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).

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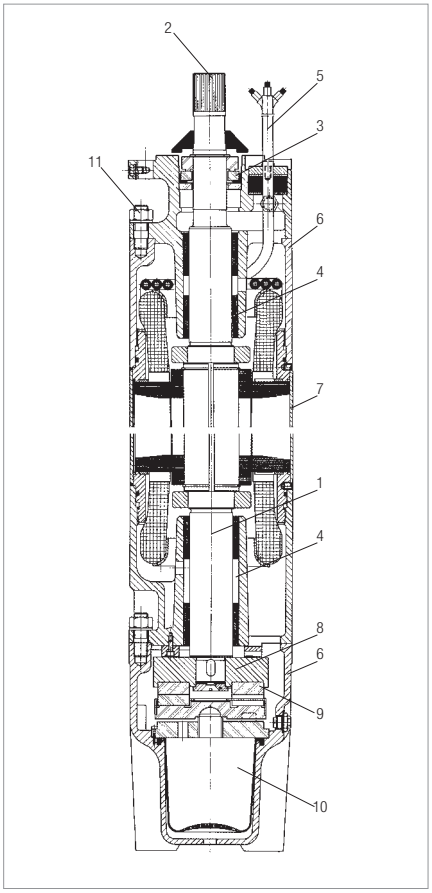


MATERIALS

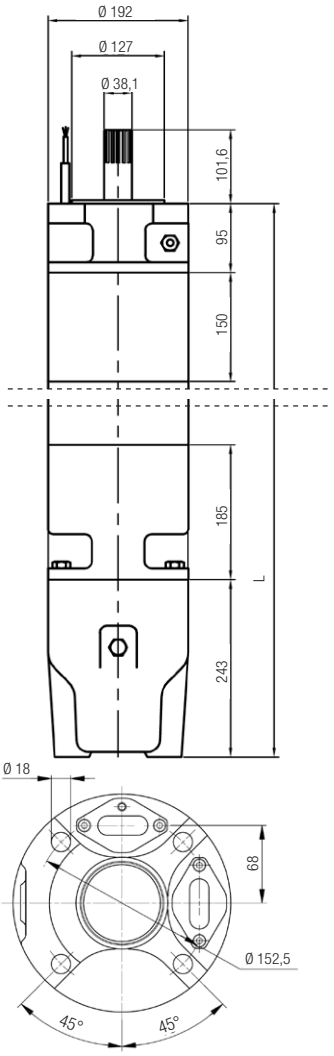
N.	PARTS	STD VERSION	VERSION 316 SS	VERSION 904 SS
1	SHAFT	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
2	SHAFT TERMINAL	AISI 316 STAINLESS STEEL	AISI 316 STAINLESS STEEL	AISI 904 STAINLESS STEEL
3	MECHANICAL SEAL	CERAMIC/CARBON	SIC/SIC	SIC/SIC
4	BUSHES	GRAPHITE	GRAPHITE	GRAPHITE
5	CABLE	EPDM	EPDM	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

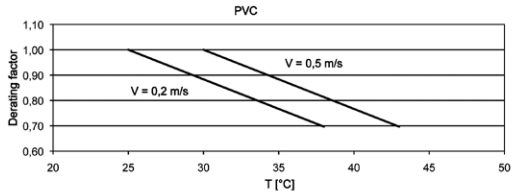
TYPE	P2		LENGTH mm	WEIGHT kg	AXIAL THRUST N
	hp	kW			
50 Hz	30	22	1010	126	60000
	35	26	1050	134	60000
	40	30	1110	146	60000
	50	37	1160	156	60000
	60	45	1270	177	60000
	75	55	1350	192	60000
	85	63	1490	218	60000
	100	75	1590	237	60000
	125	92	1830	283	60000
	150	110	2060	333	60000

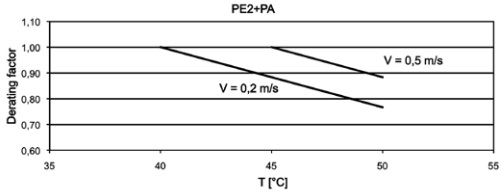
DIMENSIONS -THREE-PHASE MOTORS - 4 poles

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