

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12438231
Catalog # : HT001402NPW22

Frame	: 143/5T	Locked rotor time	: 23s (cold) 13s (hot)
Output	: 1.5 HP (1.1 kW)	Temperature rise	: 80 K
Poles	: 2	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	: 4.10/2.05 A	Protection degree	: IP55
L. R. Amperes	: 36.5/18.2 A	Cooling method	: IC411 - TEFC
LRC	: 8.9x(Code L)	Mounting	: F-1
No load current	: 2.20/1.10 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 3510 rpm	Noise level ²	: 68.0 dB(A)
Slip	: 2.50 %	Starting method	: Direct On Line
Rated torque	: 2.24 ft.lb	Approx. weight ³	: 40.8 lb
Locked rotor torque	: 270 %		
Breakdown torque	: 370 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 0.0470 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	81.0	84.0	84.0	Max. traction	: 51 lb
Power Factor	0.60	0.72	0.80	Max. compression	: 94 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)
17.3	12.9	12.9	11.1	6.6	5.3	3.5

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type	: 6205 ZZ	: 6204 ZZ
Sealing	: V'Ring	: V'Ring
Lubrication interval	: -	: -
Lubricant amount	: -	: -
Lubricant type	: 00088	

Notes

USABLE @208V 4.20A SF 1.15 SFA 4.83A

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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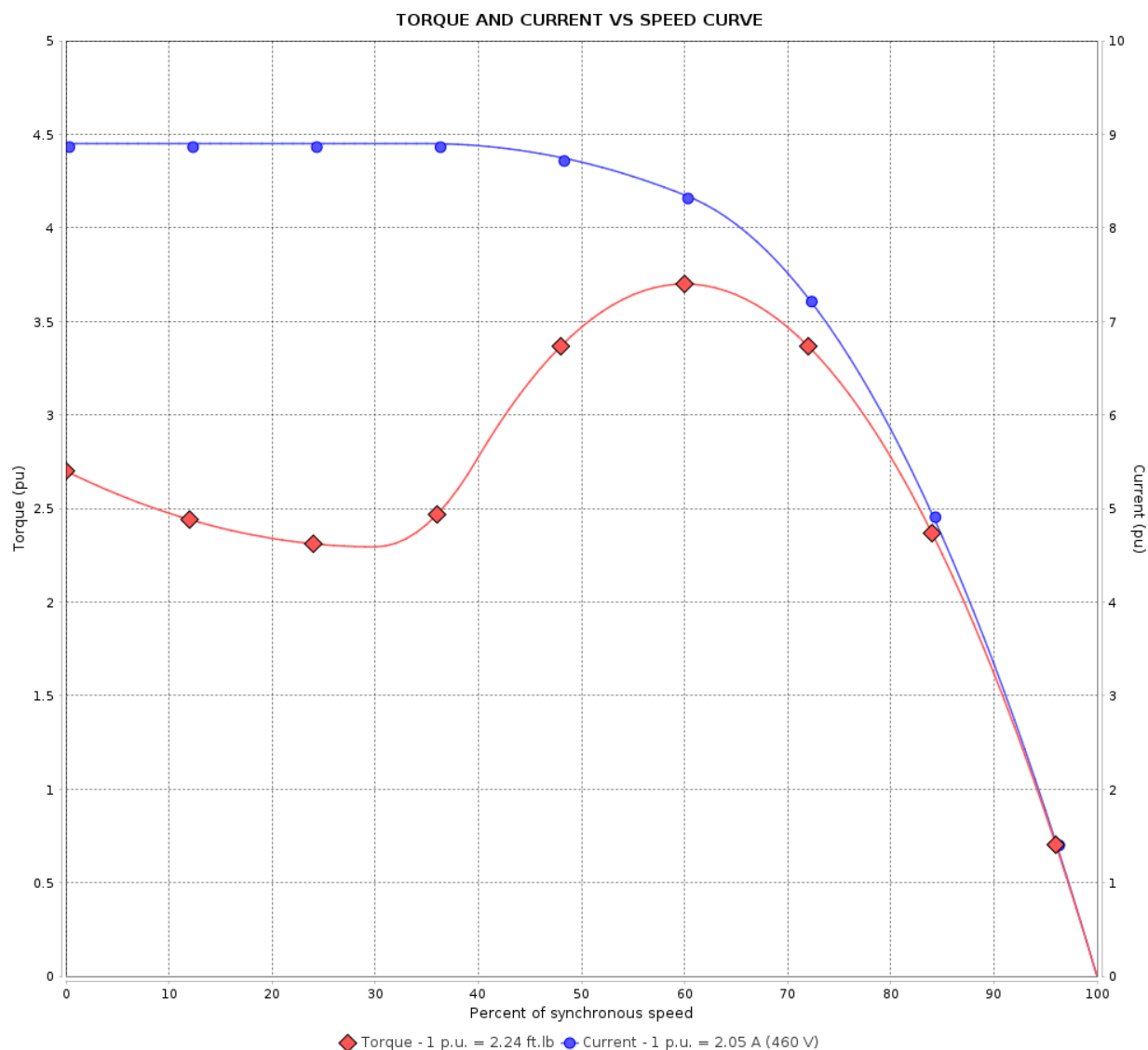


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Design : B

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LOAD PERFORMANCE CURVE

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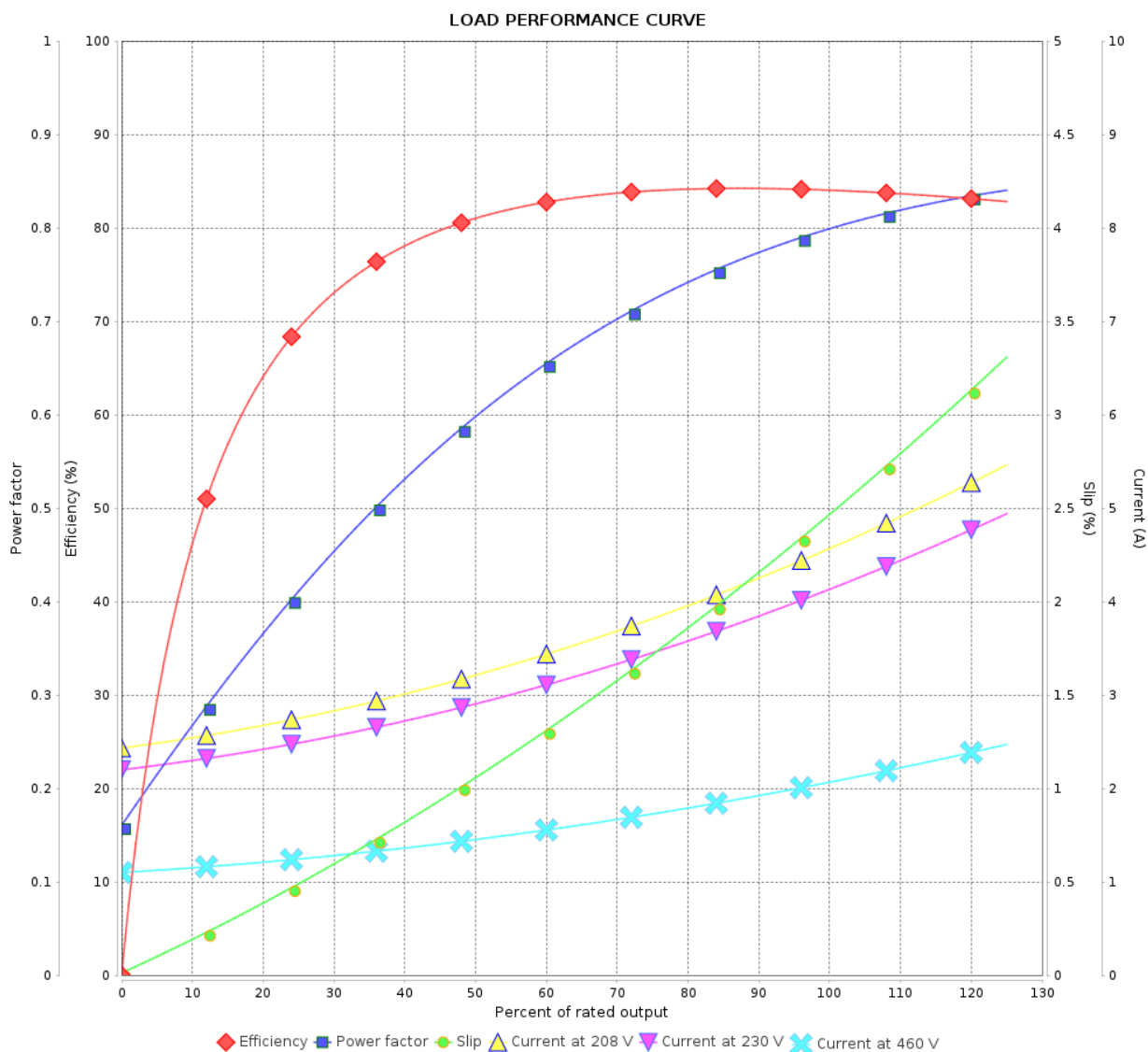


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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

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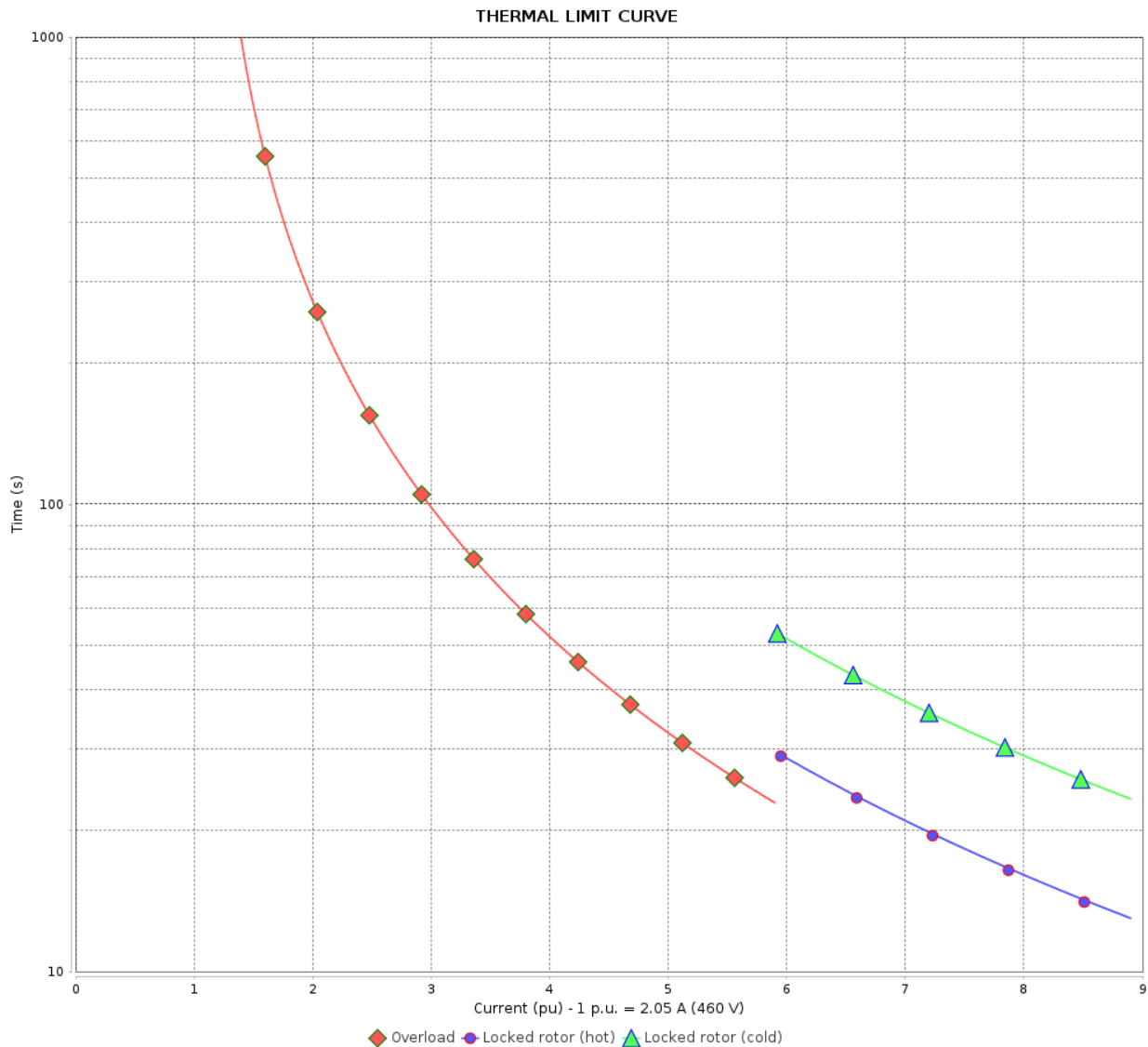
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

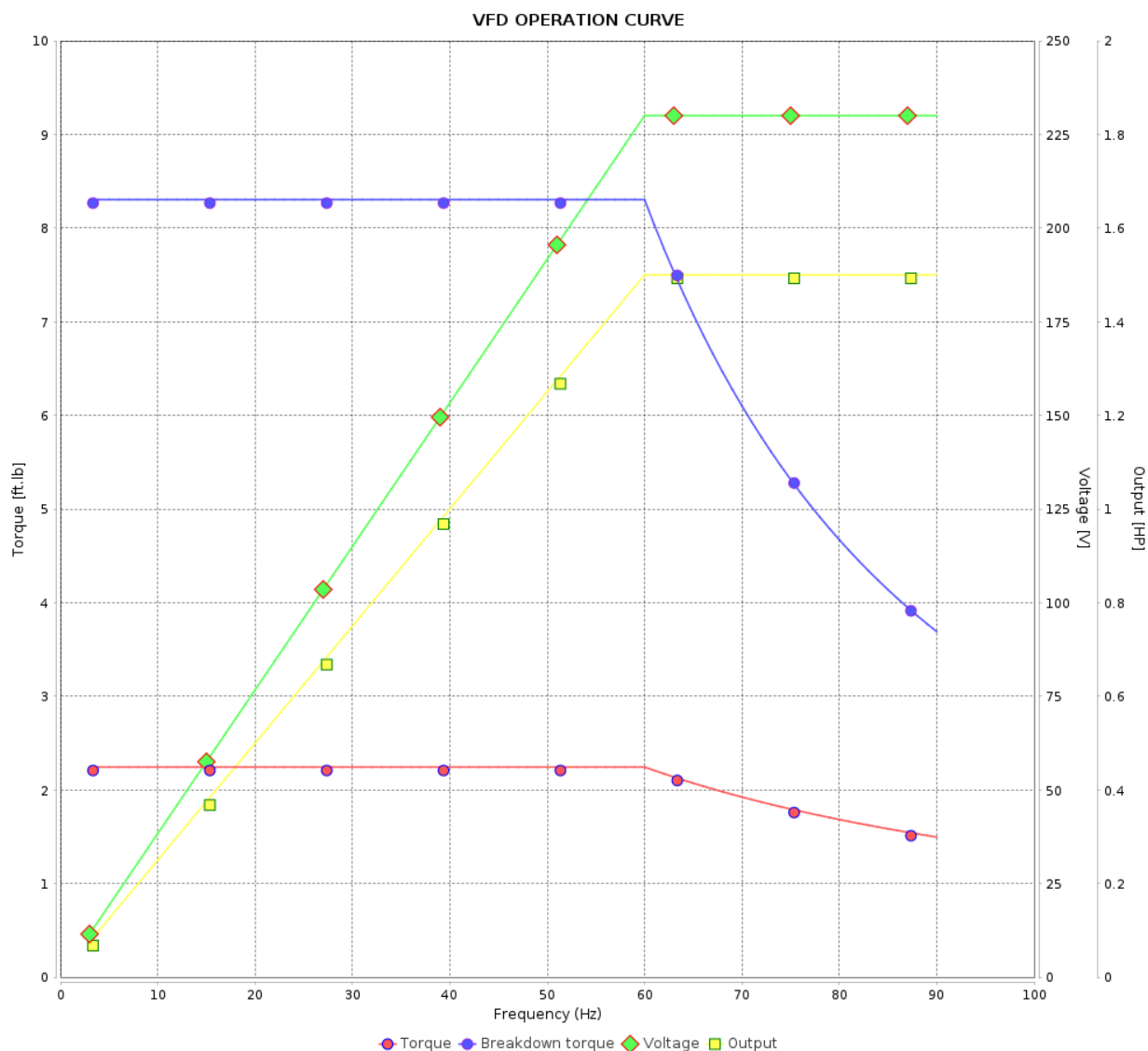


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