

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 High Efficiency Three-Phase Product code : 11399629

Frame	: 404/5T	Locked rotor time	: 19s (cold) 11s (hot)
Output	: 60 HP (45 kW)	Temperature rise	: 80 K
Poles	: 8	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 575 V	Altitude	: 1000 m.a.s.l.
Rated current	: 59.4 A	Protection degree	: IP55
L. R. Amperes	: 374 A	Cooling method	: IC411 - TEFC
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 23.2 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 880 rpm	Noise level ²	: 60.0 dB(A)
Slip	: 2.22 %	Starting method	: Direct On Line
Rated torque	: 358 ft.lb	Approx. weight ³	: 1047 lb
Locked rotor torque	: 180 %		
Breakdown torque	: 250 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 36.9 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	91.7	92.4	91.7	Max. traction	: 2135 lb
Power Factor	0.70	0.80	0.83	Max. compression	: 3239 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)
8.7	7.5	7.6	3.6	2.7	1.6	1.2

	Drive end	Non drive end
Bearing type	: NU-316 C3	6314 C3
Sealing	: WSeal	WSeal
Lubrication interval	: 17000 h	20000 h
Lubricant amount	: 34 g	27 g
Lubricant type	Mobil Polyrex EM	

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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	16/07/2026			
			Page	Revision
			1 / 5	

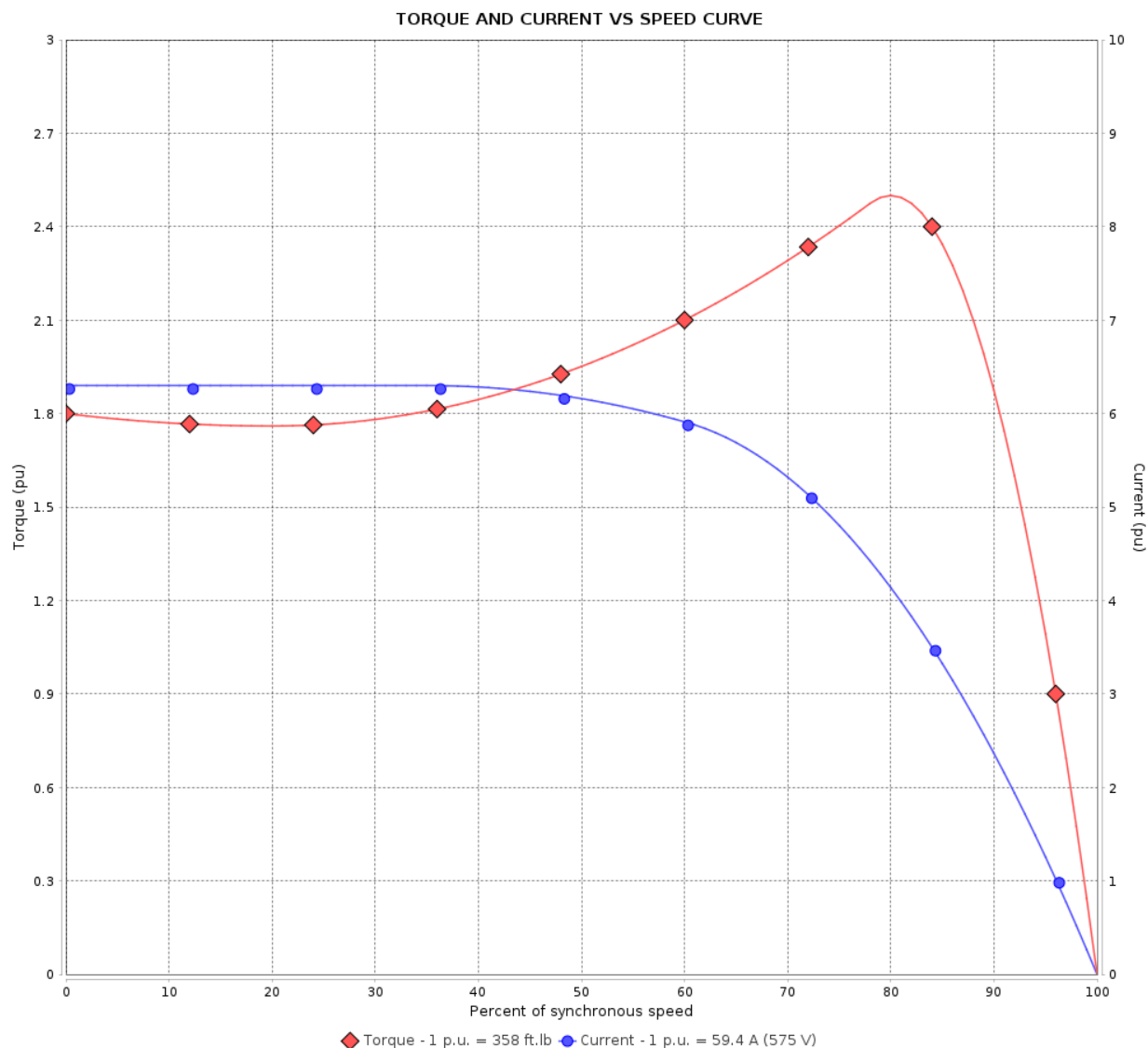
TORQUE AND CURRENT VS SPEED CURVE

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Breakdown torque	: 250 %	Temperature rise	: 80 K
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Locked rotor time : 19s (cold) 11s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 2 / 5 Revision		
Checked by				
Date	16/07/2026			

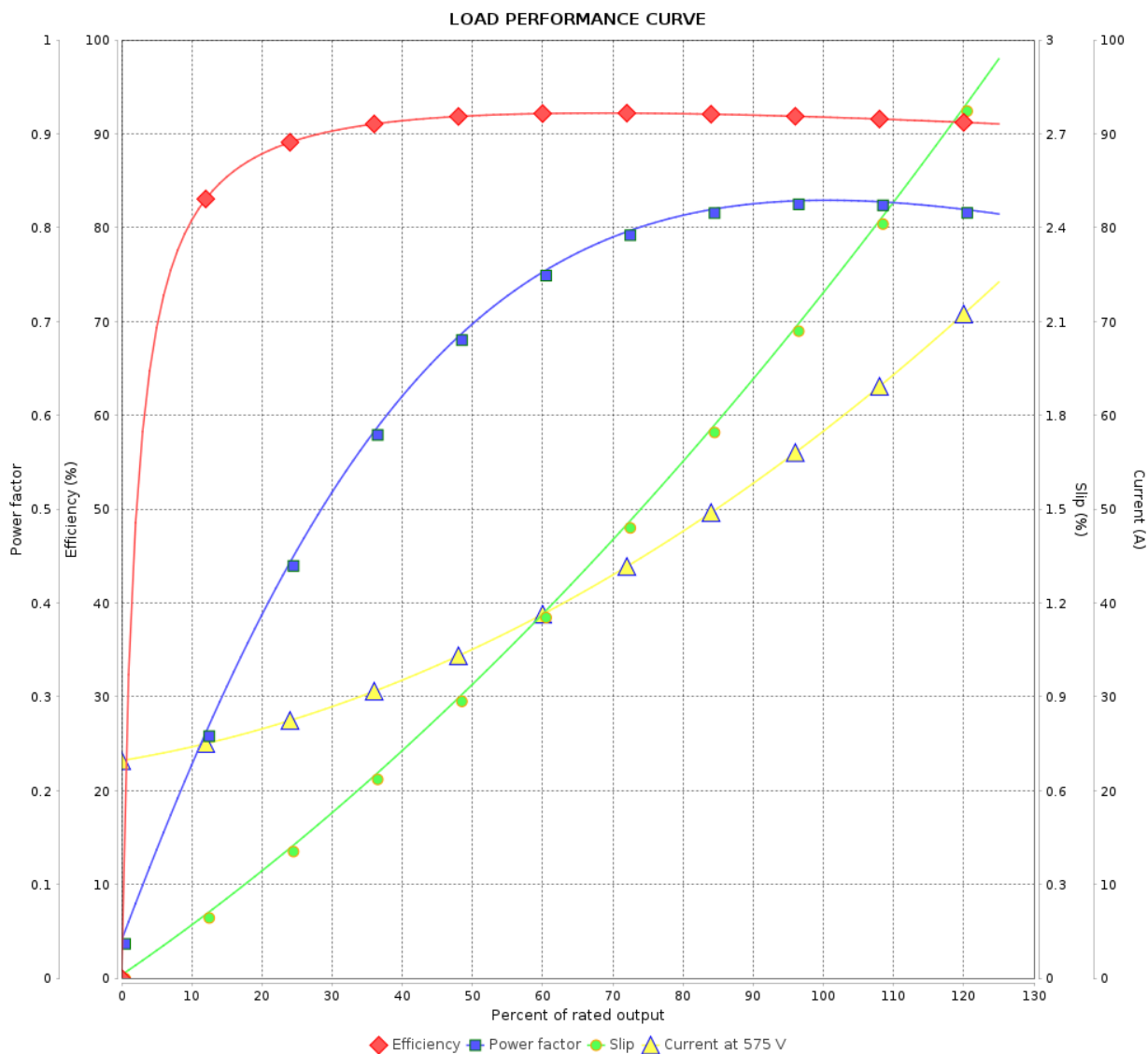
LOAD PERFORMANCE CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 5 Revision		
Checked by				
Date	16/07/2026			

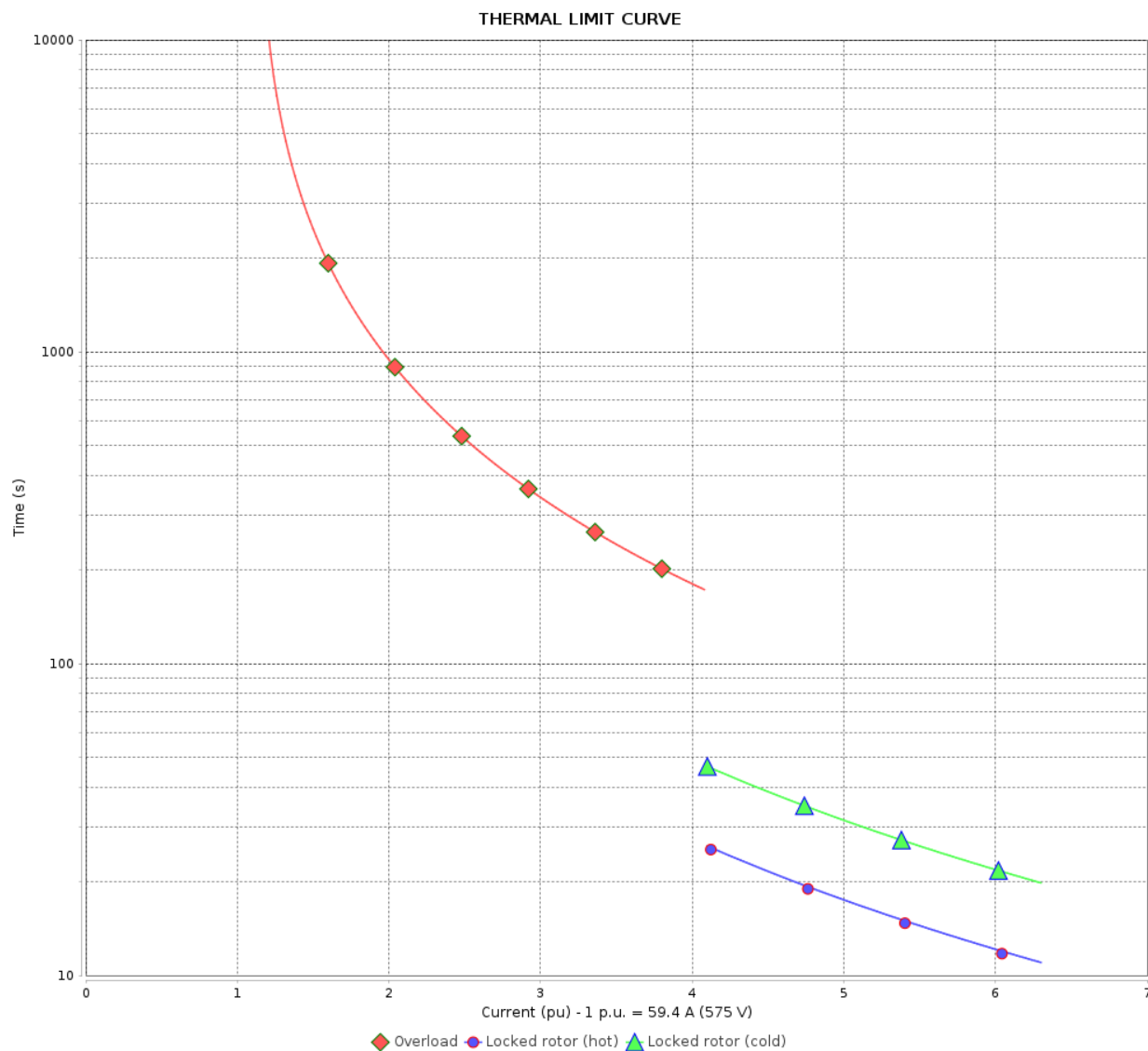
THERMAL LIMIT CURVE

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Heating constant

Cooling constant

Rev.	Changes Summary		Performed	Checked	Date
Performed by		Page 4 / 5Revision			
Checked by					
Date	16/07/2026				

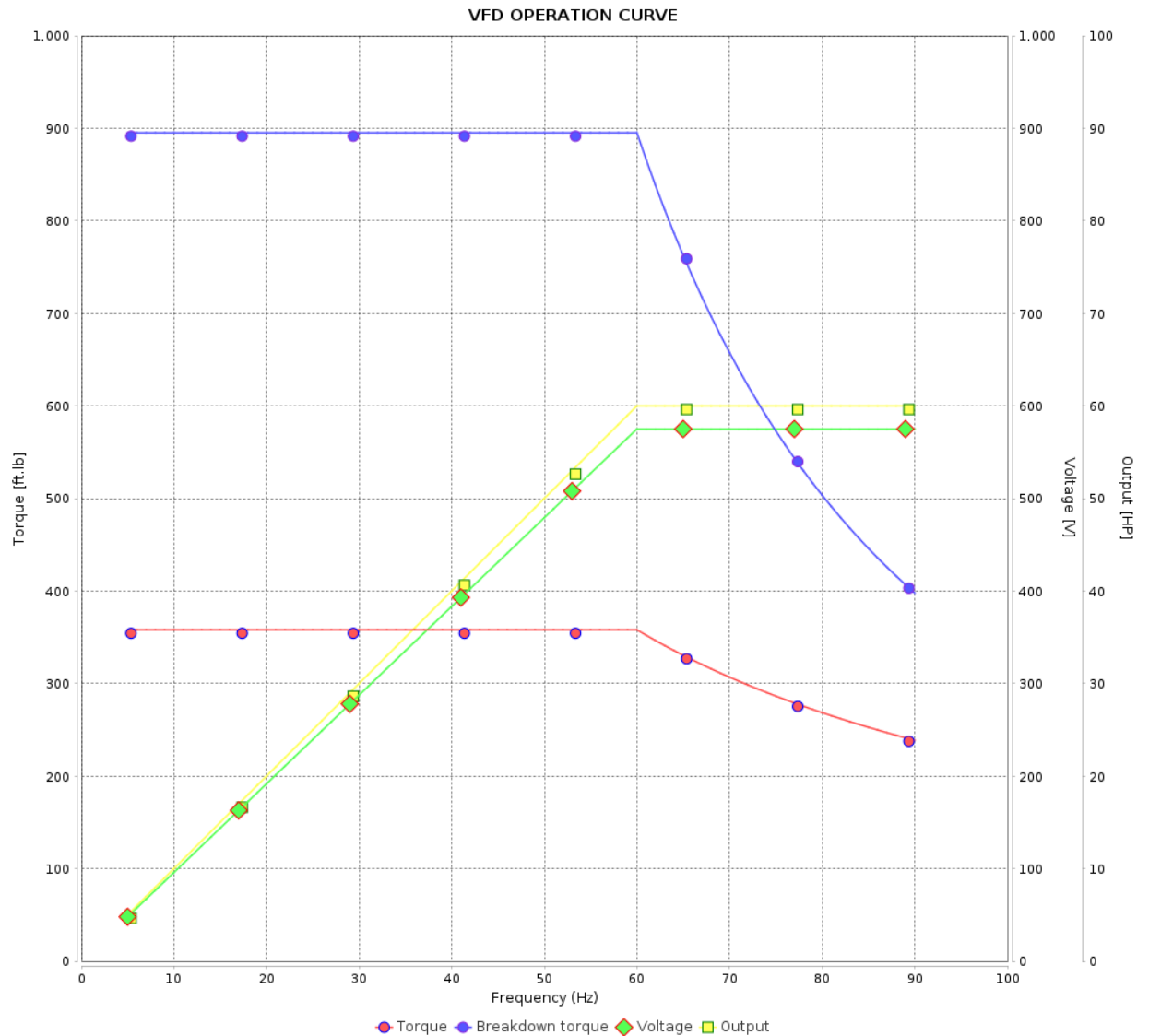
VFD OPERATION CURVE

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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 5 Revision		
Checked by				
Date	16/07/2026			

