

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12751348
Catalog # : CT040506NPW22

Frame	: 364/5TC	Locked rotor time	: 37s (cold) 21s (hot)
Output	: 40 HP (30 kW)	Temperature rise	: 80 K
Poles	: 6	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	: 37.2 A	Protection degree	: IP55
L. R. Amperes	: 238 A	Cooling method	: IC411 - TEFC
LRC	: 6.4x(Code G)	Mounting	: F-1
No load current	: 13.2 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1183 rpm	Noise level ²	: 66.0 dB(A)
Slip	: 1.42 %	Starting method	: Direct On Line
Rated torque	: 178 ft.lb	Approx. weight ³	: 833 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 21.8 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	93.6	93.6	94.1	Max. traction	: 1015 lb
Power Factor	0.73	0.82	0.86	Max. compression	: 1902 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)
6.1	5.0	4.4	2.8	1.9	1.1	0.8

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6314 C3	6314 C3
Sealing	:	Oil Seal	Oil Seal
Lubrication interval	:	17000 h	17000 h
Lubricant amount	:	27 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		Page Revision 1 / 6		
Checked by				
Date	16/07/2026			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

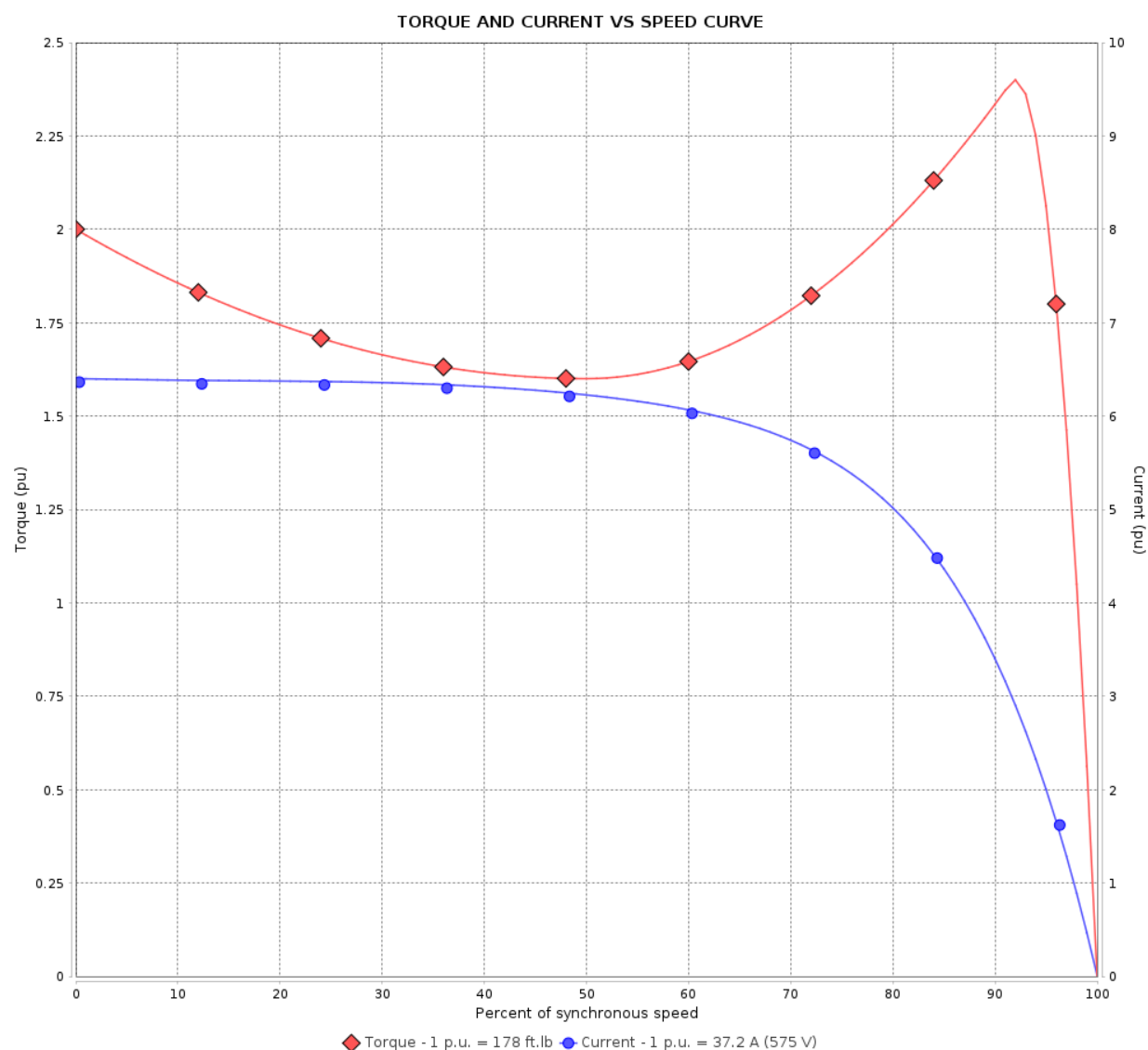


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Catalog # : CT040506NPW22



Performance : 575 V 60 Hz 6P

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LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 178 ft.lb	Insulation class	: F
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Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1183 rpm	Design	: B

Locked rotor time : 37s (cold) 21s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	16/07/2026		Page 2 / 6	Revision

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

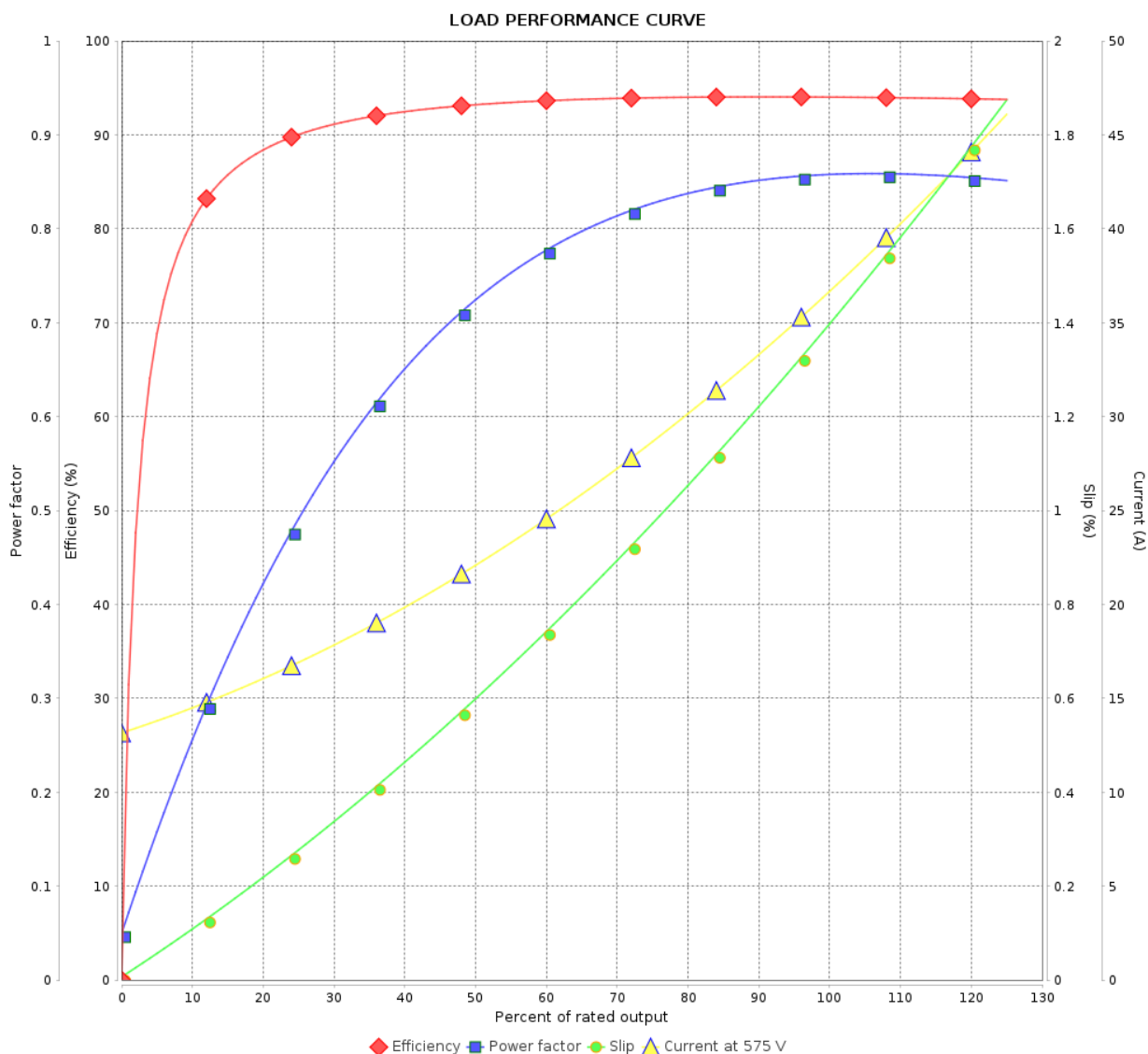


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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 6Revision		
Checked by				
Date	16/07/2026			

THERMAL LIMIT CURVE

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Rated speed	: 1183 rpm	Design	: B

Heating constant

Cooling constant

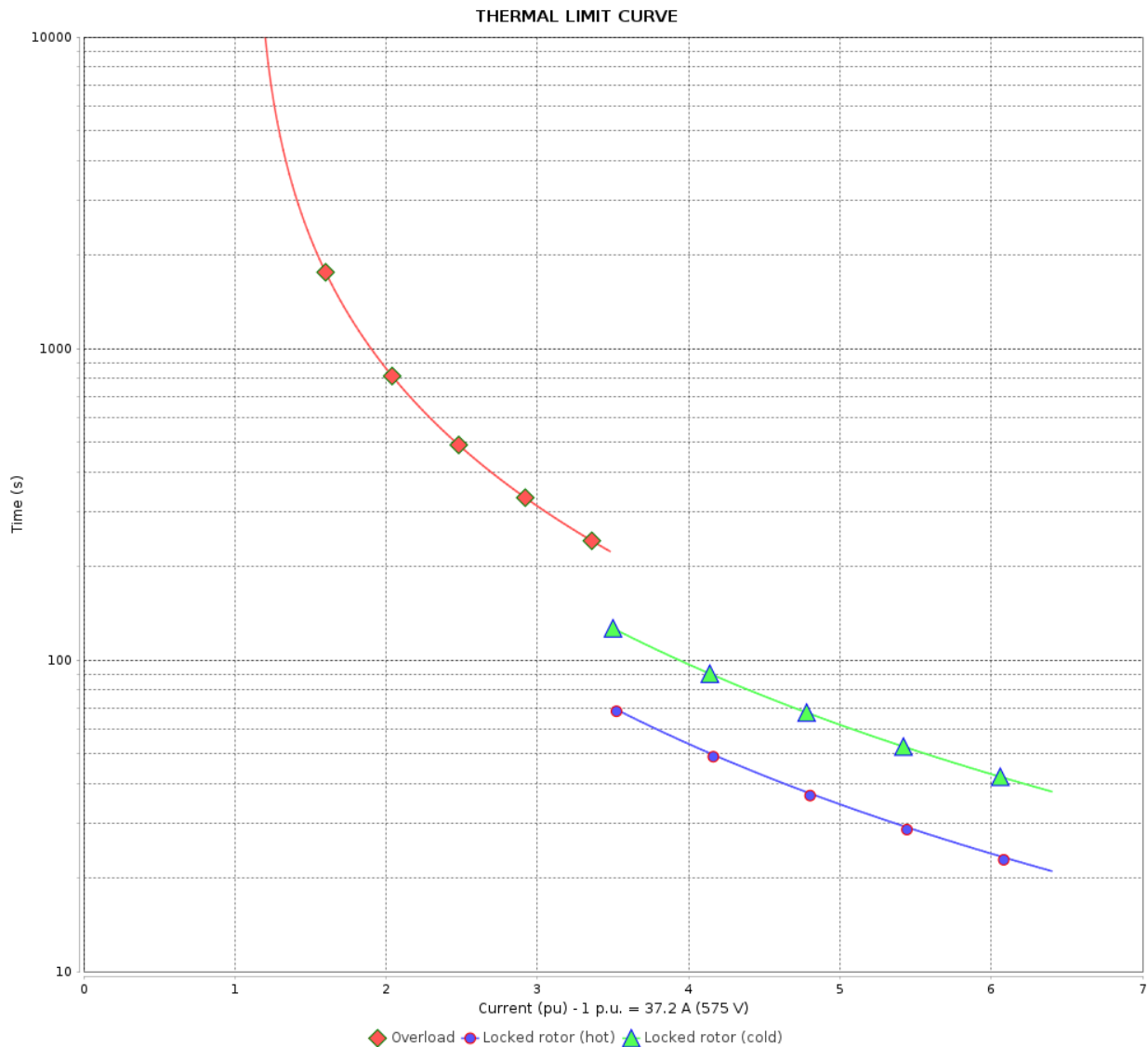
Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page		Revision
Checked by					
Date	16/07/2026				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Rev.	Changes Summary		Performed	Checked	Date
Performed by					Page 5 / 6
Checked by					
Date	16/07/2026				
		Revision			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

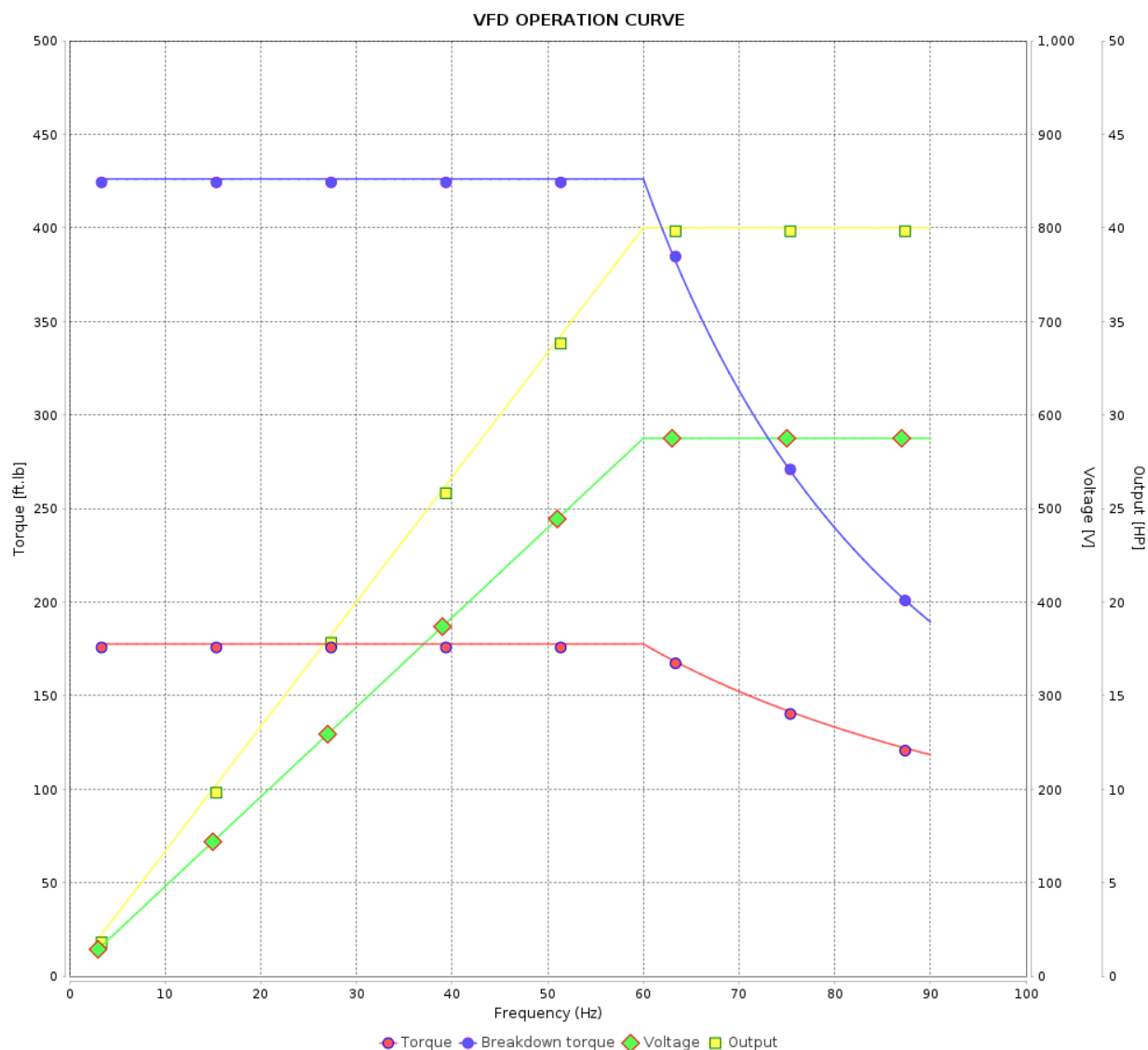


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Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				6 / 6	
Date					

