

**Laboratory** Test Division, Lubi Industries LLP, A-1, Lubi Industrial Park, Vadsar-Khatraj Road, Village Vadasar, Ta. Kalol, District Gandhinagar, Gujarat

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** TC-5309 (In lieu of T-1940)

Page 1 of 3

**Validity** 30.04.2017 to 29.04.2019

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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**ELECTRICAL TESTING**

<b>I. ROTATING ELECTRICAL MACHINES</b>				
1.	<b>Three Phase Induction Motors</b>	Verification of Marking	CAN/CSA-C390-10 (Cl. 8) IS 325 (Clause 20)	Qualitative
		Measurement of stator Resistance	CAN/CSA-C390-10 (Clause 7.1.2) IEEE Std 112 (Clause 4.2) IS 325 (Clause 22.3.1b)	1 mΩ to 100Ω
		No Load Test at rated voltage	CAN/CSA-C390-10 (Clause 7.1.7) IEEE Std 112 (Cl. 6.4.1.4) IS 325 (Clause 23.1)/ IS 4029 (Clause 8.1)	Motor: 0.37 kW to 150 kW Voltage: 20 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.1 A <sub>AC</sub> to 150 A <sub>AC</sub> AC Power: 10 W to 15 kW 50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm
		Full Load Test	CAN/CSA-C390-10 (Clause 7.1.4) IEEE Std 112 (Cl. 6.4.1.3) IS 325 (Clause 23.5)	Motor: 0.37 kW to 150 kW Voltage: 150 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub> AC Power: 100 W to 270 kW 50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm Torque: 0.2 Nm to 1200 Nm
		Temperature rise at rated voltage	CAN/CSA-C390-10 (Clause 7.1.3) IEEE Std 112 (Cl. 6.4.1.2) IS 325 (Clause 14)/ IS 4029 (Clause 8.9)	Motor: 0.37 kW to 150 kW Voltage: 150 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub> AC Power: 100 W to 270 kW 50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm Temperature 20 °C to 250 °C
		Locked Rotor	IEEE Std 112 (Clause 7.2) IS 325 (Clause 23.4)/ IS 4029 (Clause 8.3)	Motor: 0.37 kW to 150 kW Voltage: 150 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub> AC Power: 100 W to 270 kW

**Naveen Jangra**  
Convenor

**N. Venkateswaran**  
Program Director

Laboratory

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Page 2 of 3

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				50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm Torque: 0.2 Nm to 1200 Nm
		High Potential / High Voltage	IEEE Std 112 (Clause 8.2) IS 325 (Clause 24)/ IS 4029 (Clause 6)	Qualitative 1 kV <sub>AC</sub> to 2.5 kV <sub>AC</sub>
		Insulation Resistance	IEEE Std 112 (Clause 8.1) IS 325 (Clause 25)/ IS 4029 (Clause 5)	0.5 MΩ to 1000 MΩ
		Test for Efficiency at rated voltage	CAN/CSA-C390-10 (Cl. 7) IEEE Std 112 (Clause 6.4)	Motor: 0.37 kW to 150 kW Voltage: 150 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub> AC Power: 100 W to 270 kW 50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm Torque: 0.2 Nm to 1200 Nm
		Provision for Earthing	IS 325 (Clause 11)	Qualitative
		Reduced Voltage Running up	IS 325 (Clause 23.2)	Motor: 0.37 kW to 110 kW Voltage: 150 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub> AC Power: 100 W to 270 kW 50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm
		Momentary overload Torque	IS 325 (Clause 13)	Motor: 0.37 kW to 110 kW Voltage: 150 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub> AC Power: 100 W to 270 kW 50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm Torque: 0.2 Nm to 1200 Nm
		Vibration	IS 325 (Clause 15)/ IS 4029 (Clause 11)	0.01 mm/s to 199.9 mm/s
		Pull out Torque	IS 325 (Clause 13.2)	Motor: 0.37 kW to 15 kW Voltage: 150 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub>

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				AC Power: 100 W to 270 kW 50 Hz and 60 Hz Speed: 650 rpm to 3600 rpm Torque: 0.2 Nm to 1200 Nm
		Dimension	IS 325 – Clause 22.3.1(a)	0.01 mm to 1000 mm
		Test of Noise Levels	IS 325 (Clause 16)/ IS 4029 (Clause 10)	30 dB to 140 dB
		Over Speed Test	IS 325 (Clause 22.3.1s & 26)	Speed: 650 rpm to 3600 rpm
2.	End Suction pump, Electric Mono set Pump, Horizontal Split casing Pump, Vertical Multistage Pump, Vertical Inline Pump	Pump Performance	ISO 9906: 2012(E) ANSI/HI 14.6–2011 CI–11 of IS6595(part 1):2002 CL 10 of IS6595(part 2):1993 CI–13 of IS9079:2002	Motor: 0.37 kW to 150 kW Head: (–) 10 m to 350 m Discharge: (1 to 25000) LPM Voltage: 20 V <sub>AC</sub> to 600 V <sub>AC</sub> Current: 0.3 A <sub>AC</sub> to 350 A <sub>AC</sub> Power: 100 W to 270 KW 50 Hz & 60 Hz Speed: 650 rpm to 3600 rpm
		Hydrostatic	ANSI/HI 14.6 IS 6595 (Part 2)-Clause 10.4 IS 6595 (Part 1)-Clause 9.1 IS 9079 (Clause 12.2)	Qualitative 0.5 bar to 50 bar
		Direction of rotation	IS6595 (Part 1 and 2), IS9079 – Clause 7	Qualitative

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