

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 13147921

Frame	: 132M	Locked rotor time	: 28s (cold) 16s (hot)
Output	: 9.2 kW (12.5 HP)	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 400/690 V	Altitude	: 1000 m.a.s.l.
Rated current	: 16.6/9.62 A	Protection degree	: IP55
L. R. Amperes	: 141/81.8 A	Cooling method	: IC411 - TEFC
LRC	: 8.5	Mounting	: B3T
No load current	: 6.00/3.48 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 2925 rpm	Noise level ²	: 63.0 dB(A)
Slip	: 2.50 %	Starting method	: Direct On Line
Rated torque	: 3.06 kgfm	Approx. weight ³	: 69.6 kg
Locked rotor torque	: 250 %		
Breakdown torque	: 330 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 0.0306 kgm ²		
Design	: N		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	90.4	91.1	91.1	Max. traction	: 143 kgf
Power Factor	0.75	0.84	0.88	Max. compression	: 213 kgf

Losses at normative operating points (speed;torque), in percentage of rated output power

P1 (0,9;1,0)	P2 (0,5;1,0)	P3 (0,25;1,0)	P4 (0,9;0,5)	P5 (0,5;0,5)	P6 (0,5;0,25)	P7 (0,25;0,25)
9.6	8.3	7.6	4.2	2.9	1.7	1.1

	Drive end	Non drive end
Bearing type	: 6308 ZZ	: 6207 ZZ
Sealing	: Oil Seal	: Oil Seal
Lubrication interval	: -	: -
Lubricant amount	: -	: -
Lubricant type	: Mobil Polyrex EM	

Notes

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

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Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

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TORQUE AND CURRENT VS SPEED CURVE

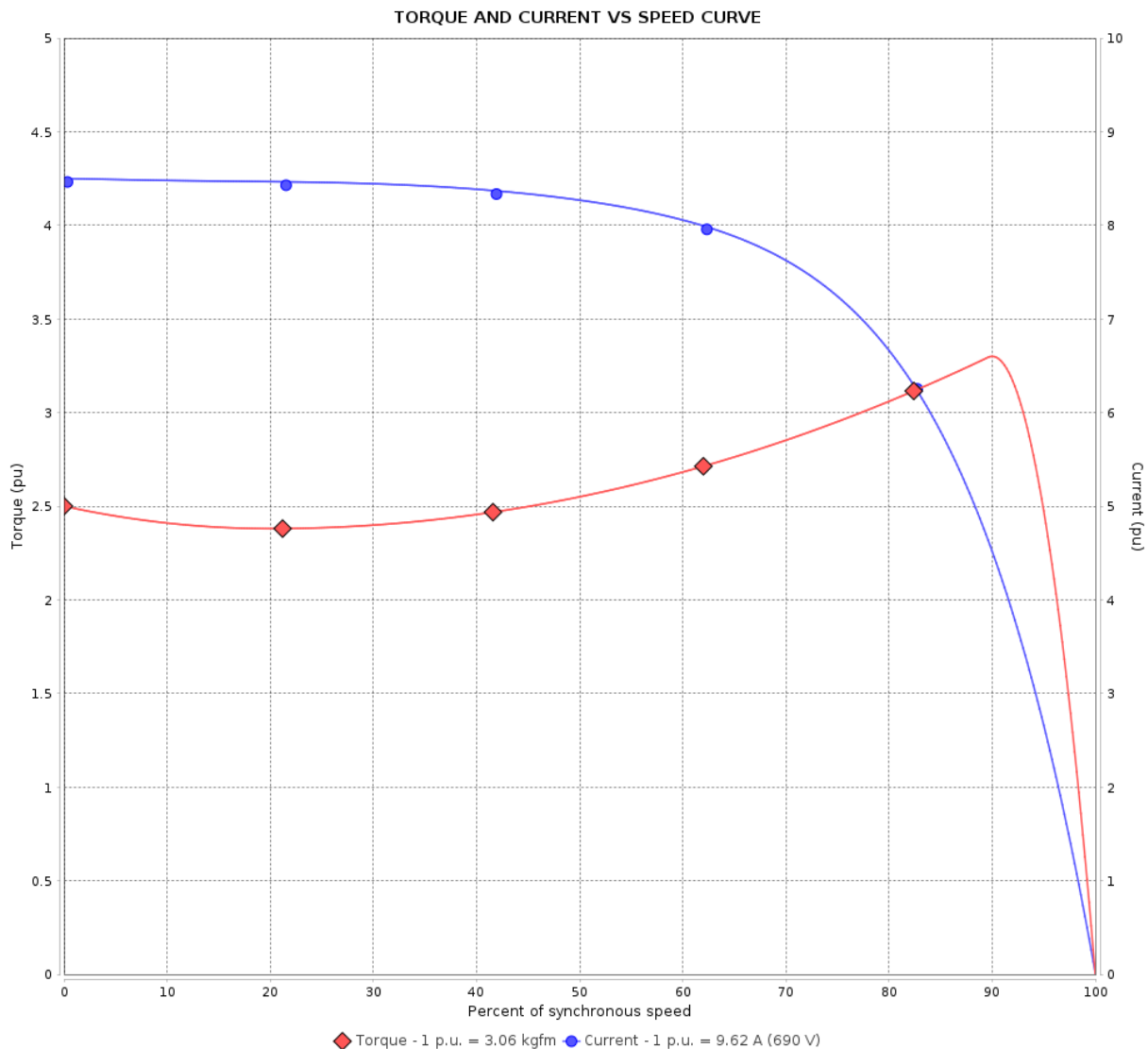


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LRC	: 8.5	Duty cycle	: S1
Rated torque	: 3.06 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2925 rpm	Design	: N

Locked rotor time : 28s (cold) 16s (hot)

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LOAD PERFORMANCE CURVE

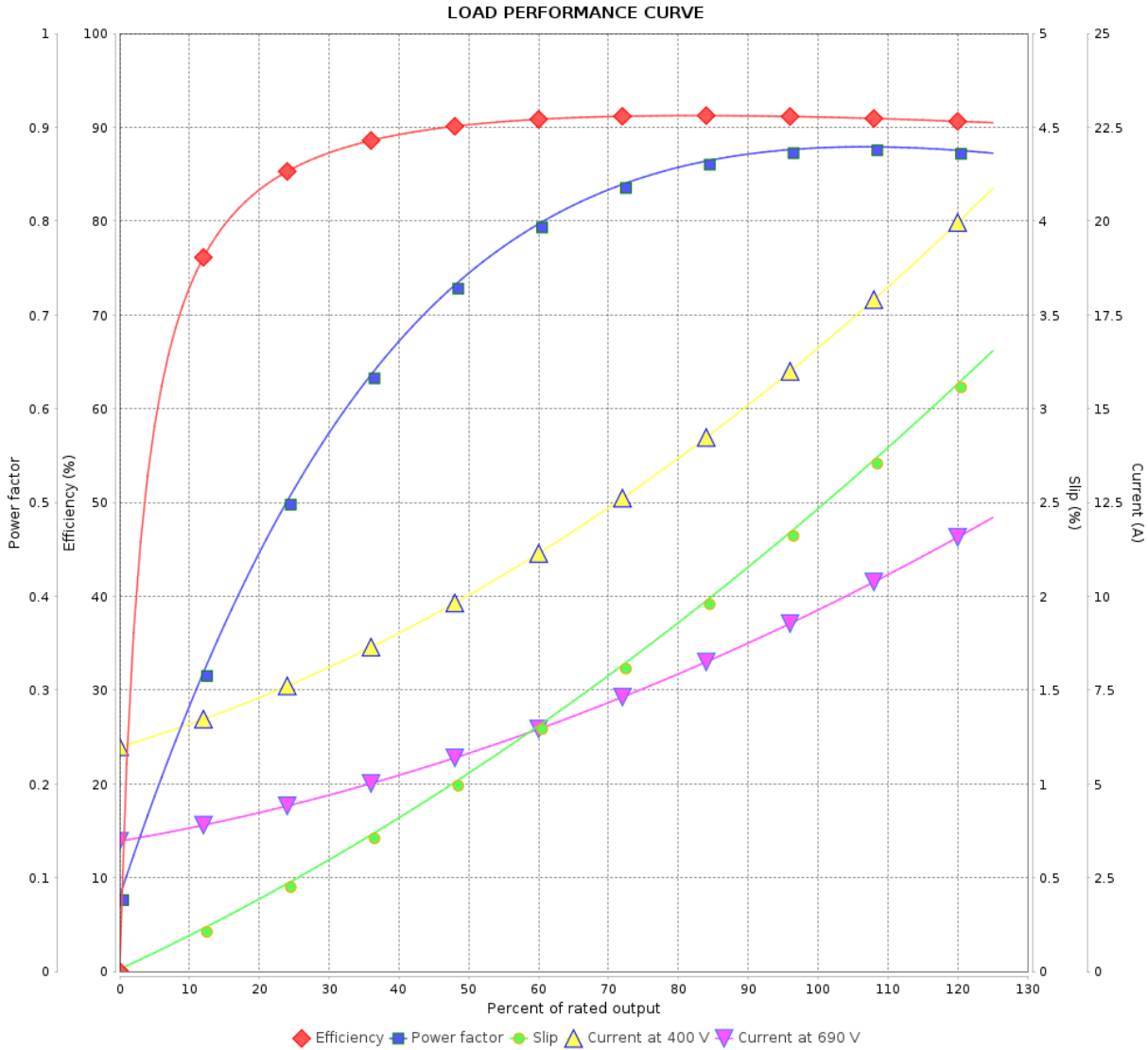
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 Service factor : 1.00
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THERMAL LIMIT CURVE

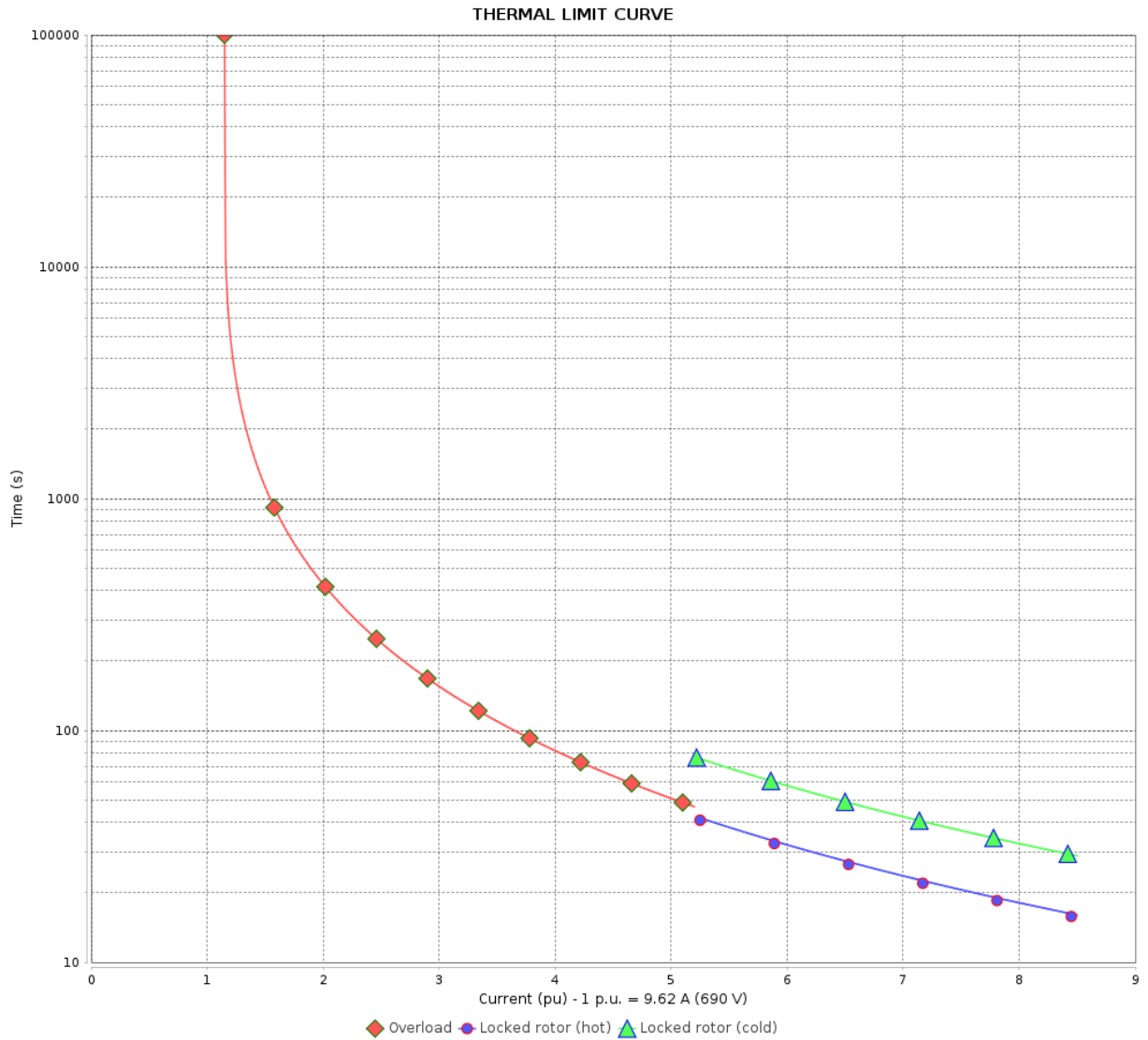
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Heating constant

Cooling constant

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VFD OPERATION CURVE

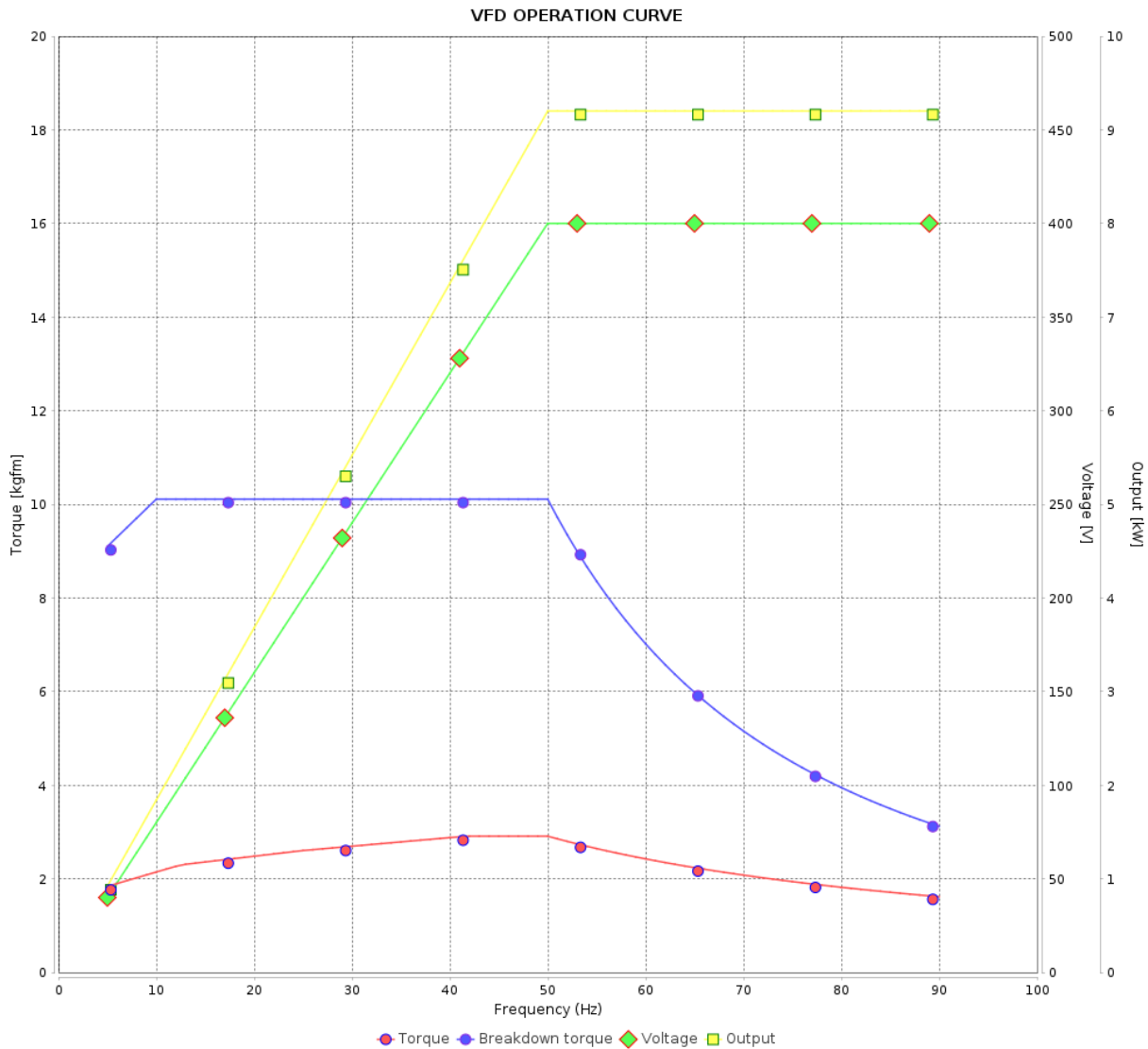
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