



motralec

4 rue Lavoisier . ZA Lavoisier . 95223 HERBLAY CEDEX
Tel. : 01.39.97.65.10 / Fax. : 01.39.97.68.48
Demande de prix / e-mail : service-commercial@motralec.com
www.motralec.com

6" Canned Type SUBMERSIBLE MOTOR



Sava's General Features

High Quality Thrust Bearings

The thrust bearing is of the kingsbury type lubricated by the internal water mixture. During operation a wedge of water is drawn between the stainless steel pivot shoes and carbon discs to carry the thrust load generated by the pump. Located inside and at the bottom of the motor the bearing is sealed away from sand and other contaminants.

Sand Resistant Slinger and Lip Seals

A stainless steel slinger and slinger guide are also closely fit to help prevent sand entry. Double rubber seals are installed to prevent well water and contaminants from entering the motor.

Rotor Core with Baked Epoxy Painting

The baked epoxy painting is constructed in order to prevent the rust for the rotor. Moreover all external and internal cast iron parts are coated with the baked epoxy painting.

Highly Reliable Carbon Bearing

Two water lubricated carbon bearings with large surface area are used as guide bearings for extra alignment support and serves as a steady bushing function for the submersible motor.

Balancing

The rotating element of the motor, or the rotor is balanced dynamically by the use of a balance ring on each end of the rotor.

Water-Filled Design

The motor lubrication is provided by the internal cooling water consisting of a water, antifreeze, and antirust mixture good to -22°F. This mixture is installed at the factory. Two water plugs are located near the top of the motor and are used by the installer to check the water level or to top off if needed before installation.

Complete Corrosion and Water-Tight Protection

All main motor components are made of stainless steel: including the can housing (water tight type motors have baked epoxy coated carbon steel housings), shaft and bolts. All other motor parts are coated with the baked epoxy coating.

High-Quality Control

All SAVA submersible motors are manufactured and tested under the most stringent quality control procedures, providing long service life and trouble-free operation.

Sava's Special Technology

6" Canned Type

Replaceable Plug-in Type Lead

All 6" motor leads are stranded copper, extremely flexible, 150 inches in length and field replaceable.

Durable Insulation

The motor stator coil of the canned type is mounted in a stainless steel frame and is completely sealed in a protective stainless steel cylinder. Complete water proofing insures long life for the moisture resistant insulation.

Excellent Heat Resistance

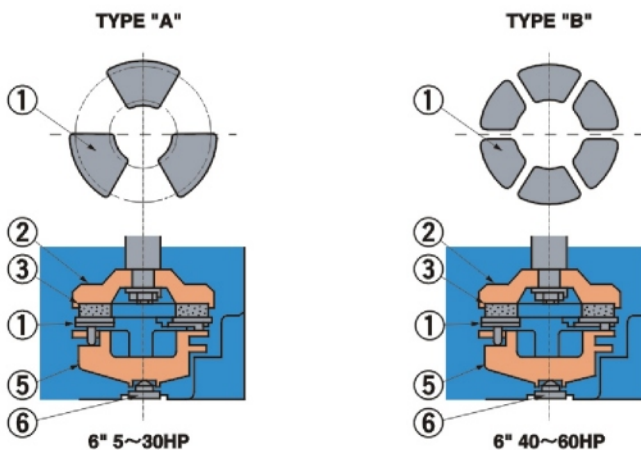
Strength against thermal fluctuation and internal mechanical stress is assured by the use of a patented "HI-canned Resin".

The space between the stator, stainless steel protective can and frame is filled with this epoxy resin, allowing faster and greater heat dissipation resulting in longer motor life.

95°F(35°C)Water Temperature (5 - 40HP)

The motors operate with a flow rate 0.5ft/sec. (0.15m/sec.) in water temperature up to 95°F (35°C) without any derating of horsepower. This 95°F (35°C) temperature is 18°F(10°C) higher than NEMA standards.

High Thrust Bearing



APPLICATION

Motor Size	Output		Bearing Type	No. of Shoes
	Hot Water Spec.			
	HP	KW		
6"	5~30	3.7~22	A	3
6"	40~60	30~90	B	6

Number	Part Name
1	Pivot Shoe
2	Bearing Frame
3	Carbon Disc
4	Metal Support
5	Metal Frame
6	Thrust Plate

• HIGH-PERFORMANCE THRUST BEARING

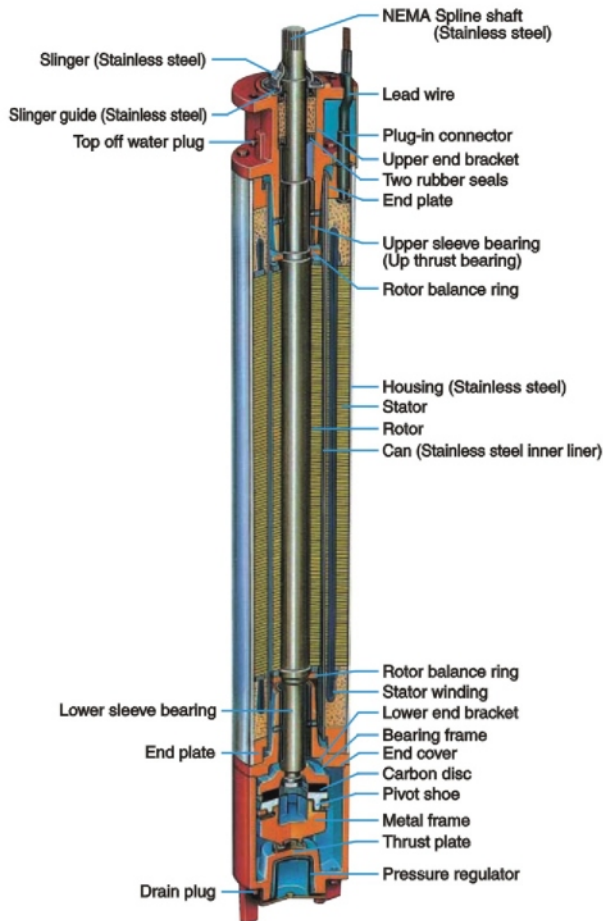
The well established KINGSBURY design thrust bearing creates a wedge of water between the pivot shoe and carbon disc. Our innovative design permits high thrust loads to be placed on the bearings while showing no measurable wear after several years of severe duty operation. This allows for long pumping life, virtual trouble free operation and low maintenance. For all 6" motors, the 300lbs. maximum continuous up-thrust is absorbed between the upper carbon sleeve bearing and the rotor balance ring.

Motor Size	2P			
	Down Thrust		Up Thrust	
	lbs.	kg	lbs.	kg
6" 5 - 30HP	3,500	1,590	300 *(450)	136 *(200)
6" 40 - 60HP	5,000	2,270	300 *(450)	136 *(200)

Note :
1. Thrust ratings showed are continuous except for values marked*
2. *Momentary rating (3 minutes Max).

Canned Type for Deep Well Pumps

2 Pole 3600/3000 rpm



6" 1 ϕ 5-15HP (3.7-11kW)

6" 3 ϕ 5-60HP (3.7-45kW)

Standard Specifications

Cable Connection	Plug-in Type		
Cable Length	150 inches (3.8m)		
Shaft	NEMA Splined		
Flange	NEMA Standard		
Speed	60 Hz	2P	3600 rpm ⁻¹
	50 Hz	2P	3000 rpm ⁻¹

Water Environment

Flow Rate	0.5 ft/sec. (0.15 m/sec.)	
pH Level	6.5-8.0	
Maximum Temperature	5-40HP	95°F (35°C)
	50-60HP	77°F (25°C)

Service Factor

Motor	Service Factor 1.15	Service Factor 1.0
6" 5-30HP	220, 230V/60Hz 380, 440, 460V/60Hz	200V/60Hz 380, 400, 415V/50HZ
6" 40-50HP	380, 440, 460V/60Hz	380, 400, 415V/50Hz
6" 60HP	380, 440, 460/60Hz	—

Dual Voltage Type 3 ϕ 5-30HP(3.7-22kW)

With SAVA DUAL VOLTAGE SUBMERSIBLE MOTORS IN YOUR STOCK you no longer have to worry about inventory balance between 230V and 460V.



SAVA DUAL VOLTAGE SUBMERSIBLE MOTORS have all the same specifications of canned type motor plus the unique feature of dual voltage.

Motor voltage can be changed from 460V to 230V or from 230V to 460V on three phase 5 through 30HP motors.

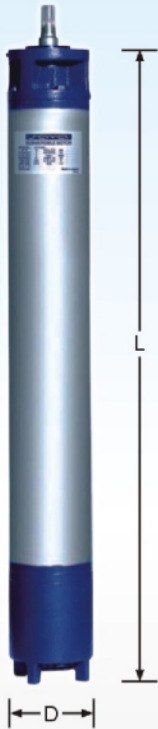


Voltage plugs are clearly and permanently marked as 230V or 460V. Each plug is usable on all 5 through 30HP motors.

Insulation

Construction	<p>Stainless steel frame Coil Epoxy resin mold Stainless steel cylinder</p>
Slot Insulation	<p>Coil heat-resistant enamel wire Slot insulation Wedge Stainless steel cylinder</p> <p>Class : E (6" 5-30HP) B (6" 40HP) F (6" 50,60HP)</p>

Size and Weight 2 Pole 3600 rpm^{-1} 60Hz. 3000 rpm^{-1} 50Hz.



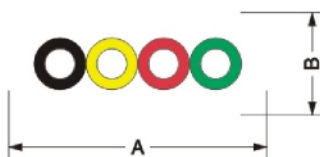
Motor Size	Phase	Output		D inch (mm)	L		Net Weight	
		HP	kW		inch	mm	lbs.	kg
6"	1 ϕ	5	3.7	5.5 (140)	26.97	685	110	50
		7.5	5.5		29.92	760	128	58
		10	7.5		29.92	760	128	58
		15	11		33.46	850	148	67
	3 ϕ	5	3.7		22.95	583	95	43
		7.5	5.5		24.80	630	99	45
		10	7.5		26.97	685	110	50
		15	11		29.92	760	128	58
		20	15		31.50	800	137	62
		25	18.5		36.22	920	161	73
		30	22		38.19	970	176	80
		40	30		40.55	1030	187	85
		50	37		41.73	1060	198	90
		60	45		41.73	1060	198	90

Cable Size and Type 150 inches (3.8m) Lead Wire Standard Length

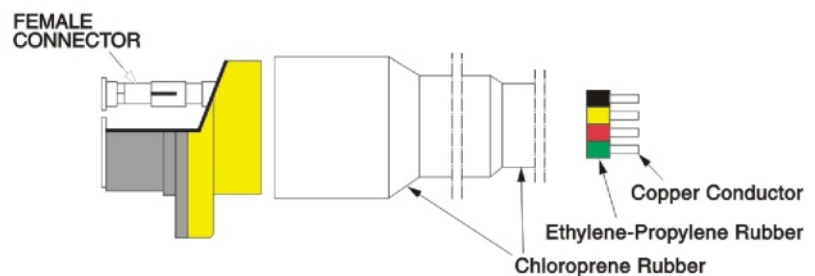
Motor Size	Phase	Output		460V, 415V, 400V, 380V			230V, 208V		
		HP	kW	Lead Wire Size		AxB inch (mm)	Lead Wire Size		AxB inch (mm)
				mm ²	AWG		mm ²	AWG	
6"	1 ϕ	5-15	3.7-11	—	—	—	5.5	#10	0.99x0.38 (25.1x9.6)
	3 ϕ	5-25	3.7-18.5	5.5	#10	0.99x0.38 (25.1x9.6)	5.5	#10	0.99x0.38 (25.1x9.6)
		30	22	8	#8	1.09x0.41 (27.7x10.4)	8	#8	1.09x0.41 (27.7x10.4)
		40	30	5.5	#10	0.99x0.38 (25.1x9.6)	—	—	—
		50-60	37-45	8	#8	1.09x0.41 (27.7x10.4)	—	—	—

TYPE OF LEAD WIRE-600V CLASS

Ethylene-Propylene Rubber Insulated Chloroprene Denatured Cabtyre Cable.
Plug-in (Field replaceable)
Color coded
USA Standard (Black, Yellow, Red, Green)



CHLOROPRENE CABTYRE CABLE



Note:
Specifications subject to change without notice.

STAIRS INDUSTRIAL CO., LTD.

NO.3-8, Sanchial Tsun, Lutsao Hsiang, Chiai Hsien, Taiwan, R.O.C.
E-mail: stairs@stairs.com.tw Website: www.stairs.com.tw

motralec

4 rue Lavoisier . ZA Lavoisier . 95223 HERBLAY CEDEX
Tel. : 01.39.97.65.10 / Fax. : 01.39.97.68.48

Demande de prix / e-mail : service-commercial@motralec.com

www.motralec.com