



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 90L-4
TR Number: 2012071702
Test Lab: Techtop factory

Comments: *This test report is also applicable for TCI 90L-4 1.5kW*

Nameplate:

Type:	TAI 90L-4		Duty:	S1	IP:	55
Serial No:	201204078044		Ins.Cl:	F	KG:	18
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]
230/400	50	1.5	5.98/3.44	0.75	1440	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	1.74	84	50	1500	0.0	0	0.07	0.0
No load	400	1.97	97	50	1500	0.0	0	0.07	0.0
No load	420	2.32	118	50	1500	0.0	0	0.07	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	1.98	480	50	1484	2.4	375	0.35	78.1
0.5	400	2.32	883	50	1472	4.9	750	0.55	84.9
0.75	400	2.77	1306	50	1458	7.4	1125	0.68	86.1
1	400	3.35	1755	50	1440	9.9	1500	0.76	85.5
1.25	400	4.04	2237	50	1421	12.6	1875	0.80	83.8
1.5	400	4.86	2761	50	1398	15.4	2250	0.82	81.5

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	3.39	1765	50	1431	10.0	1500	0.79	85.0
420V	420	3.40	1754	50	1447	9.9	1500	0.71	85.5

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	23.85	10268	31.68	0.62

Temperature Rise:

Amb.Temperature:	27.4	[°C]	Winding temperature rise:	44.2	[K]
Cold Resistance:	6.129	[Ω]	Frame:	52.5	[°C]
Hot Resistance:	7.183	[Ω]	Bearing:	55.9	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	3.16	Breakdown Torque/Rated Torque:	3.13
Locked Rotor Cur./Rated Cur.:	7.13	Pullup Torque/Rated Torque:	2.4

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 17/Jul/12
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