

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 40LTW 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.



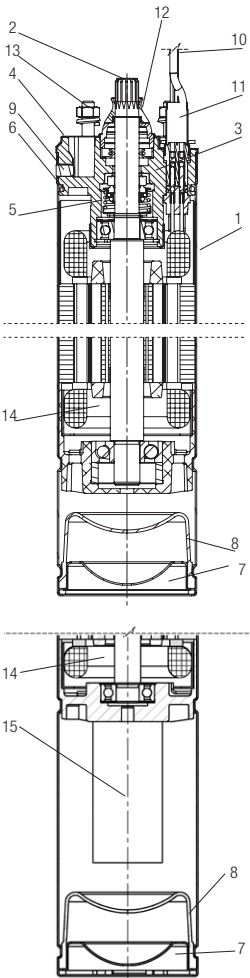
Oversized ball bearings of high axial load.
 From 0,5 HP to 2 HP: 2000 N
 3 HP: 3000 N
 From 4 HP to 5,5 HP: 4000 N
 From 7,5 HP to 10 HP: 5000 N



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.

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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 40L/4TW

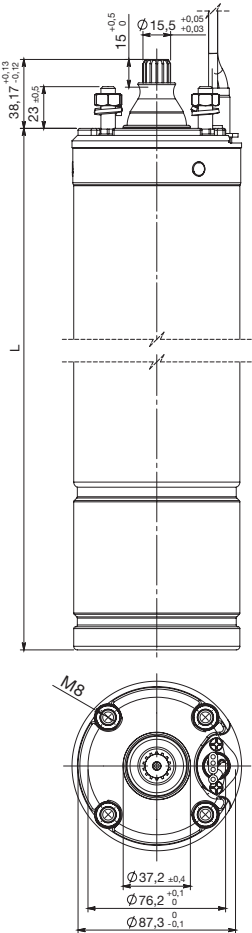
SUBMERSIBLE MOTORS

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	7,4	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 mm ²	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 mm ²	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 251