

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase
Product code : 11438180
Catalog # : HT050402NPW22

Frame	: 324/6TS	Locked rotor time	: 36s (cold) 20s (hot)
Output	: 50 HP (37 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	: 115/57.4 A	Protection degree	: IP55
L. R. Amperes	: 723/362 A	Cooling method	: IC411 - TEFC
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 31.8/15.9 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	: 73.8 ft.lb	Approx. weight ³	: 584 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 5.75 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	0.000	93.0	93.0	93.0	Max. traction	: 598 lb
Power Factor	0.00	0.78	0.85	0.87	Max. compression	: 1106 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)
7.0	5.1	4.6	3.8	2.1	1.4	0.8

		<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

USABLE @208V 124A SF 1.10 SFA 136A

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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 1 / 6 Revision		
Checked by				
Date	06/08/2026			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

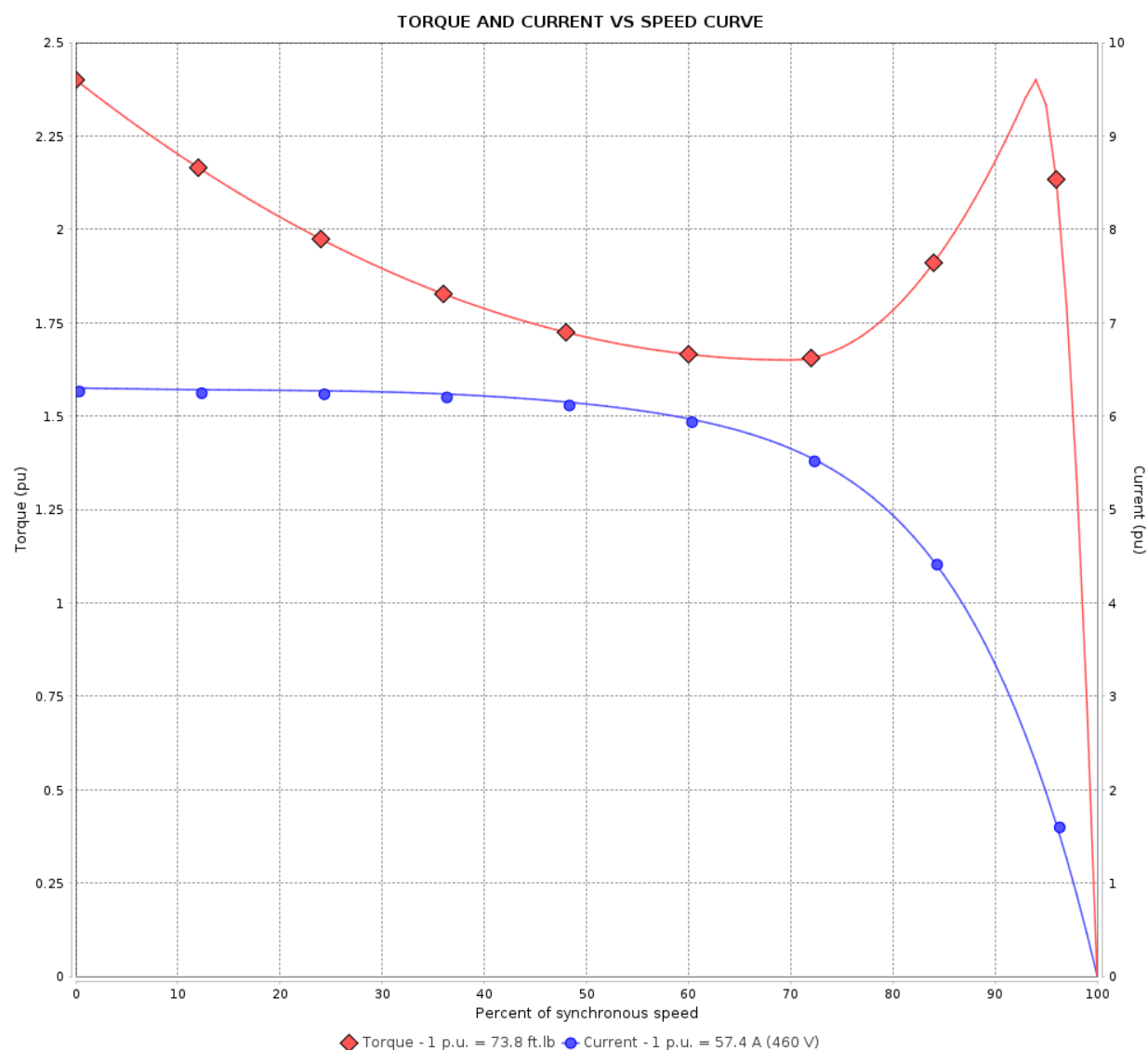


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Breakdown torque : 240 %
Rated speed : 3560 rpm

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Duty cycle : Cont.(S1)
Insulation class : F
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Design : B

Locked rotor time : 36s (cold) 20s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 2 / 6 Revision		
Checked by				
Date	06/08/2026			

LOAD PERFORMANCE CURVE

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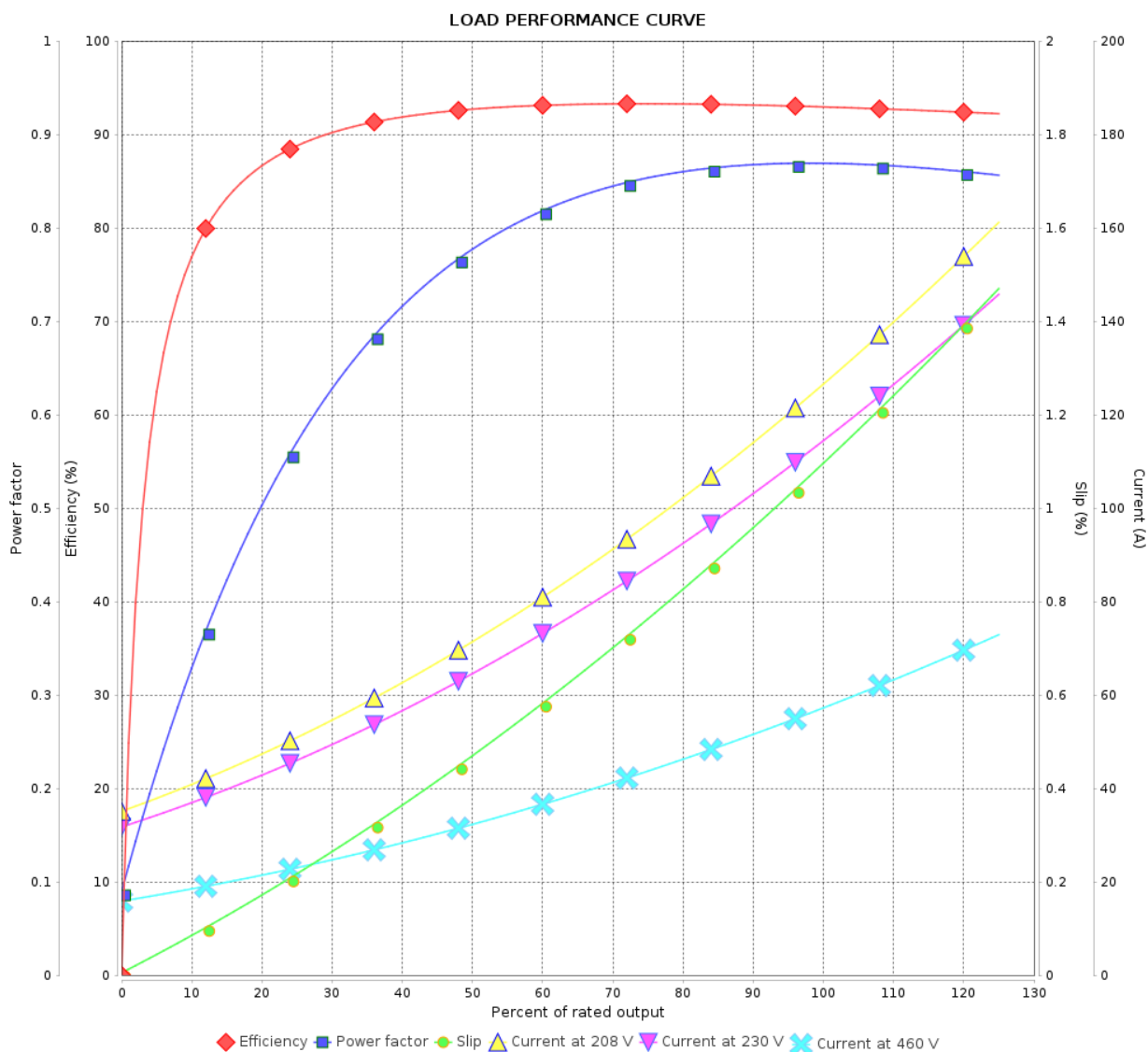


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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 6Revision		
Checked by				
Date	06/08/2026			

THERMAL LIMIT CURVE

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Heating constant

Cooling constant

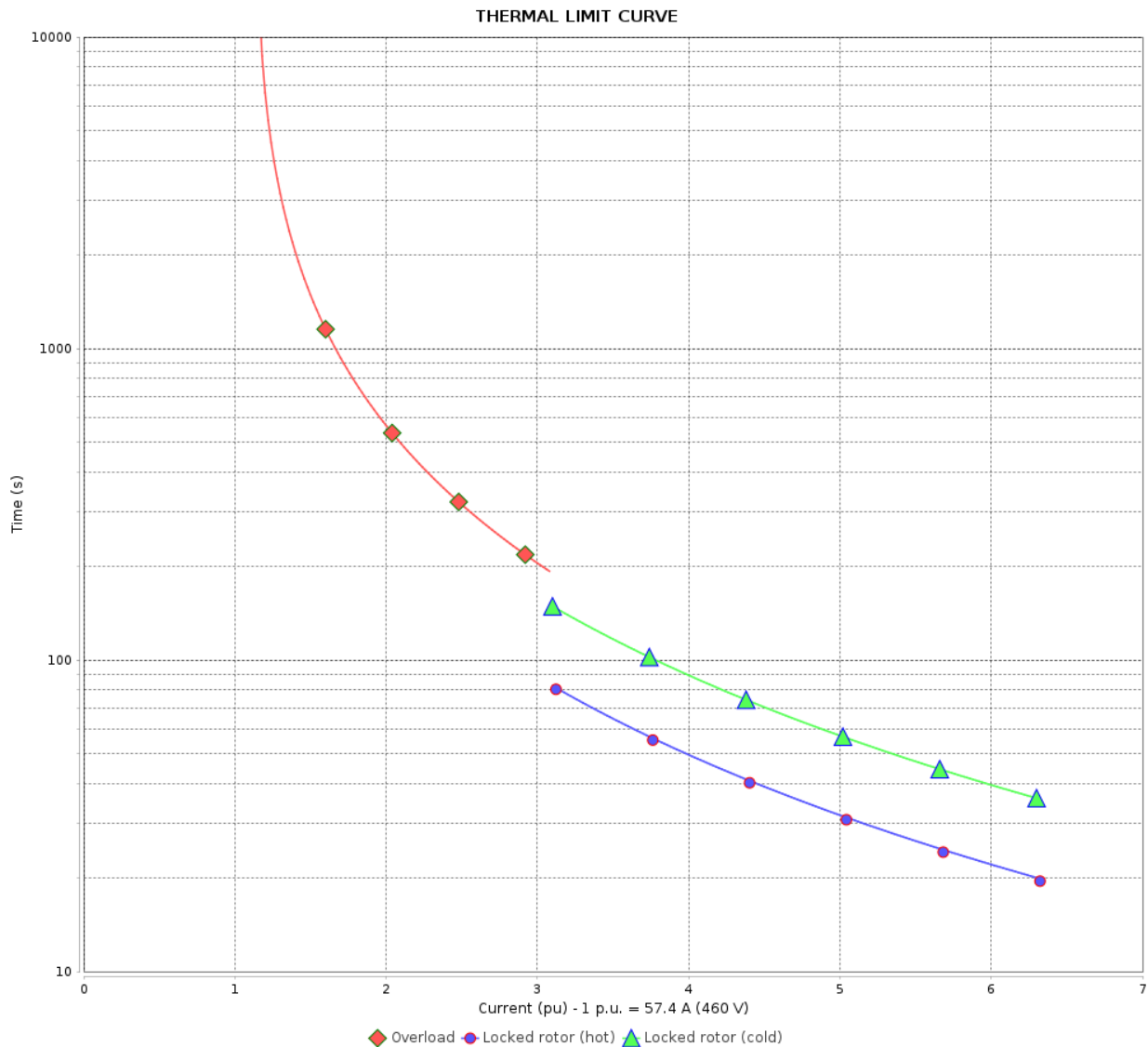
Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 4 / 6		Revision
Checked by					
Date	06/08/2026				

THERMAL LIMIT CURVE

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Rev.	Changes Summary		Performed	Checked	Date
Performed by					Page 5 / 6
Checked by					
Date	06/08/2026				
					Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

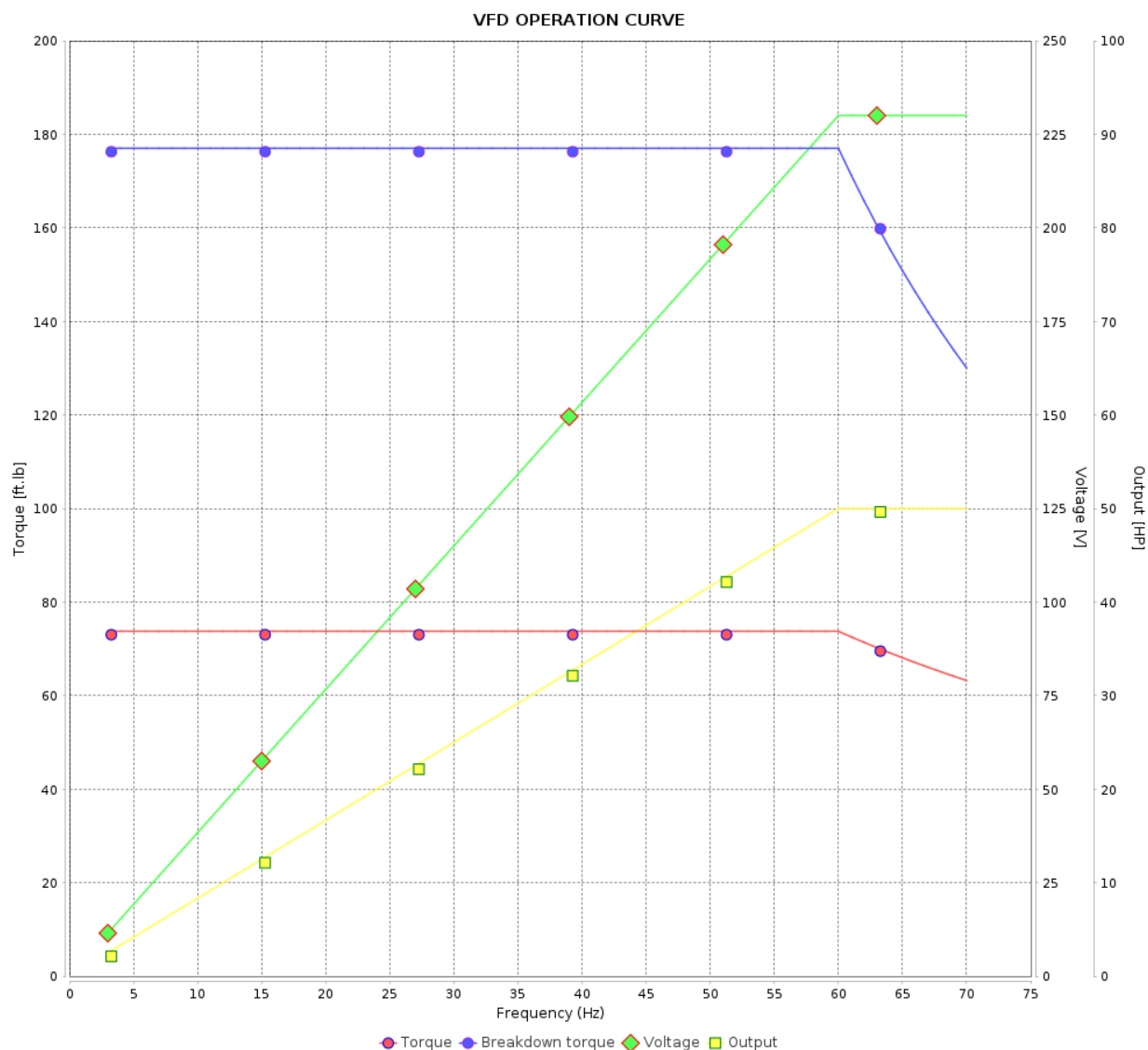


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Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 6 / 6	Revision
Checked by					
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