



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 160M2-8
TR Number: 2013030801
Test Lab: Techtop factory

Nameplate:

Type:	TAI 160M2-8		Duty:	S1	IP:	55
Serial No:	201301016009		Ins.Cl:	F	KG:	
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]
400/690	50	5.5	13.3/7.7	0.7	715	85.1
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	380	7.70	292	50	750	0.0	0	0.06	0.0
No load	400	8.58	347	50	750	0.0	0	0.06	0.0
No load	420	9.56	414	50	750	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	8.48	1753	50	743	17.7	1375	0.30	78.4
0.5	400	9.49	3229	50	737	35.6	2750	0.49	85.2
0.75	400	11.11	4791	50	729	54.0	4125	0.62	86.1
1	400	13.30	6463	50	720	73.0	5500	0.70	85.1
1.25	400	16.05	8278	50	709	92.6	6875	0.74	83.0
1.5	400	19.33	10275	50	697	113.0	8250	0.77	80.3

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	13.40	6524	50	714	73.56	5500	0.74	84.3
420V	420	13.41	6440	50	724	72.55	5500	0.66	85.4

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/690	67.18	24115	152	0.52

Temperature Rise:

Amb. Temperature:	30.1	[°C]	Winding temperature rise:	64.5	[K]
Cold Resistance:	1.486	[Ω]	Frame:	34.7	[°C]
Hot Resistance:	1.879	[Ω]	Bearing:	37.6	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.09	Breakdown Torque/Rated Torque:	2.63
Locked Rotor Cur./Rated Cur.:	5.05	Pullup Torque/Rated Torque:	1.85

Check: Zhang Kai	Operator: Li Jian	Test Date: 08-Mar-13
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