

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12031970
Catalog # : CT100404NPRBW22

Frame	: 404/5TC	Locked rotor time	: 23s (cold) 13s (hot)
Output	: 100 HP (75 kW)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 226/113 A	Protection degree	: IP55
L. R. Amperes	: 1650/825 A	Cooling method	: IC411 - TEFC
LRC	: 7.3x(Code H)	Mounting	: F-1
No load current	: 76.0/38.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1780 rpm	Noise level ²	: 68.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 295 ft.lb	Approx. weight ³	: 1140 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 29.9 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	0.000	95.0	95.0	95.4	Max. traction	: 2672 lb
Power Factor	0.00	0.77	0.84	0.87	Max. compression	: 2672 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)
4.7	3.8	3.7	2.2	1.5	0.9	0.6

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	NU-316 C3	6314 C3
Sealing	:	Oil Seal	Oil Seal
Lubrication interval	:	7000 h	12000 h
Lubricant amount	:	34 g	27 g
Lubricant type	:	Mobil Polyrex EM	

Notes
USABLE @208V 245A SF 1.10 SFA 270A

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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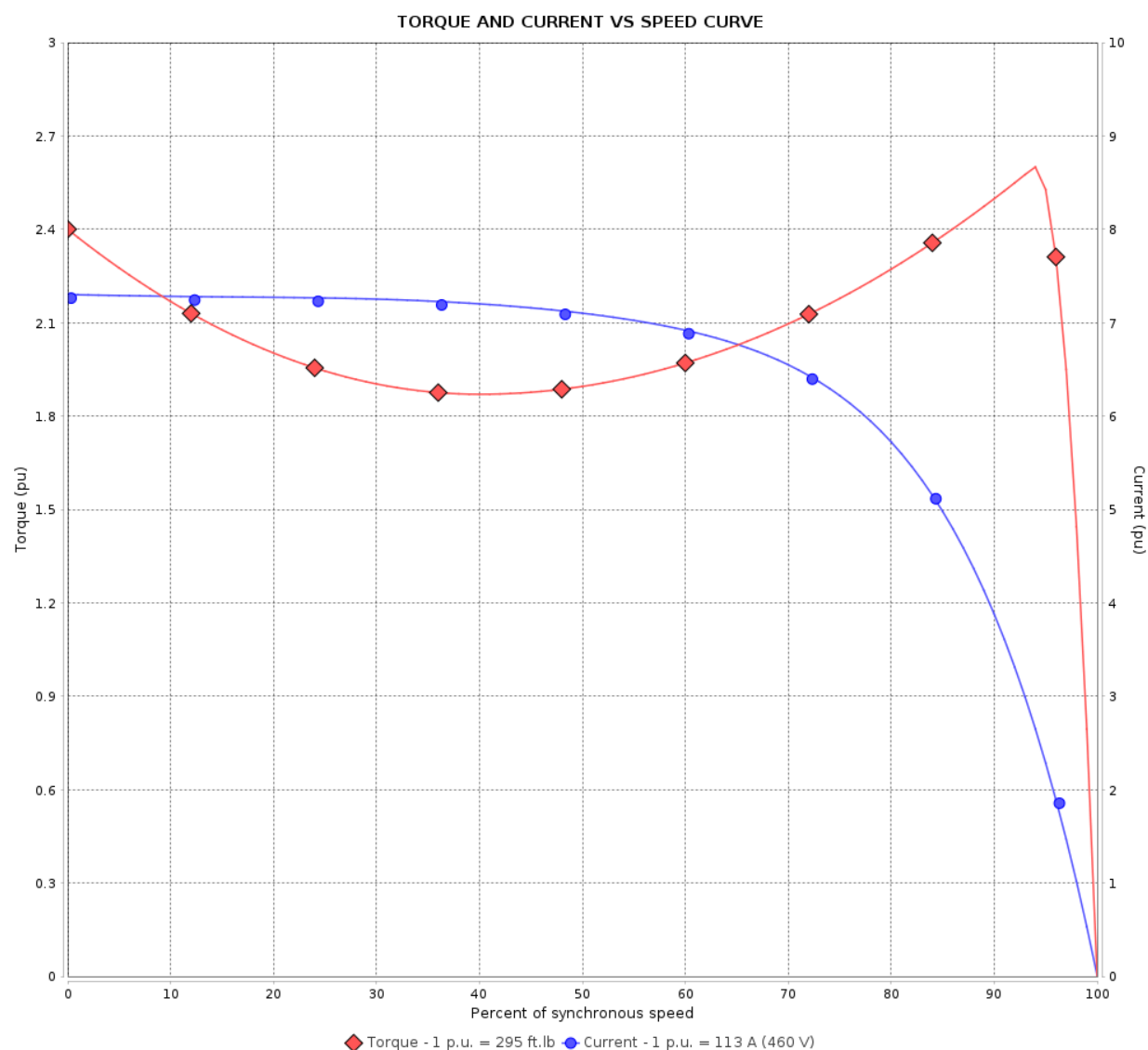


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LOAD PERFORMANCE CURVE

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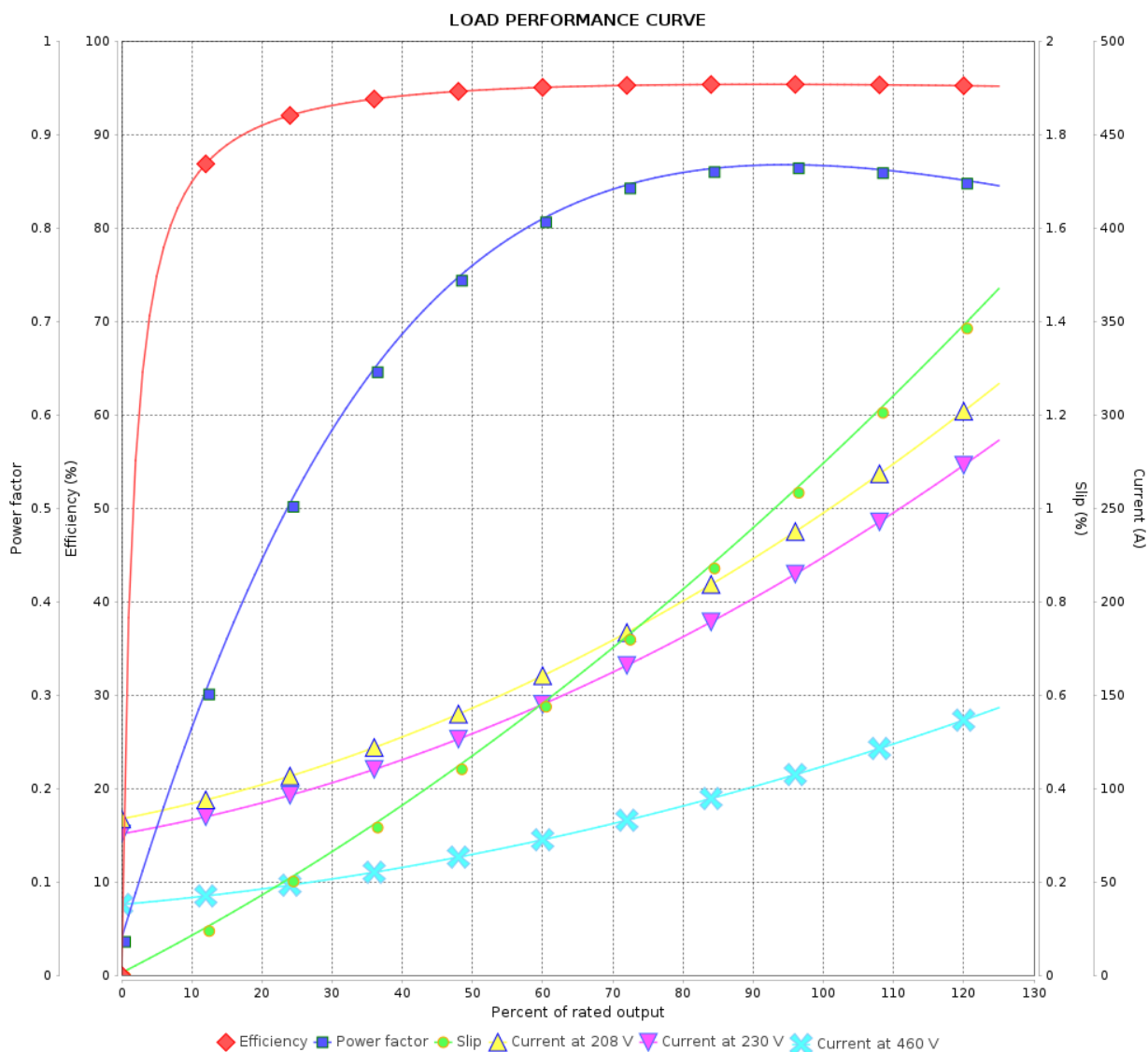


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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

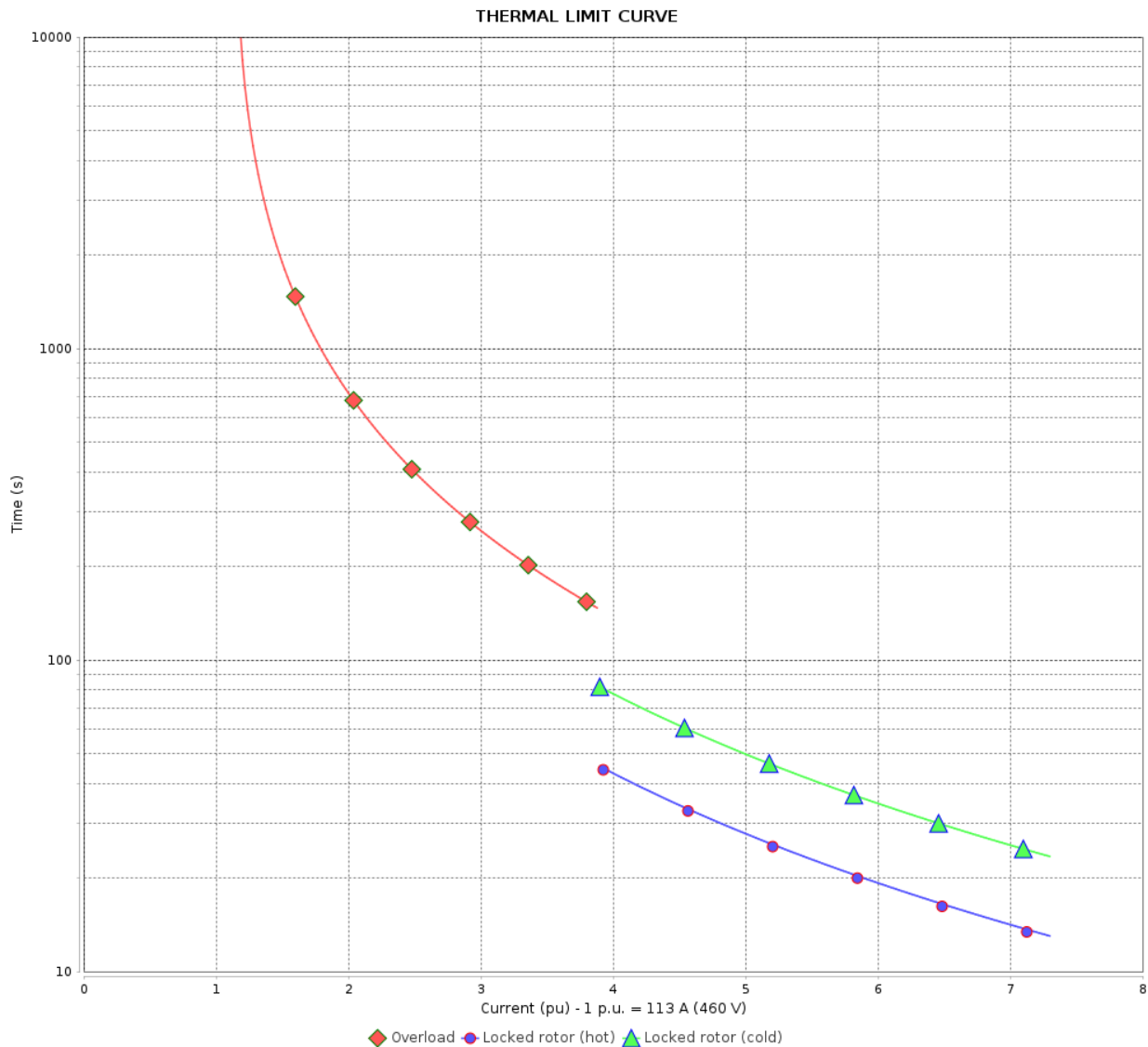
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

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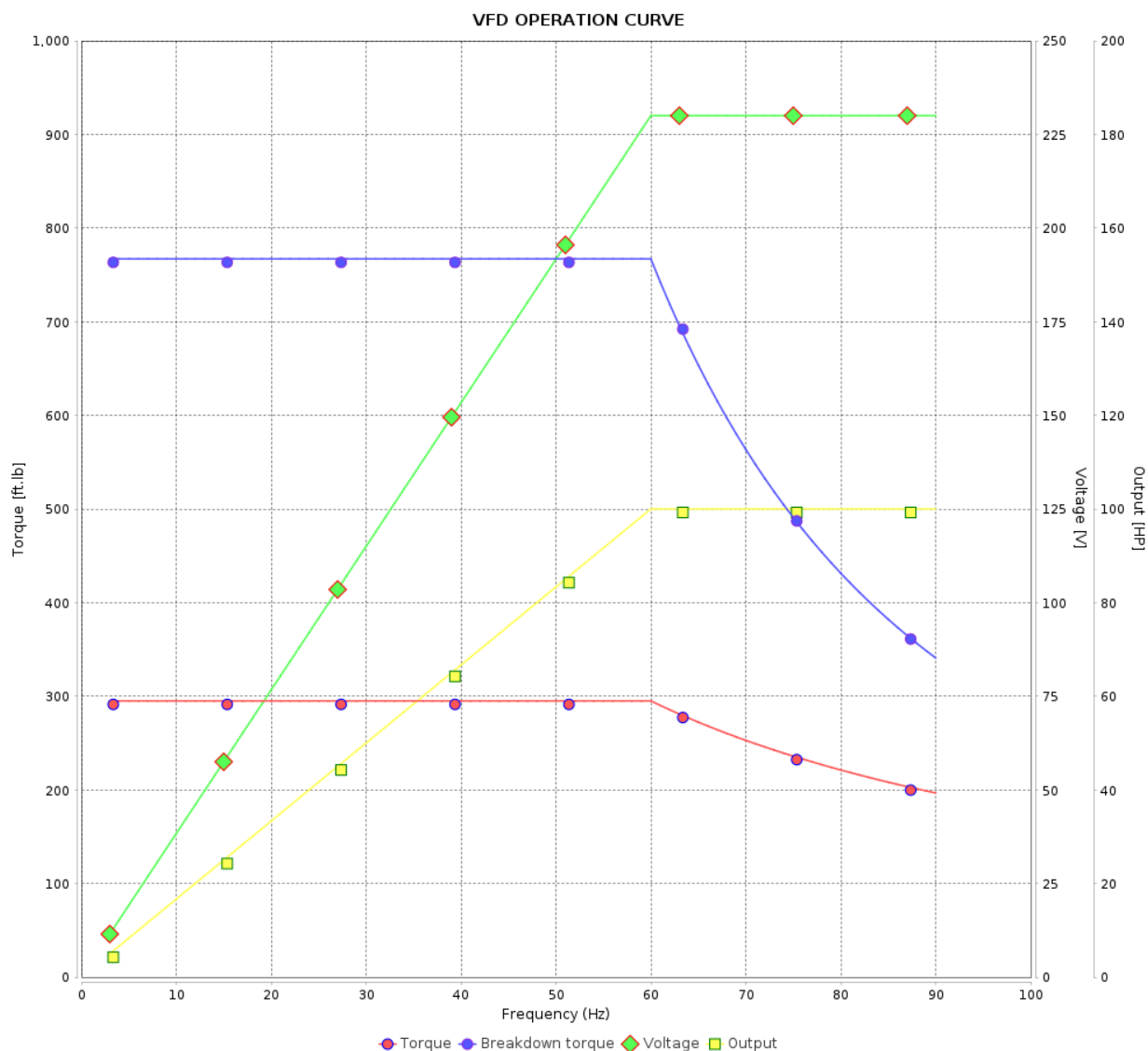


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