



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: TCI 315S-2

TR Number: 2013092001

Test Lab: Techtop factory

Nameplate:

Type:	TCI 315S-2		Duty:	S1	IP:	55
Serial No:	130747090		Ins.Cl:	F	KG:	929
Voltage	Hz	kW	A	cos fi	r/min	Eff.[%]
400/690	50	110	186.5/107.7	0.9	2975	94.6
Brg.DE:	6317C3		Brg.NDE:	6317C3		

No Load Test:

	Voltage [V]	Current [A]	Input [kW]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [kW]	Power Factor	Eff. [%]
No load	380	45.60	4.46	50	3000	0.0	0	0.00	0.0
No load	400	47.70	5.00	50	3000	0.0	0	0.00	0.0
No load	420	50.20	5.30	50	3000	0.0	0	0.00	0.0

Load Test:

Load [p.u]	Voltage [V]	Current [A]	Input [kW]	Freq. [Hz]	Speed [min ⁻¹]	Torque [Nm]	Output [kW]	Power Factor	Eff. [%]
0.25	400	64.20	29.85	50	2985	88.0	27.50	0.67	92.1
0.5	400	105.00	59.30	50	2980	176.3	55.00	0.82	92.7
0.75	400	156.00	87.30	50	2977	264.7	82.50	0.81	94.5
1	400	186.50	116.30	50	2975	353.1	110.00	0.90	94.6
1.25	400	243.00	145.60	50	2970	442.1	137.50	0.86	94.4
1.5	400	312.00	176.00	50	2963	531.8	165.00	0.81	93.8

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	196.30	116.40	50	2978	352.8	110.00	0.90	94.5
420V	420	177.60	116.30	50	2975	353.1	110.00	0.90	94.6

Locked Rotor Test:

Un (V)	Ik (A)	Pk(kW)	Tk (Nm)	cosφ
400/690	1447	517.8	773	0.43

Temperature Rise:

Amb. Temperature:	30	[°C]	Winding temperature rise:	78	[K]
Cold Resistance:	0.028	[Ω]	Frame:	83	[°C]
Hot Resistance:	0.037	[Ω]	Bearing:	72	[°C]

Torque And Current:

Locked Rotor Tor./Rated Tor.:	2.19	Breakdown Torque/Rated Torque:	3.47
Locked Rotor Cur./Rated Cur.:	7.76	Pullup Torque/Rated Torque:	1.62

Check: Zhang Kai	Operator: Li Jian	Test Date: 20-Sep-13
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