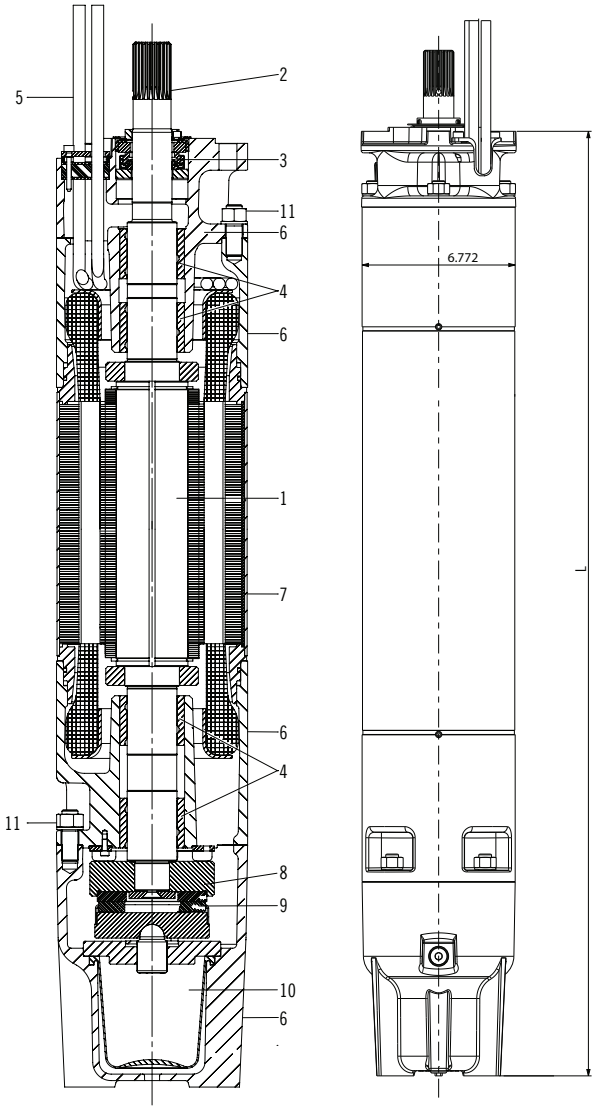
SUBMITTAL DATA SHEET

7” A.Y. McDonald Submersible Motors

7” Asynchronous two-pole submersible motor, rewindable type, with external shell made in AISI 304 stainless steel and supports in cast iron with paint coating. Cooling and lubrication of the thrust bearing assembly and carbon brushes is provided by a mixture of water and glycol. Squirrel-cage rotor mounted on self-centering thrust bearing. Overload protection must be provided by user.



Materials

	COMPONENTS	
1	Shaft	Stainless Steel
2	Shaft End	Stainless Steel AISI 304
3	Mechanical Seal	Ceramic / Carbon
4	Bearing Ring	Carbon
5	Cable	NBR
6	Structural Parts	Cast Iron
7	External Sleeve	Stainless Steel AISI 304
8	Thrust Bearing Rotating	Carbon with Antimony
9	Thrust Bearing Stationary	AISI 420
10	Diaphragm	NBR-EPDM
11	Bolts & Screws	Stainless Steel AISI 304

60 Hz Dimensions

Three Phase Motors

Type			L	Wt.	Axial Thrust
	[HP]	[kW]	[inch]	[lbs]	[lbf]
60 Hz	30	22	35.0”	193	10100
	40	30	38.6”	216	10100
	50	37	41.7”	243	10100
	60	45	44.8”	264	10100
	75	55	49.2”	319	10100

NO-LEAD: The weighted average of the wetted surface of this no-lead product contacted by consumable water contains less than one quarter of one percent (0.25%) lead.

A.Y. McDonald Mfg. Co.
4800 Chavenelle Rd
Dubuque, IA 52002

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Submitted by:

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7” A.Y. McDonald Submersible Motors

Electrical Data 60 Hz

Three Phase Motors / 2 Pole

P2		V*	SF	In	In (SF)	Is/In	N	Cos φ	η	Ø	LC
[HP]	[kW]	[V]		[A]	[A]		[min^{-1}]		%	{MM}	[ft]
30	22	460	1.15	38.2	43.9	4.6	3480	0.83	83	3x16+1x6	13
40	30	460	1.15	52.1	59.9	4.6	3480	0.83	84	3x16+1x6	13
50	37	460	1.15	61.4	70.6	4.6	3480	0.86	85	3x16+1x6	13
60	45	460	1.15	74.7	85.9	4.4	3470	0.85	85	3x16+1x6	13
75	55	460	1.15	92	105.8	4.7	3460	0.84	85	3x16+1x6	13

P2: Rated output
In: Rated current
Cs/Cn: Locked rotor Torque/Rated Torque
Cos φ: Power factor
Ø: Cable section

V: Rated voltage
In (SF): Service factor currect
P1: Power consumption
η: Efficiency
LC: Cable length

SF: Service factor
Is/In: Locked rotor current/Rated current
N: R.P.M
C: Capacitor

Technical Specification

Flange	NEMA 6”
Insulation Class	Y
Degree of protection	IP68
Cooling flow	0.66 ft/sec
Voltage tolerance	± 10%
Max starts	17/hr
Max operating depth	984 ft
Max operating pressure	425 PSI

Components

The stator is rewindable type and it’s inserted in an AISI 304 stainless steel outer shell. The windings are made in copper insulated by PVC.

Kingsbury Type thrust bearing unit consisting of tilting pads in graphite and ceramic disc.

Shafts made of stainless steel with end part according to 6” NEMA norms. Squirrel-cage rotor made in copper. The motor is equipped with a ceramic/carbon mechanical seal.

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