



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
www.techtopy.com

Type: TAI 90L-2
TR Number: 2012071602
Test Lab: Techtop factory

Comments: *This test report is also applicable for TCI 90L-2 2.2kW*

Nameplate:

Type:	TAI 90L-2		Duty:	S1	IP:	55
Serial No:	201204078042		Ins.Cl:	F	KG:	16.2
Voltage	Hz	kW	A	cos φ	r/min	Eff.[%]
230/400	50	2.2	8.02/4.61	0.82	2890	84.0
Brg.DE:	6205ZZ		Brg.NDE:	6205ZZ		

No Load Test:

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
No load	380	2.13	144	50	3000	0.0	0	0.10	0.0
No load	400	2.7	175	50	3000	0.0	0	0.09	0.0
No load	420	3.5	238	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	2.79	744	50	2975	1.8	550	0.38	74.0
0.5	400	3.16	1333	50	2954	3.6	1100	0.61	82.5
0.75	400	3.76	1955	50	2928	5.4	1650	0.75	84.4
1	400	4.56	2618	50	2898	7.2	2200	0.83	84.0
1.25	400	5.54	3331	50	2865	9.2	2750	0.87	82.5
1.5	400	6.66	4106	50	2828	11.1	3300	0.89	80.4

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	4.57	2621	50	2883	7.3	2200	0.87	83.9
420V	420	4.75	2640	50	2909	7.2	2200	0.76	83.3

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	37.01	19026	21.84	0.74

Temperature Rise:

Amb.Temperature:	26.9	[°C]	Winding temperature rise:	68.3	[K]
Cold Resistance:	5.089	[Ω]	Frame:	52.1	[°C]
Hot Resistance:	6.448	[Ω]	Bearing:	55.4	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	3.00	Breakdown Torque/Rated Torque:	3.18
Locked Rotor Cur./Rated Cur.:	8.11	Pullup Torque/Rated Torque:	2.22

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 16/Jul/12
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