



# 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 711-4

TR Number: 2011070102

Test Lab: Techtop factory

## Nameplate:

Type:	TAI 711-4		Duty:	S1		IP:	55	
Serial No:	201103096008		Ins.Cl:	F		KG:	5	
Voltage	Hz	kW	A	cos fi	r/min	Eff. [%]		
230/400	50	0.25	1.31/0.75	0.76	1365	63		
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	0.47	55	50	1500	0.0	0	0.19	0.0
<b>No load</b>	<b>400</b>	<b>0.67</b>	<b>93</b>	<b>50</b>	<b>1500</b>	<b>0.0</b>	<b>0</b>	<b>0.20</b>	<b>0.0</b>
No load	440	0.94	165	50	1500	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	0.63	160	50	1469	0.406	63	0.37	39.1
0.5	400	0.64	227	50	1449	0.824	125	0.51	55.0
0.75	400	0.65	304	50	1416	1.264	188	0.68	61.7
<b>1</b>	<b>400</b>	<b>0.75</b>	<b>397</b>	<b>50</b>	<b>1371</b>	<b>1.741</b>	<b>250</b>	<b>0.76</b>	<b>63.0</b>
1.25	400	0.90	518	50	1314	2.267	312	0.83	60.3
1.5	400	1.12	686	50	1245	2.877	375	0.88	54.6

## 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	0.73	391	50	1345	1.775	250	0.82	63.9
420V	420	0.79	409	50	1388	1.720	250	0.71	62.8

## Locked Rotor Test:

Un (V)	Ik (A)	Pk(W)	Tk (Nm)	cosφ
400/230	2.925	1727	3.576	0.85

## Temperature Rise:

Amb. Temperature:	27	[°C]	Winding temperature rise:	58.3	[K]
Cold Resistance:	82.0	[Ω]	Frame:	26.8	[°C]
Hot Resistance:	99.7	[Ω]	Bearing:	30.3	[°C]

## Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.05	Breakdown Torque/Rated Torque:	2.24
Locked Rotor Cur./Rated Cur.:	3.88	Pullup Torque/Rated Torque:	1.84

Check: Zhang Kai	Operator: Chen Zhongliang	Test Date: 01/Jul/11
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