



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-8
TR Number: 2013031101
Test Lab: Techtop factory

Nameplate:

Type:	TAI 180L-8		Duty:	S1	IP:	55
Serial No:	201301016015		Ins.Cl:	F	KG:	
Voltage	Hz	kW	A	cos fi	r/min	Eff. [%]
400/690	50	11	24.1/13.9	0.74	730	89.2
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	380	12.05	443	50	750	0.0	0	0.06	0.0
No load	400	13.29	512	50	750	0.0	0	0.06	0.0
No load	420	14.96	607	50	750	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	13.74	3311	50	745	35.2	2750	0.35	83.1
0.5	400	16.38	6208	50	741	70.8	5500	0.55	88.6
0.75	400	19.87	9204	50	737	106.9	8250	0.67	89.6
1	400	24.16	12326	50	732	143.6	11000	0.74	89.2
1.25	400	29.23	15608	50	726	181.0	13750	0.77	88.1
1.5	400	35.04	19083	50	719	219.3	16500	0.79	86.5

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	24.61	12366	50	729	145.5	11000	0.76	89.0
420V	420	24.18	12328	50	734	144.6	11000	0.70	89.2

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/690	154	49689	291.6	0.47

Temperature Rise:

Amb. Temperature:	27.1	[°C]	Winding temperature rise:	56.9	[K]
Cold Resistance:	0.589	[Ω]	Frame:	54	[°C]
Hot Resistance:	0.719	[Ω]	Bearing:	57.5	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.01	Breakdown Torque/Rated Torque:	2.73
Locked Rotor Cur./Rated Cur.:	6.37	Pullup Torque/Rated Torque:	1.8

Check: Zhang Kai	Operator: Li Jian	Test Date: 11-Mar-13
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