

Type Test Report

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Test Details

TR Number: HG400150-1
Test Date: 16-Mar-06
Test Lab: CMG Technology Laboratory

Name Plate Data

Three phase cage induction motor		
Type : HGA90L	Prod.Code: M3400150_HGA	
1.5 kW	1430 r/m	Ser.No.: 830475/012-001
Duty: S1	cos fi: 0.75	50 Hz
230/400 V	Conn: Delta/Star	5.7/3.3 A
IP: 55	Ins.Cl: F	Eff.[%] 86.2
Brg.DE: 6205	Brg.NDE: 6205	28.5 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	1.6	78	50	1500	0.0	0	0.07	0.0
No Load	400	1.8	89	50	1500	0.0	0	0.07	0.0
No Load	415	2.0	99	50	1500	0.0	0	0.07	0.0
25% F.L.	400	1.9	475.2	50	1485	2.4	377	0.36	79.3
50% F.L.	400	2.3	880.2	50	1470	4.9	756	0.56	85.9
75% F.L.	400	2.7	1298.7	50	1454	7.4	1130	0.68	87.0
100% F.L.	400	3.4	1774.8	50	1435	10.2	1535	0.75	86.5
125% F.L.	401	4.1	2261.1	50	1411	13.0	1918	0.79	84.8
Locked Rt.T.	400	23.2	-	50	0	31.56	-	-	-
Break D.T.	400	-	-	50	970	33.8	-	-	-
F.L. at 380V	380	3.5	1780.8	50	1425	10.3	1530	0.78	85.9
F.L. at 415V	418	3.4	1769.7	50	1439	10.2	1531	0.72	86.5

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]	4.7470 4.7420 4.7520 Star 19.6	Heat Run Test	Part of motor	Temperature rise in [K] at amb. temp.		
					24 [°C] measured by:	thermometer	resistance temp.detector
Insulation resistance to frame	Instrument voltage megohms @Temp[°C]	Megger 1000 >200 19.6	After continuous test at: 400 V 3.3 A 1433 r/m	Winding	-	45.6	-
				Frame	35.3	-	-
H.V. test winding to frame	Voltage Minutes Result	2440 1 PASSED	Over rate tests	Bearing	34.3	-	-
				Excess Torque [Nm]	Value	%incr.	Duration
				Excess Current [A]	16	160	15sec.
				Overspeed [r/m]	5	152	2min.
					1800	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 M3400150_HLA

Tested By: J.Wilson

Checked By: S.Jois

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