

# **Textile Motors**



To cater a wide range of torque characteristics and textile machinery drives



# 'JSL' TEXTILE MOTORS

Specially designed to cater to wide range of torque characteristics during starting, running, reversing and stopping of Textile Machinery.

'JSL' range of Textile Motors embraces practically all Textile Machinery drives and are suitable for operation on 415 ± 10% supply with IP 55 protection and Insulation of class F with temperature rise limited to Class 'B'. The range comprises motors meeting requirement of Textile processes such as

- Fibre preparation
- Carding
- Weaving
- Combing and Drawing
- Spinning and Doubling.

### **RANGE**

	Frame Size	1500 RPM Syn.	1000 RPM Syn.	750 RPM Syn.
Loom Motors	LR 100M LP 112M LP 132S LP 132M		0.75 Kw 0.75 Kw 1.10 Kw 1.50 Kw	1.10 kW
Card Motors	CP 132S CP 132M CP 160M		1.50 kW 2.20 kW 3.70 kW	
Ring Frame Motors	RCTF-160M RCTF-160L TCTF-180M RCTF-180L	9.3 to 11.0 kW 13 to15 kW 18.5 kW 22.0 kW		

### TORQUE CHARACTERISTICS OF MOTORS

Syn. Speed	Type of Motor	St/FL Torque	Pullout/ FL Torque				
1000	CARD	350%	375%				
750	CARD	275%	300%				
1000	LOOM	230%	270%				
750	LOOM	200%	230%				
1500	Ring Frame	175%	210%				

### **LOOM MOTORS**

Looms are subject to very irregular and intermittent operations which would mean fluctuating power requirements. In addition to this, they require electric motors having high starting torque and pull out torque as well as compact body. 'JSL' Loom Motors are designed to meet these requirements. These motors are totally enclosed, surface cooled type and they conform to IS:2972 (Part-1). Motors are available in output ratings as shown in the Rating Chart.

Motors are either foot mounting type or flat base mounting type as per customers' requirements. The flat base mounting motors are suitable for resilient (cradle) mounting.

### **CARD MOTORS**

The carding process in textile industry requires high starting torque for long starting period. 'JSL' Card Motors have been specially designed to meet these requirements and are available as shown in the Rating Chart. These motors are foot / flat base mounting type and conform to IS:2972 (Part-II).

### RING FRAME MOTORS

# (With Smooth Acceleration Clean Air Flow Arrangement)

The most essential requirement of the Ring Frame Drive is smooth acceleration which help in minimising the breakage of yarn and at the same time maintaining the yarn tension at desirable level. 'JSL' ring frame motors are totally enclosed fan-cooled type. Fan shelter is specially designed to minimize the blockage due to Cotton fluff and to ensure proper cooling of the motor. Terminal box is provided either on LHS or RHS looking from shaft-end as per customers' requirements. Motors with terminal box on top can also be supplied against specific requirement in case of spinning frame narrow width having limited space.

These motors are available in output ratings as shown in the Rating Chart. This motors are foot / flat bus mounting type.

## **STATOR & ROTOR**

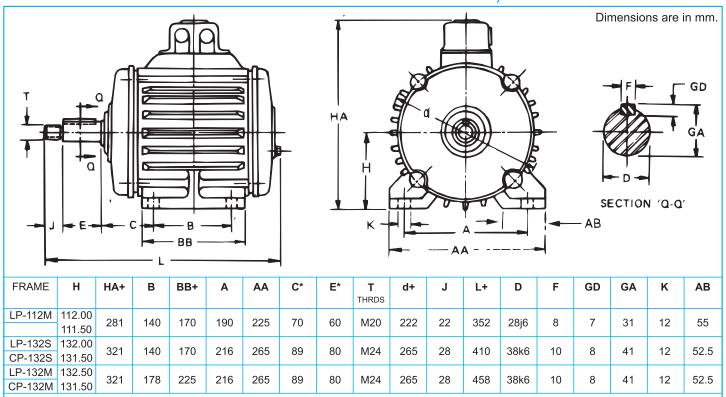
The finned construction of stator cast iron frame offers optimum cooling characteristics combined with long lasting reliability and rugged construction. Stacks are made of low loss silicon steel stamping to reduce iron losses. The insulation in JSL textile motors is of class 'B' Temperature rise is limited to 80°C over ambient of 40°C. Materials are so selected as to suit electrial, mechanical, thermal and environmental conditions. Modified polyster super enamelled copper winding wires as per IS:13730 (Part-III) are used for adequate electrical insulation and good thermal properties. The overhangs are well shaped and are rigidly braced to withstand stresses due to starting currents. Vacuum and pressure impregnation with thermosetting varnish is carried out to strengthen the windings and to improve the heat transfer.

Rotor Stampings are stacked with pressure and then diecast with EC grade aluminium. Finally, they are shrink fitted on the shaft. it is balanced on a highly sensitive digital dynamic balancing machine to limit vibration in accordance with IS:12075.

## **TESTS**

All motors are tested in the course of manufacturing and before despatch in accordance with IS:2972.

# GENERAL DIMENSIONAL SKETCH OF 'JSL' LOOM & CARD, FOOT MOUNTED MOTOR

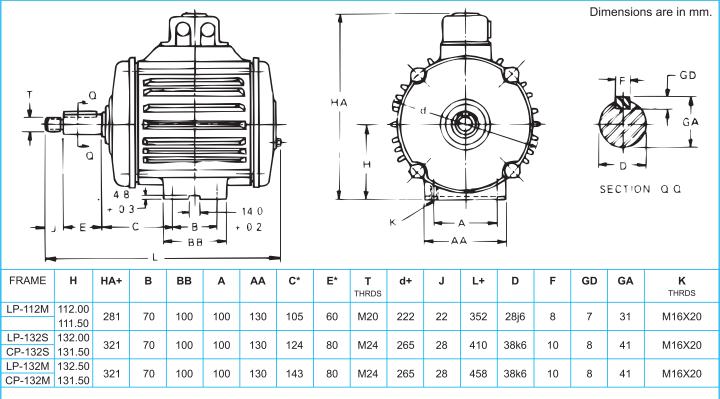


#### NOTES:

- + THESE DIMENSIONS MAY VARY BY 5mm.
- \* THESE DIMENSIONS MAY VARY BY ± 0.75 mm.

THE OVERALL DIMENSIONAL SKETCH IS MADE AS PER IS:2972 (PART I&II)

# GENERAL DIMENSIONAL SKETCH OF 'JSL' LOOM & CARD, FLAT MOUNTED MOTOR

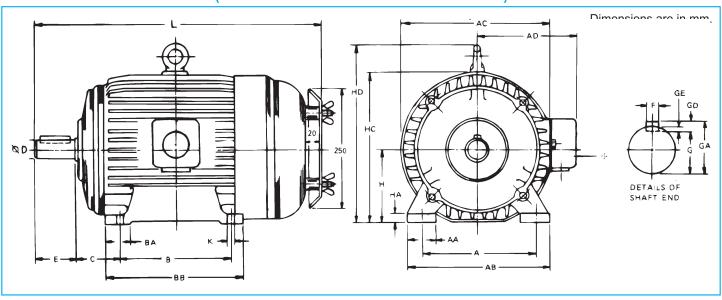


# NOTES :

- + THESE DIMENSIONS MAY VARY BY 5mm.
- \* THESE DIMENSIONS MAY VARY BY + 0.75 mm.

THE OVERALL DIMENSIONAL SKETCH IS MADE AS PER IS:2972 (PART I&II)

# GENERAL DIMENSIONAL SKETCH OF 'JSL' RING FRAME MOTOR WITH SIDE TERMINAL BOX (WITH CLEAN AIR FLOW ARRANGEMENT)



FRAME	AA	AB+	AC+	AD+	Α*	BA+	BB+	В*	C*	ØD	E*	F	GD	GA	Н	HA+	HC+	HD+	ØK	LB+	L+	D1THRDS.
RCTF-160M	61	315	320	233	254	75	260	210	108	42k6	110	12	8.000 7.910	45	160.00 159.50	20	320	375	15	496	651	M16X32
RCTF-160L	61	315	320	233	254	75	305	254	108	42k6	110	12	8.000 7.910	45	160.00 159.50	20	320	375	15	540	695	M16X32
RCTF-180M	73	356	365	251	279	75	297	241	121	48k6	110	14	9.000 8.910	51.5	180.00 179.50	25	364	430	15	576	730	M16X32
RCTF-180L	73	356	365	251	279	75	335	279	121	48k6	110	14	9.000 8.910	51.5	180.00 179.50	25	364	430	15	614	768	M16X32

#### NOTES:

- + THESE DIMENSIONS MAY VERY BY 5mm.
- \* THESE DIMENSIONS MAY VERY BY ± 0.75 mm.
- \* ALTERNATIVE TOP TERMINAL CAN BE PROVIDED IN 160L FRAME.

# OTHER ROTATING ELECTRIC MACHINE PRODUCTS

- SPDP Vertical Hollow Shaft Motors (CVD) 3.7 kW to 370 kW
- SPDP Vertical Solid Shaft Motors (CUD) 3.7 kW to 93 kW
- TEFC Vertical Solid Shaft Motors (CUTF) 9.3 kW to 250 kW (ISI marked)
- TEFC Squirrel cage Induction Motors (CTF) 0.37 kW to 315 kW. (ISI marked)
- Screen Protected Drip Proof Motors (CD) 15 kW to 370 kW
- IE2 & IE3 Motors in all frame sizes
- Slipring Induction Motors upto 50 HP
- TEFC Induction Generator upto 250 kW

### **UNI-BUILT MONO-BLOCK PUMPS**

Size: 25 mm to 150 mm, Upto 4320 lpm capacity, Upto 90 m Head, 0.5 to 30 HP Rating.



# JSL INDUSTRIES LTD.

# FOR FURTHER ENQUIRIES PLEASE CONTACT

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In Keeping with the technological strides the world is making in the engineering field, we introduce changes in the design of our products. Hence, the products as actually supplied might have features varying herefrom.

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