

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase
Product code : 11580967
Catalog # : CT020406NPW22

Frame	: 284/6TC	Locked rotor time	: 28s (cold) 16s (hot)
Output	: 20 HP (15 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	: 48.3/24.1 A	Protection degree	: IP55
L. R. Amperes	: 299/150 A	Cooling method	: IC411 - TEFC
LRC	: 6.2x(Code G)	Mounting	: F-1
No load current	: 19.0/9.50 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1175 rpm	Noise level ²	: 59.0 dB(A)
Slip	: 2.08 %	Starting method	: Direct On Line
Rated torque	: 89.4 ft.lb	Approx. weight ³	: 426 lb
Locked rotor torque	: 229 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 9.16 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	91.0	91.7	91.7	Max. traction	: 904 lb
Power Factor	0.70	0.80	0.85	Max. compression	: 1351 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)
8.5	7.1	6.9	4.6	3.2	2.3	1.7

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6311 C3	6211 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	18 g	11 g
Lubricant type	:	Mobil Polyrex EM	

Notes

USABLE @208V 53.5A SF 1.15 SFA 61.5A

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	13/07/2026			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

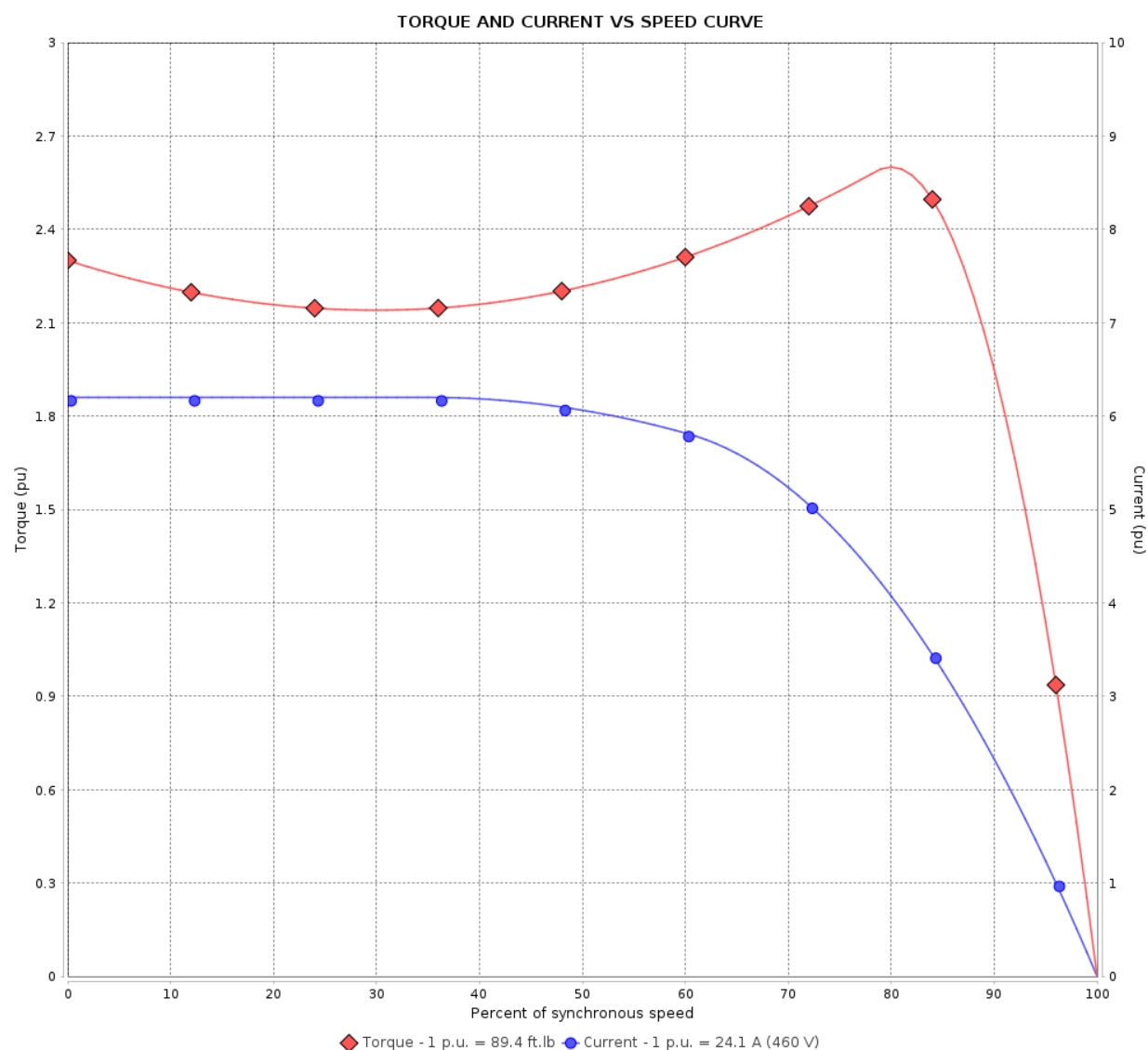


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11580967

Catalog # : CT020406NPW22



Performance : 230/460 V 60 Hz 6P

Rated current : 48.3/24.1 A
LRC : 6.2
Rated torque : 89.4 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1175 rpm

Moment of inertia (J) : 9.16 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 28s (cold) 16s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 2 / 6Revision		
Checked by				
Date	13/07/2026			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

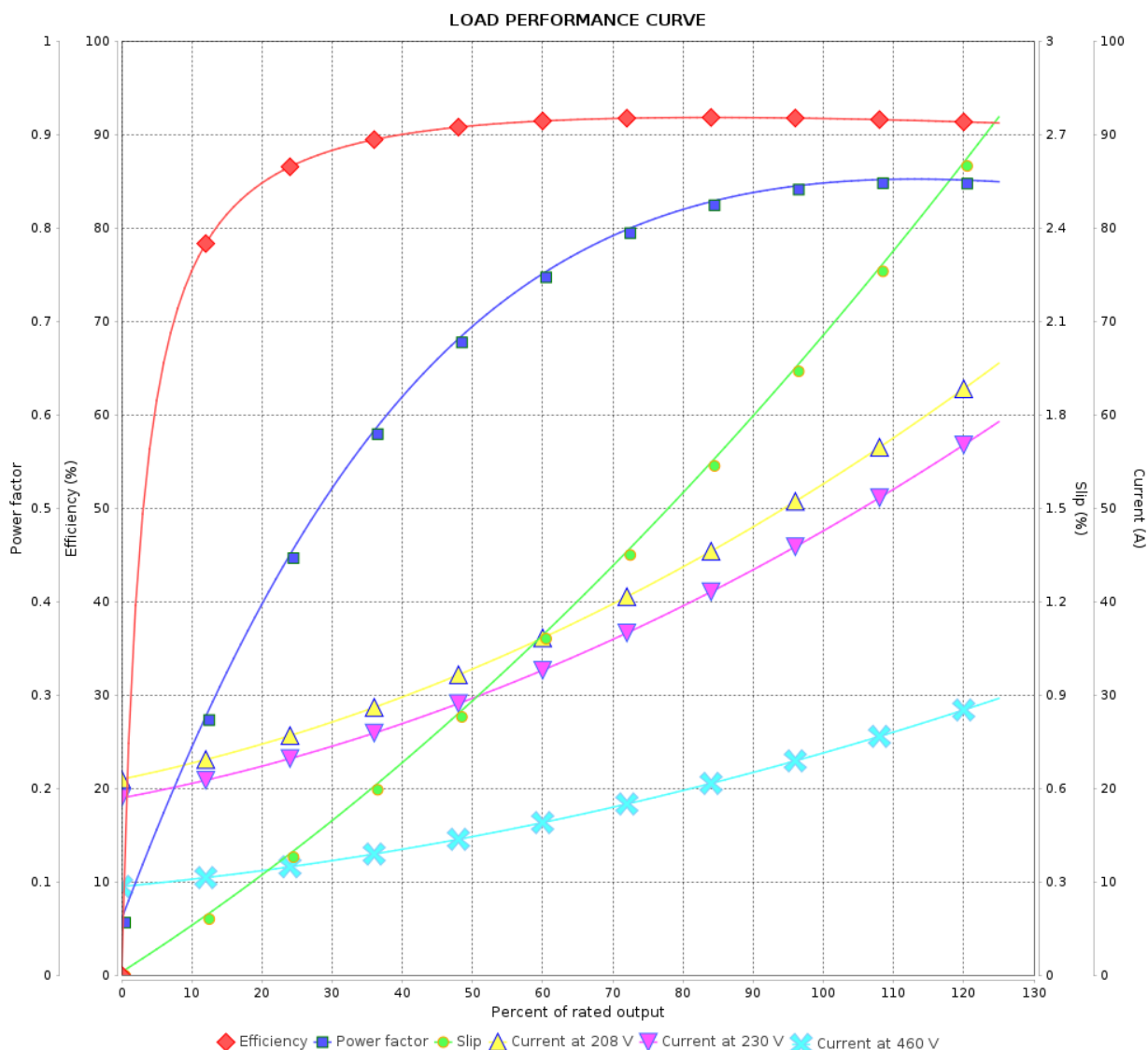


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11580967

Catalog # : CT020406NPW22



Performance : 230/460 V 60 Hz 6P

Rated current : 48.3/24.1 A
LRC : 6.2
Rated torque : 89.4 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1175 rpm

Moment of inertia (J) : 9.16 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	13/07/2026			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11580967

Catalog # : CT020406NPW22

Performance : 230/460 V 60 Hz 6P

Rated current : 48.3/24.1 A
LRC : 6.2
Rated torque : 89.4 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1175 rpm

Moment of inertia (J) : 9.16 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

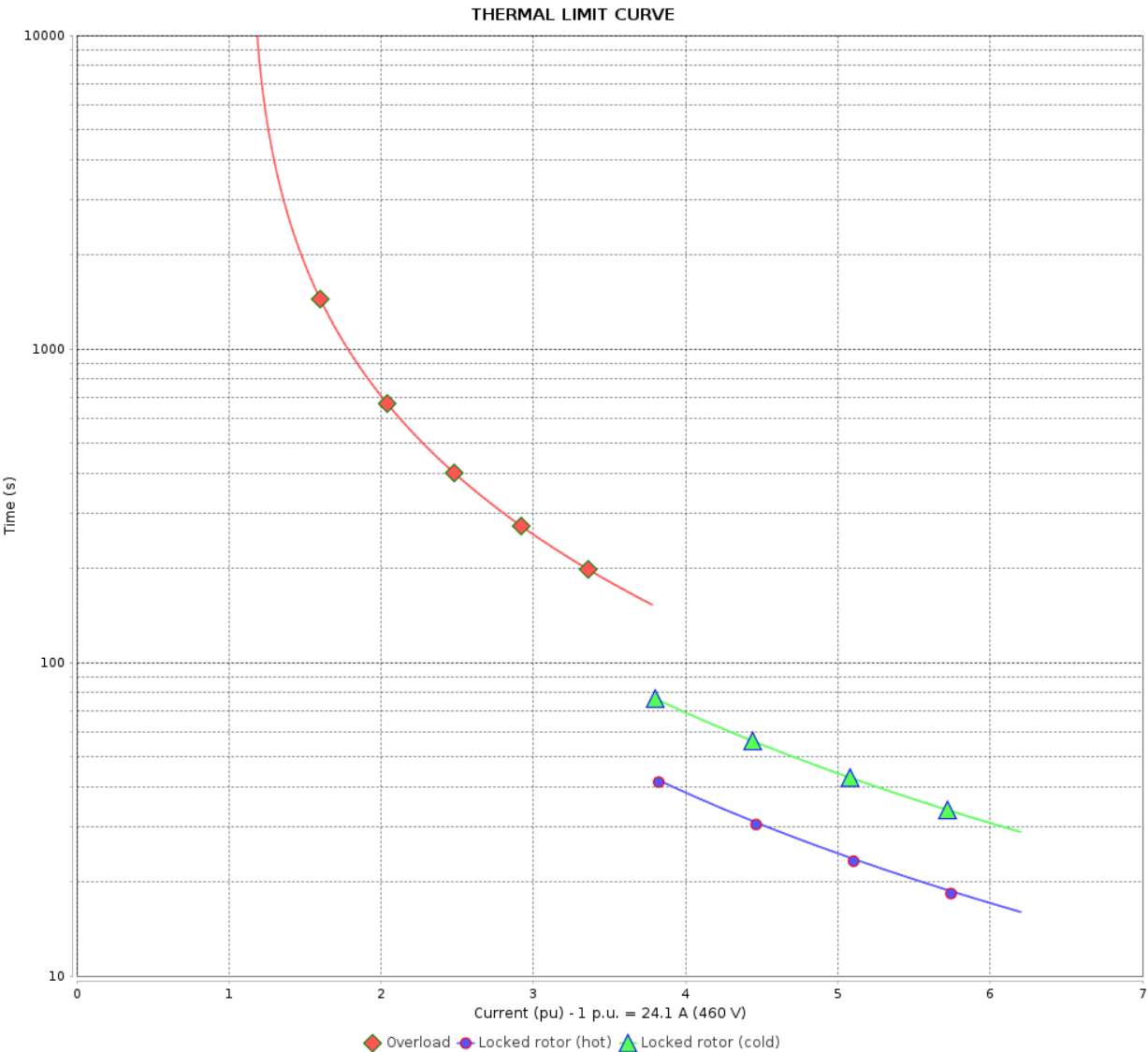
Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page 4 / 6		Revision
Checked by					
Date	13/07/2026				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	13/07/2026				
				Page 5 / 6	Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

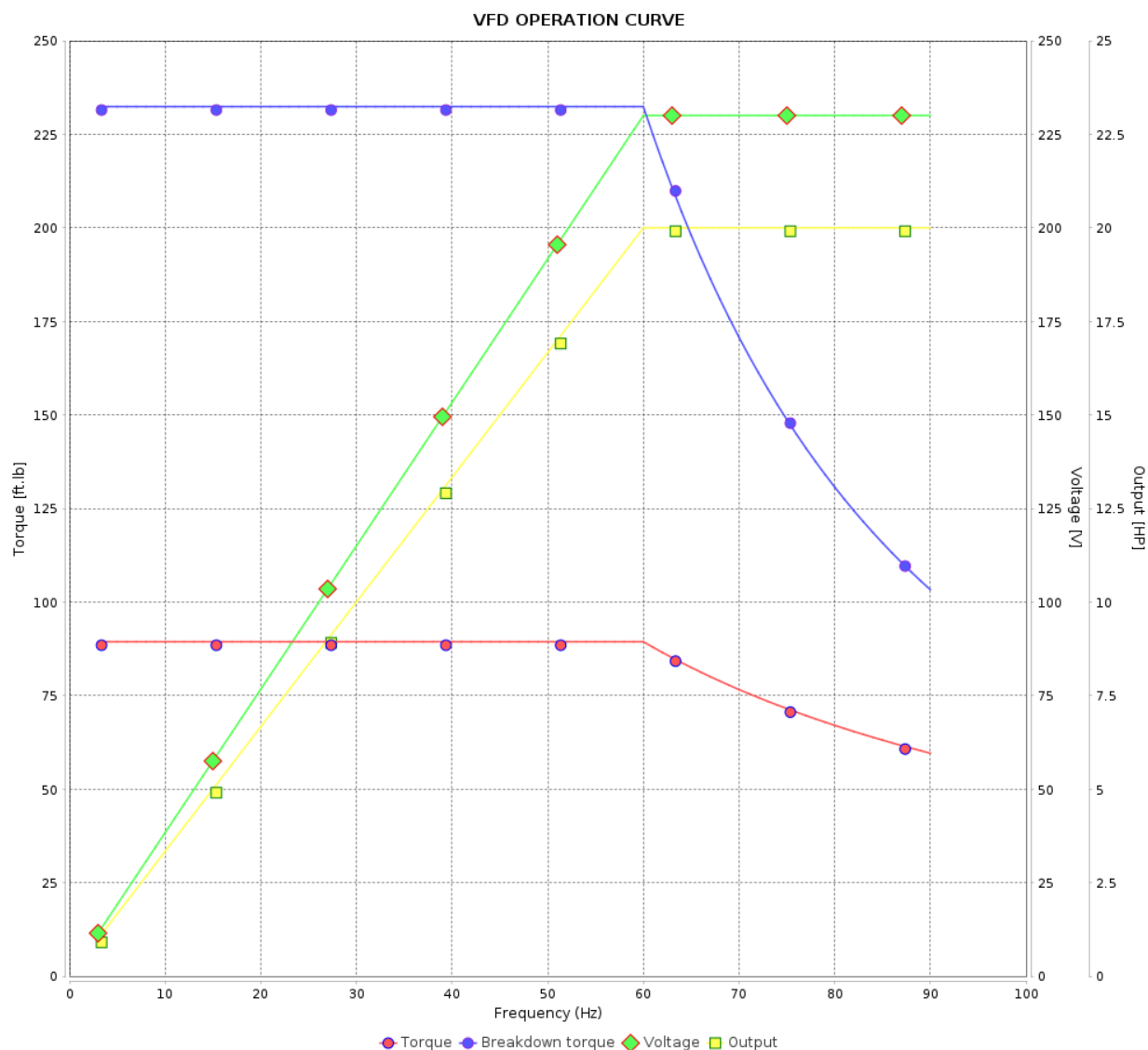


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11580967

Catalog # : CT020406NPW22



Performance : 230/460 V 60 Hz 6P

Rated current : 48.3/24.1 A
LRC : 6.2
Rated torque : 89.4 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1175 rpm

Moment of inertia (J) : 9.16 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	Revision
Checked by				6 / 6	
Date					

