



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 160L-2
TR Number: 2013030501
Test Lab: Techtop factory

Nameplate:

Type:	TAI 160L-2		Duty:	S1	IP:	55
Serial No:	201301016003		Ins.Cl:	F	KG:	102.5
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]
400/690	50	18.5	31.9/18.5	0.91	2950	91.9
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	8.51	546	50	3000	0.0	0	0.10	0.0
No load	400	9.32	586	50	3000	0.0	0	0.09	0.0
No load	420	10.38	633	50	3000	0.0	0	0.08	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	12.18	5284	50	2989	14.8	4625	0.63	87.5
0.5	400	17.83	10100	50	2977	29.7	9250	0.82	91.6
0.75	400	24.57	15050	50	2965	44.7	13880	0.88	9.2
1	400	32.03	20140	50	2951	59.9	18500	0.91	91.9
1.25	400	39.85	25400	50	2937	75.2	23130	0.92	91.1
1.5	400	47.68	230810	50	2922	90.7	27750	0.93	12.0

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								
420V	420								

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/690	313.3	106800	194600	-

Temperature Rise:

Amb. Temperature:	7.4	[°C]	Winding temperature rise:	66	[K]
Cold Resistance:	0.237	[Ω]	Frame:	36	[°C]
Hot Resistance:	0.305	[Ω]	Bearing:	40	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	3.25	Breakdown Torque/Rated Torque:	3.38
Locked Rotor Cur./Rated Cur.:	9.78	Pullup Torque/Rated Torque:	1.86

Check: Zhang Kai	Operator: Li Jian	Test Date: 05-Mar-13
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