



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 631-6

TR Number: 2011063001

Test Lab: Techtop factory

Nameplate:

Type:	TAI 631-6	Duty:	S1	IP:	55	
Serial No:	201103096005	Ins.Cl:	F	KG:	4.2	
Voltage	Hz	kW	A	cos fi	r/min	Eff. [%]
230/400	50	0.09	0.75/0.43	0.65	840	46.3
Brg.DE:	6201 RZ	Brg.NDE:	6201 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	0.36	59	50	1000	0.0	0	0.25	0.0
No load	400	0.39	67	50	1000	0.0	0	0.25	0.0
No load	420	0.42	77	50	1000	0.0	0	0.25	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	0.38	97	50	957	0.224	23	0.37	23.1
0.5	400	0.39	124	50	944	0.455	45	0.46	36.2
0.75	400	0.40	153	50	907	0.711	68	0.55	44.1
1	400	0.43	194	50	847	1.015	90	0.65	46.3
1.25	400	0.51	263	50	764	1.407	113	0.74	42.8
1.5	400	0.65	388	50	657	1.961	135	0.87	34.8

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	0.44	200	50	807	1.066	90	0.69	45.1
420V	420	0.45	198	50	870	0.987	90	0.61	45.4

Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	1.074	581.7	2.159	0.78

Temperature Rise:

Amb. Temperature:	25.7	[°C]	Winding temperature rise:	47.3	[K]
Cold Resistance:	178.4	[Ω]	Frame:	26.1	[°C]
Hot Resistance:	210.6	[Ω]	Bearing:	28.2	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.13	Breakdown Torque/Rated Torque:	2.08
Locked Rotor Cur./Rated Cur.:	2.50	Pullup Torque/Rated Torque:	1.97

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 30/Jun/11
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