



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 112M-2
TR Number: 2012072101
Test Lab: Techtop factory

Comments: *This test report is also applicable for TCI 112M-2 4kW*

Nameplate:

Type:	TAI 112M-2		Duty:	S1	IP:	55
Serial No:	201204078048		Ins.Cl:	F	KG:	28.7
Voltage	Hz	kW	A	cos φ	r/min	Eff.[%]
400/690	50	4	7.56/4.38	0.88	2915	86.8
Brg.DE:	6306ZZ		Brg.NDE:	6306ZZ		

No Load Test:

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
No load	380	2.65	205	50	3000	0.0	0	0.12	0.0
No load	400	3.18	231	50	3000	0.0	0	0.10	0.0
No load	420	3.92	266	50	3000	0.0	0	0.09	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	3.52	1253	50	2980	3.2	1000	0.51	79.8
0.5	400	4.55	2315	50	2962	6.4	2000	0.73	86.4
0.75	400	5.88	3420	50	2942	9.7	3000	0.84	87.7
1	400	7.45	4578	50	2919	13.1	4000	0.89	87.4
1.25	400	9.21	5798	50	2894	16.5	5000	0.91	86.2
1.5	400	11.10	7086	50	2867	20.0	6000	0.92	84.7

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	7.69	4616	50	2906	13.1	4000	0.91	86.7
420V	420	7.41	4574	50	2927	13.1	4000	0.85	87.5

Locked Rotor Test:

Un (V)	I _k (A)	P _k (W)	T _k (Nm)	cosφ
400/690	71.48	34040	43.24	0.69

Temperature Rise:

Amb.Temperature:	29.9	[°C]	Winding temperature rise:	59.1	[K]
Cold Resistance:	2.224	[Ω]	Frame:	53.9	[°C]
Hot Resistance:	2.755	[Ω]	Bearing:	57.1	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	3.32	Breakdown Torque/Rated Torque:	3.65
Locked Rotor Cur./Rated Cur.:	9.60	Pullup Torque/Rated Torque:	2.08

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 21-Jul-12
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