



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 180L-4
TR Number: 2013031001
Test Lab: Techtop factory

Nameplate:

Type:	TAI 180L-4		Duty:	S1		IP:	55	
Serial No:	201301016013		Ins.Cl:	F		KG:	129	
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]		
400/690	50	22	39.4/22.8	0.88	1460	91.7		
Brg.DE:	6311 RZ		Brg.NDE:	6211 RZ				

No Load Test:

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
No load	350	10.66	459	50	1500	0.0	0	0.07	0.0
No load	400	14.58	650	50	1500	0.0	0	0.06	0.0
No load	450	24.04	1032	50	1500	0.0	0	0.06	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	16.70	6220	50	1492	35.2	5500	0.54	88.4
0.5	400	23.04	11964	50	1484	70.8	11000	0.75	91.9
0.75	400	30.68	17879	50	1475	106.8	16500	0.84	92.3
1	400	39.44	24001	50	1465	143.4	22000	0.88	91.7
1.25	400	49.13	30362	50	1455	180.5	27500	0.89	90.6
1.5	400	59.56	36993	50	1443	218.4	33000	0.90	89.2

Full Load At 380V & 420V

	Voltage [V]	Current [A]	Input [kW]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [kW]	Power Factor	Eff. [%]
380V	380	40.63	24.07	50	1461	143.81	22	0.90	91.4
420V	420	38.80	23.99	50	1469	143.02	22	0.85	91.7

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/690	302.9	105008	351.1	0.50

Temperature Rise:

Amb. Temperature:	33.4	[°C]	Winding temperature rise:	75	[K]
Cold Resistance:	0.261	[Ω]	Frame:	31.5	[°C]
Hot Resistance:	0.333	[Ω]	Bearing:	34.6	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.42	Breakdown Torque/Rated Torque:	2.83
Locked Rotor Cur./Rated Cur.:	7.68	Pullup Torque/Rated Torque:	1.7

Check: Zhang Kai	Operator: Li Jian	Test Date: 10-Mar-13
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