



C.R.I. SUBMERSIBLE MOTORS - 50Hz





C.R.I. PUMPS

Pumping trust. Worldwide.

T H E B E G I N N I N G

of C.R.I., way back in 1961, was a resolute attempt to produce a few irrigation equipments using the limited facilities of an in-house foundry. Eventually the founder's dream was coming true as the small production unit he started kept growing rapidly. Now, after more than five eventful decades, it is an enormous, widely reputed organization, which produces more than 1500 varieties of perfectly engineered pumps and motors and sells its products in numerous countries spread across 6 continents.

C . R . I . I S O N E A M O N G

the few pioneers in the world to produce 100% stainless steel submersible pumps. Having achieved a record production capacity of over 1.5 million pumps per annum, today C.R.I. is rubbing its shoulders with the best brands in the world, with advanced technology and safety standards as its hallmarks.

T H E I N F R A S T R U C T U R E

of C.R.I. is pretty comprehensive with state-of-the-art machineries and high potential in-house R&D recognised by the ministry of science and technology, Govt. of India - all within its own covered area of 200,000 square metres. The production environment is accredited with ISO 9001 & 14001 certifications and the products are CE, UR/UL, IEC, TSE & ISI certified. The R&D team always stays in tune with the changing scenario and seldom fails in coming up with outstanding solutions every time.

N E E D L E S S T O S A Y ,

behind this legendary growth lies the untiring, innovative, enthusiastic and dedicated team work. and, of course, a flawlessly maintained value system too. The name C.R.I. itself encapsulates the company's ethos: " Commitment, Reliability, Innovation".





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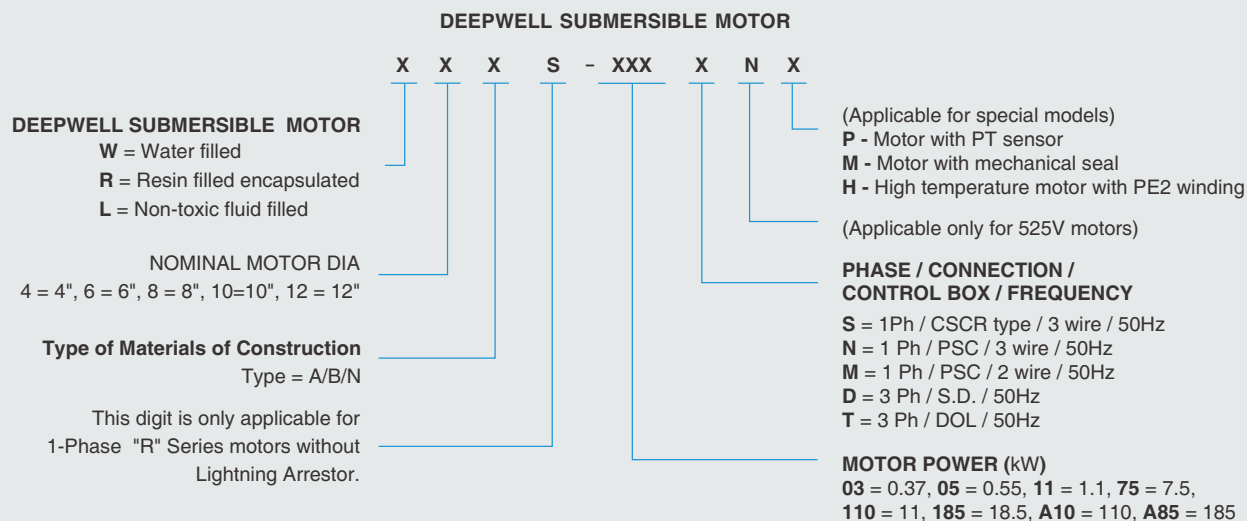
Vision, Mission and values

To be the industry leader providing best - in - class fluid management solutions to individual and institutional customers and societies in our chosen markets.

We will achieve this through our dedicated efforts to enhance the welfare of all our stakeholders and by living by our values of commitment, reliability and Innovation.

GENERAL INFORMATION

MODEL IDENTIFICATION CODE



DEEPWELL SUBMERSIBLE PUMP SET (Pump + Motor)		
PUMP MODEL	+	MOTOR MODEL
S X X - XXX / XX	+	X X X - XXX X
DEEPWELL SUBMERSIBLE PUMP SET (Pump + Motor)		
PUMP MODEL	+	MOTOR MODEL
S6S - 18 / 03	+	W6A - 22 T

OIL FILLED SUBMERSIBLE MOTORS

'L' Series Motors

These oil filled motors are one among the proven & successful products from the house of C.R.I. These motors are developed with due diligence complying with all safety standards and giving importance to the customers' need. All the components that are in contact with water are made of AISI 304 stainless steel and the motor is pre-filled with edible grade oil, which acts as coolant media as well as lubricant. The freezing point of the oil used is -10°C .

Dynamically balanced rotors equipped with quality ball bearings maintain uniform clearance, thereby giving better efficiency and increase the life cycle. Ball bearings are used to withstand the high axial load and the lower ball bearings are of angular contact type. The shaft extension is made of 300 series stainless steel to avoid splines worn-out.

High quality carbon/ceramic mechanical seal and oil seal made of Nitrile rubber are used to ensure better sealing system. Pressure equalizing rubber diaphragm is provided to balance the pressure and volume variations due to thermal expansion of the oil inside the motor. Motor sealing are made by means of 'O' rings. Shaft seals and sand guard prevents ingress of well water, sand and fiber particles into the motor. Care should be taken to ensure that the motor does not run when it is not submerged in the water. To prevent the motor from dry running, install water level monitor / dry run prevent. The motor needs a constant flow of water passed over it's body to keep it at correct operating temperature. Ideally the motors should be set just above the final yield point of bore well and when the level is not ascertained, fit a "flow inducer pipe" over the pumpset to ensure adequate cooling. It is mandatory to use C.R.I. Control boxes for all motors with adequate protection & control systems. Mounting dimensions of these motors are in accordance with NEMA standard.

Features

- High operating efficiency and lesser power consumption
- Extremely hard wearing ball & angular contact bearings
- Corrosive resistance stainless steel body
- Filled with non-toxic oil
- Can be easily dismantled and repaired

Applications

These prime mover submersible motors are suitable to couple with deepwell submersible pump ends used for

- Residential
- Industrial water supply
- Ponds
- Irrigation
- Sprinkler systems
- Mining
- Fountains
- Pressure boosting units
- CBM (coal bed methane)
- Gardens

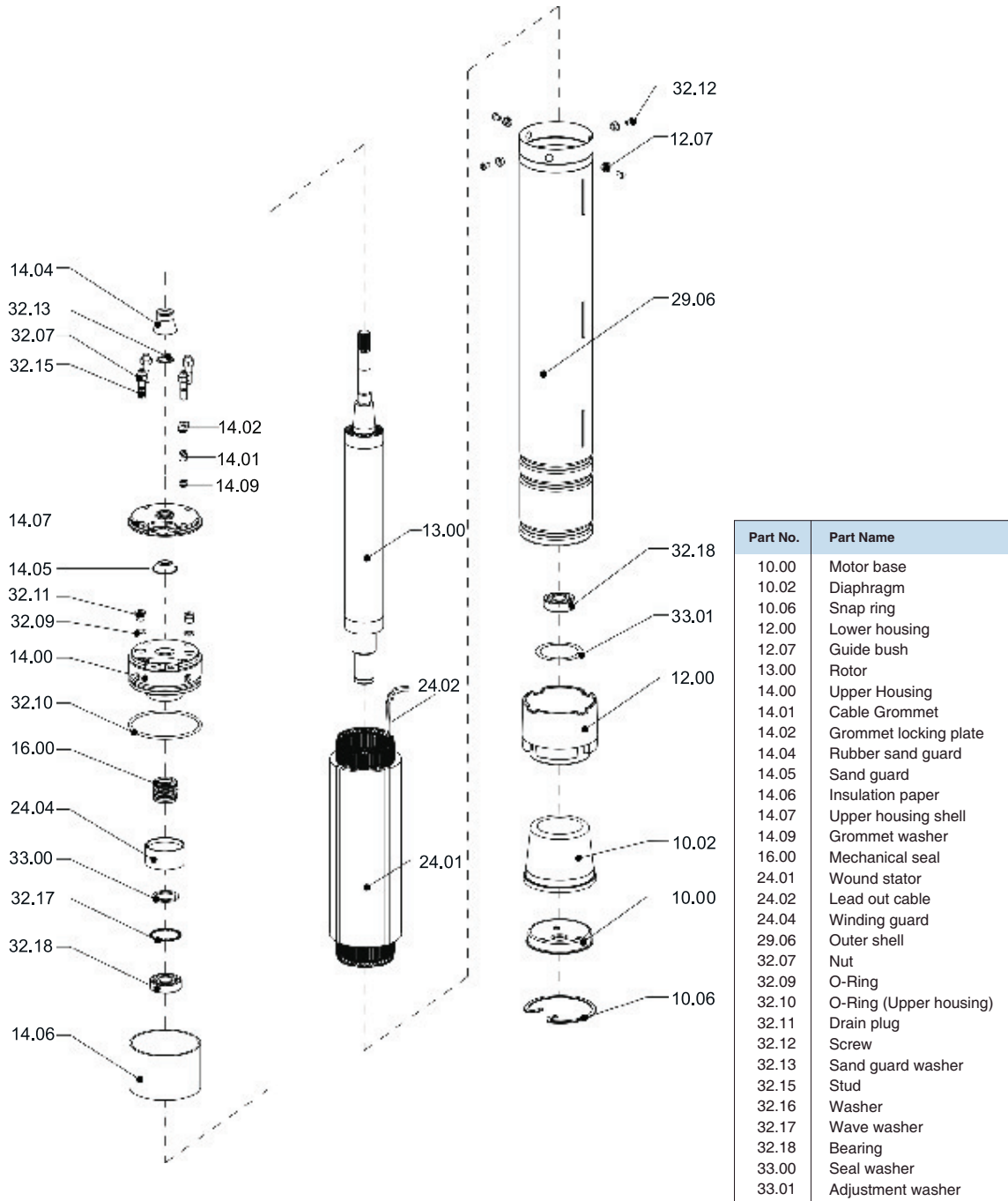


OIL FILLED SUBMERSIBLE MOTORS

Nominal Diameter : 4"

"L" Series

Exploded View



OIL FILLED SUBMERSIBLE MOTORS

Nominal Diameter : **4"**

"L" Series

Specifications

Nominal Dia	4" (100mm)
Maximum outer diameter	95 mm
Power range	0.37 kW to 2.2 kW Single Phase
	0.37 kW to 7.5 kW Three Phase
Speed	2900 rpm
Version	Single Phase 230 V, 50 Hz, A.C Supply
	Three Phase 380 V, 50 Hz, A.C Supply
Class of Insulation	F
Degree of Protection	IP 68
Direction of Rotation	CCW - Single Phase
	Electrically Reversible - Three Phase
Type of Duty	S1 (Continuous)
Down Thrust Load	1500 N (0.37 to 0.75 kW)
	2500 N (1.1 to 4.0 kW)
	4500 N (5.5 to 7.5 kW)
Minimum cooling flow along the motor	0.15 m/sec
Maximum liquid temperature	33°C
Maximum immersion depth	150 m
Starts per hour	30
Shaft Type	Splined as per NEMA
Mounting Standard	NEMA Standard
Method of Starting	Single Phase: Permanent Split Capacitor (PSC)
	Three Phase: Direct on line (DOL)
Cable Lead out	3 wire permanent type EPDM rubber flat cable



Type - A

Materials of Construction

Part Name	Type-A
Outer Shell	SS - 304
Motor base	SS - 304
Shaft Extension	SS - 420
'O' Ring	Nitrile Rubber (NBR)
Mechanical seal	Carbon / Ceramic
Diaphragm	Nitrile Rubber (NBR)
Cable	EPDM



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"L" Series

Technical Data

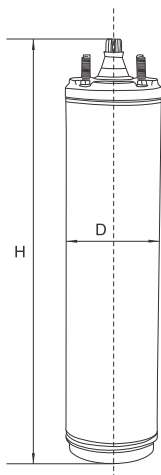
Single Phase, 50Hz, 230V

Model	kW	HP	F.L. Current (A)	Starting Current (A)	Efficiency (%)	Power Factor	Capacitor (MFD)	Torque (Nm)	Thrust Load (N)
L4A-03N	0.37	0.5	3.6	10.4	53	0.88	15	0.6	1500
L4A-05N	0.55	0.75	4.8	13.6	58	0.89	20	0.9	1500
L4A-07N	0.75	1.0	6.3	17.6	60	0.90	30	1.2	1500
L4A-11N	1.1	1.5	8.6	21.1	64	0.90	40	1.8	2500
L4A-15N	1.5	2.0	10.0	26.4	70	0.94	50	2.5	2500
L4A-22N	2.2	3.0	14.0	39.9	74	0.96	60	3.6	2500

Three Phase, 50Hz, 380V

Model	kW	HP	F.L. Current (A)	Starting Current (A)	Efficiency (%)	Power Factor	Torque (Nm)	Thrust Load (N)
L4A-03T	0.37	0.5	1.07	5.2	63	0.80	2.2	1500
L4A-05T	0.5	0.75	1.9	9.3	63	0.80	2.2	1500
L4A-07T	0.75	1.0	2.4	11.1	64	0.81	3.0	1500
L4A-11T	1.1	1.5	3.15	13.0	68	0.82	4.3	2500
L4A-15T	1.5	2.0	4.2	19.5	72	0.82	5.9	2500
L4A-22T	2.2	3.0	6	28	72	0.83	8.7	2500
L4A-30T	3.0	4.0	7.8	40.2	75	0.83	11.9	2500
L4A-37T	3.7	5.0	9.6	48	75	0.83	11.9	2500
L4A-40T	4.0	5.5	10	51	77	0.83	15.8	2500
L4A-55T	5.5	7.5	13.6	71.1	78	0.85	21.7	4500
L4A-75T	7.5	10.0	17.6	87.8	79	0.85	29.6	4500

Dimensions & Weight



Model	kW	HP	Phase	Dia (mm) D	Height (mm) H	Weight (kg)	Cable Leadouts	
							Cable Size (Sq mm)	Cable Length (m)
L4A-03N	0.37	0.5	Single	95	357	8	1.5	1.5
L4A-05N	0.55	0.75	Single	95	377	8	1.5	1.5
L4A-07N	0.75	1.0	Single	95	402	9	1.5	1.5
L4A-11N	1.1	1.5	Single	95	432	11	1.5	1.5
L4A-15N	1.5	2.0	Single	95	475	12	2.0	1.5
L4N-22N	2.2	3.0	Single	95	520	14	2.3	2.0
L4A-03T	0.37	0.5	Three	95	392	8	1.5	1.5
L4A-05T	0.55	0.75	Three	95	407	8	1.5	1.5
L4A-07T	0.75	1.0	Three	95	427	9	1.5	1.5
L4A-11T	1.1	1.5	Three	95	447	10	1.5	1.5
L4A-15T	1.5	2.0	Three	95	482	11	1.5	1.5
L4A-22T	2.2	3.0	Three	95	542	14	1.5	2.0
L4A-30T	3.0	4.0	Three	95	602	19	2.0	2.0
L4A-37T	3.7	5.0	Three	95	602	19	2.0	2.0
L4A-40T	4.0	5.5	Three	95	642	21	2.0	2.0
L4A-55T	5.5	7.5	Three	95	762	25	2.3	3.0
L4A-75T	7.5	10.0	Three	95	882	31	2.3	3.0

In view of continuous developments, the information / descriptions / specifications / illustrations are subject to change without notice.