



Type Test Report

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Test Details

TR Number: HG601100-1
Test Date: 26-May-07
Test Lab: CMG Technology Laboratory

Name Plate Data

Three phase cage induction motor		
Type : HGA160L	Prod.Code: M3601100_HGA	
11 kW	975 r/m	Ser.No.: 830476/010-1
Duty: S1	cos fi: 0.78	50 Hz
400/690 V	Conn: Delta/Star	22.6/13.1 A
IP: 55	Ins.Cl: F	Eff.[%] 89.9
Brg.DE: 6309	Brg.NDE: 6309	151 kg

Test Data

	Voltage [V]	Current [A]	Input Power [Watts]	Frequency [Hz]	Speed [r/m]	Torque [Nm]	Output Power [Watts]	Power Factor	Effic. [%]
No Load	380	10.7	483	50	1000	0.0	0	0.07	0.0
No Load	400	12.1	572	50	1000	0.0	0	0.07	0.0
No Load	415	13.4	661	50	1000	0.0	0	0.07	0.0
25% F.L.	400	13.0	3489	50	993	27.5	2858	0.39	81.9
50% F.L.	401	15.4	6301	50	989	53.6	5551	0.59	88.1
75% F.L.	401	18.9	9359	50	982	81.7	8396	0.72	89.7
100% F.L.	401	22.6	12176	50	977	107.0	10946	0.78	89.9
125% F.L.	400	26.8	15025	50	970	132.3	13435	0.81	89.4
Locked Rt.T.	400	156.8	-	50	0	244.7	-	-	-
Break D.T.	400	-	-	50	760	333.9	-	-	-
F.L. at 380V	381	23.0	12241	50	975	108.0	11026	0.81	90.1
F.L. at 415V	415	22.7	12165	50	980	106.2	10902	0.75	89.6

Legend: F.L. = Full Load; Locked Rt.T. = Locked Rotor Torque Test; Break D.T. = Break Down Torque Test

Resistance between terminals [Ohms]	U1 - V1 U1 - W1 V1 - W1 Conn. @Temp[°C]	0.4721 0.4726 0.4724 Delta 19.8	Heat Run Test	Part of motor	Temperature rise in [K] at amb. temp.		
					thermometer	resistance	temp.detector
Insulation resistance to frame	Instrument voltage megohms @Temp[°C]	Megger 1000 69600 19.8	After continuous test at: 400 V 22.6 A 976 r/m	Winding	-	81.6	-
				Frame	59.2	-	-
H.V. test winding to frame	Voltage Minutes Result	2440 1 PASSED	Over rate tests	Excess Torque [Nm]	172	160	15sec.
				Excess Current [A]	35.7	158	2min.
				Overspeed [r/m]	1200	120	2min.

Measurement Uncertainty

Measurement uncertainties at the 95% confidence level using a k factor of 2 are:
Current, Voltage, Power: +/-0.5%
Speed, Frequency: +/-0.5%
Resistance: +/-0.2%
Temperature by- thermometer/detector: +/-10°C
resistance: +/- 2°C

Exclusions/Deviations

High Voltage test conducted by the manufacturer

Compliance to Standard

Motors tested in accordance with IEC60034-1 / AS1359.101 Sections 7 & 8 Efficiency as per IEC60034-2 / AS1359 Part 102.1

Comments

This Test Report is also applicable for M3601100_HLA
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Tested By: P.Wasillewski	Checked By: C Ellis	Printed: 1-Oct-08
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