

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11616140
Catalog # : HT100502NPW22

Frame	: 404/5TS	Locked rotor time	: 25s (cold) 14s (hot)
Output	: 100 HP (75 kW)	Temperature rise	: 80 K
Poles	: 2	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	: 89.6 A	Protection degree	: IP55
L. R. Amperes	: 582 A	Cooling method	: IC411 - TEFC
LRC	: 6.5x(Code G)	Mounting	: F-1
No load current	: 20.8 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 3545 rpm	Noise level ²	: 79.0 dB(A)
Slip	: 1.53 %	Starting method	: Direct On Line
Rated torque	: 148 ft.lb	Approx. weight ³	: 1102 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 13.2 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	93.0	94.1	94.1	Max. traction	: 614 lb
Power Factor	0.83	0.88	0.89	Max. compression	: 1698 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)
5.9	4.6	4.4	2.8	1.6	0.9	0.5

	Drive end	Non drive end
Bearing type	: 6314 C3	: 6314 C3
Sealing	: WSeal	: WSeal
Lubrication interval	: 4000 h	: 4000 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				
Checked by				
Date	02/07/2026		Page 1 / 6	Revision

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

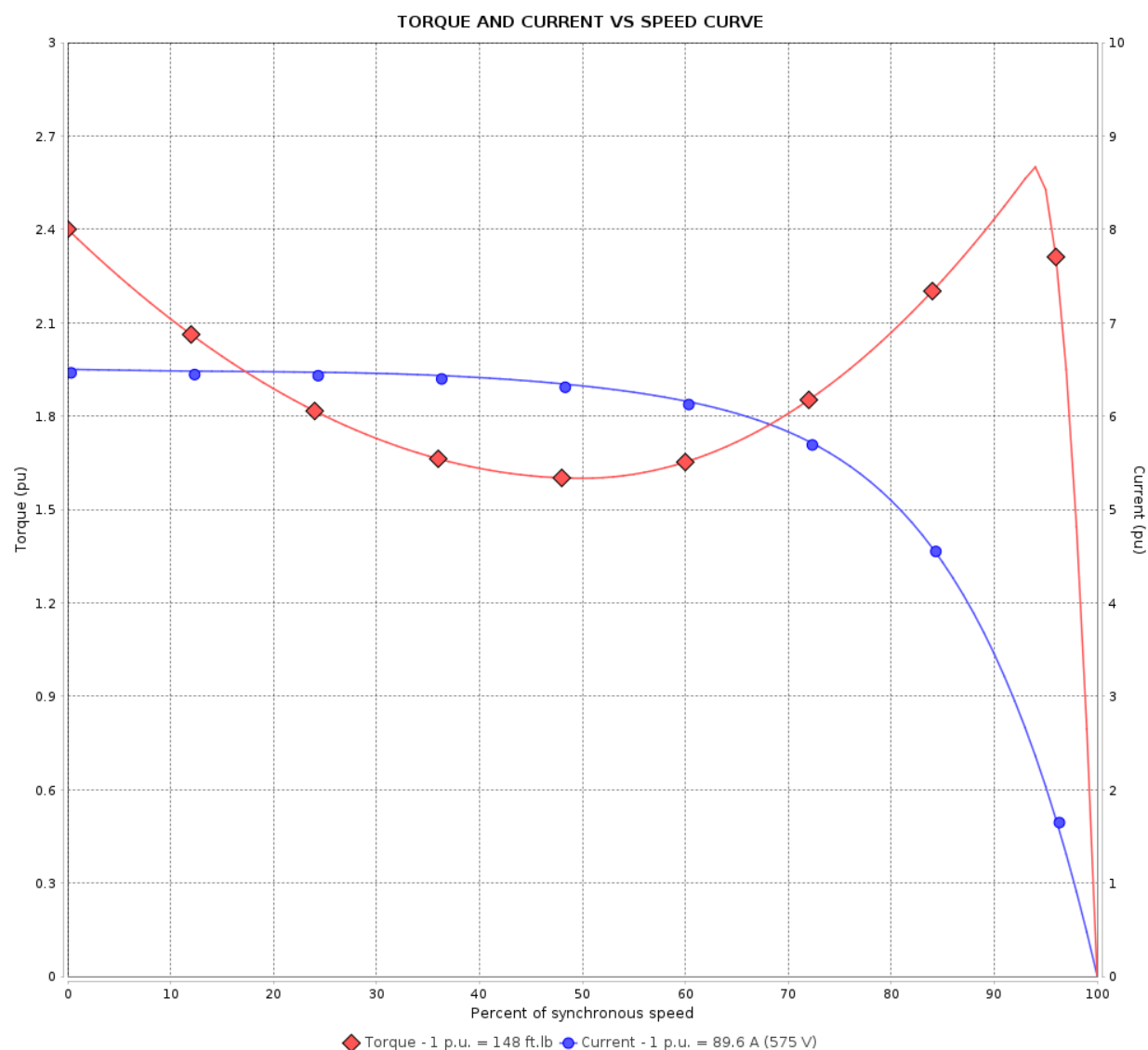


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11616140

Catalog # : HT100502NPW22



Performance : 575 V 60 Hz 2P

Rated current	: 89.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 2 / 6Revision		
Checked by				
Date	02/07/2026			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

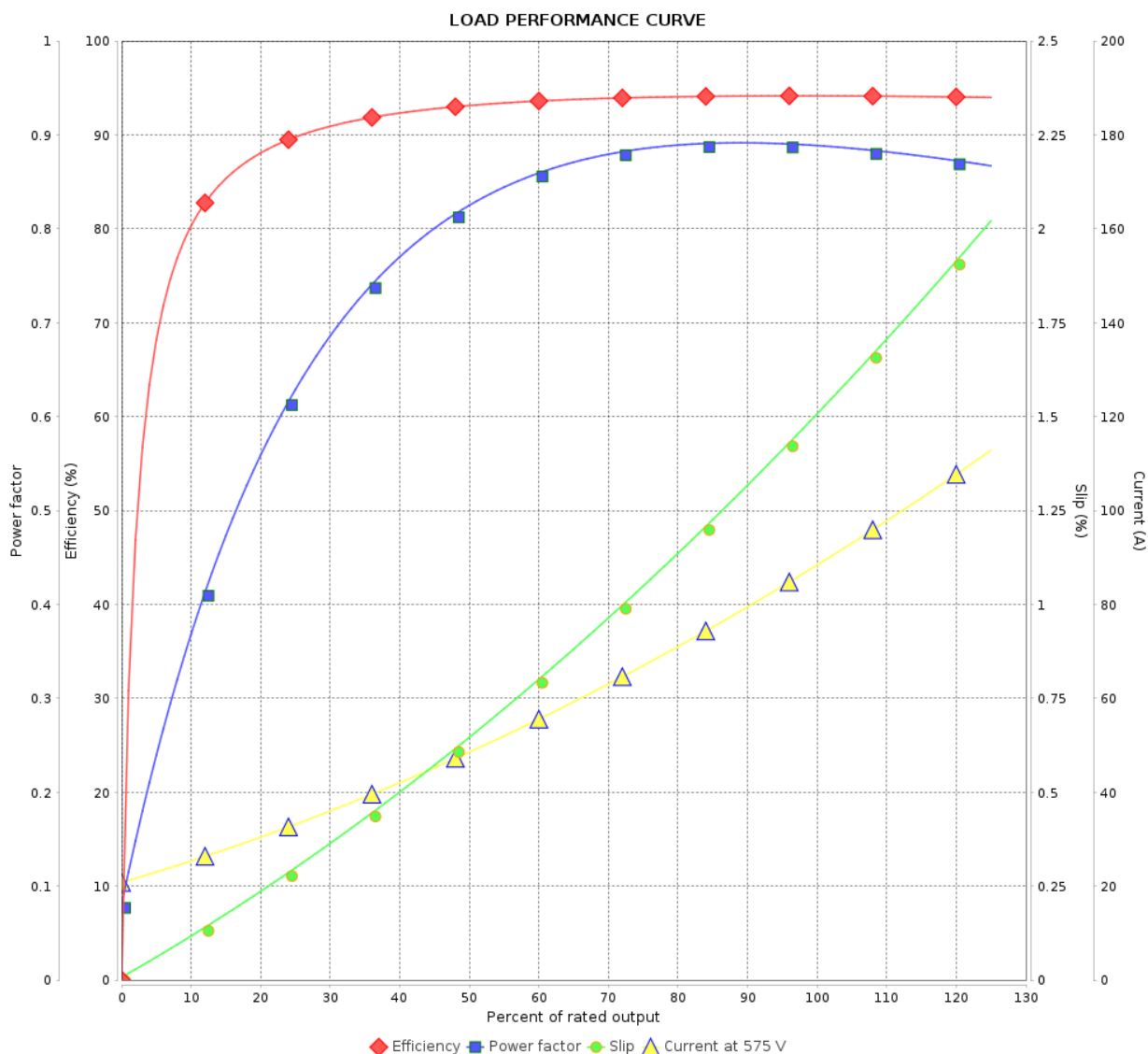


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11616140

Catalog # : HT100502NPW22



Performance : 575 V 60 Hz 2P

Rated current : 89.6 A
LRC : 6.5
Rated torque : 148 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 260 %
Rated speed : 3545 rpm

Moment of inertia (J) : 13.2 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 6Revision		
Checked by				
Date	02/07/2026			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11616140

Catalog # : HT100502NPW22

Performance : 575 V 60 Hz 2P

Rated current	: 89.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

02/07/2026

Page

4 / 6

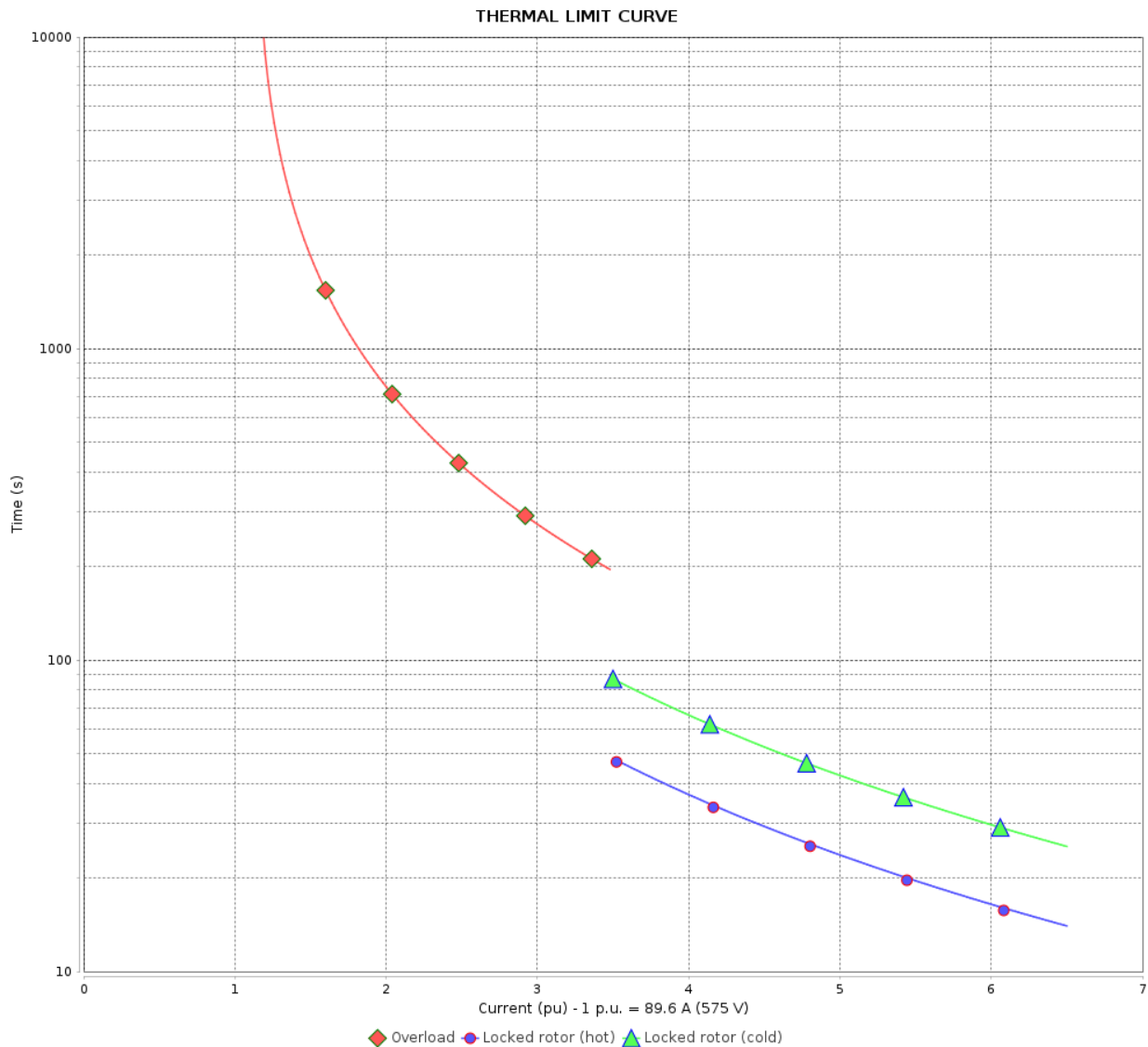
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	02/07/2026				
				Page 5 / 6	Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

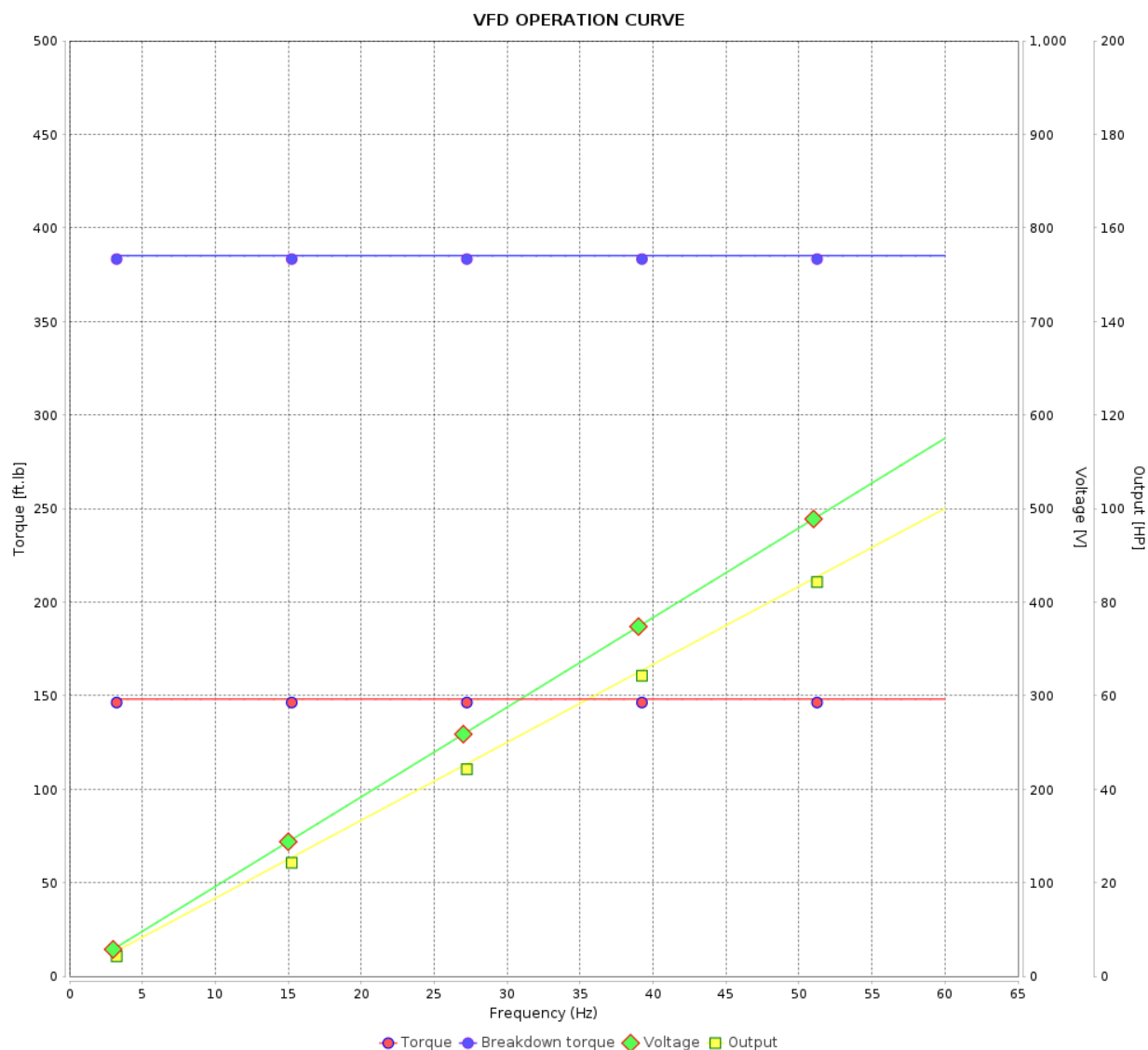


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11616140

Catalog # : HT100502NPW22



Performance : 575 V 60 Hz 2P

Rated current : 89.6 A
LRC : 6.5
Rated torque : 148 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 260 %
Rated speed : 3545 rpm

Moment of inertia (J) : 13.2 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 6 / 6
Checked by				
Date				
	02/07/2026			Revision

