



Type Test Report

Motor tested in accordance with IEC60034-2-1 & AS/NZS1359.102.3.Efficiency as per IEC60034-2-1
(PLL determined from residual loss)

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Type: TAI 160M1-8
TR Number: 2013030702
Test Lab: Techtopy factory

Nameplate:

Type:	TAI 160M1-8		Duty:	S1	IP:	55
Serial No:	201301016008		Ins.Cl:	F	KG:	60
Voltage	Hz	kW	A	cos fi	r/min	Eff. [%]
400/690	50	4	9.9/5.7	0.7	710	83.5
Brg.DE:	6309 RZ		Brg.NDE:	6209RZ		

No Load Test:

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
No load	350	5.22	204	50	750	0.0	0	0.06	0.0
No load	400	6.53	295	50	750	0.0	0	0.07	0.0
No load	440	8.14	435	50	750	0.0	0	0.07	0.0

Load Test:

Load [p.u]	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
0.25	400	6.52	1322	50	742	12.9	1000	0.29	75.7
0.5	400	7.26	2404	50	735	26.0	2000	0.48	83.2
0.75	400	8.38	3552	50	726	39.5	3000	0.61	84.5
1	400	9.93	4792	50	714	53.5	4000	0.70	83.5
1.25	400	11.96	6162	50	701	68.1	5000	0.74	81.1
1.5	400	14.52	7707	50	686	83.6	6000	0.77	77.8

Full Load At 380V & 420V

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
380V	380	10.08	4843	50	709	53.88	4000	0.73	82.6
420V	420	9.95	4779	50	719	53.1	4000	0.66	83.7

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/690	47.35	17182	100.6	0.52

Temperature Rise:

Amb. Temperature:	32.5	[°C]	Winding temperature rise:	64.1	[K]
Cold Resistance:	2.408	[Ω]	Frame:	42.3	[°C]
Hot Resistance:	3.027	[Ω]	Bearing:	45.5	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	1.89	Breakdown Torque/Rated Torque:	2.4
Locked Rotor Cur./Rated Cur.:	4.77	Pullup Torque/Rated Torque:	1.72

Check: Zhang Kai	Operator: Li Jian	Test Date: 07-Mar-13
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