



# 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)

## SHANGHAI TOP MOTOR CO., LTD

No.303 Kangliu Road  
Kang Qiao Industrial Area  
Pudong, Shanghai, China

Ph: 86 1500088129  
[zk@techtom.net.cn](mailto:zk@techtom.net.cn)  
[www.techtom.com](http://www.techtom.com)

**Type:** TAI 100L-2  
**TR Number:** 2012111301  
**Test Lab:** Techtop factory

**Comments:** *This test report is also applicable for TCI 100L-2 3kW*

### Nameplate:

Type:	TAI 100L-2		Duty:	S1	IP:	55
Serial No:	201208015018		Ins.Cl:	F	KG:	22.3
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]
230/400	50	3	9.72/5.59	0.9	2900	86.0
Brg.DE:	6206ZZ		Brg.NDE:	6206ZZ		

### No Load Test:

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
No load	380	1.77	150	50	3000	0.0	0	0.13	0.0
<b>No load</b>	<b>400</b>	<b>2.01</b>	<b>165</b>	<b>50</b>	<b>3000</b>	<b>0.0</b>	<b>0</b>	<b>0.12</b>	<b>0.0</b>
No load	415	2.55	174	50	3000	0.0	0	0.09	0.0

### Load Test:

Load [p.u]	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
0.25	400	2.36	931	50	2976	2.4	750	0.57	80.5
0.5	400	3.22	1732	50	2954	4.8	1500	0.78	86.6
0.75	400	4.28	2568	50	2930	7.3	2250	0.87	87.6
<b>1</b>	<b>400</b>	<b>5.51</b>	<b>3448</b>	<b>50</b>	<b>2902</b>	<b>9.9</b>	<b>3000</b>	<b>0.90</b>	<b>87.0</b>
1.25	400	6.88	4380	50	2871	12.5	3750	0.92	85.6
1.5	400	8.37	5372	50	2838	15.1	4500	0.93	83.8

### Full Load At 380V & 415V

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
380V	380	5.76	3479	50	2885	9.9	3000	0.92	86.2
415V	415	5.40	3434	50	2909	9.8	3000	0.89	87.4

### Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	50.7	22891	30.58	0.65

### Temperature Rise:

Amb.Temperature:	15.8	[°C]	Winding temperature rise:	39.1	[K]
Cold Resistance:	3.017	[Ω]	Frame:	33	[°C]
Hot Resistance:	3.518	[Ω]	Bearing:	36.2	[°C]

### Torque And Current:

Locked Rotor Tor./Rated Tor.:	3.09	Breakdown Torque/Rated Torque:	3.51
Locked Rotor Cur./Rated Cur.:	9.20	Pullup Torque/Rated Torque:	2.49

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 13-Nov-12
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