



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 160M-6

TR Number: 2013030602

Test Lab: Techtop factory

Nameplate:

Type:	TAI 160M-6		Duty:	S1		IP:	55
Serial No:	201301016006		Ins.Cl:	F		KG:	74
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]	
400/690	50	7.5	16.0/9.3	0.77	960	87.7	
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	360	6.86	256	50	1000	0.0	0	0.06	0.0
No load	400	8.50	331	50	1000	0.0	0	0.06	0.0
No load	440	11.50	483	50	1000	0.0	0	0.06	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	8.81	2249	50	992	18.0	1875	0.37	83.4
0.5	400	10.55	4248	50	985	36.4	3750	0.58	88.3
0.75	400	13.02	6343	50	976	55.0	5625	0.70	88.7
1	400	16.12	8556	50	966	74.1	7500	0.77	87.7
1.25	400	19.79	10918	50	955	93.8	9375	0.80	85.9
1.5	400	23.95	13457	50	942	114.1	11250	0.81	83.6

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	15.60	8630	50	961	74.53	7500	0.79	86.9
420V	420	16.03	8513	50	970	73.84	7500	0.73	88.1

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/690	110.9	38716	191.2	0.50

Temperature Rise:

Amb.Temperature:	21	[°C]	Winding temperature rise:	65.1	[K]
Cold Resistance:	0.888	[Ω]	Frame:	25.4	[°C]
Hot Resistance:	1.127	[Ω]	Bearing:	28.3	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.: 2.57	Breakdown Torque/Rated Torque: 2.88
Locked Rotor Cur./Rated Cur.: 6.88	Pullup Torque/Rated Torque: 1.87

Check: Zhang Kai	Operator: Li Jian	Test Date: 06-Mar-13
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