



# 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 711-2

TR Number: 2011102101

Test Lab: Techtop factory

## Nameplate:

Type:	TAI 711-2	Duty:	S1	IP:	55	
Serial No:	201107053005	Ins.Cl:	F	KG:	5.2	
Voltage	Hz	kW	A	cos fi	r/min	Eff. [%]
230/400	50	0.37	1.80/1.04	0.82	2770	62.8
Brg.DE:	6202 RZ	Brg.NDE:	6202 RZ			

## No Load Test:

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
No load	350	0.58	100	50	3000	0.0	0	0.29	0.0
<b>No load</b>	<b>400</b>	<b>0.82</b>	<b>136</b>	<b>50</b>	<b>3000</b>	<b>0.0</b>	<b>0</b>	<b>0.24</b>	<b>0.0</b>
No load	440	1.22	216	50	3000	0.0	0	0.23	0.0

## Load Test:

Load [p.u]	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
0.25	400	0.80	241	50	2930	0.301	93	0.44	38.3
0.5	400	0.83	344	50	2892	0.611	185	0.60	53.8
0.75	400	0.91	458	50	2838	0.932	277	0.73	60.5
<b>1</b>	<b>400</b>	<b>1.03</b>	<b>590</b>	<b>50</b>	<b>2770</b>	<b>1.276</b>	<b>370</b>	<b>0.82</b>	<b>62.8</b>
1.25	400	1.22	747	50	2686	1.644	463	0.88	61.9
1.5	400	1.49	942	50	2588	2.048	555	0.91	58.9

## Full Load At 380V & 420V

	Voltage [V]	Current [A]	Input [W]	Freq. [Hz]	Speed [min <sup>-1</sup> ]	Torque [Nm]	Output [W]	Power Factor	Eff. [%]
380V	380	1.05	589.2	50	2750	1.285	370	0.85	62.8
420V	420	1.04	592.9	50	2790	1.266	370	0.78	62.4

## Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	5.194	3314	3.668	0.92

## Temperature Rise:

Amb. Temperature:	10.8	[°C]	Winding temperature rise:	62.1	[K]
Cold Resistance:	44.8	[Ω]	Frame:	10.5	[°C]
Hot Resistance:	56.1	[Ω]	Bearing:	12.4	[°C]

## Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.88	Breakdown Torque/Rated Torque:	2.57
Locked Rotor Cur./Rated Cur.:	5.03	Pullup Torque/Rated Torque:	1.88

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 21/Oct/11
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