TR6

SUBMERSIBLE MOTORS

TECHNICAL DATA

Maximum immersion depth: 300 m
Flanges, thread: NEMA 6”
Maximum number of starts: 15/h
Protection class: IP 68
Cooling flow speed: 0,5 m/s up to +50°C with PE2+PA windings (up to +40°C for 60 HP version)
Single phase power input: not available
Three phase power input: 3x230 V 50 Hz / 3x400 V 50 Hz / 3x500V 50 Hz
Power supply tolerance: +6% / -10%
Power cable (m) and plug: 5 m up to 35 HP, 8 m up to 60 HP
Possible type of installation: vertical or horizontal up to 50 HP
Special versions on request: for the direct start, available with the PT100 or PTC temperature probe predisposition, voltage and power cables of different length, SiC/SiC mechanical seal, available in AISI 316 stainless steel or in AISI 904 stainless steel

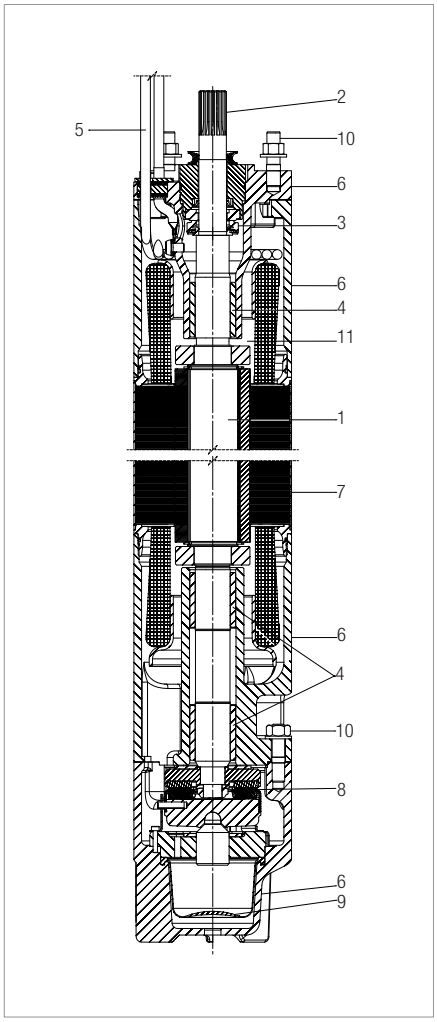
6” rewindable asynchronous two-pole submersible motor. Designed for pressurization, lifting water from wells and use in irrigation systems in agriculture. To be combined with a pump body.

CONSTRUCTION FEATURES OF THE MOTOR

Two-pole rewindable asynchronous motor. Jacket in AISI 304 stainless steel. Cooling and lubrication of the thrust unit and bushings by a mixture of water and glycol. Rotor mounted on a self-centering Mitchell type thrust bearing unit capable of withstanding high axial loads. The stator is a rewindable type made with copper wire coated with PE2 + PA. The cable is ACS and WRAS certified. Motor suitable for use with variable frequency drive (30 Hz - 50 Hz) in the version with PE2 + PA winding. Electrical protection must be guaranteed by the user. The motor is available with direct or star-delta starting. On request it can be supplied with a predisposition for the installation of the PT100 or PTC temperature sensor. The motor is available in the AISI 316 stainless steel, the TR6N version, and in AISI 904 stainless steel, the TR6R version.

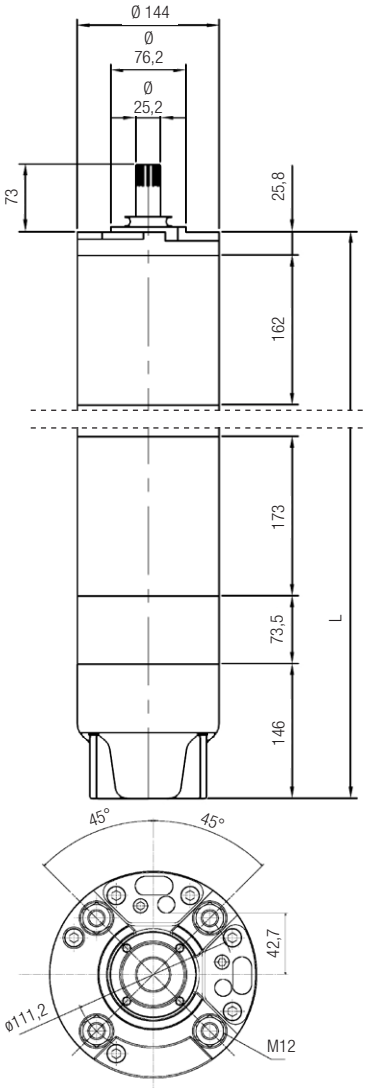
The stator is rewindable and made from PE2+PA-coated copper wire.

The rotor is mounted on a Mitchell type self-centring thrust block capable of withstanding high axial loads.



MATERIALS

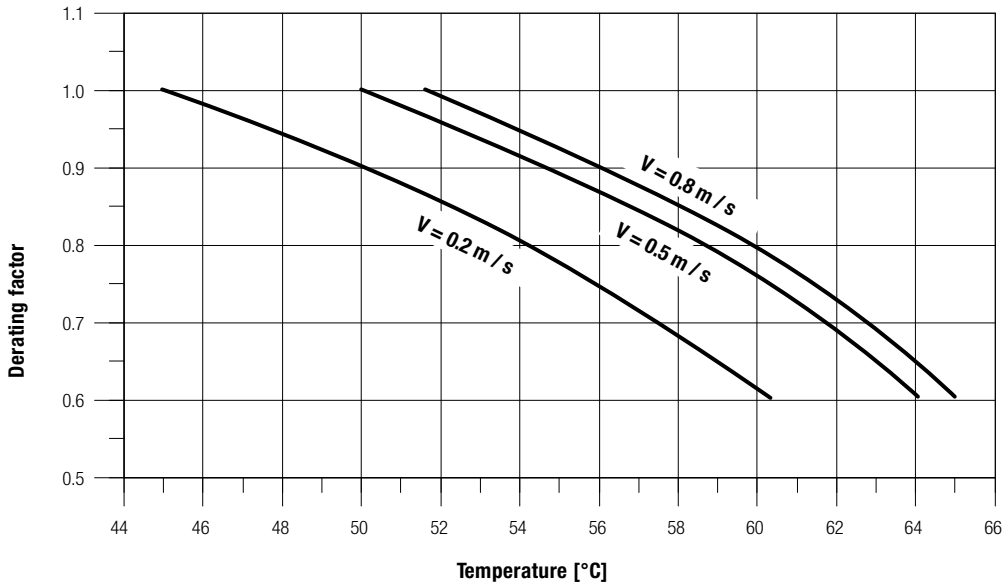
N.	PARTS	STD VERSION	316 SS VERSION	904 SS VERSION
1	SHAFT	STEEL ASTM A 105	STEEL ASTM A 105	STEEL ASTM A 105
2	SHAFT END	STAINLESS STEEL EN 1.4401 - AISI 316	STAINLESS STEEL EN 1.4401 - AISI 316	STAINLESS STEEL EN 1.4462 - AISI 318LN
3	MECHANICAL SEAL	CARBON - CERAMIC	SIC/SIC	SIC/SIC
4	BUSHINGS	GRAPHITE	GRAPHITE	GRAPHITE
5	CABLE	ROUND - 07V2B-F	ROUND - 07V2B-F	ROUND - 07V2B-F
6	STRUCTURAL PARTS	CAST IRON EN 0.6025 + CATAPHORESIS COATING	STAINLESS STEEL EN 1.4408 - AISI 316	STAINLESS STEEL EN 1.4517
7	EXTERNAL SLEEVE	STAINLESS STEEL EN 1.4307 - AISI 304L	STAINLESS STEEL EN 1.4404 - AISI 316L	STAINLESS STEEL EN 1.4539 - AISI 904L
8	THRUST BEARING	STEEL - GRAPHITE - ALUMINA	STEEL - GRAPHITE - ALUMINA	STEEL - GRAPHITE - ALUMINA
9	DIAPHRAGM	EPDM	EPDM	EPDM
10	BOLTS & SCREW	STEEL A2-70 - AISI 304	STEEL A4-70 - AISI 316	STAINLESS STEEL EN 1.4539 - AISI 904L
11	COOLING LIQUID	WATER + GLYCOL	WATER + GLYCOL	WATER + GLYCOL



DIMENSIONS - THREE-PHASE MOTORS

TYPE	P2		LENGTH mm	WEIGHT STD kg	WEIGHT 316 SS kg	WEIGHT 904 SS kg	AXIAL THRUST N
	hp	kW					
50 Hz	7,5	5,5	787	47	48,5	48,5	27500
	10	7,5	817	50	51,5	51,5	27500
	12,5	9,3	847	52	53,5	53,5	27500
	15	11	877	57	58,5	58,5	27500
	17,5	13	907	63	64,5	64,5	27500
	20	15	977	74	75,5	75,5	27500
	25	18,5	1037	80	81,5	81,5	27500
	30	22	1067	92	93,5	93,5	27500
	35	26	1137	103	104,5	104,5	27500
	40	30	1192	107	108,5	108,5	27500
	50	37	1292	113	114,5	114,5	27500
	60	45	1457	135	136,5	136,5	27500

DOWNGRADING



For TR6 45 kW the maximum liquid temperature is 10 °C lower than that indicated in the graph.

ELECTRICAL DATA - THREE-PHASE MOTORS - DOL

MODEL	P2		POWER INPUT 50Hz	In A	Ia/In	P1 W	N min-1	Cos φ	η %	CABLE		
	hp	kW								Ø DOL (mm²)	Ø Y/D (mm²)	LC m
TR6 - 5,5 KW - 400 V - T	7,5	5,5	3 x 400 V ~	13	3,7	7295	2870	0,81	75	3x6 + 1x6	n.a.	5
TR6 - 7,5 KW - 400 V - T	10	7,5	3 x 400 V ~	18	3,7	9977	2870	0,8	75	3x6 + 1x6	n.a.	5
TR6 - 9,3 KW - 400 V - T	12,5	9,3	3 x 400 V ~	21	3,6	11785	2860	0,81	78	3x6 + 1x6	n.a.	5
TR6 - 11 KW - 400 V - T	15	11	3 x 400 V ~	25	3,7	14203	2860	0,82	77	3x6 + 1x6	6x6 + 2x6	5
TR6 - 13 KW - 400 V - T	17,5	13	3 x 400 V ~	29	3,8	16475	2870	0,82	79	3x6 + 1x6	6x6 + 2x6	5
TR6 - 15 KW - 400 V - T	20	15	3 x 400 V ~	32	4,2	18401	2860	0,83	79	3x6 + 1x6	6x6 + 2x6	5
TR6 - 18,5 KW - 400 V - T	25	18,5	3 x 400 V ~	39	4,5	22427	2890	0,83	82	3x6 + 1x6	6x6 + 2x6	5
TR6 - 22 KW - 400 V - T	30	22	3 x 400 V ~	49	5,5	26819	2880	0,79	82	3x6 + 1x6	6x6 + 2x6	5
TR6 - 26 KW - 400 V - T	35	26	3 x 400 V ~	58	5,7	31745	2880	0,79	82	3x6 + 1x6	6x6 + 2x6	5
TR6 - 30 KW - 400 V - T	40	30	3 x 400 V ~	65	5	36477	2870	0,81	82	3x10 + 1x10	6x6 + 2x6	8
TR6 - 37 KW - 400 V - T	50	37	3 x 400 V ~	80	5,05	44895	2860	0,81	77	3x10 + 1x10	6x6 + 2x6	8
TR6 - 45 KW - 400 V - T	60	45	3 x 400 V ~	93,1	5,5	54826	2825	0,85	82	3x16 + 1x16	6x10 + 2x10	8

P2: Nominal power
V: Nominal voltage
In: Nominal current
Ia/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

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DAB PUMPS reserves the right to make modifications without notice.