



# 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 15000088129  
[zk@techtopy.net.cn](mailto:zk@techtopy.net.cn)  
[www.techtopy.com](http://www.techtopy.com)

**Type:** TAI 100L2-4  
**TR Number:** 2012072001  
**Test Lab:** Techtop factory

**Comments:** *This test report is also applicable for TCI 100L2-4 3kW*

### Nameplate:

Type:	TAI 100L2-4		Duty:	S1	IP:	55
Serial No:	201204078046		Ins.Cl:	F	KG:	26.3
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]
230/400	50	3	10.9/6.27	0.8	1445	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	3.14	157	50	1500	0.0	0	0.08	0.0
<b>No load</b>	<b>400</b>	<b>3.67</b>	<b>189</b>	<b>50</b>	<b>1500</b>	<b>0.0</b>	<b>0</b>	<b>0.07</b>	<b>0.0</b>
No load	420	4.41	238	50	1500	0.0	0	0.07	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	3.80	957	50	1488	4.8	750	0.36	78.3
0.5	400	4.33	1757	50	1476	9.7	1500	0.59	85.4
0.75	400	5.17	2598	50	1463	14.7	2250	0.73	86.6
<b>1</b>	<b>400</b>	<b>6.27</b>	<b>3489</b>	<b>50</b>	<b>1448</b>	<b>19.8</b>	<b>3000</b>	<b>0.80</b>	<b>86.0</b>
1.25	400	7.57	4441	50	1431	25.0	3750	0.85	84.4
1.5	400	9.05	5463	50	1413	30.4	4500	0.87	82.4

### Full Load At 380V & 420V

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
380V	380	6.33	3509	50	1440	19.9	3000	0.84	85.5
420V	420	6.41	3498	50	1454	19.7	3000	0.75	85.8

### Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	30.08	13897	35.4	0.67

### Temperature Rise:

Amb.Temperature:	31.7	[°C]	Winding temperature rise:	59.2	[K]
Cold Resistance:	3.274	[Ω]	Frame:	65.9	[°C]
Hot Resistance:	4.021	[Ω]	Bearing:	69.1	[°C]

### Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.39	Breakdown Torque/Rated Torque:	3.25
Locked Rotor Cur./Rated Cur.:	7.60	Pullup Torque/Rated Torque:	2.44

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 20-Jul-12
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