WITH 4TW 4” MOTOR CONNECTOR KIT		•	

	DESCRIPTION	DIVERTRON	DIVERTRON X
	SUCTION KIT		•
	AUXILIARY TANK	•	•

SM SUBMERSIBLE COUNTERFLANGE KIT	DESCRIPTION	SM6	SM8	SM10	SM12
	SM6 COUNTERFLANGE KIT	•			
	SM8 COUNTERFLANGE KIT		•		
	SM10 COUNTERFLANGE KIT			•	
	SM12 COUNTERFLANGE KIT				•

Complete with gasket and coupling screws

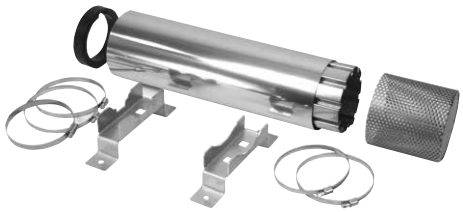
COOLING PIPE KIT	DESCRIPTION	CS4	S4	S6	SR6	SM6
	L400 COOLING PIPE KIT	•	•			
	L525 COOLING PIPE KIT	•	•			
	L885 COOLING PIPE KIT	•	•			
	4" HORIZONTAL INST. SUPPORTS KIT (2 pieces)	•	•			
	4" FILTER KIT	•	•			
	L725 COOLING PIPE KIT			•	•	•
	L960 COOLING PIPE KIT			•	•	•
	L1220 COOLING PIPE KIT			•	•	•
	L1490 COOLING PIPE KIT			•	•	•
	6" HORIZONTAL INST. SUPPORTS KIT (2 pieces)			•	•	•
	6" FILTER KIT			•	•	•

Photo of cooling pipe kit + Horizontal support kit + filter kit

CB - CONTROL BOXES OBLIGATORY FOR SINGLE-PHASE PUMPS

Box in shockproof thermoplastic with two cable glands.
Illuminated two-pole main switch (power).
Protection class: IP 43.
Starting capacitor.
Thermal protection with external manual reset facility.

MODEL	POWER INPUT 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	PROTECTION	MICROC. CAPAC.	DIMENSIONS mm	GROSS WEIGHT kg	DIVER		MICRA	
CB 16/5	1x230 V ~	0,55	0,75	5 A	16	85 x 170 x 65	0,65	•	DIVER 75 M		
CB 20/6	1x230 V ~	0,75	1	6 A	20	85 x 170 x 65	0,65	•	DIVER 100 M DIVER 100 HF M		
CB 30/9	1x230 V ~	1,1	1,5	9 A	30	85 x 170 x 65	0,65	•	DIVER 150 M DIVER 150 HF M		
CB 35/12	1x230 V ~	1,5	2	12 A	35	85 x 170 x 65	0,65	•	DIVER 200 M DIVER 200 HF M		
CB 05/12	1 x 230 V~	0,37	0,5	5 A	12	85 x 170 x 65	0,65			•	MICRA 50 M
CB 06/16	1 x 230 V~	0,55	0,75	6 A	16	85 x 170 x 65	0,65			•	MICRA 75 M
CB 07/20	1 x 230 V~	0,75	1	7 A	20	85 x 170 x 65	0,65			•	MICRA 100 M

ESC PLUS

Electronic control unit for protection and control of the single-phase/three-phase motor/pump with direct starting.
Two calibration modes of the control unit: automatic/manual
Dry run protection of motor/pump not with level probe but with measurement of the cos j of the motor.
Box in shockproof self-extinguishing thermoplastic with two cable glands.
Main switch.
Power input: single-phase 230 V + 10 % - 20 %, three-phase 400 V + 10 % - 20 %.
Digital display with status indications.
Four models available with power ratings of 0,5 - 15 HP.
Protection class IP54.
Starting capacitor for the single-phase version (to be ordered separately).
Opto-coupled auxiliary input for control with connection of probes, pressure switch or float switch.
ON-OFF switch.
Functional features:
Overload protection.
Power loss protection (three-phase version).
Overvoltage protection.
Short circuit protection.
Dry run protection.

MODEL	POWER INPUT 50-60 Hz	RANGE HP	MAX CURRENT A	BOX DIMENSIONS A	BOX DIMENSIONS B	BOX DIMENSIONS H	WEIGHT kg
ESC PLUS 3M 220-240/50-60	1 x 230 V,	0, 5 - 3	< 18	175	175	80	0,9
ESC PLUS 4T 400/50-60	3 x 400 V,	0, 5 - 4	< 9	245	195	95	1
ESC PLUS 10T 400/50-60	3 x 400 V,	5,5 - 10	< 20	215	170	75	1,4
ESC PLUS 15T 400/50-60	3 x 400 V,	12,5 - 15	< 30	215	170	75	1,6

4” CONTROL BOX

Electrical control box for operation of single-phase submersible electric pumps, containing manually resettable thermal protection, capacitor, and terminals for the connection of a pressure switch/float switch. Complete with 1,5 m cable with SCHUKO plug CEE 7- VII UNEL 47166-168. Wall-mounting box in self-extinguishing thermoplastic.

SINGLE-PHASE model	MOTOR POWER kW	OVERLOAD PROT. A	CAPACITOR µF	WEIGHT kg
0,5 4” CONTROL BOX	0,37	4	16	1,7
0,75 4” CONTROL BOX	0,55	5	20	1,7
1 4” CONTROL BOX	0,75	7	25	1,7
1,5 4” CONTROL BOX	1,1	10	35	1,7
2 4” CONTROL BOX	1,5	13	40	1,7
3 4” CONTROL BOX	2,2	16	60	1,7

4" BOOSTER CONTROL BOX

Control unit to increase starting torque of single-phase electric pumps with power ratings of 0,37 - 3,7 kW containing a manually resettable micro cutout for overload protection, the starting capacitor, a capacitor to boost starting torque, and terminals for electrical connections.
Plug not included.

Protection class: IP 54.
Ambient operating temperature: -10 °C + 40 °C.
Wall-mounting box in self-extinguishing thermoplastic.

MODEL	POWER INPUT 50 Hz	MAX POWER kW	MAX CURRENT A	STARTING CAPACITOR MF	STARTING TORQUE BOOST CAPACITOR MF	WEIGHT kg
CBB 05/16 (0,37 kW)	1 x 230 V	0,37	5	16	53-64	0,85
CBB 06/20 (0,55 kW)	1 x 230 V	0,55	6	20	53-64	0,85
CBB 09/25 (0,75 kW)	1 x 230 V	0,75	9	25	100-130	1,5
CBB 12/35 (1,1 kW)	1 x 230 V	1,1	12	35	100-130	1,1
CBB 15/40 (1,5 kW)	1 x 230 V	1,5	15	40	189-250	1,1
CBB 20/60 (2,2 kW)	1 x 230 V	2,2	20	60	189-250	1,5
CBB 32/90 (3,7 kW)	1 x 230 V	3,7	32	90	315-400	1,5

COMMANDER - SOFT-START AND PROTECTION CONTROL BOX

Soft-start control box with microprocessor for the protection and control of the three-phase motor/pump with direct starting. The Commander soft-start control box is used when limitation of the starting current is required; in this case, the traditional starting systems are no longer required (star-delta or reactor system). There are also various parameters for setting starting and stopping of the system. Features: Input voltage: 400 Vac +/- 10 %. Input frequency: 50/60 Hz. Ambient temperature: 0 - 40 °C. Relative humidity: 50 % at 40 °C. Protection IP55. Box in metal with epoxy coat. SCR bypass contactor. Pressure switch/float switch signal input. Possibility to connect more than one motor/pump. Power factor measurement (cos j). Programming of the following functions at the external LCD keypad: programming in 6 languages, set-up menu and visualisation of the following parameters: voltage, current, active and apparent power, power factor, list of events/actions. Functional features: Overload protection, starting current protection and control, power loss protection, overvoltage/undervoltage protection and short circuit protection.

MODEL	POWER INPUT 50-60 Hz	RANGE	MAX CURRENT	DIMENSIONS	WEIGHT kg
COMMANDER 1E	400 V	5,5 HP - 30 HP	< 50	300x300x160	8,6
COMMANDER 2E	400 V	35 HP - 60 HP	< 100	300x300x160	9,4

ES 1 M - ES 3 M

Control box for dry run protection of single-phase submersible electric pumps (see table). The control box is protected and it protects the electric pump from overloads and short circuits, with manual reset facility. Facility for operation with 1, 2 or 3 probes depending on use.

Protection class IP 55. Operating ambient temperature limits –10 °C +40 °C.
Supplied as standard with an electric probe and wall-mounting brackets. Wall-mounting box in self-extinguishing thermoplastic.

MODEL	POWER INPUT 50/60 Hz	POWER kW P2 MOT.	NOM. DUTY POWER (MAX) (kW)	MAX CURRENT A	DIMENSIONS			WEIGHT kg
					A	B	H	
ES 1 M	1x220-240 V,	0,37-0,55-0,75	1,85	10	270	300	190	5,6
ES 3 M	1x220-240 V,	1,1-1,5-2,2	2,2	16	270	300	190	5,6

ES 0,75 T - 1 T - 1,5 T - 3 T - 4 T - 7,5 T

Control box for dry run protection of three-phase submersible electric pumps (see table).
The control box is protected and it protects the electric pump from overloads and short circuits, with manual reset facility. Facility for operation with 1, 2 or 3 probes depending on use.

Protection class IP 55.
Operating ambient temperature limits –10 °C +40 °C.
Supplied as standard with an electric probe and wall-mounting brackets. Wall-mounting box in self-extinguishing thermoplastic.

MODEL	POWER INPUT 50 Hz	POWER kW P2 MOT.	NOM. DUTY POWER (MAX) (kW)	MAX CURRENT A	DIMENSIONS			WEIGHT kg
					A	B	H	
ES 0,75 T	3 x 400 V	0,37-0,55	0,88	1,6	270	300	190	5,6
ES 1 T	3 x 400 V	0,75	1,38	2,5	270	300	190	5,6
ES 1,5 T	3 x 400 V	1,1	2,2	4	270	300	190	5,6
ES 3 T	3 x 400 V	1,5 - 2,2	3,5	6,3	270	300	190	5,6
ES 4 T	3 x 400 V	3	5,5	10	270	300	190	5,6
ES 7,5 T	3 x 400 V	4-5,5	7,5	14	270	300	190	5,6

CONTROL SYSTEMS - ES

Control boxes for protection and automatic operation with float switch(es) of three-phase submersible electric pumps in single installations.
Available for direct starting and for star-delta starting.
Wall-mounting box in self-extinguishing thermoplastic.
The control box is self-protected and it protects the electric pump from overloads, short circuits and power loss, with manual reset facility.
Complete with:
Power line disconnect device with padlockable door lock handle;
Self-protected transformer to provide 24 V supply for external controls;
Terminals to connect electric pump and minimum/maximum level float switches;
Probe module for anti dry-run control;
Terminals to connect alarm control for remote installation of a sounder or warning light (voltage free);
Manual – 0 – automatic selector for electric pump on control box front panel;
Protection class: IP55.
Construction of electrical enclosures: to EN 60204-1 and EN 60439-1.
Supplied as standard with an electric probe.

MODEL	POWER INPUT 50-60 Hz	P2 NOMINAL kW	MAX CURRENT	WEIGHT kg
ES 7,5 T	3 x 400 V	4 - 5,5	14	5,6
ES 10 T	3 x 400 V	7,5	18	5,6
ES 12,5 T	3 x 400 V	9,2	25	5,9
ES 15 T	3 x 400 V	11	25	8
ES 20 T	3 x 400 V	15	32	8,1
ES 25 T	3 x 400 V	18,5	40	8,3
ES 30 T	3 x 400 V	22	63	8,5
ES 40 T	3 x 400 V	30	80	8,2
ES 50 T	3 x 400 V	37	90	9
ES 60 T	3 x 400 V	45	100	9
ES 75 T	3 x 400 V	55	109	-
ES 85 T	3 x 400 V	63	126	-
ES 100 T	3 x 400 V	75	148	-
ES 125 T	3 x 400 V	92	185	-
ES 150 T	3 x 400 V	110	217	-
ES 180 T	3 x 400 V	132	257	-
ES 200 T	3 x 400 V	147	300 A	-
ES 230 T	3 x 400 V	170	348 A	-
ES 260 T	3 x 400 V	190	405 A	-
ES 300 T	3 x 400 V	220	424 A	-
ES 340 T	3 x 400 V	250	481	-
ES 10 T S/D	3 x 400 V	7,5	18	5,6
ES 12,5 T S/D	3 x 400 V	9,2	25	5,9
ES 15 T S/D	3 x 400 V	11	25	8
ES 20 T S/D	3 x 400 V	15	32	8,1
ES 25 T S/D	3 x 400 V	18,5	40	8,3
ES 30 T S/D	3 x 400 V	22	63	8,5
ES 40 T S/D	3 x 400 V	30	80	8,2
ES 50 T S/D	3 x 400 V	37	90	9
ES 60 T S/D	3 x 400 V	45	100	9
ES 75 T S/D	3 x 400 V	55	109	-
ES 85 T S/D	3 x 400 V	63	126	-
ES 100 T S/D	3 x 400 V	75	148	-
ES 125 T S/D	3 x 400 V	92	185	-
ES 150 T S/D	3 x 400 V	110	217	-
ES 180 T S/D	3 x 400 V	132	257	-
ES 200 T S/D	3 x 400 V	147	300 A	-
ES 230 T S/D	3 x 400 V	170	348	-
ES 260 T S/D	3 x 400 V	190	405	-
ES 300 T S/D	3 x 400 V	220	424	-
ES 340 T S/D	3 x 400 V	250	481	-

ADAC - INVERTER

The **ADAC** family represents the new frontier of Dab inverters. These are intended for **HEAVY-DUTY PROFESSIONAL APPLICATIONS**.
They can pilot three-phase pumps up to 15 kW.
They combine the simplicity of the **ADAC** series with the strength and power of the inverter.
They are control box devices and are equipped with pressure sensors and with a flow sensor on request.
The latter guarantees improved pressure control.
These models also permit the assembly of pressurisation units.

The **ADAC** family combines comfort and savings and all the protection features, and is easy to install and configure.
The **ADAC** models are air-cooled. These control box inverters are extremely strong, with a metal body, and suitable for heavy duty uses.
They guarantee maximum comfort and increase the average life-span of the system.

MODEL	MAX MECHANICAL POWER (P2) PUMP kW	MAX NOMINAL CURRENT MOTOR A	MIN NOMINAL CURRENT MOTOR A	POWER INPUT 50 Hz	ELECTRIC PUMP POWER INPUT 50 - 200 Hz
AD M/T 1.0 AC	1,0	6,5	1	1x230	3x230
AD M/T 1.5 AC	1,5	9,0	1	1x230	3x230
AD M/T 2.2 AC	2.2	11,5	1	1x230	3x230
AD T/T 3.0 AC	3,0	9,0	2	3x400	3x400
AD T/T 4.0 AC	4,0	11	2	3x400	3x400
AD T/T 5.5 AC	5,5	15	2	3x400	3x400
AD T/T 7.5 AC	7,5	22	2	3x400	3x400
AD T/T 11.0 AC	11	31	2	3x400	3x400
AD T/T 15.0 AC	15	41	2	3x400	3x400

ACTIVE DRIVER - INVERTER

The Active Driver devices represent an innovative integrated variable speed control system for electric pumps able to keep the pressure constant when the flow rate varies. The simple and immediate user interface makes it possible to set the required pressure and to view the various settings and any error messages.
Active Driver comprises: an inverter/a pressure sensor/a flow sensor.
The Active Driver offers various advantages:
- More comfort.
- More energy savings.
- Less noise.
- Compactness.
- No overpressure.
- Longer life-span of the electric pump.
- Ease of maintenance.
- Compatibility with many types of electric pump.

The Active Driver has a fault protection system.
In the event of a fault, a message appears on the display and, depending on the type of error, the electric pump turns itself off.
- Dry run protection.
- Overload protection.
- Pump overheating protection.
- Protection against abnormal voltage.

Model: A.D. M/T 2.2.
Max phase current of motor: 10,5 Arms.
Line voltage: 230 V single-phase.
Voltage of electric pump: 230 V three-phase.
Power frequency: 50 Hz - 60 Hz.
Installation: vertical or horizontal.
Maximum temperature of liquid: 50 °C.
Max operating temperature: 60 °C.
Max pressure: 16 bar.
Pressure control range: from 1 to 15 bar.
Suction diameter (DNA): 1 1/4" male.
Delivery diameter (DNM): 1 1/2" female.
Protection class: IP55.
Active Driver can also be used in parallel, i.e. with one device for each electric pump (excluding the model M/M 1.1).

MODEL	MAX CURRENT MOTOR A	MAX POWER MOTOR kW	POWER INPUT 50 Hz	VOLTAGE ELECTRIC PUMP	DNA GAS	DNM GAS	INTERFACE FOR USE IN PARALLEL	USE WITH PUMP TYPE	PRESSURE CONTROL BAR
ACTIVE DRIVER M/M 1.1	8,5	1,1	Single-phase 1x230	Single-phase 1x230	1 1/4" M	1 1/2" F	NO	4" and 5" submersible surface pumps with single-phase motor and motor absorption up to 8,5 A.	1-6
ACTIVE DRIVER M/M 1.5	11		Single-phase	Single-phase	1 1/4" M	1 1/2" F	YES	4" and 5" submersible surface pumps with single-phase motor and motor absorption up to 11 A.	1-9
		0,55	1x115	1x115					
		1,5	1x230	1x230					
ACTIVE DRIVER M/M 1.8	14		Single-phase	Single-phase	1 1/4" M	1 1/2" F	YES	4" and 5" submersible surface pumps with single-phase motor and motor absorption up to 14 A.	1-9
		1,0	1x115	1x115					
		1,8	1x230	1x230					
ACTIVE DRIVER M/T 1.0	4,7	1,0	Single-phase 1x230	Three-phase 3x230	1 1/4" M	1 1/2" F	YES	4" and 5" submersible surface pumps with 230 V three-phase motor and motor absorption up to 4,7 A.	1-5
ACTIVE DRIVER M/T 2.2	10,5	2,2	Single-phase 1x230	Three-phase 3x230	1 1/4" M	1 1/2" F	YES	4" and 5" submersible surface pumps with 230 V three-phase motor and motor absorption up to 10,5 A.	1-16
ACTIVE DRIVER T/T 3.0	7,5	3,0	Three-phase 3x400	Three-phase 3x400	1 1/4" M	1 1/2" F	YES	4" and 5" submersible surface pumps with 400 V three-phase motor and motor absorption up to 7,5 A.	1-16
ACTIVE DRIVER T/T 5.5	13,3	5,5	Three-phase 3x400	Three-phase 3x400	1 1/4" M	1 1/2" F	YES	4" and 5" submersible surface pumps with 400 V three-phase motor and motor absorption up to 13,3 A.	1-16

Maximum advisable flow rate 15 m^3/hour.

ACTIVE SHIELD - INLET/OUTLET FILTER FOR ACTIVE DRIVER

ACTIVE SHIELD is an electronic inlet/outlet filter that can be connected to the Active Driver. In certain conditions, a pump with inverter can cause electromagnetic interference in electronic devices in the vicinity of the pump or its power cables.
Active Shield is suitable for resolving problems of interference in critical installations, like those with submersible pumps, when the power cables are very long and interference can propagate.
Compact size.
Easy to install.
Maintenance-free.
Exceptional performance and efficiency due to the use of nanocrystalline technology.
A single model for all M/M and M/T inverters.
Maximum current of motor 14 A.

MODEL	MAX CURRENT MOTOR A	TO BE USED WITH
ACTIVE SHIELD	14	Active Driver M/M Active Driver M/T

TECHNICAL APPENDIX

GENERAL INFORMATION

FUNDAMENTAL TERMS USED IN PUMPS

The following is a list of fundamental terms used in pumps and an explanation of their meanings. Their knowledge is necessary in order to discuss hydraulic pumps. All measurements are given in Technical units. Reference should be made to the chart for their international and Anglo-Saxon equivalents.

HEAD

Head means height, difference in level, gradient. For example if a pump has a flow of Q litres per second and a head of 30 metres, it means that it is capable of raising Q litres of liquid by 30 metres every second (therefore achieving a 30 metre gradient). For each given pump, the head is determined by its construction, such as the external diameter of the impeller and the speed of rotation, but it is not affected by the pumped liquid. This means that the pump as such can raise by 30 metres Q litres per second of water, petrol, mercury, etc.; the only difference in the three cases will be the power of the motor required.

SPECIFIC WEIGHT OF A LIQUID OR FLUID

The specific weight of a liquid or fluid is the weight per unit volume of the liquid/fluid. Specific weight is usually measured in kg/dm^3 or kg/l, remembering that 1 dm^3 equals 1 litre.

PRESSURE

Pressure means weight per unit of area (e.g. kg/cm^2), and it should not be confused with head. In the case of liquids, the pressure that the liquid exerts on a surface is given by the product of the head (or height) of the liquid, multiplied by its specific weight. For this reason, the column of several km of air on the earth's surface produces at sea level a pressure of about 1kg/cm^2 (equal to approx. 1 atmosphere). If the same column were of water rather than air, the pressure would be some 700 to 800 times greater, due to the fact that water has a specific weight approximately 700-800 times greater than that of air.
Bearing in mind that a column of water 10 m high is equivalent to approx. 1 kg/cm^2, if we placed a manometer on the delivery of the pump, the following pressure increases would be measured:

a) with petrol (specific weight 0,7 kg/dm^3) = 00,7 x 0,001 x 30 x 100 = 2,1 kg/cm^2
b) with water (specific weight 1,0 kg/dm^3) = 00,1 x 0,001 x 30 x 100 = 3,0 kg/cm^2
c) with mercury (specific weight 13,6 kg/dm^3) = 13,6 x 0,001 x 30 x 100 = 40,8 kg/cm^2

FLOW

Flow means the quantity of liquid or fluid that passes through a point, such as the delivery outlet of a pump, or a cross section of a pipe, in the set unit of time.
This can be measured in litres per minute (l/min), litres per second (l/s), cubic metres per hour (m^3/h) etc.
It should be noted that there is a perfect analogy between the flow of water through a pipe and the flow of electricity through a wire. It is sufficient to remember that hydraulic head is equivalent to electrical potential or voltage, and hydraulic flow is equivalent to electric current or amperes in electrotechnics. Even their behaviour is the same. Just as a thin wire restricts the flow of electricity more than one with a larger section, in the same way, a pipe of a smaller diameter offers a greater resistance to the flow of a liquid than one of a larger one. Just as the passage of electric current through the wire to a cable needs a voltage difference, in the same way, the flow of a liquid or fluid through a pipe needs a certain head.
There will never be a movement of liquid between two points of a perfectly horizontal pipe, and with the liquid at the same head in both points. This is due to the fact that, in the same way as the cable exerts a certain resistance to the passage of the electric current (electric resistance), the pipe also exerts a certain resistance to the passage of the fluid, the extent of which depends on the quality of the pipe (material, shape, presence of scale) and its section, and therefore the speed at which the fluid runs through the pipe. This resistance is called head loss.

HEAD LOSS

Head loss is that part of the head, possessed by the liquid, which is lost when passing through a pipe, a valve, a filter, etc. This loss cannot be recovered, as it is lost due to friction. Going back to the analogy between electrical and hydraulic phenomena, just as the losses in a cable increase in proportion with the current, so head losses are proportionally greater as the speed of the liquid increases. This means that the more the flow is restricted by scaled pipes, clogged filters, partially closed valves etc. the greater the head loss will be.

PUMP

A pump is a machine used to give a certain head to a liquid that passes through it. The head can be used to raise the liquid to a higher level, or to make it flow inside a pipe, or even in the open air, so that it covers a certain distance. The characteristics of a pump are:

a) **Flow** (the quantity of liquid that is moved through the pump in a unit of time).
b) **Head** (that is the height at which the pump is capable lifting the flow).

Based on the existing relationship between the flow and the head, it is possible to have:

a) Pumps with small flow and large head (piston pumps, rotary pumps, small centrifugal pumps).
b) Pumps with medium flow and medium head (centrifugal pumps in general).
c) Pumps with large flow and small head (helico-centrifugal pumps, propeller pumps).

Centrifugal pumps, helico-centrifugal pumps and propeller pumps have a rotary motion and their speed is universally measured in revolutions per minute (rpm). With these machines operating at a given speed, for each given value of flow, there is only one value of head. This means that in order to increase or decrease the performance of these types of pumps, the operating speed must be varied accordingly. Basically, the liquid passing through the pump is supplied with energy that is related to the head and the speed of the liquid itself. This energy supplied within the unit of time is known as delivered power.

DELIVERED POWER

The delivered power is the power delivered by the pump to the liquid. The value of this delivered power depends on three factors: flow, head, and specific weight of the pumped liquid. The higher these three factors, the higher is the power delivered by the pump. For example, a pump delivering petrol does less work than when delivering sulphuric acid, because the specific weights of the two liquids are different.
In order to pump a liquid, a pump must be driven by a motor. In the vast majority of cases, this is either an electric, or an internal combustion motor. Electric motors use electric power, while internal combustion motors (engines) use oil or oil derivative fuels. The power that the pump needs in order to operate is called absorbed power.

DELIVERED POWER CALCULATION

Delivered power is normally expressed in kW or HP, indicating with:
Q = the flow
H = the head in metres of the column of liquid (m.c.l.)
γ = the specific weight of the liquid

The delivered power (P3) is calculated using one of the following equations:

$$P3 = \frac{\gamma\ (kg/dm^3) \times Q\ (l/s) \times H\ (m.c.l.)}{75} \text{ in HP}$$

$$P3 = \frac{\gamma\ (kg/dm^3) \times Q\ (m^3/h) \times H\ (m.c.l.)}{270} \text{ in HP}$$

$$P3 = \frac{\gamma\ (kg/dm^3) \times Q\ (l/s) \times H\ (m.c.l.)}{102} \text{ in kW}$$

$$P3 = \frac{\gamma\ (kg/dm^3) \times Q\ (l/min) \times H\ (m.c.l.)}{4500} \text{ in HP}$$

$$P3 = \frac{\gamma\ (kg/dm^3) \times Q\ (m^3/h) \times H\ (m.c.l.)}{367} \text{ in kW}$$

$$P3 = \frac{\gamma\ (kg/dm^3) \times Q\ (l/min) \times H\ (m.c.l.)}{6120} \text{ in kW}$$

ABSORBED POWER

Absorbed power is the power that the pump absorbs from the motor, to give to the liquid the delivered power discussed above.
Not all the absorbed power becomes delivered power, as some power is lost through friction, and even more within the pump itself, due to hydraulic losses. It is therefore clear that the delivered power is always less than the absorbed power, and the relation between the two is a number always lower than 1. This number is known as the efficiency.

EFFICIENCY

The efficiency is obtained by dividing the delivered power by the absorbed power, and is normally expressed as a percentage. For example, an efficiency of 75 % of a pump indicates that only 75 % of the absorbed power is converted into delivered power, with the remaining 25 % being lost due to friction. Therefore, the higher the efficiency of a pump, the smaller the portion of absorbed power being lost. If one then considers that the cost of energy relates to the absorbed power, it immediately becomes apparent just how important efficiency is. If we compare two pumps with the same 1 HP delivered power, but with an efficiency of 50 % for the first, and 60 % for the second, we can assume that the first one will need 2 HP to supply 1, while the second will only need 1,67 HP to achieve the same result. This means that the efficiency of a pump expresses, better than any other parameter, the quality of the pump and the related savings in terms of operating costs.

CALCULATION OF POWER OUTPUTS

P_1: is the power absorbed by the motor in kW (generally indicated by the wattmeter).
P_2: the power delivered by the motor in kW. This is measured at the brake (it basically is the power absorbed by the pump).
P_3: the power delivered by the pump in kW.

Power output of the motor $\eta = \frac{P_2}{P_1}$

Power output of the motor $\eta = \frac{P_3}{P_2}$

Power output of the motor $\eta = \frac{P_3}{P_1}$

THE HEAD OF A PUMP AND ITS MEASUREMENT

The head of a pump is always the differential head, or that given by the pump itself. This is generally expressed in metres. In order to ascertain the head of a surface pump, during its operation it is necessary to measure the value of the head both at the suction and at the delivery of the pump itself, making sure that the readings are taken at the same level, which is called the reference plane. Two cases are possible, depending on installation:

1) the value of the head at the suction is negative (i.e. below zero shown on the manometer): in this case, the level of the liquid collected is lower than the level of the suction inlet.

2) the value of the head at the suction is positive (i.e. above zero shown on the manometer) in this case, the level of the liquid collected is higher than the level of the suction inlet (flooded suction).

In the first case the head of the pump is given by the sum of the two readings, while in the second it is given by subtracting the value of the head at the suction inlet from the value at the delivery outlet.
Finally, it is necessary to make sure that the readings at the suction and the delivery have been taken from apertures of the same diameter, so that they are not distorted by a difference in the speed of the liquid at the point of measurement. Any correction is made by calculating the dynamic head, or that part of the head linked with the speed of the liquid, which means that part of the head that the liquid possesses at the measuring section, due to the fact that it is moving. The dynamic head Hd, expressed in metres, is calculated using the following formula:

$$Hd = \frac{v^2}{2g}$$

where: v = speed of the fluid at the measuring point, given in m/s
g = acceleration of gravity (9,81), expressed in m/s^2
$2g = 2 \times 9{,}81 = 19{,}62\ m/s^2$

The correction of the head is given by the difference between the dynamic head at the delivery, and the dynamic head at the suction. It is therefore clear that if the readings upstream and downstream the pump have been taken on pipes of the same diameter, and therefore with the liquid flowing at the same speed, the correction is zero.

For submersible impeller pumps, it is sufficient, during operation, to measure the head at the delivery outlet. In this case, the head of the pump is then given by adding the value read to the dynamic head (at the delivery outlet), and to the difference in level between the free surface of the liquid collected and the manometer.

VARIATION IN PUMP HEAD IN RELATION TO SPEED VARIATION

The performance of a pump is directly connected to its speed in rpm (**n**). Providing that there is no cavitation, the law of similarity may be used, which is expressed as follows:

$$Q_x = Q \times \frac{\mathbf{n_x}}{\mathbf{n}} \qquad H_x = H \times \left(\frac{\mathbf{n_x}}{\mathbf{n}}\right)^2 \qquad P_{2\text{-}x} = P_2 \times \left(\frac{\mathbf{n_x}}{\mathbf{n}}\right)^3$$

For example, when doubling the number of revolutions ($\mathbf{n}_x$) one obtains:
Q_x = the value of the flow doubles
H_x = the value of the head is 4 times higher
$P_{2\text{-}x}$ = the value of the absorbed power is 8 times higher

Q - H - P2 are the values at speed **n**
Q_x - H_x - $P_{2\text{-}x}$ are the values at speed $\mathbf{n_x}$.

NOTES ON THE MOTORS OF ELECTRIC PUMPS

INDEX OF SYMBOLS USED
P_1 : POWER ABSORBED BY THE MOTOR IN KW.
P_2 : POWER DELIVERED BY THE MOTOR IN KW OR HP.
V ~ = AC VOLTAGE AT THE MAINS.
Hz = FREQUENCY IN CYCLES PER SECOND OF THE SUPPLY VOLTAGE.
I = CURRENT ABSORBED BY THE MOTOR IN AMPERES.
cosφ = POWER FACTOR.
$\mathbf{n}^{1/min}$ = SPEED OF ROTATION IN RPM.
η = OUTPUT POWER (RELATION BETWEEN DEVELOPED POWER AND ABSORBED POWER P2/P1).
p = NUMBER OF POLES OF THE MOTOR.
Cn = NOMINAL TORQUE OF THE MOTOR.

NO-LOAD SPEED OF ROTATION

The no-load speed of single-phase and three-phase electric induction motors is given by the formula:

$$\mathbf{n}^{1/min} = \frac{120 \times Hz}{p}$$

No-load speed of rotation $\mathbf{n}^{1/min}$

FREQUENCY HZ	2 POLES	4 POLES
50	3000	1500
60	3600	1800

The full-load speed is 2 to 7 % lower than the no-load speed (2 to 7 % sliding).

CURRENT ABSORBED

Single-phase: $I = \frac{1000 \times P_2\,(kW)}{V \times \cos\varphi \times \eta}$ or: $I = \frac{736 \times P_2\,(HP)}{V \times \cos\varphi \times \eta}$

Three-phase: $I = \frac{1000 \times P_2\,(kW)}{1.73 \times V \times \cos\varphi \times \eta}$ or: $I = \frac{736 \times P_2\,(HP)}{1.73 \times V \times \cos\varphi \times \eta}$

ABSORBED POWER

Single-phase: $P_1\,(kW) = \frac{V \times I \times \cos\varphi}{1000}$

Three-phase: $P_1\,(kW) = \frac{1.73 \times V \times I \times \cos\varphi}{1000}$

POWER DELIVERED AT THE MOTOR AXIS

Single-phase: $P_2\,(kW) = \frac{V \times I \times \cos\varphi \times \eta}{1000}$ or: $P_2\,(HP) = \frac{V \times I \times \cos\varphi \times \eta}{736}$

Three-phase: $P_2\,(kW) = \frac{1{,}73 \times V \times I \times \cos\varphi \times \eta}{1000}$ or: $P_2\,(HP) = \frac{1{,}73 \times V \times I \times \cos\varphi \times \eta}{736}$

EFFICIENCY

$$\eta = \frac{P_2\,(kW)}{P_1\,(kW)}$$

POWER FACTOR

Single-phase: $\cos\varphi = \frac{P_2\,(kW) \times 1000}{V \times I \times \eta}$ or: $\cos\varphi = \frac{P_1\,(kW) \times 1000}{V \times I}$

Three-phase: $\cos\varphi = \frac{P_2\,(kW) \times 1000}{1{,}73 \times V \times I \times \eta}$ or: $\cos\varphi = \frac{P_1\,(kW) \times 1000}{1{,}73 \times V \times I}$

TORQUE FACTOR

$Cn = \frac{P_2\,(kW) \times 1000}{1.027 \times \mathbf{n}^{1/min}}$ in kgm

$Cn = \frac{P_2\,(HP) \times 736}{1.027 \times \mathbf{n}^{1/min}}$ in kgm

$Cn = \frac{702 \times HP}{\mathbf{n}^{1/min}}$ in decaNewtonmetres

RELATIONSHIP BETWEEN KW AND HP

1 HP = 0,736 kW 1 kW = 1,36 HP $\frac{HP}{1.36} = kW$ kW x 1,36 = HP

STARTING CURRENT (ISP)

The starting current (at switch on) of a motor is 4 to 8 times greater than the nominal current, depending on the power of the motor.
Isp = In x 4 ÷ 8

DETAILS ON CAPACITORS

The approximate current absorbed by a capacitor is:

$I = \frac{6{,}28 \times F \times C \times V}{1.000.000}$

Where:
I = current in Amps absorbed by the capacitor.
F = frequency in Hz of the applied voltage.
C = capacity of capacitor µF.
V = applied voltage.

Example:
The current absorbed by a 14 µF capacitor connected to a 220 Volt - 50 Hz power supply is:

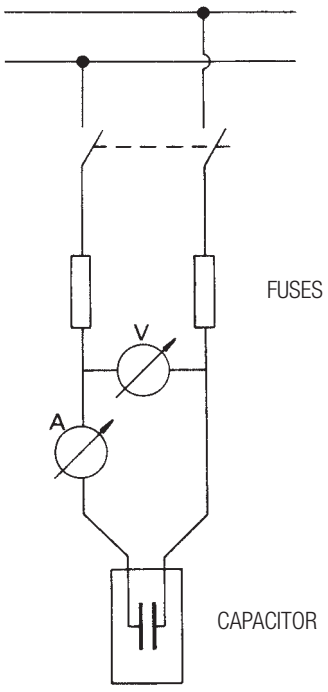
$I = \frac{6{,}28 \times 50 \times 14 \times 220}{1.000.000} = 0{,}96$ Amperes

The approximate capacity of a capacitor is determined by:

$C = \frac{I}{6{,}28 \times F \times V} \times 1{,}000{,}000$

Example:
The capacity of a capacitor absorbing 1,4 Amps connected to a 220 Volt - 50 Hz power supply is:

$C = \frac{1{,}4}{6{,}28 \times 50 \times 220} \times 1{,}000{,}000 = 20{,}2\ \mu F$



STAR-DELTA START-UP

The normally delta Δ connected motor is connected to the network using a star type connection. The current and the starting torque are both reduced to 1/3 of the value they would be if delta Δ connected.

PROTECTION

It is recommended that motors are connected to the power supply network using appropriate three-fuse thermal magnetic circuit breakers, or in any case circuit breakers complying with current local regulations.

LOAD LOSS AND SPEED TABLE

In order to accurately calculate **load losses and speed**, the following table is used:

FLOW			NEW GALVANISED PIPING									
			NOMINAL DIAMETERS: INCHES AND MM									
l/s	l/min	m³/h	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	3"1/2	4"
			15,75	21,25	27	35,75	41,25	52,5	68	80,25	92,5	105
0,17	10	0,6	0,856	0,47	0,291							
			9,01	20,9	0,65				HAZEN WILLIAMS CALCULATION FORMULA (UNI 9489 13.3.3.6)			
0,25	15	0,9	1,284	0,705	0,4387	0,249						
			19,07	4,43	1,38	0,35						
0,33	20	1,2	1,712	0,94	0,582	0,332	0,25					
			32,47	7,55	2,35	0,6	0,3					
0,42	25	1,5	2,14	1,175	0,728	0,415	0,31					
			49,06	11,41	3,55	0,91	0,45					
0,5	30	1,8	2,568	1,411	0,874	0,498	0,37	0,23				
			68,74	15,98	4,98	1,27	0,63	0,2				
0,58	35	2,1	2,996	1,646	1,019	0,581	0,44	0,27				
			91,42	21,26	6,62	1,69	0,84	0,26				
0,67	40	2,4		1,881	1,165	0,664	0,5	0,31				
				27,22	8,48	2,16	1,08	0,33				
0,83	50	3		2,351	1,456	0,831	0,62	0,39	0,23			
				41,13	12,81	3,27	1,63	0,5	0,14			
1	60	3,6		2,821	1,747	0,997	0,75	0,46	0,28			
				57,63	17,95	4,58	2,28	0,7	0,2			
1,17	70	4,2		3,291	2,039	1,163	0,87	0,54	0,32	0,23		
				76,64	23,88	6,08	3,03	0,94	0,27	0,12		
1,33	80	4,8			2,33	1,329	1	0,62	0,37	0,26		
					30,57	7,79	3,88	1,2	34	0,15		
1,5	90	5,4			2,621	1,495	1,12	0,69	0,41	0,3		
					38,01	9,69	4,83	1,49	0,42	0,19		
1,67	100	6			2,912	1,661	1,25	0,77	0,46	0,33	0,25	
					46,19	11,77	5,86	1,81	0,51	0,23	0,11	
2,08	125	7,5			3,641	2,077	1,56	0,96	0,57	0,41	0,31	0,24
					69,79	17,79	8,86	2,74	0,78	0,35	0,17	0,09
2,5	150	9				2,492	1,87	1,16	0,69	0,49	0,37	0,29
						24,92	12,41	3,84	1,09	0,49	0,24	0,13
2,92	175	10,5				2,907	2,18	1,35	0,8	0,58	0,43	0,34
						33,15	16,51	5,1	1,45	0,65	0,32	0,17

White numbers: Load losses in m for every 100 m of pipework

Green numbers: Water speed in m/sec

The table refers to galvanised pipework.

For other materials multiply as follows:
- 0,6 PVC pipes.
- 0,7 aluminium pipes.
- 0,8 laminated steel and stainless steel.

LOAD LOSS AND SPEED TABLE

In order to accurately calculate **load losses and speed**, the following table is used:

FLOW			NEW GALVANISED PIPING									
			NOMINAL DIAMETERS: INCHES AND MM									
l/s	l/min	m³/h	1"1/4	1"1/2	2"	2"1/2	3"	3"1/2	4"	5"	6"	8"
			35,75	41,25	52,5	68	80,25	92,5	105	130	155	206
3,33	200	12	3,322	2,5	1,54	0,92	0,66	0,5	0,39	0,25		
			42,43	21,14	6,53	1,85	0,83	0,41	**0,22**	**0,08**		
4,17	250	15	4,156	3,12	1,93	1,15	0,82	0,62	**0,48**	**0,31**		
			64,12	31,94	9,87	2,8	1,25	1,63	**0,34**	**0,12**		
5	300	18		3,74	2,31	1,38	0,99	0,74	**0,58**	**0,38**	**0,27**	
				44,75	13,83	3,92	1,75	0,88	0,47	0,17	0,07	
6,67	400	24		4,99	3,08	1,84	1,32	0,99	0,77	0,5	0,35	
				76,2	23,55	6,68	2,98	1,49	0,8	0,28	0,12	
8,33	500	30			3,85	2,3	1,65	1,24	0,96	0,63	0,44	
					35,58	10,09	4,51	2,26	1,22	0,43	0,18	
10	600	36			4,62	2,75	1,98	1,49	1,16	0,75	0,53	0,3
					49,85	14,14	6,31	3,16	1,7	0,6	0,26	0,06
11,67	700	42				3,21	2,31	1,74	1,35	0,88	0,62	0,35
						18,81	8,4	4,2	2,27	0,8	0,34	0,09
13,33	800	48				3,67	2,64	1,99	1,54	1,01	0,71	0,4
						24,08	10,75	5,38	2,9	1,03	0,44	0,11
15	900	54				4,13	2,97	2,23	1,73	1,13	0,8	0,45
						29,94	13,37	6,69	3,61	1,28	0,54	0,14
16,67	1000	60				4,59	3,3	2,48	1,93	1,26	0,88	0,5
						36,39	16,24	8,13	4,39	1,55	0,66	0,16
20,83	1250	75					4,12	3,1	2,41	1,57	1,1	0,63
							24,54	12,29	6,63	2,34	0,99	0,25
25	1500	90					4,95	3,72	2,89	1,88	1,33	0,75
							34,39	17,22	9,29	3,28	1,39	0,35
29,17	1750	105						4,34	3,37	2,2	1,55	0,88
								22,9	12,35	4,37	1,85	0,46
33,33	2000	120						4,96	3,85	2,5	1,77	1
								29,31	15,81	5,59	2,37	0,59
41,67	2500	150							4,81	3,14	2,21	1,25
									23,89	8,44	3,59	0,9
50	3000	180		HAZEN WILLIAMS CALCULATION FORMULA (UNI 9489 13.3.3.6)						3,77	2,65	1,5
										11,83	5,02	1,26
66,67	4000	240								5,03	3,53	2
										20,15	8,55	2,14
83,33	5000	300									4,42	2,5
											12,93	3,23

White numbers: Load losses in m for every 100 m of pipework

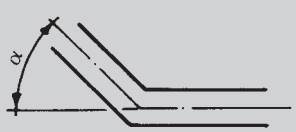
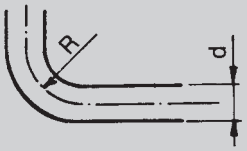
Green numbers: Water speed in m/sec

The table refers to galvanised pipework.

For other materials multiply as follows:
- 0,6 PVC pipes.
- 0,7 aluminium pipes.
- 0,8 laminated steel and stainless steel.

HEAD LOSS

in cm of column of water in bends, gate valves, and foot valves

VELOCITY OF WATER IN m/s	SHARP EDGED BENDS					NORMAL BENDS					GATE VALVE	FOOT VALVE	NON-RETURN VALVE	HEAD LOSS ON EXIT FROM PIPES $V^2:2G$
														
	$\alpha = 30°$	$\alpha = 40°$	$\alpha = 60°$	$\alpha = 80°$	$\alpha = 90°$	$\frac{d}{R\ 0,4} =$	$\frac{d}{R\ 0,6} =$	$\frac{d}{R\ 0,8} =$	$\frac{d}{R} = 1$	$\frac{d}{R\ 1,5} =$				
0,10	0,03	0,04	0,05	0,07	008	0,07	0,08	0,01	0,0155	0,027	0,03	30	30	0,05
0,15	0,06	0,73	0,1	0,14	0,17	0,016	0,019	0,024	0,033	0,06	0,033	31	31	0,12
0,2	0,11	0,13	0,18	0,26	0,31	0,028	0,033	0,04	0,059	0,11	0,058	31	31	0,21
0,25	0,17	0,21	0,28	0,4	0,48	0,044	0,052	0,063	0,091	0,17	0,09	31	31	0,32
0,3	0,25	0,3	0,41	0,6	0,7	0,063	0,074	0,09	0,13	0,25	0,13	31	31	0,46
0,35	0,33	0,4	0,54	0,8	0,93	0,085	0,10	0,12	0,18	0,33	0,18	31	31	0,62
0,14	0,43	0,52	0,71	1,0	1,2	0,11	0,13	0,16	0,23	0,43	0,23	32	31	0,82
0,5	0,67	0,81	1,1	1,6	1,9	0,18	0,21	0,26	0,37	0,67	0,37	33	32	1,27
0,6	0,97	1,2	1,6	2,3	2,8	0,25	0,29	0,36	0,52	0,97	0,52	34	32	1,84
0,7	1,35	1,65	2,2	3,2	3,9	0,34	0,40	0,48	0,70	1,35	0,7	35	32	2,5
0,8	1,7	2,1	2,8	4,0	4,8	0,45	0,53	0,64	0,93	1,7	0,95	36	33	3,3
0,9	2,2	2,7	6	5,2	6,2	0,57	0,67	0,82	1,18	2,2	1,2	37	34	4,2
1,0	2,7	3,3	4,5	6,4	7,6	0,7	0,82	1,0	1,45	2,7	1,45	38	35	5,1
1,5	6,0	7,3	10,0	14,0	17,0	1,6	1,9	2,3	3,3	6,0	3,3	47	40	11,5
2,0	11,0	14,0	18,0	26,0	31,0	2,8	3,3	4,0	5,8	11,0	5,8	61	48	20,4
2,5	17,0	21,0	28,0	40,0	48,0	4,4	5,2	6,3	9,1	17,0	9,1	78	58	32,0
3,0	25,0	30,0	41,0	60,0	70,0	6,3	7,4	9,0	13,0	25,0	13,0	100	71	46,0
3,5	33,0	40,0	55,0	78,0	93,0	8,5	10,0	12,0	18,0	33,0	18,0	123	85	62,0
4,0	43,0	52,0	70,0	100,0	120,0	11,0	13,0	16,0	23,0	42,0	23,0	150	100	82,0
4,5	55,0	67,0	90,0	130,0	160,0	14,0	21,0	26,0	37,0	55,0	37,0	190	120	103,0
5,0	67,0	82,0	110,0	160,0	190,0	18,0	29,0	36,0	52,0	67,0	52,0	220	140	127,0

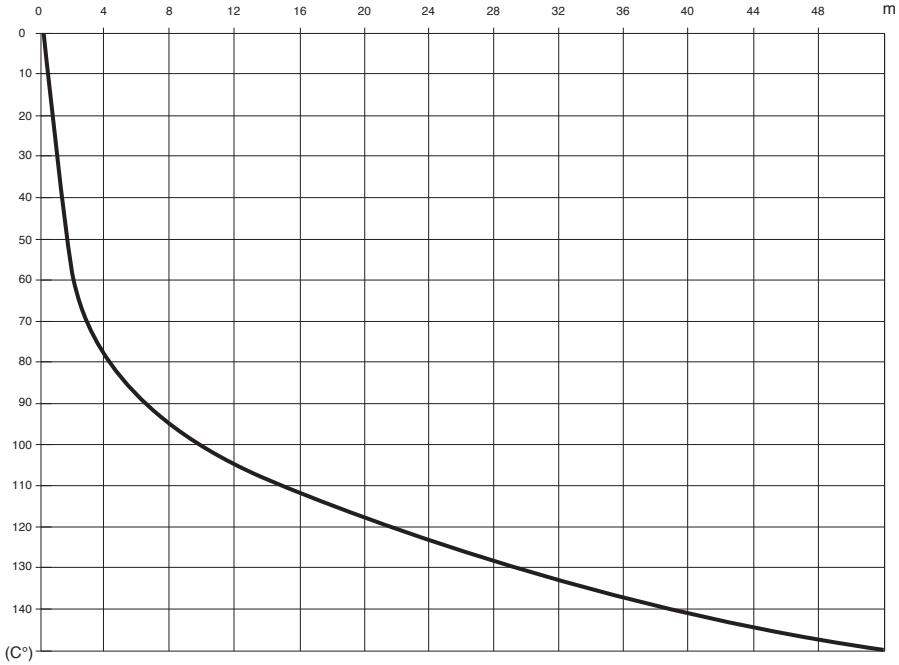
v = velocity of water in metres per second
d = diameter of pipes in m metres
h = head loss in cm of water column for each metre of pipework, calculated according to the Lang formula:

$$h = \lambda \times \frac{100}{d} \times \frac{v^2}{2g} \qquad \lambda = 0,02 + \frac{0,0018}{\sqrt{v \times d}}$$

The only loss in bends is that due to the contraction of the liquid stream when changing direction (the development of the curves must therefore be included in the length of the pipework); the head loss for gate valves has been determined through technical tests.
The head loss for gate valves and normal bends is equal to that of 5 m of straight pipework, while that of non-return valves is equal to 15 m.
The values given are for pipes with a completely smooth internal surface. In case of rough or scaled pipes, allowances must be made accordingly.

VAPOUR TENSION AND SPECIFIC WEIGHT OF WATER AS A FUNCTION OF TEMPERATURE

VAPOUR TENSION (pV)

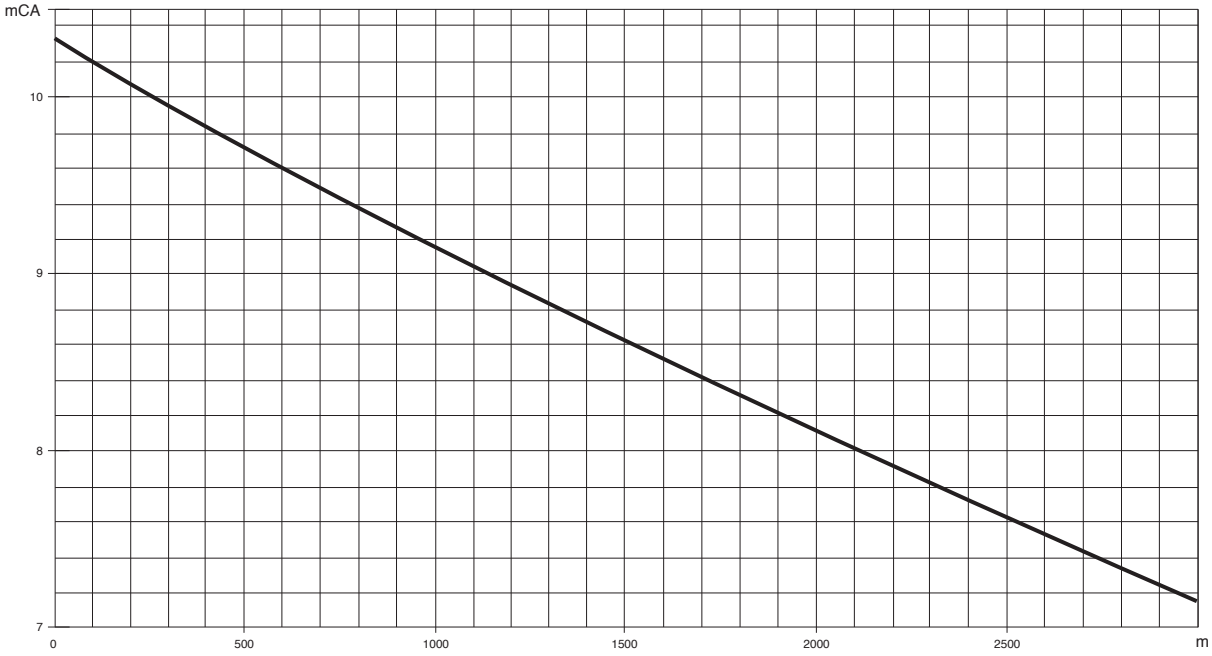


C°	m
10	0,121
20	0,22
30	0,387
40	0,675
50	1,147
60	1,888
70	3,014
80	4,67
90	7,035
100	10,33
110	14,83
120	20,85
130	28,744
140	38,97
150	52

$$\frac{Pb}{Y\ 4°} - \frac{(Pb-Pv)}{Y\ t}$$

Pb and Pv in mCA

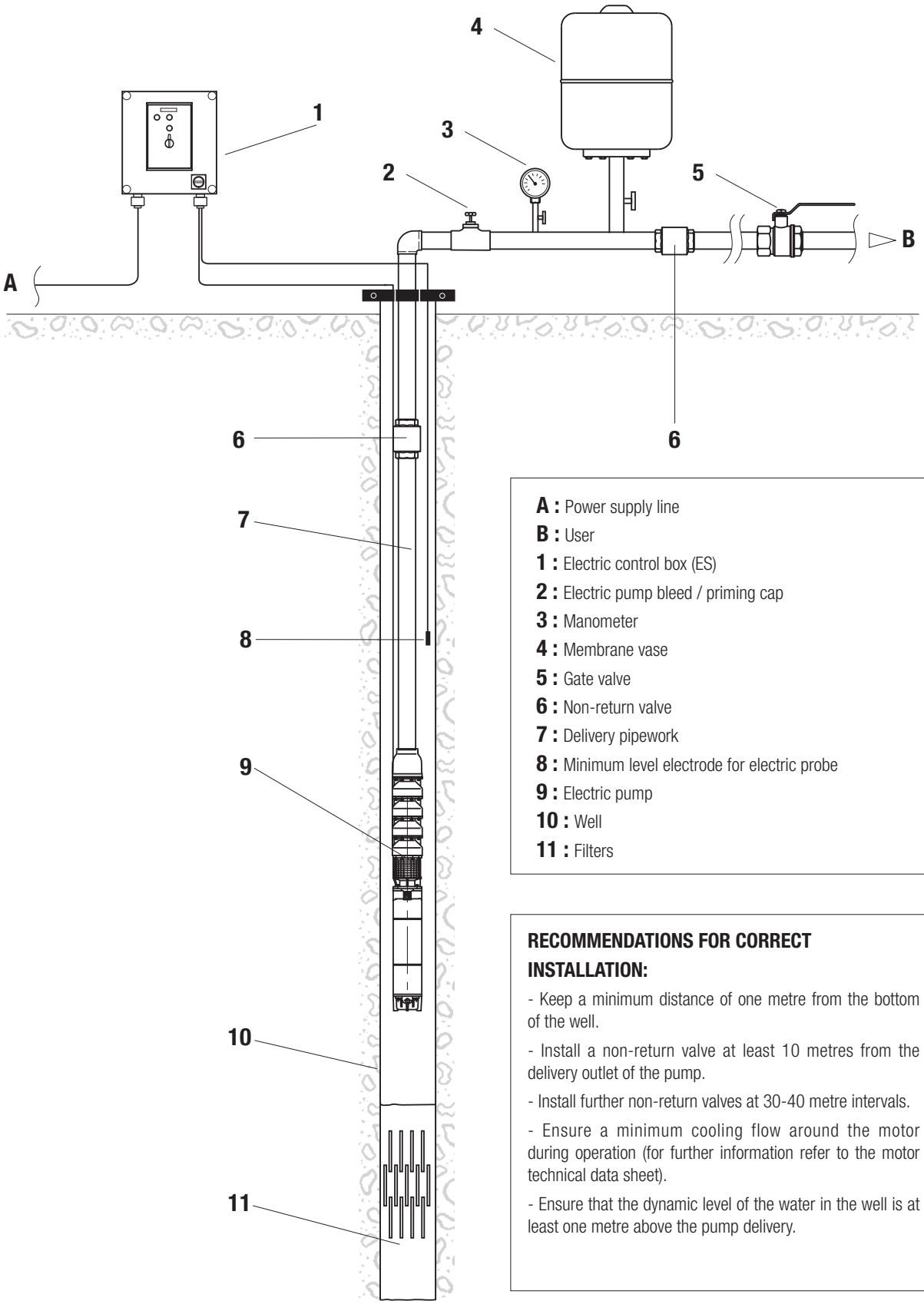
ATMOSPHERIC PRESSURE (pb)



CONVERSION TABLE FOR UNITS OF MEASURE

CHARACTERISTIC	SYSTEM UNIT OF MEASURE	UNIT OF MEASURE	SYMBOL	CONVERSIONS		
				SYSTEM	INTERNATIONAL SYSTEM (SI)	IMPERIAL SYSTEM
LENGTH	Technical and International	metre decimetre centimetre millimetre	m dm cm mm	1 dm = 0,1 m 1 cm = 0,01 m 1 mm = 0,001 m		1 m = 3,28 ft 1 dm = 3,937 in 1 cm = 0,3937 in
	Imperial	inch foot yard	1", in 1", ft yd	1" = 25,4 mm 1" ft = 0,3048 m 1 yd = 0,9144 m		 1 ft = 12" 1 yd = 3 ft = 26"
AREA	Technical and International	metres squared centimetres squared millimetres squared	m^2 cm^2 mm^2	 $1cm^2$ = 0,0001 m^2 1 mm^2 = 0,01 cm^2		1m^2 = 1,196 sq.yd 1m^2 = 10,764 sq.ft 1 cm^2 = 0,155 sq.in
	Imperial	square inch square foot square yard	sq.in sq.ft sq.yd	1 sq.in = 6,45 cm^2 1 sq.ft = 0,0929 m^2 1 sq.yd = 0,836 m^2		1 sq.ft = 144 sq.in 1 sq.yd = 1,296 sq.in 1 sq.yd = 9 sq.ft
VOLUME	Technical and International	metre cubed decimetre cubed centimetre cubed litre cubed	m^3 cm^3 mm^3 l	1 m^3 = 1.000 dm^3 1 cm^3 = 0,001 m = 1.000 cm^3 1 mm^3 = 0,001 dm^3 1 l = dm^3		1 dm^3 = 0,22 Imp.gal 1 dm^3 = 0,264 US.gal 1 dm^3 = 61,0 cu.in
	Imperial	cubic inch cubic feet Imperial gallons U.S. gallons	cu.in cu.ft Imp.gal USA.gal	1 cu.in = 16,39 cm^3 1 cu.ft = 28,34 m^3 1 Imp.gal = 4,546 m^3 1 US.gal = 3,785 dm^3		 1 Imp.gal = 1,201 US.gal 1 US.gal = 0,833 Imp.gal
TEMPERATURE	Technical and International	degrees Centigrade degrees Kelvin	°C °K	°C = °K-273 °K = °C + 273		°C = 5/9 x (°F - 32) °K = 5/9 x (°F - 32) + 273
	Imperial	degrees Fahrenheit	°F	°F = 9/5 x °C + 32		–
	freezing point of water at atmospheric pressure: boiling point of water at atmospheric pressure:			000 °C = 273 °K = 032 °F 100 °C = 373 °K = 212 °F		
WEIGHT and FORCE	Technical	kilogram	kg	–	1 kg = 9,81 N	1 kg = 2,203 lb
	International	Newton	N	1 N = 0,102 kg	–	1 N = 0,22546 lb
	Imperial	pound	lb	1 lB = 0,454 kg	1 lb = 4,452 N	–
SPECIFIC WEIGHT	Technical	kilogram per decimetre cubed	kg/dm^3	–	1 kg/dm^3 = 9,807 N/dm^3	1 kg/dm^3 = 62,46 lb/cu.ft
	International	Newton per decimetre cubed	N/dm^3	1 N/dm^3 = 0,102 kg/dm^3	–	1 N/dm^3 = 6,36 lb/cu.ft
	Imperial	pound per cubic foot	lb/dm^3	1 lb/cu.ft = 0,01600 kg/dm^3	1 lb/cu.ft = 0,160 N/dm^3	–
PRESSURE	Technical	atmospheres	kg/cm^2	–	1 kg/cm^2 = 98,067 kPa 1 kg/cm^2 = 0,9807 bar	1 kg/cm^2 = 14,22 psi
	International	Pascal kiloPascal bar	Pa kPa bar	1 kPa = 0,0102 kg/cm^2 1 bar = 1,02 kg/cm^2	1 kPa = 1.000 Pa 1 bar = 100.000 Pa	1 kPa = 0,145 psi 1 bar = 14,50 psi
	Imperial	pounds per square inch	psi	1 psi = 0,0703 kg/cm^2	1 psi = 0,06895 bar 1 psi = 6,894 kPa	–
FLOW	Technical	litres per minute litres per second metres cubed per hour	l/min l/s m^3/h	1 l/min = 0,0167 l/s 1 l/s = 3,6 m^3/h 1 m^3/h = 16,667 l/min	1 l/s = 0,001 m^3/s	1 l/min = 0,22 imp.g.p.m. 1 l/min = 0,264 US.g.p.m. 1 m^3/h = 3,666 imp.g.p.m. 1 m^3/h = 4,403 US.g.p.m.
	International	metres cubed per second	m^3/s	1 m^3/s = 1.000 l/s 1 m^3/s = 3.600 m^3/h	–	1 m^3/s = 13.198 imp.g.p.m. 1 m^3/s = 15.852 US.g.p.m.
	Imperial	imperial gallons per minute U.S. gallons per minute	Imp.g.p.m. US.g.p.m.	1 Imp.g.p.m. = 4,546 l/min 1 Imp.g.p.m. = 0,273 m^3/h 1 US.g.p.m. = 3,785 l/min 1 US.g.p.m. = 0,227 m^3/h	–	1 Imp.g.p.m. = 1,201 US.g.p.m. 1 US.g.p.m. = 0,833 Imp.g.p.m.
TORQUE	Technical	kilogram metre	kgm	–	1 kgm = 9,807 Nm	1 kgm = 7,233 ft.lb
	International	Newton metre	Nm	1 Nm = 0,102 kgm	–	1 Nm = 0,7376 ft.lb
	Imperial	foot pound	ft.lb	1 ft.lb = 0,138 kgm	1 ft.lb = 1,358 Nm	–
WORK and ENERGY	Technical	kilogram metre vapour-horsepower hour	kgm CVh		1 kgm = 9,807 J 1 CVh = 0,736 kWh	1 kgm = 7,233 ft.lb 1 Nm = 0,986 HP.hr.
	International	Joule kiloWatt hour	J kWhq	1 J = 0,102 kgm kWh = 1,36 CVh	–	1 Nm = 0,7376 ft.lb 1 Nm = 0,7376 ft.lb
	Imperial	foot pound Horsepower hour	ft.lb HP.hr.	1 ft.lb = 0,138 kgm 1 HP.hr. = 1,014 CVh	1 ft.lb = 0,358 Nm 1 HP.hr. = 0,746 kWh	–
POWER	Technical	Horse power	HP	1 HP = 0,736 kW	1 HP = 736 W	–
	International	Watt kiloWatt	W kW	1 W = 0,00136 Hp 1 kW = 1,36 Hp	1 kW = 1.000 W	–
KINETIC VISCOSITY	Technical	stokes centistokes	1 St 1 cSt	1 St = 1 cm^2/s 1 cSt = 0,01 St	1 St = 0,0001 m^2/s	1 St = 0,00107 ft^2/s
	International	m^2/s	m^2/s	1 m^2/s = 10.000 St	1 m^2/s = 10.000 cm^2/s	1 m^2/s = 10,764 ft^2/s
	Imperial	square foot per second	ft^2/s	1 ft^2/s = 929 St	1 ft^2/s = 0,0929 m^2/s	–

EXAMPLE OF INSTALLATION OF A SUBMERSIBLE ELECTRIC PUMP

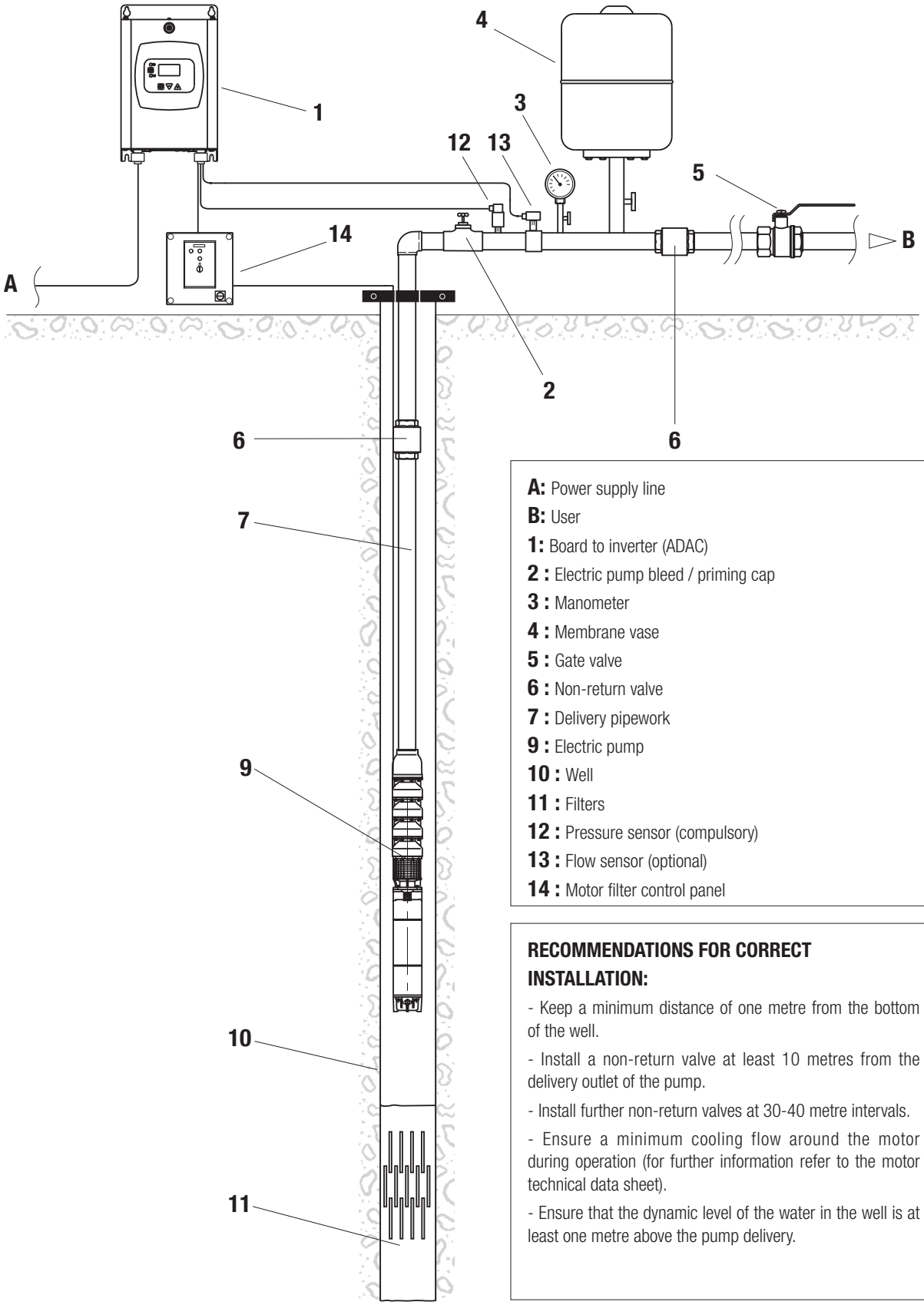


A : Power supply line
B : User
1 : Electric control box (ES)
2 : Electric pump bleed / priming cap
3 : Manometer
4 : Membrane vase
5 : Gate valve
6 : Non-return valve
7 : Delivery pipework
8 : Minimum level electrode for electric probe
9 : Electric pump
10 : Well
11 : Filters

RECOMMENDATIONS FOR CORRECT INSTALLATION:

- Keep a minimum distance of one metre from the bottom of the well.
- Install a non-return valve at least 10 metres from the delivery outlet of the pump.
- Install further non-return valves at 30-40 metre intervals.
- Ensure a minimum cooling flow around the motor during operation (for further information refer to the motor technical data sheet).
- Ensure that the dynamic level of the water in the well is at least one metre above the pump delivery.

EXAMPLE OF INSTALLATION OF A SUBMERSIBLE ELECTRIC PUMP CONTROLLED BY INVERTER



A: Power supply line
B: User
1: Board to inverter (ADAC)
2 : Electric pump bleed / priming cap
3 : Manometer
4 : Membrane vase
5 : Gate valve
6 : Non-return valve
7 : Delivery pipework
9 : Electric pump
10 : Well
11 : Filters
12 : Pressure sensor (compulsory)
13 : Flow sensor (optional)
14 : Motor filter control panel

RECOMMENDATIONS FOR CORRECT INSTALLATION:

- Keep a minimum distance of one metre from the bottom of the well.
- Install a non-return valve at least 10 metres from the delivery outlet of the pump.
- Install further non-return valves at 30-40 metre intervals.
- Ensure a minimum cooling flow around the motor during operation (for further information refer to the motor technical data sheet).
- Ensure that the dynamic level of the water in the well is at least one metre above the pump delivery.

DETERMINATION OF THE CROSS SECTION OF THE POWER CABLE

SINGLE-PHASE 4" MOTOR (4GG)

CABLE SIZING TAKING INTO ACCOUNT A 3 % VOLTAGE DROP

MOTOR TYPE	NOMINAL POWER		NOMINAL VOLTAGE V	MOTOR NOMINAL CURRENT In (A)	Cos φ	Cable section: 4x …mm²						
					mm²	1,5	2,5	4	6	10	16	25
					A max	23	30	41	53	74	99	131
	kW	HP			Maximum length in metres (m)							
4"	0,37	0,5	1x230	3,3	3,3	65	108	172	257	428		
4"	0,55	0,75	1x230	4,6	4,6	48	80	127	190	316	502	
4"	0,75	1	1x230	6,2	6,2	36	60	96	144	239	379	585
4"	1,1	1,5	1x230	8,6	8,6	27	44	71	106	176	279	430
4"	1,5	2	1x230	11	11	21	34	55	82	136	216	333
4"	2,2	3	1x230	16	16	15	24	39	58	95	151	233
4"	3,7	5	1x230	25	25	-	14	23	35	58	91	142

Free air installation at maximum temperature of 35 °C

THREE-PHASE 4" MOTOR (4GG)

CABLE SIZING TAKING INTO ACCOUNT A 3 % VOLTAGE DROP

MOTOR TYPE	NOMINAL POWER		NOMINAL VOLTAGE V	MOTOR NOMINAL CURRENT In (A)	Cos φ	Cable section: 4x …mm²						
					mm²	1,5	2,5	4	6	10	16	25
					A max	23	30	41	53	74	99	131
	kW	HP			Maximum length in metres (m)							
4"	0,37	0,5	3x230	2,7	0,66	178	296	471				
4"	0,55	0,75	3x230	3,3	0,72	134	222	354	528			
4"	0,75	1	3x230	4,1	0,72	108	179	285	425			
4"	1,1	1,5	3x230	5,7	0,76	73	122	194	290	478		
4"	1,5	2	3x230	7,6	0,72	58	96	154	229	377	593	
4"	2,2	3	3x230	10,2	0,78	40	66	106	158	261	411	
4"	3	4	3x230	14,3	0,71	31	52	83	123	203	319	486
4"	4	5,5	3x230	17,3	0,79	23	39	62	92	152	240	367
4"	5,5	7,5	3x230	24,2	0,74	-	29	47	70	116	182	277
4"	0,37	0,5	3x400	1,4	0,66	597						
4"	0,55	0,75	3x400	1,9	0,72	404						
4"	0,75	1	3x400	2,4	0,72	320	531					
4"	1,1	1,5	3x400	3,4	0,76	214	356	567				
4"	1,5	2	3x400	4,4	0,72	174	290	462				
4"	2,2	3	3x400	5,9	0,78	120	200	318	475			
4"	3	4	3x400	8,3	0,71	94	156	248	370			
4"	4	5,5	3x400	10	0,79	70	116	186	277	457		
4"	5,5	7,5	3x400	14	0,74	53	89	141	211	347	547	
4"	7,5	10	3x400	17,4	0,8	-	66	105	157	260	410	

Free air installation at maximum temperature of 35 °C

THREE-PHASE 6" ENCAPSULATED MOTOR (6GF)

CABLE SIZING TAKING INTO ACCOUNT A 3 % VOLTAGE DROP - DIRECT START-UP

MOTOR TYPE	POWER NOMINAL		NOMINAL VOLTAGE V	MOTOR NOMINAL CURRENT In (A)	Cos φ	Cable section: 4x …mm²							
						mm²	4	6	10	16	25	35	50	70
						A max	41	53	74	99	131	162	202	250
	kW	HP				Maximum length in metres (m)								
6"	4	5,5	3x230	18,3	0,75		46	69	113	178	272	371	511	
6"	5,5	7,5	3x230	24,3	0,75		35	52	85	134	205	279	385	514
6"	7,5	10	3x230	31	0,78		26	39	64	102	155	212	293	393
6"	9,3	12,5	3x230	37,3	0,8		21	32	52	82	126	173	239	322
6"	11	15	3x230	44,2	0,82		-	26	43	68	104	143	198	267
6"	15	20	3x230	56	0,8		-	-	35	55	84	115	159	214
6"	18,5	25	3x230	71	0,8		-	-	27	43	66	91	126	169
6"	22	30	3x230	81,4	0,84		-	-	-	36	56	76	106	143
6"	4	5,5	3x400	10,6	0,75		138	206	340	535				
6"	5,5	7,5	3x400	14	0,75		105	156	257	405				
6"	7,5	10	3x400	18	0,78		78	117	193	304	465			
6"	9,3	12,5	3x400	22	0,8		62	93	154	243	372	510		
6"	11	15	3x400	25,5	0,82		53	79	130	205	315	432	598	
6"	15	20	3x400	33,4	0,8		41	61	101	160	245	336	465	
6"	18,5	25	3x400	41	0,8		34	50	83	130	200	274	379	509
6"	22	30	3x400	47	0,84		-	42	69	109	167	230	319	431
6"	30	40	3x400	61,5	0,85		-	-	52	82	127	174	242	327
6"	37	50	3x400	79,3	0,8		-	-	-	67	103	141	196	263

Free air installation at maximum temperature of 35 °C

THREE-PHASE 6" ENCAPSULATED MOTOR (6GF)

CABLE SIZING TAKING INTO ACCOUNT A 3 % VOLTAGE DROP - STAR-DELTA START-UP

MOTOR TYPE	NOMINAL POWER		NOMINAL VOLTAGE V	MOTOR NOMINAL CURRENT In (A)	Cos φ	Cable section: 4x …mm²							
						mm²	4	6	10	16	25	35	50	70
						A max	41	53	74	99	131	162	202	250
	kW	HP				Maximum length in metres (m)								
6"	4	5,5	3x230	18,3	0,75		80	119	196	308	470			
6"	5,5	7,5	3x230	24,3	0,75		60	89	147	232	354	483		
6"	7,5	10	3x230	31	0,78		45	67	111	176	269	367	507	
6"	9,3	12,5	3x230	37,3	0,8		37	55	90	143	218	299	414	556
6"	11	15	3x230	44,2	0,82		-	45	75	118	181	248	343	463
6"	15	20	3x230	56	0,8		-	-	60	95	146	199	276	371
6"	18,5	25	3x230	71	0,8		-	-	47	75	115	157	218	292
6"	22	30	3x230	81,4	0,84		-	-	-	63	96	132	183	248
6"	4	5,5	3x400	10,6	0,75		239	356	588					
6"	5,5	7,5	3x400	14	0,75		181	270	445					
6"	7,5	10	3x400	18	0,78		135	202	334	526				
6"	9,3	12,5	3x400	22	0,8		108	161	266	421				
6"	11	15	3x400	25,5	0,82		91	136	225	355	544			
6"	15	20	3x400	33,4	0,8		71	106	176	277	424	581		
6"	18,5	25	3x400	41	0,8		58	87	143	226	346	473		
6"	22	30	3x400	47	0,84		-	72	119	188	289	397	552	
6"	30	40	3x400	61,5	0,85		-	-	90	143	219	301	419	566
6"	37	50	3x400	79,3	0,8		-	-	-	117	179	245	339	455

Free air installation at maximum temperature of 35 °C

THREE-PHASE 6"-12" WINDING MOTORS (TR6-TR12)

CABLE SIZING TAKING INTO ACCOUNT A 3 % VOLTAGE DROP - DIRECT START-UP

MOTOR TYPE	NOMINAL POWER		NOMINAL VOLTAGE V	MOTOR NOMINAL CURRENT In (A)	Cos φ	Cable section: 1x …mm²													
						mm²	4	6	10	16	25	35	50	70	95	120	150	185	240	300
						A max	41	53	74	99	131	162	202	250	301	352	404	461	547	633
	kW	HP				Maximum length in metres (m)														
6"	5,5	7,5	3x400	13	0,81		-	156	258	407	624	855								
6"	7,5	10	3x400	18	0,8		-	114	188	297	455	623	862							
6"	9,3	12,5	3x400	21	0,81		-	97	160	252	386	529	733	986						
6"	11	15	3x400	25	0,82		-	80	132	209	321	440	610	822						
6"	13	17,5	3x400	29	0,82		-	69	114	180	277	379	526	709	918					
6"	15	20	3x400	32	0,83		-	62	102	162	248	341	473	638	828					
6"	18,5	25	3x400	39	0,83		-	51	84	133	204	279	388	523	679	822	978			
6"	22	30	3x400	49	0,79		-	42	70	110	169	231	320	429	554	666	789	916		
6"	26	35	3x400	58	0,79		-	-	59	93	143	195	270	362	468	563	666	774	919	
6"	30	40	3x400	65	0,81		-	-	52	81	125	171	237	319	412	498	590	688	820	942
6"	37	50	3x400	80	0,81		-	-	-	66	101	139	192	259	335	404	480	559	666	766
8"	45	60	3x400	92	0,82		-	-	-	57	87	120	166	223	290	350	416	485	580	667
8"	55	75	3x400	109	0,85		-	-	-	-	71	98	137	185	240	292	348	408	491	569
8"	63	85	3x400	126	0,83		-	-	-	-	63	87	120	162	210	254	303	354	424	489
8"	75	100	3x400	145	0,86		-	-	-	-	-	73	102	138	180	218	261	307	370	429
8"	92	125	3x400	177	0,86		-	-	-	-	-	-	83	113	147	179	214	251	303	352
8"	110	150	3x400	213	0,87		-	-	-	-	-	-	-	93	122	148	178	209	252	293
10"	132	180	3x400	257	0,84		-	-	-	-	-	-	-	-	102	124	148	173	208	240
10"	147	200	3x400	300	0,81		-	-	-	-	-	-	-	-	89	108	128	149	178	204
10"	170	230	3x400	348	0,81		-	-	-	-	-	-	-	-	-	93	110	128	153	176
10"	190	260	3x400	405	0,79		-	-	-	-	-	-	-	-	-	-	-	111	132	151
12"	220	300	3x400	424	0,85		-	-	-	-	-	-	-	-	-	-	-	105	126	146
12"	250	340	3x400	481	0,85		-	-	-	-	-	-	-	-	-	-	-	-	111	129

Free air installation at maximum temperature of 35 °C

THREE-PHASE 6"-12" WINDING MOTORS (TR6-TR12)

CABLE SIZING TAKING INTO ACCOUNT A 3 % VOLTAGE DROP - STAR-DELTA START-UP

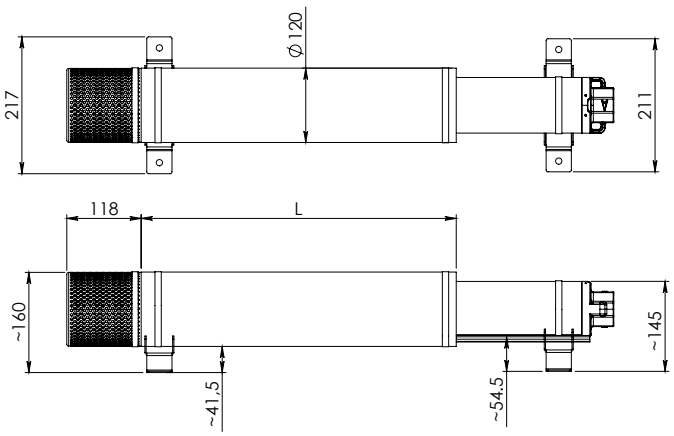
MOTOR TYPE	NOMINAL POWER		NOMINAL VOLTAGE V	MOTOR NOMINAL CURRENT In (A)	Cos φ	Cable section: 1x …mm²														
						mm²	4	6	10	16	25	35	50	70	95	120	150	185	240	300
						A max	41	53	74	99	131	162	202	250	301	352	404	461	547	633
	kW	HP				Maximum length in metres (m)														
6"	5,5	7,5	3x400	13	0,81		-	270	446	704										
6"	7,5	10	3x400	18	0,8		-	197	326	514	787									
6"	9,3	12,5	3x400	21	0,81		-	167	276	436	668	915								
6"	11	15	3x400	25	0,82		-	139	229	362	555	761								
6"	13	17,5	3x400	29	0,82		-	120	198	312	479	656	910							
6"	15	20	3x400	32	0,83		-	107	177	280	429	589	818							
6"	18,5	25	3x400	39	0,83		-	88	145	230	352	484	671	905						
6"	22	30	3x400	49	0,79		-	73	121	191	292	400	553	742	958					
6"	26	35	3x400	58	0,79		-	-	102	161	247	338	467	627	809	974				
6"	30	40	3x400	65	0,81		-	-	89	141	216	296	410	551	713	861				
6"	37	50	3x400	80	0,81		-	-	-	114	175	240	333	448	579	699	830	966		
8"	45	60	3x400	92	0,82		-	-	-	98	151	207	287	386	501	605	719	839		
8"	55	75	3x400	109	0,85		-	-	-	-	124	170	236	319	416	505	602	706	849	984
8"	63	85	3x400	126	0,83		-	-	-	-	109	150	208	280	364	440	524	612	733	845
8"	75	100	3x400	145	0,86		-	-	-	-	-	127	176	239	311	378	452	530	640	742
8"	92	125	3x400	177	0,86		-	-	-	-	-	-	144	195	255	310	370	435	524	608
8"	110	150	3x400	213	0,87		-	-	-	-	-	-	-	161	211	256	307	361	436	508
10"	132	180	3x400	257	0,84		-	-	-	-	-	-	-	-	177	215	256	300	360	416
10"	147	200	3x400	300	0,81		-	-	-	-	-	-	-	-	155	186	221	258	307	353
10"	170	230	3x400	348	0,81		-	-	-	-	-	-	-	-	-	161	191	222	265	305
10"	190	260	3x400	405	0,79		-	-	-	-	-	-	-	-	-	-	-	192	228	261
12"	220	300	3x400	424	0,85		-	-	-	-	-	-	-	-	-	-	-	181	218	253
12"	250	340	3x400	481	0,85		-	-	-	-	-	-	-	-	-	-	-	-	192	223

Free air installation at maximum temperature of 35 °C

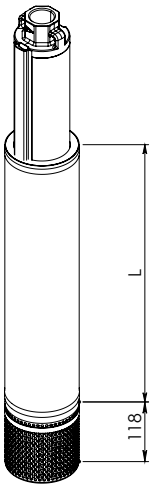
COOLING LINERS FOR 4" SUBMERSIBLE PUMP

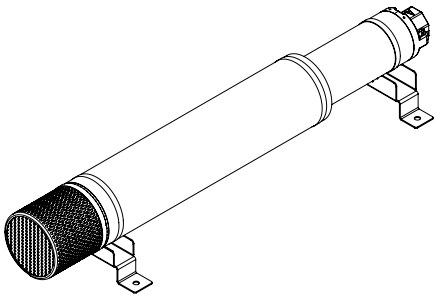
Kit of cooling liners of different lengths, used to ensure perfect cooling of the 4" motor in case of installation inside tanks or containers, or in any location where a minimum cooling flow on the motor cannot be guaranteed.
The length of the pipe must be selected based on the type of motor and its power, as indicated in the following table.

POWER SUPPLY 50 Hz	MOTOR POWER		MOTOR TYPE		
	HP	kW	4GG - 4GX	40L	4TW
SINGLE-PHASE	0,5	0,37	L400 PIPE KIT	L400 PIPE KIT	L525 PIPE KIT
	0,75	0,55			
	1	0,75			L885 PIPE KIT
	1,5	1,1	L525 PIPE KIT	L525 PIPE KIT	
	2	1,5			
	3	2,2		L885 PIPE KIT	
	5	3,7	L885 PIPE KIT		



THREE-PHASE	0,5	0,37	L400 PIPE KIT	L400 PIPE KIT
	0,75	0,55		
	1	0,75		
	1,5	1,1		
	2	1,5	L525 PIPE KIT	L525 PIPE KIT
	3	2,2		L885 PIPE KIT
	4	3	L885 PIPE KIT	
	5,5	4		
	7,5	5,5		
	10	7,5		

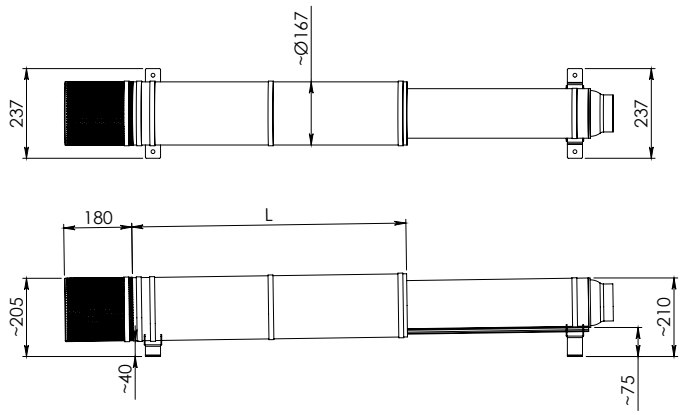


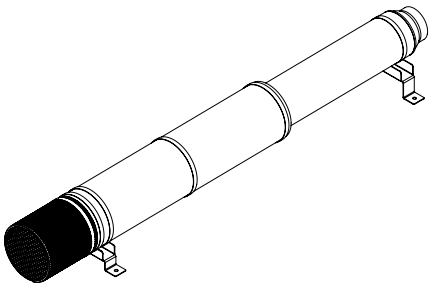


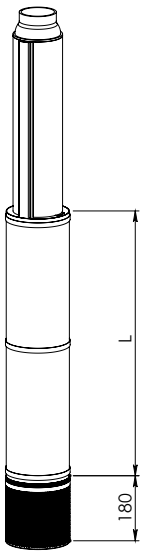
COOLING LINERS FOR 6" SUBMERSIBLE PUMP

Kit of cooling liners of different lengths, used to ensure perfect cooling of the 6" motor in case of installation inside tanks or containers, or in any location where a minimum cooling flow on the motor cannot be guaranteed.
The length of the pipe must be selected based on the type of motor and its power, as indicated in the following table.
SUITABLE FOR USE ON S6, SR6 E SM6 ELECTRIC PUMPS COUPLED WITH 6" MOTOR.

POWER SUPPLY 50 Hz	MOTOR POWER		MOTOR TYPE	
	HP	kW	6GF-6GX	TR6
THREE-PHASE	5,5	4	725 PIPE KIT	
	7,5	5,5		960 PIPE KIT
	10	7,5		
	12,5	9,3		
	15	11	960 PIPE KIT	
	17,5	13		1220 PIPE KIT
	20	15		
	25	18,5		
	30	22		
	35	26	1220 PIPE KIT	
	40	30		1490 PIPE KIT
	50	37		







in order to determine the cooling flow speed v [m/s] along the motor liner, the following formula can be used:

$$v = \frac{\frac{Q}{2}}{\pi \cdot (\frac{D^2}{4} - \frac{d^2}{4})}$$

On the other hand, in order to determine the correct diameter of the cooling liner, to ensure that the minimum required cooling flow condition is met at a certain pump flow level, the following formula can be used:

$$D = \sqrt{4 \cdot (\frac{Q}{v \cdot \pi} + \frac{d^2}{4})}$$

Q [m^3 /s] = flow at the point of operation of the electric pump.
D [m] = well diameter.
d [m] = motor diameter.
v [m/s] = cooling flow speed.

INDICATIVE CHOICE OF THE ELECTRIC GENERATOR CAPABLE OF POWERING THE SUBMERSIBLE MOTOR

P2 - MOTOR POWER		GENERATOR			
		DOL (DIRECT START-UP)		SD (STAR-DELTA START-UP)	
kW	Hp	kW	kVA	kW	KVA
2,2	3	6	7,5	-	-
4	5,5	10	12,5	8	10
5,5	7,5	12,5	15,6	11	13,8
7,5	10	15	18,8	14	17,5
9,2	12,5	19	24	17	21
11	15	22,5	28	21	26
13	17,5	26,5	33	24	30
15	20	30	38	28	35
18,5	25	37	46	34	42,5
22	30	45	56	41	51
26	35	52	65	45	57
30	40	60	75	52	65
37	50	75	94	64	81
45	60	90	112	78	97
55	75	110	138	95	119
63	85	135	169	114	142
75	100	150	190	128	160
92	125	185	230	158	198
110	150	210	260	190	237
132	180	260	325	225	281
147	200	300	375	260	325
170	230	340	425	295	369
190	260	380	475	329	411
220	300	440	550	381	476
250	340	500	625	433	541

WINDING RESISTANCE TABLES

In case of single-phase motors, both the running (Rm) and the start-up (Ra) winding resistance are indicated.

SINGLE-PHASE MOTORS

MODEL	P2		V	Rm	Ra
	HP	kW	V	Ω	Ω
3GF - 3GS	0,5	0,37	230	11,25	31,5
	0,75	0,55	230	9,15	28
	1	0,75	230	6,85	17,35

THREE-PHASE MOTORS

MODEL	P2		V	R
	HP	kW	V	Ω
3GF - 3GS	0,5	0,37	400	60,3
	0,75	0,55	400	44,5
	1	0,75	400	32,2

SINGLE-PHASE MOTORS

MODEL	P2		V	Rm	Ra
	HP	kW	V	Ω	Ω
4GG - 4GX	0,5	0,37	230	8,8	18,8
	0,75	0,55	230	5,6	13,5
	1	0,75	230	3,5	6,7
	1,5	1,1	230	2,5	5,4
	2	1,5	230	1,9	5,0
	3	2,2	230	1,6	3,7
	5	3,7	230	0,9	1,7

THREE-PHASE MOTORS

MODEL	P2		V	R
	HP	kW	V	Ω
4GG - 4GX	0,5	0,37	230	11,7
	0,5	0,37	400	35,0
	0,75	0,55	230	8,5
	0,75	0,55	400	25,6
	1	0,75	230	5,8
	1	0,75	400	17,3
	1,5	1,1	230	4,3
	1,5	1,1	400	13,0
	2	1,5	230	3,0
	2	1,5	400	8,9
	3	2,2	230	2,0
	3	2,2	400	6,0
	4	3	230	1,4
	4	3	400	4,2
	5,5	4	230	1,1
	5,5	4	400	3,3
	7,5	5,5	230	0,8
	7,5	5,5	400	2,4
	10	7,5	400	2,0

SINGLE-PHASE MOTORS

MODEL	P2		V	Rm	Ra
	HP	kW	V	Ω	Ω
4OL	0,5	0,37	230	9,3	20,3
	0,75	0,55	230	6,5	13,7
	1	0,75	230	4,0	8,6
	1,5	1,1	230	3,0	6,1
	2	1,5	230	2,3	5,0
	3	2,2	230	1,6	3,7

THREE-PHASE MOTORS

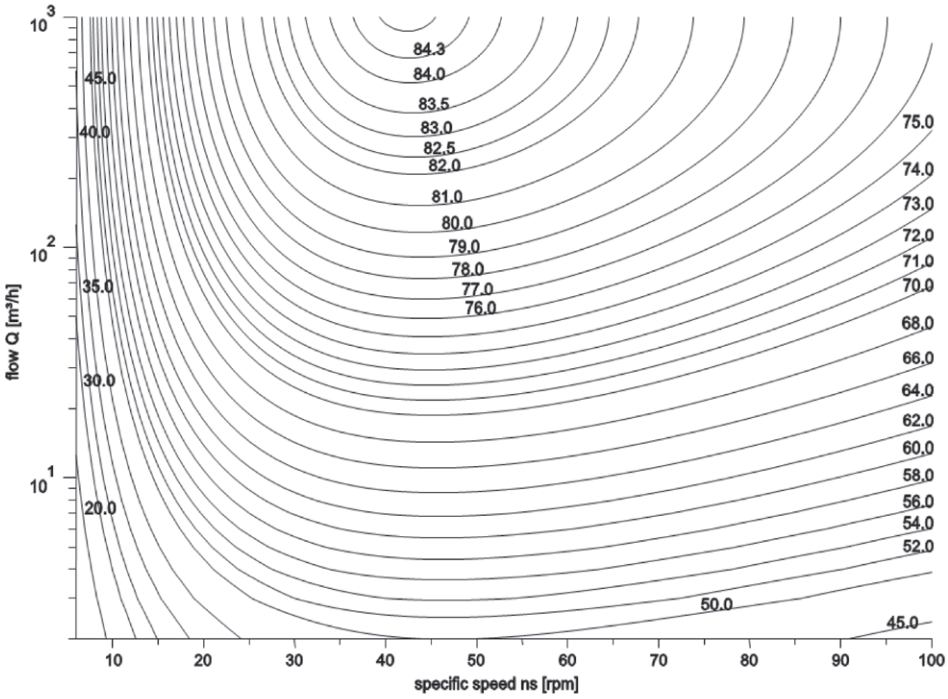
MODEL	P2		V	R
	HP	kW	V	Ω
4OL	0,5	0,37	230	14,2
	0,5	0,37	400	42,5
	0,75	0,55	230	8,5
	0,75	0,55	400	25,5
	1	0,75	230	6,3
	1	0,75	400	18,0
	1,5	1,1	230	3,8
	1,5	1,1	400	11,7
	2	1,5	230	2,7
	2	1,5	400	8,3
	3	2,2	230	2
	3	2,2	400	6,2
	4	3	230	1,6
	4	3	400	4,7
	5,5	4	230	1
	5,5	4	400	3
	7,5	5,5	230	0,9
	7,5	5,5	400	2,6
	10	7,5	400	1,9

THREE-PHASE MOTORS

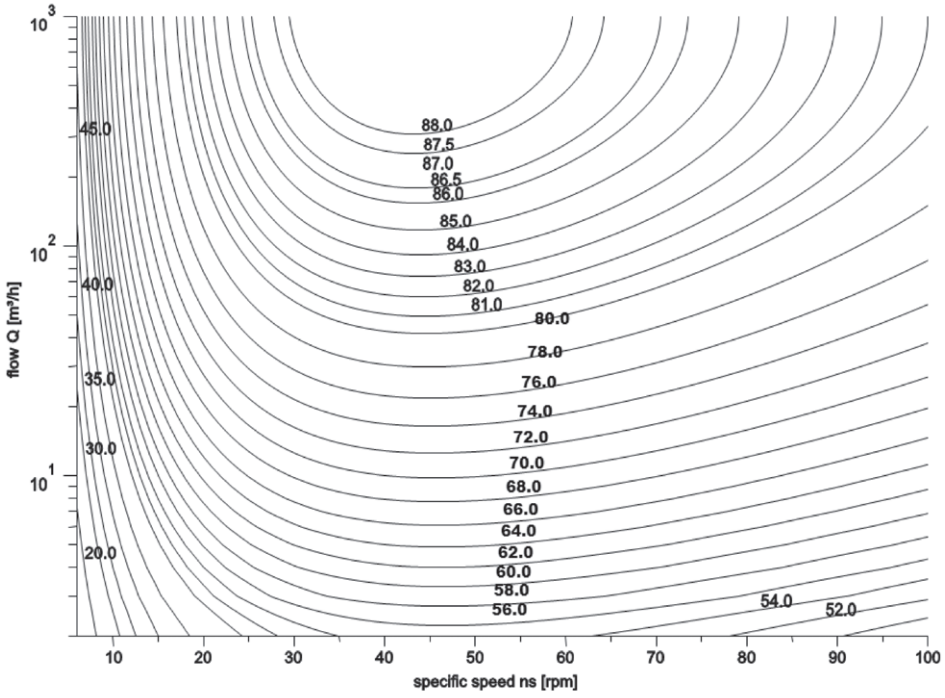
MODEL	P2		V	R
	HP	kW	V	Ω
6GF - 6GS - 6GX	5,5	4	230	0,97
	5,5	4	400	3,00
	5,5	4	400/690	3,00
	7,5	5,5	230	0,64
	7,5	5,5	400	2,00
	7,5	5,5	400/690	2,00
	10	7,5	230	0,51
	10	7,5	400	1,60
	10	7,5	400/690	1,60
	12,5	9,2	230	0,40
	12,5	9,2	400	1,25
	12,5	9,2	400/690	1,25
	15	11	230	0,29
	15	11	400	0,92
	15	11	400/690	0,92
	20	15	230	0,24
	20	15	400	0,65
	20	15	400/690	0,65
	25	18,5	230	0,18
	25	18,5	400	0,55
	25	18,5	400/690	0,55
	30	22	230	0,15
	30	22	400	0,46
	30	22	400/690	0,46
	40	30	400	0,31
	40	30	400/690	0,31
	50	37	400	0,25
	50	37	400/690	0,25

CHARTS OF REFERENCE - MEI INDEX

MEI = 0.4 for Multistage Submersible 2900rpm



MEI = 0.7 for Multistage Submersible 2900 rpm



DAB complies with the EcoDesign Directive (ErP - Energy related Products - Directive, 2009/125/EC)
EC 547/2012 Regulation that requires:
FOR 4" AND 6" SUBMERSIBLE MULTISTAGE PUMPS (MSS)
- starting from January 1st 2013 MEI ≥ 0,1
- starting from January 1st 2015 MEI ≥ 0,4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DAB
WATER•TECHNOLOGY
Via Marco Polo, 14 - 35035 Mestrino (PD) Italy - Tel. +39.049.5125000 - Fax +39.049.5125950
www.dabpumps.com

DAB®
PUMPS SELECTOR

On-line product selection

DAB PUMPS LTD.
Unit 4 and 5, Stortford Hall Industrial Park,
Dunmow Road,
Bishops Stortford,
Herts
CM23 5GZ - UK
salesuk@dwtgroup.com
Tel. +44 1279 652 776
Fax +44 1279 657 727

DAB PUMPS B.V.
Brusselstraat 150
B-1702 Groot-Bijgaarden - Belgium
info.belgium@dwtgroup.com
Tel. +32 2 4668353
Fax +32 2 4669218

DAB PUMPS B.V.
Albert Einsteinweg, 4
5151 DL Drunen - Nederland
info.netherlands@dwtgroup.com
Tel. +31 416 387280
Fax +31 416 387299

DAB PUMPEN DEUTSCHLAND GmbH
Tackweg 11
D - 47918 Tönisvorst - Germany
info.germany@dwtgroup.com
Tel. +49 2151 82136-0
Fax +49 2151 82136-36

DAB PUMPS IBERICA S.L.
Avenida de Castilla nr.1 Local 14
28830 - San Fernando De Henares - Madrid
Spain
info.spain@dwtgroup.com
Tel. +34 91 6569545
Fax: +34 91 6569676

DAB PRODUCTION HUNGARY KFT.
H-8800
Nagykanizsa, Buda Ernó u.5
Hungary
Tel. +36 93501700

DAB PUMPS POLAND Sp. z o.o.
Mokotow Marynarska
ul. Postępu 15C
02-676 Warszawa - Poland
Tel. +48 223 81 6085

DAB UKRAINE Representative Office
Regus Horizon Park
4 M. Hrinchenka St, suit 147
03680 Kiev - Ukraine
Tel. +38 044 391 59 43

OOO DAB PUMPS
Novgorodskaya str, 1, bld G, office 308
127247 Moscow - Russia
info.russia@dwtgroup.com
Tel. +7 495 122 00 35
Fax +7 495 122 00 36

DAB PUMPS INC.
3226 Benchmark Drive
Ladson, SC 29456 - USA
info.usa@dwtgroup.com
Tel. 1-843-824-6332
Toll Free 1-866-896-4DAB (4322)
Fax 1-843-797-3366

DWT SOUTH AFRICA
Podium at Menlyn,
3rd Floor, Unit 3001b, 43 Ingersol Road,
C/O Lois and Atterbury street,
Menlyn, Pretoria, 0181 - South-Africa
info.sa@dwtgroup.com
Tel. +27 12 361 3997
Fax +27 12 361 3137

DAB PUMPS CHINA
No.40 Kaituo Road, Qingdao Economic & Technological
Development Zone
Qingdao City, Shandong Province - China
PC: 266500
info.china@dwtgroup.com
Tel. +8653286812030-6270
Fax +8653286812210

DAB PUMPS DE MÉXICO, S.A. DE C.V.
Av Gral Álvaro Obregón 270, oficina 355
Hipódromo, Cuauhtémoc 06100
México, D.F.
Tel. +52 55 6719 0493

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