

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11783909
Catalog # : HT003402NPW22145T

Frame	: 143/5T	Locked rotor time	: 25s (cold) 14s (hot)
Output	: 3 HP (2.2 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	: 7.42/3.71 A	Protection degree	: IP55
L. R. Amperes	: 60.1/30.1 A	Cooling method	: IC411 - TEFC
LRC	: 8.1x(Code J)	Mounting	: F-1
No load current	: 2.60/1.30 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 3460 rpm	Noise level ²	: 68.0 dB(A)
Slip	: 3.89 %	Starting method	: Direct On Line
Rated torque	: 4.55 ft.lb	Approx. weight ³	: 51.8 lb
Locked rotor torque	: 330 %		
Breakdown torque	: 360 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 0.0605 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	85.5	86.5	86.5	Max. traction	: 131 lb
Power Factor	0.70	0.81	0.86	Max. compression	: 186 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)
14.8	12.3	11.7	6.8	4.3	2.6	1.7

	<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

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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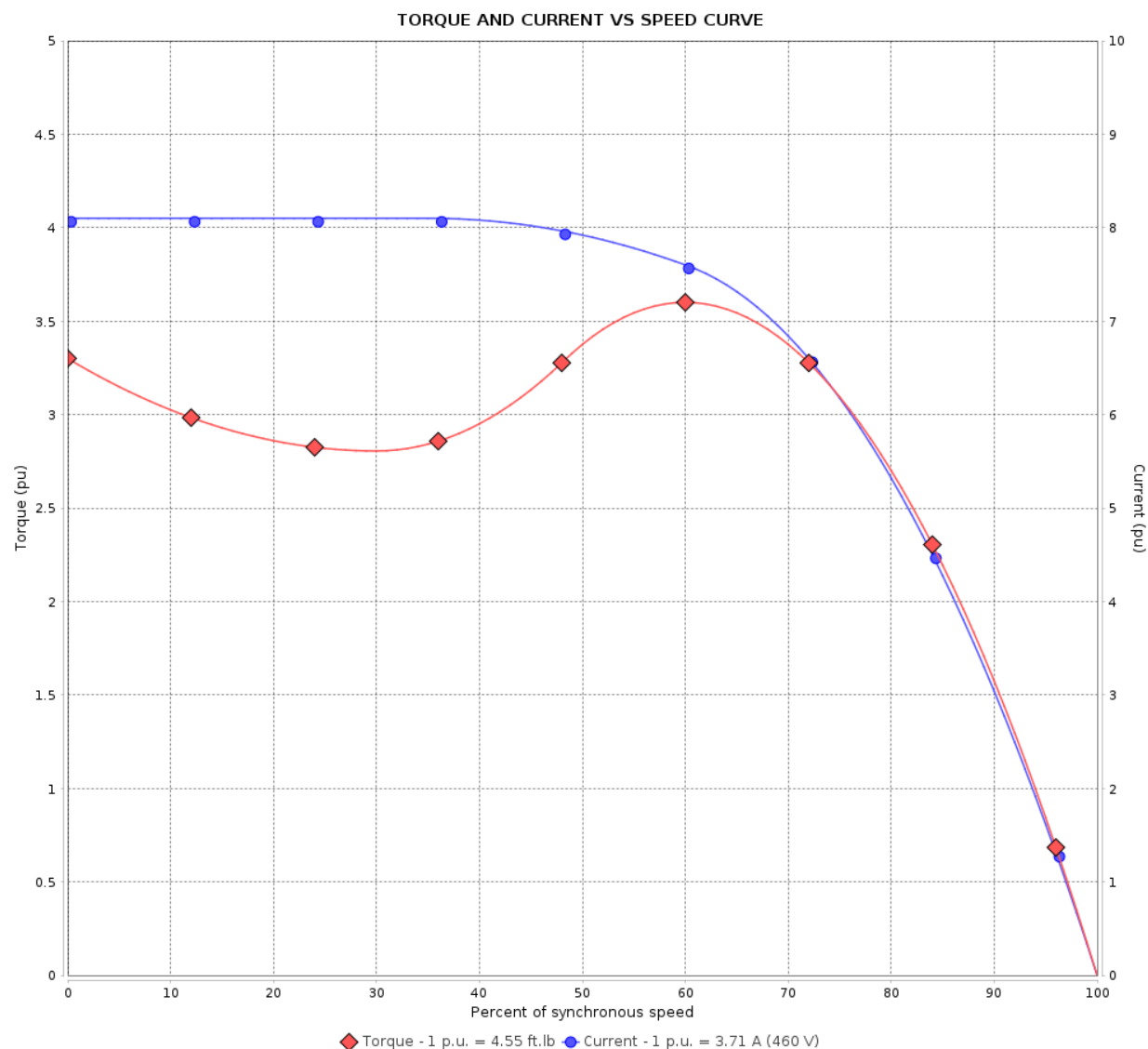


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Rated speed : 3460 rpm

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Locked rotor time : 25s (cold) 14s (hot)

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LOAD PERFORMANCE CURVE

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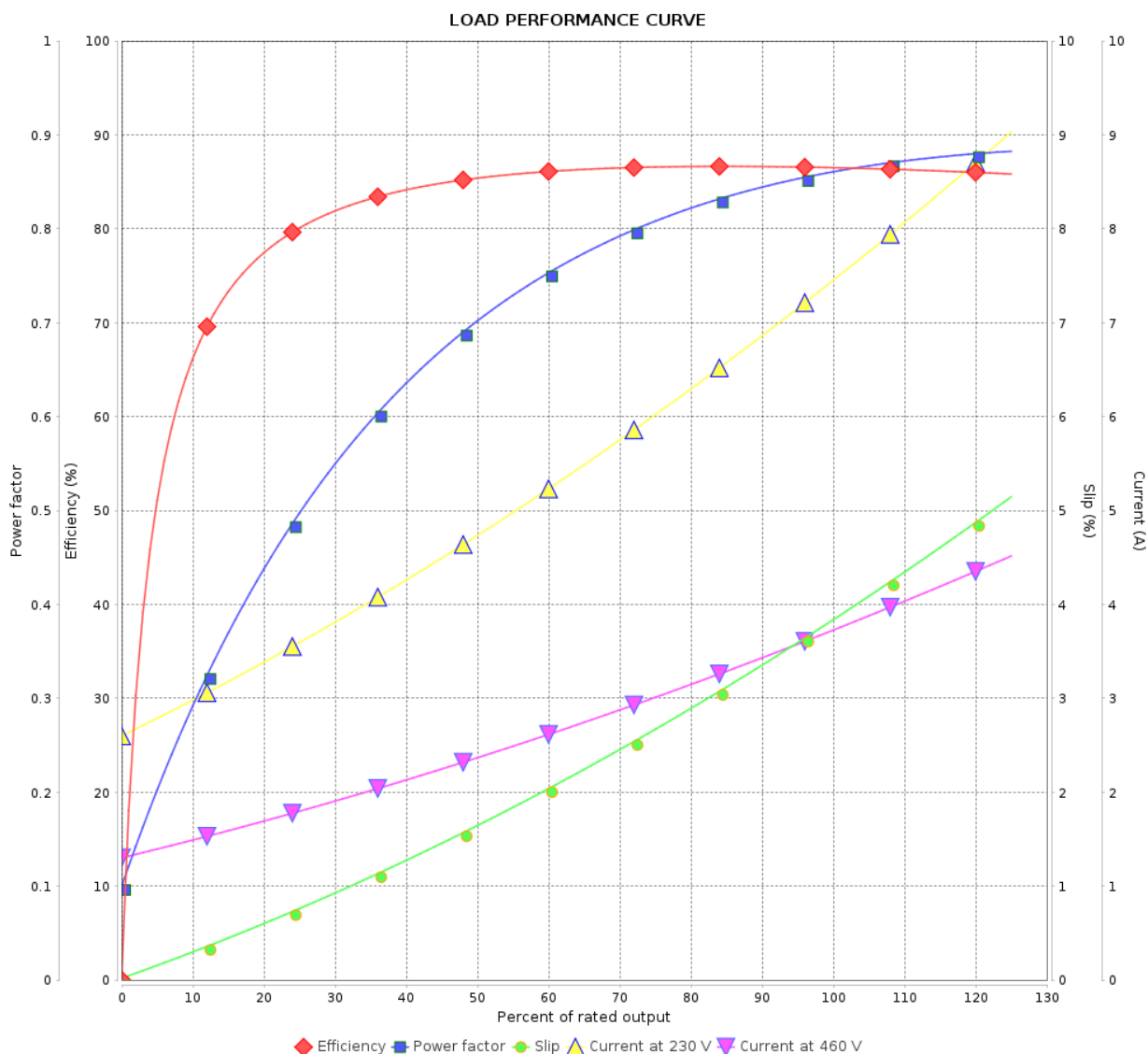


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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

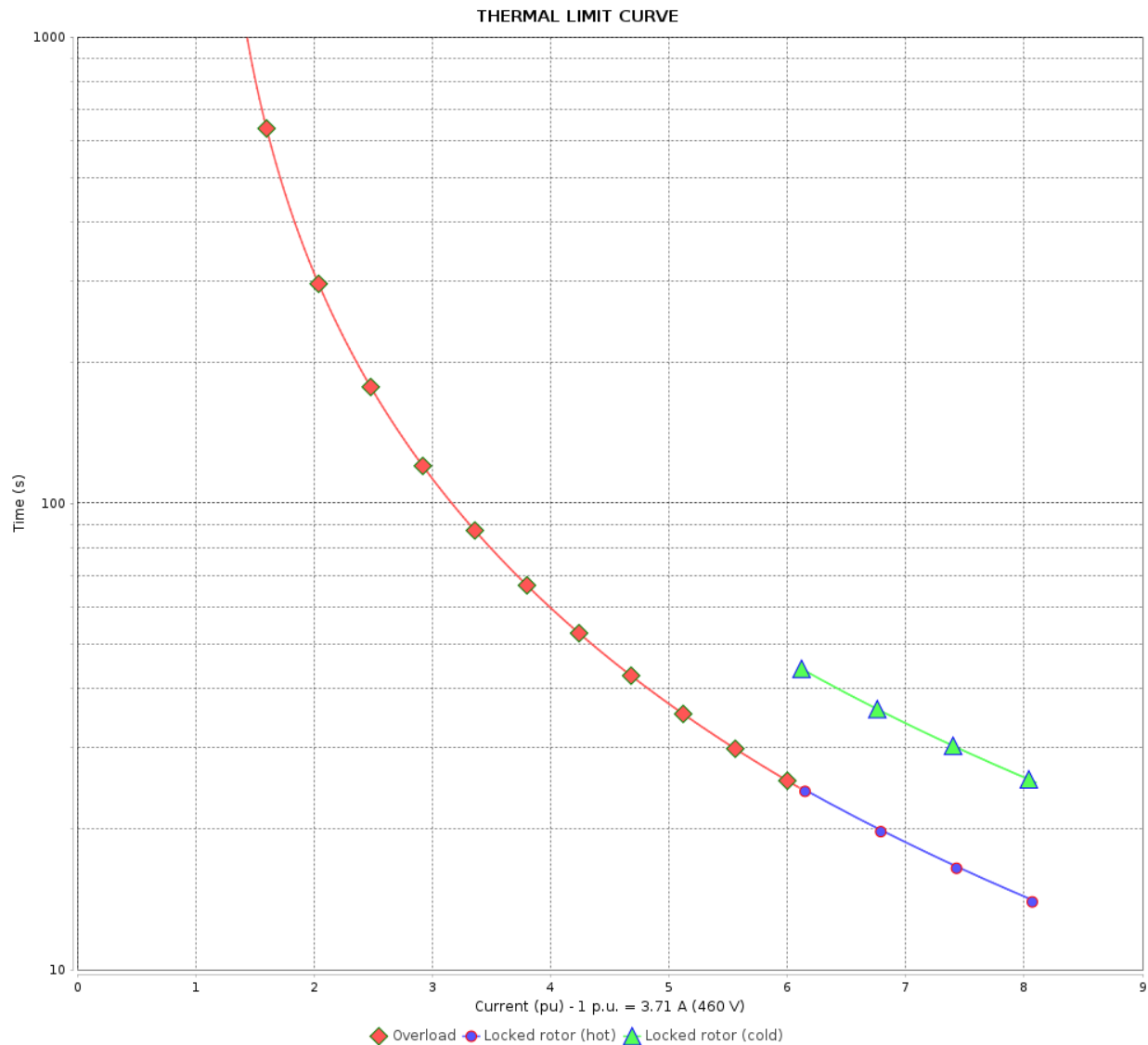
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

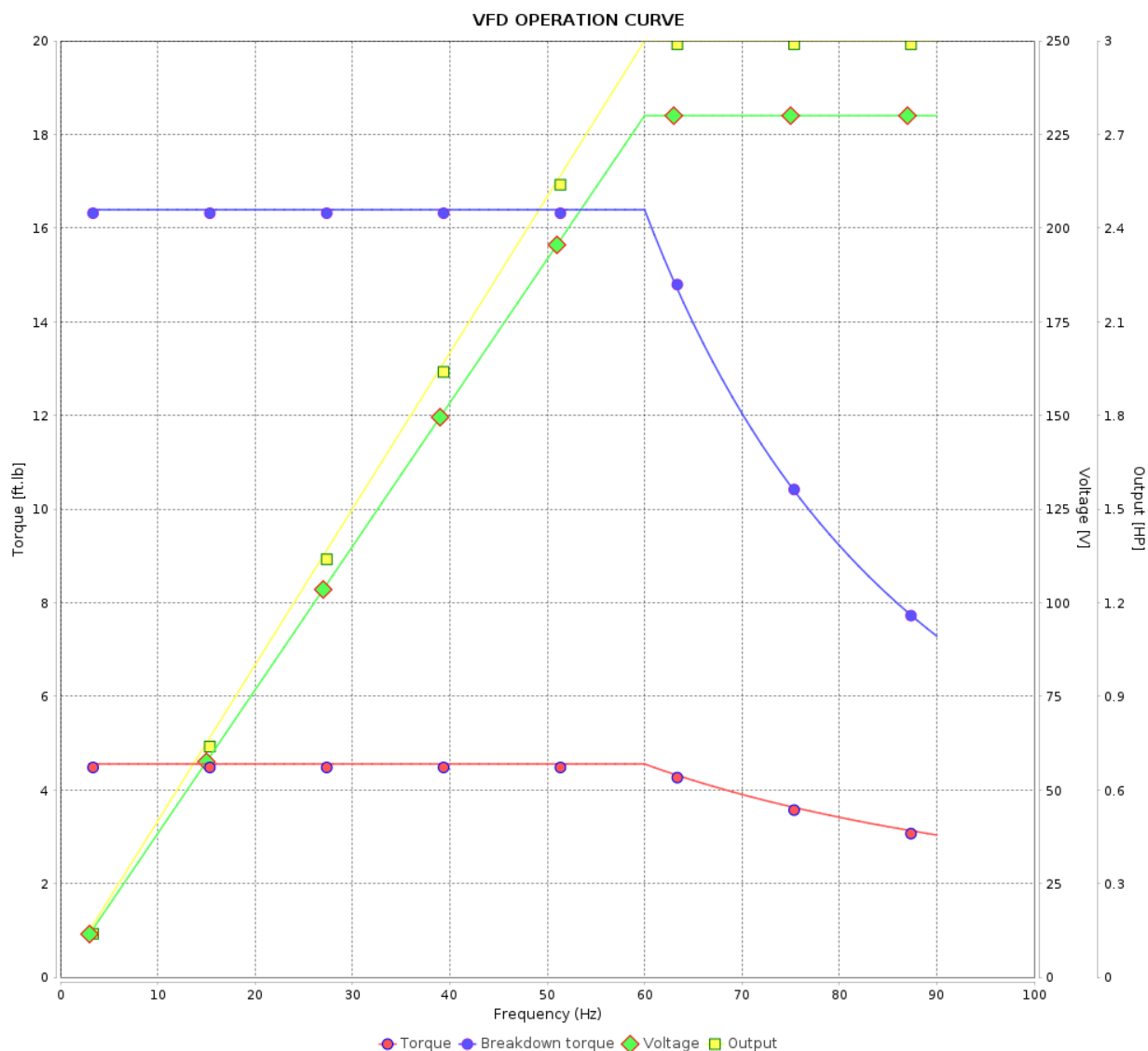


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