

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 High Efficiency Three-Phase Product code : 11816656

Frame	: 213/5TC	Locked rotor time	: 63s (cold) 35s (hot)
Output	: 5 HP (3.7 kW)	Temperature rise	: 80 K
Poles	: 6	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	: 14.2/7.08 A	Protection degree	: IP55
L. R. Amperes	: 90.6/45.3 A	Cooling method	: IC411 - TEFC
LRC	: 6.4x(Code J)	Mounting	: F-1
No load current	: 7.60/3.80 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1165 rpm	Noise level ²	: 55.0 dB(A)
Slip	: 2.92 %	Starting method	: Direct On Line
Rated torque	: 22.5 ft.lb	Approx. weight ³	: 162 lb
Locked rotor torque	: 210 %		
Breakdown torque	: 229 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 1.47 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	86.5	87.5	87.5	Max. traction	: 272 lb
Power Factor	0.55	0.67	0.75	Max. compression	: 438 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)
13.5	11.2	10.8	7.2	5.0	3.7	2.7

	Drive end	Non drive end
Bearing type	: 6308 ZZ	: 6207 ZZ
Sealing	: V'Ring	: V'Ring
Lubrication interval	: -	: -
Lubricant amount	: -	: -
Lubricant type	: 00088	

Notes

USABLE @208V 15.7A SF 1.15 SFA 18.0A

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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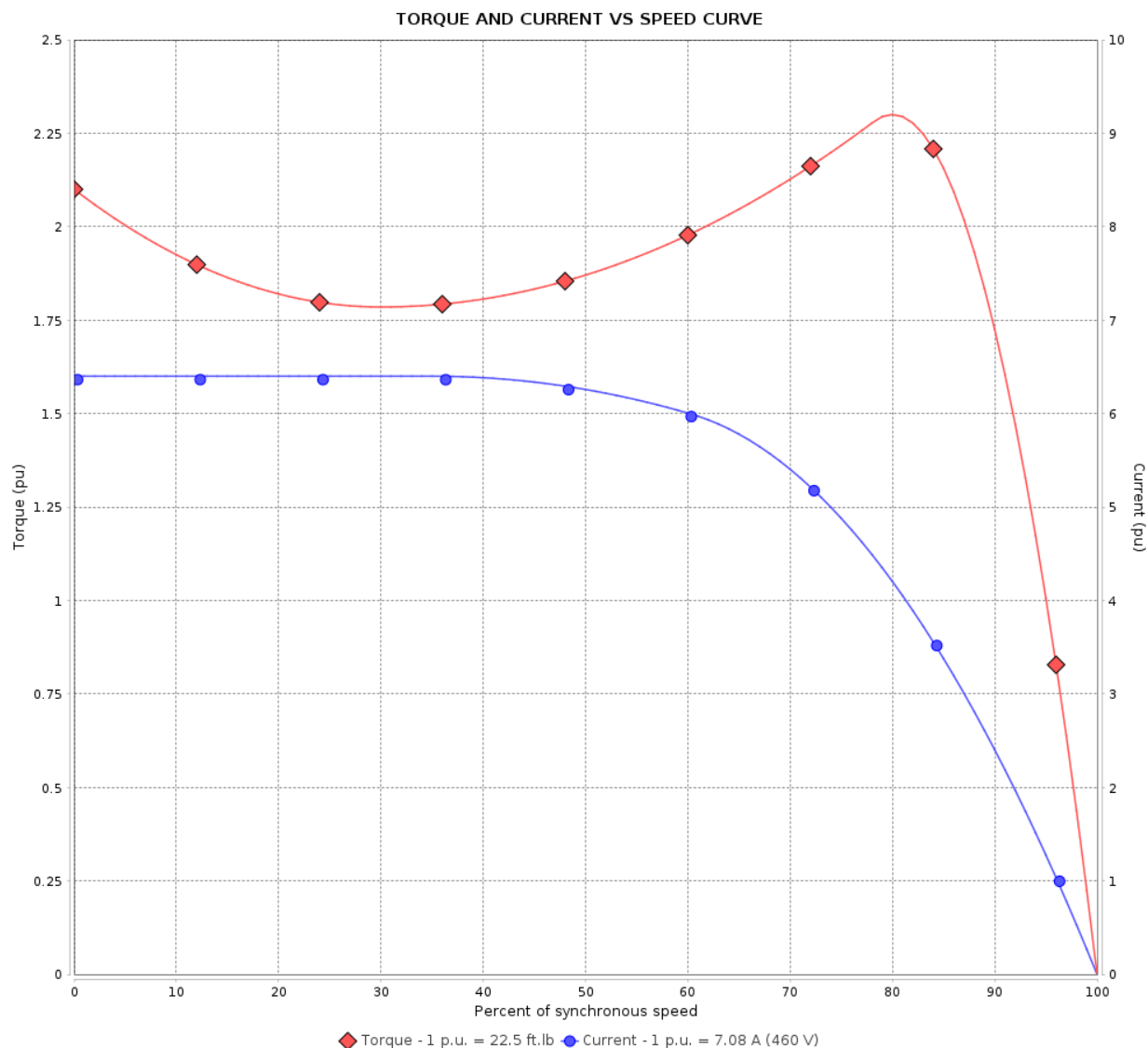
TORQUE AND CURRENT VS SPEED CURVE

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Breakdown torque : 229 %
Rated speed : 1165 rpm

Moment of inertia (J) : 1.47 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 63s (cold) 35s (hot)

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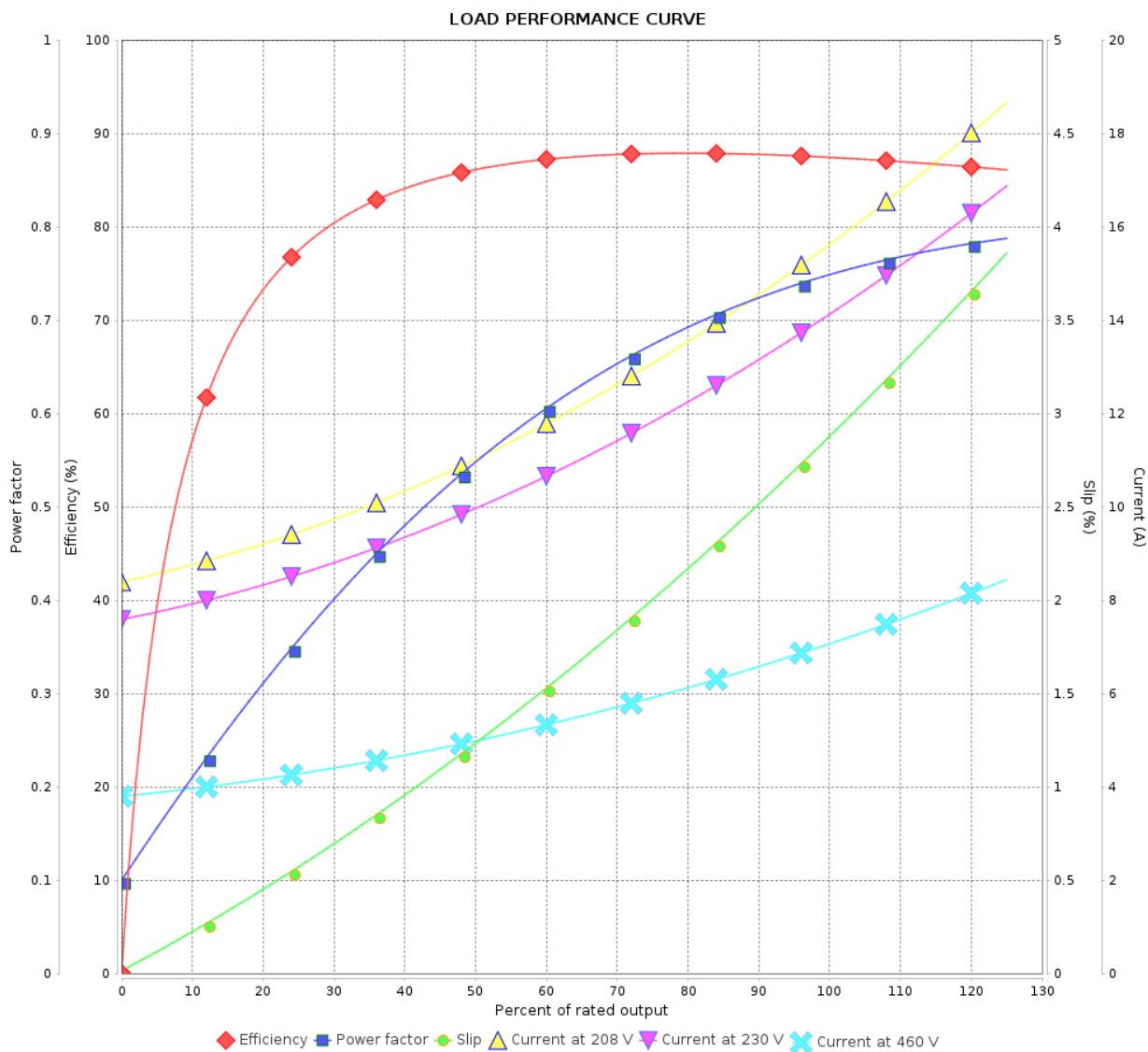
LOAD PERFORMANCE CURVE

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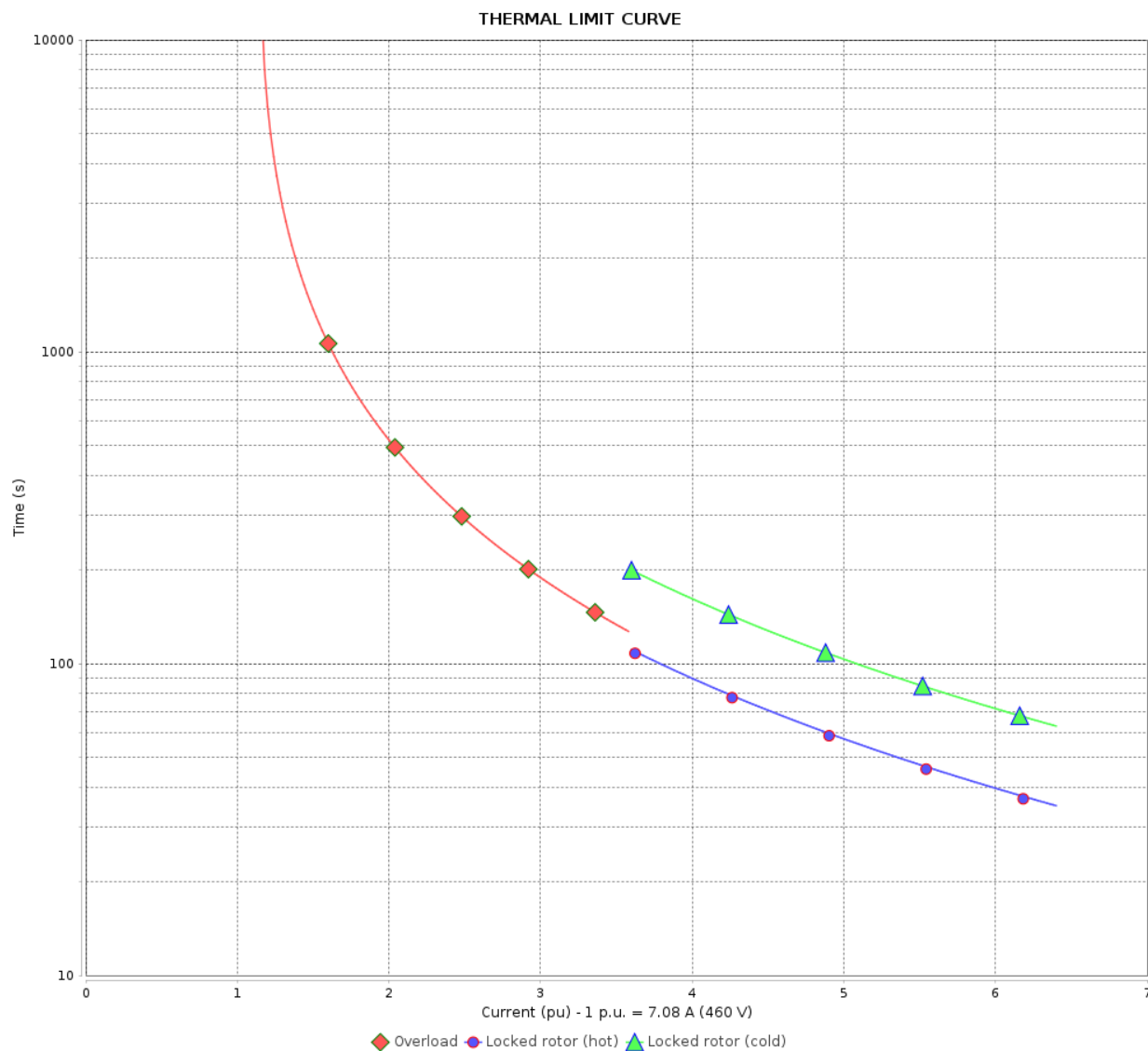
THERMAL LIMIT CURVE

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Heating constant

Cooling constant

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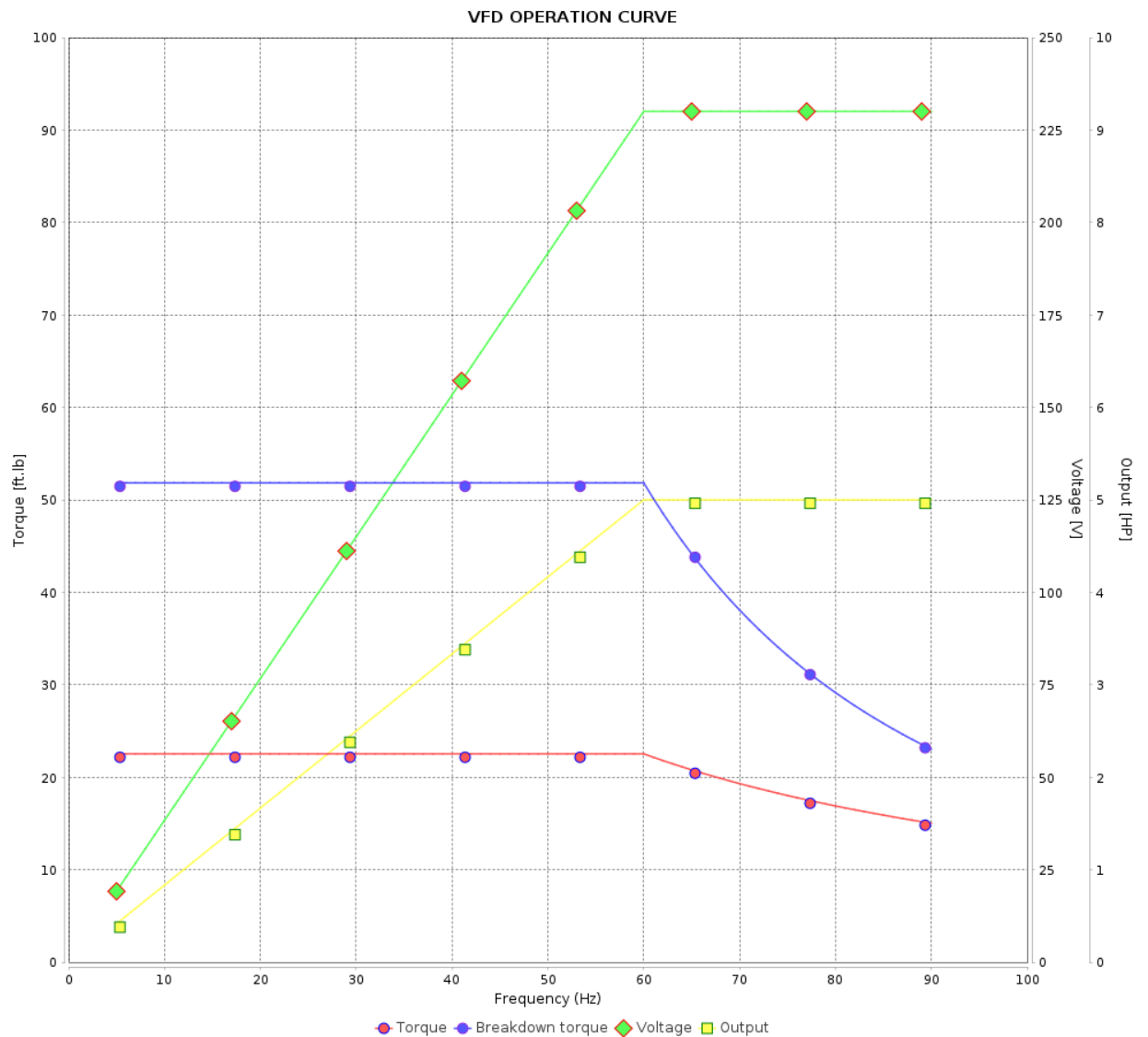
VFD OPERATION CURVE

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