

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12448183
Catalog # : HT040502NPW22

Frame	: 324/6TS	Locked rotor time	: 39s (cold) 22s (hot)
Output	: 40 HP (30 kW)	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 575 V	Altitude	: 1000 m.a.s.l.
Rated current	: 38.4 A	Protection degree	: IP55
L. R. Amperes	: 242 A	Cooling method	: IC411 - TEFC
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 12.4 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 3560 rpm	Noise level ²	: 76.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 59.0 ft.lb	Approx. weight ³	: 547 lb
Locked rotor torque	: 229 %		
Breakdown torque	: 250 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 4.90 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	0.000	91.7	92.4	92.4	Max. traction	: 335 lb
Power Factor	0.00	0.74	0.82	0.85	Max. compression	: 797 lb

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)
7.9	5.3	4.4	5.3	2.9	2.3	1.4

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6312 C3	6212 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	12000 h	15000 h
Lubricant amount	:	21 g	13 g
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 NEMA MG-1.

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TORQUE AND CURRENT VS SPEED CURVE

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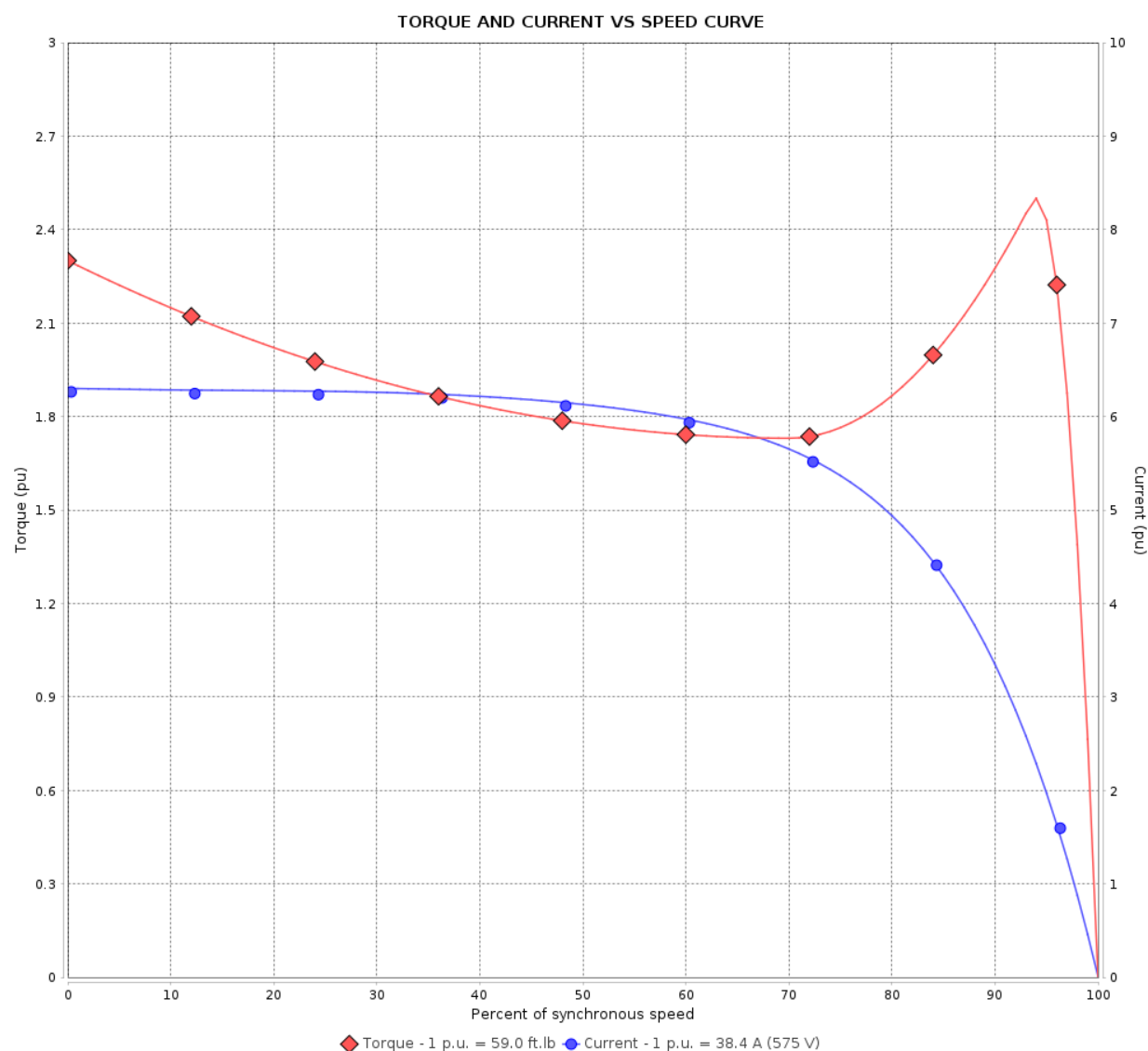


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Performance : 575 V 60 Hz 2P

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LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 59.0 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

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LOAD PERFORMANCE CURVE

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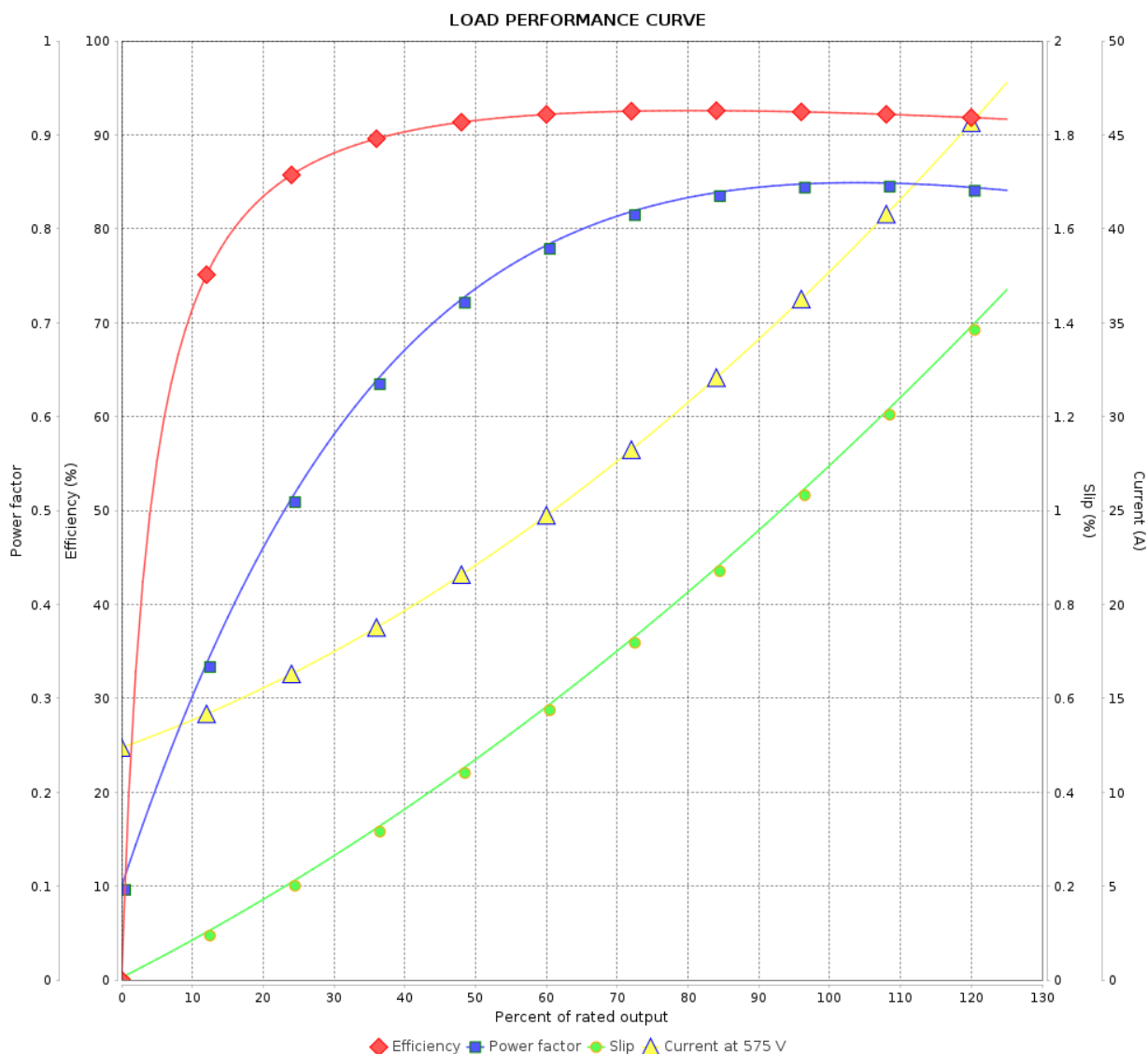


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THERMAL LIMIT CURVE

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Rated speed	: 3560 rpm	Design	: B

Heating constant

Cooling constant

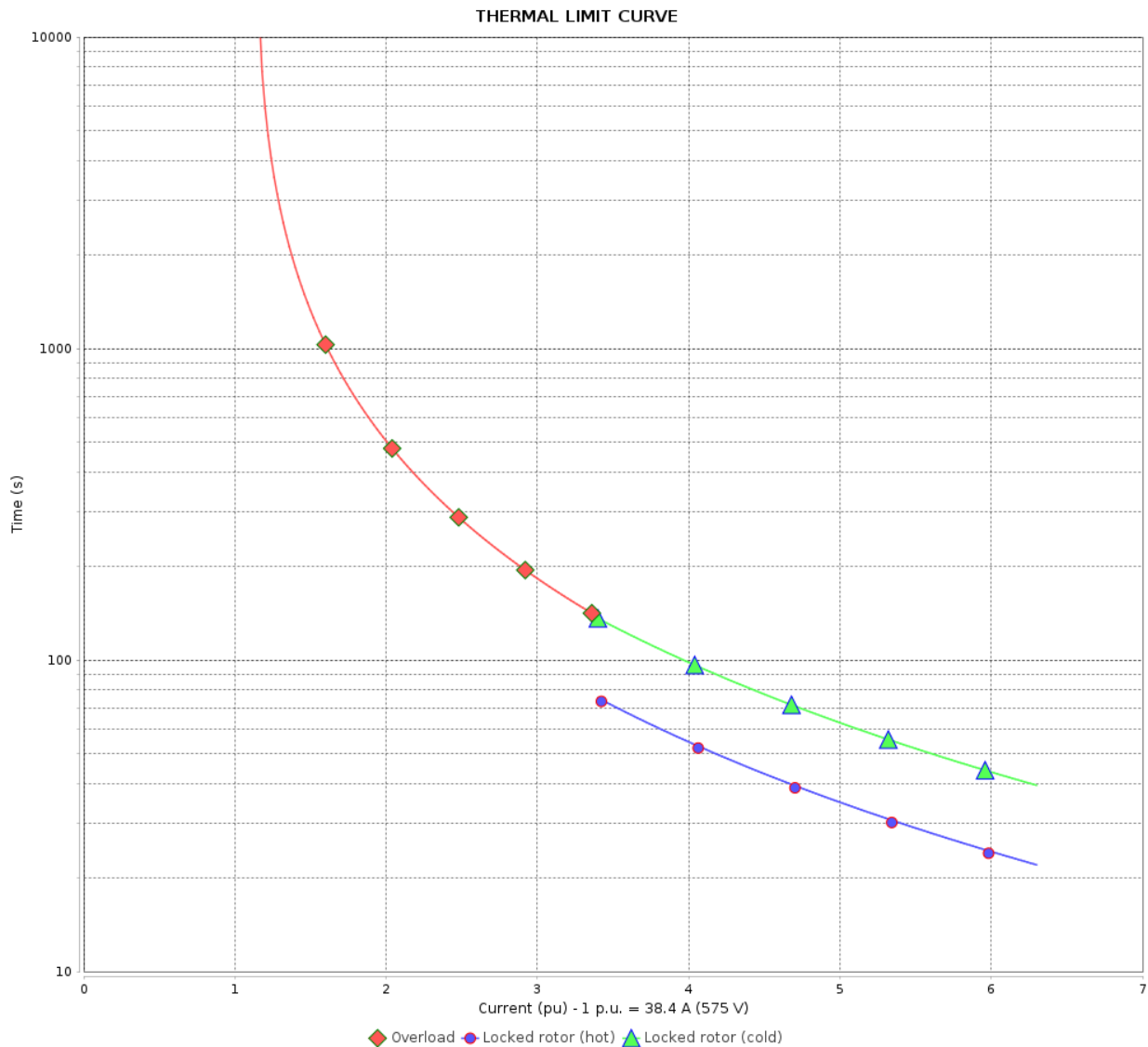
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

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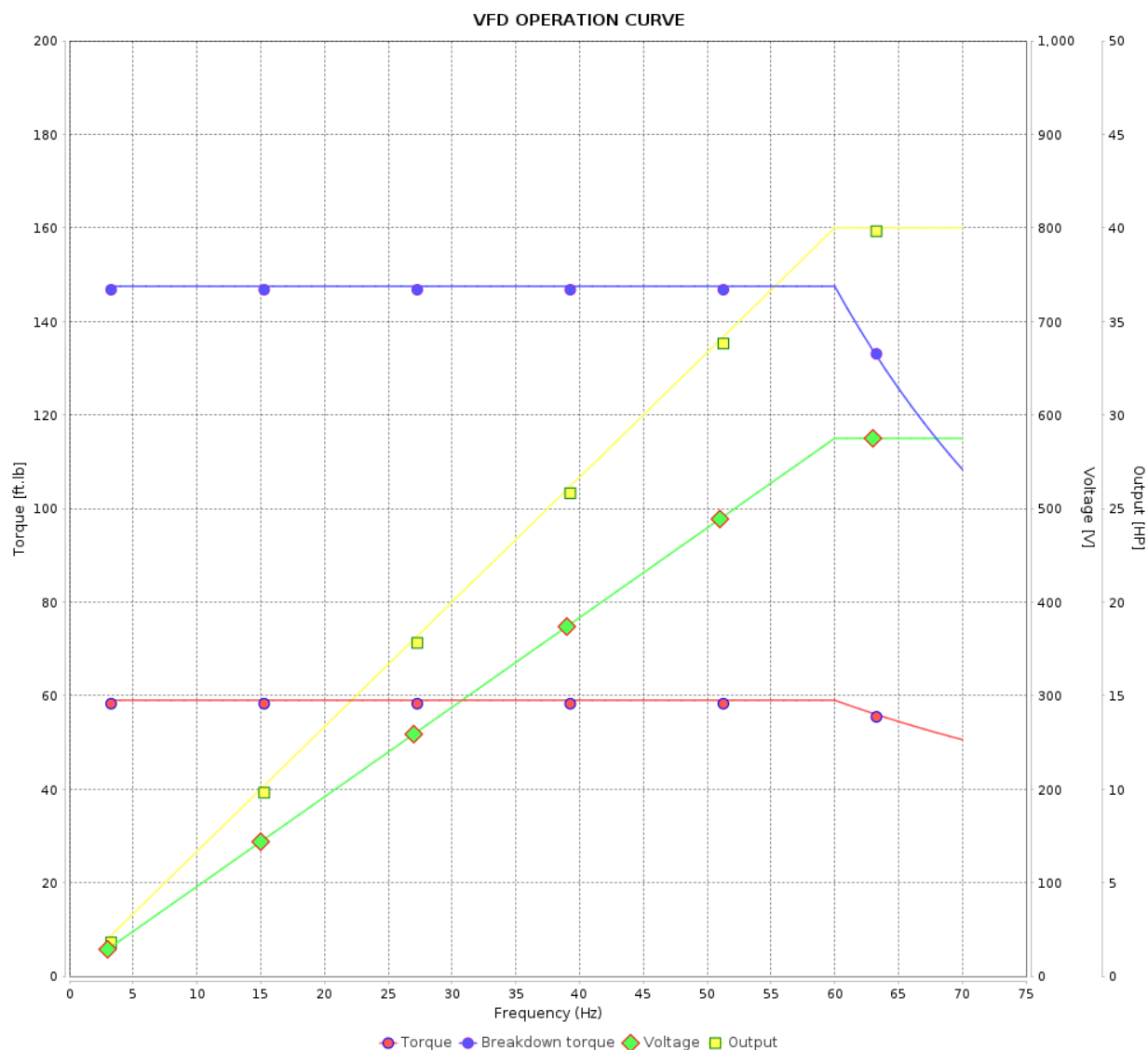


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