



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

Type: TAI 160L-8  
TR Number: 2013030802  
Test Lab: Techtop factory

### Nameplate:

Type:	TAI 160L-8		Duty:	S1		IP:	55	
Serial No:	201301016010		Ins.Cl:	F		KG:		
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]		
400/690	50	7.5	17.6/10.2	0.71	710	86.5		
Brg.DE:	6309 RZ		Brg.NDE:	6209RZ				

### 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	350	8.82	293	50	750	0.0	0	0.05	0.0
<b>No load</b>	<b>400</b>	<b>11.30</b>	<b>423</b>	<b>50</b>	<b>750</b>	<b>0.0</b>	<b>0</b>	<b>0.05</b>	<b>0.0</b>
No load	440	14.40	642	50	750	0.0	0	0.06	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	11.31	2335	50	742	24.1	1875	0.30	80.3
0.5	400	12.70	4337	50	735	48.7	3750	0.49	86.5
0.75	400	14.83	6439	50	727	73.9	5625	0.63	87.4
<b>1</b>	<b>400</b>	<b>17.65</b>	<b>8668</b>	<b>50</b>	<b>717</b>	<b>99.9</b>	<b>7500</b>	<b>0.71</b>	<b>86.5</b>
1.25	400	21.09	11054	50	706	126.8	9375	0.76	84.8
1.5	400	25.10	13630	50	694	154.8	11250	0.78	82.5

### 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	17.69	8731	50	712	100.60	7500	0.75	85.9
420V	420	17.75	8651	50	721	99.34	7500	0.67	86.7

### Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/690	105.3	39104	271.1	0.54

### Temperature Rise:

Amb. Temperature:	30.3	[°C]	Winding temperature rise:	69.9	[K]
Cold Resistance:	0.947	[Ω]	Frame:	37.1	[°C]
Hot Resistance:	1.222	[Ω]	Bearing:	40.3	[°C]

### Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.71	Breakdown Torque/Rated Torque:	
Locked Rotor Cur./Rated Cur.:	5.96	Pullup Torque/Rated Torque:	

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