

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14497311  
Catalog # : 05018OT3H326TC-W40

Frame	: 324/6TC	Locked rotor time	: 19s (cold) 11s (hot)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 46.8 A	Protection degree	: IP23
L. R. Amperes	: 295 A	Cooling method	: IC01 - ODP
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 18.6 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 1775 rpm	Noise level <sup>2</sup>	: 66.0 dB(A)
Slip	: 1.39 %	Starting method	: Direct On Line
Rated torque	: 148 ft.lb	Approx. weight <sup>3</sup>	: 519 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 7.08 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads
Efficiency (%)	94.0	94.1	94.5	94.5	Max. traction
Power Factor	0.44	0.70	0.80	0.84	Max. compression

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6312 Z C3	6211 Z C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	21 g	11 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 1 / 6 Revision		
Checked by				
Date	10/04/2020			

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

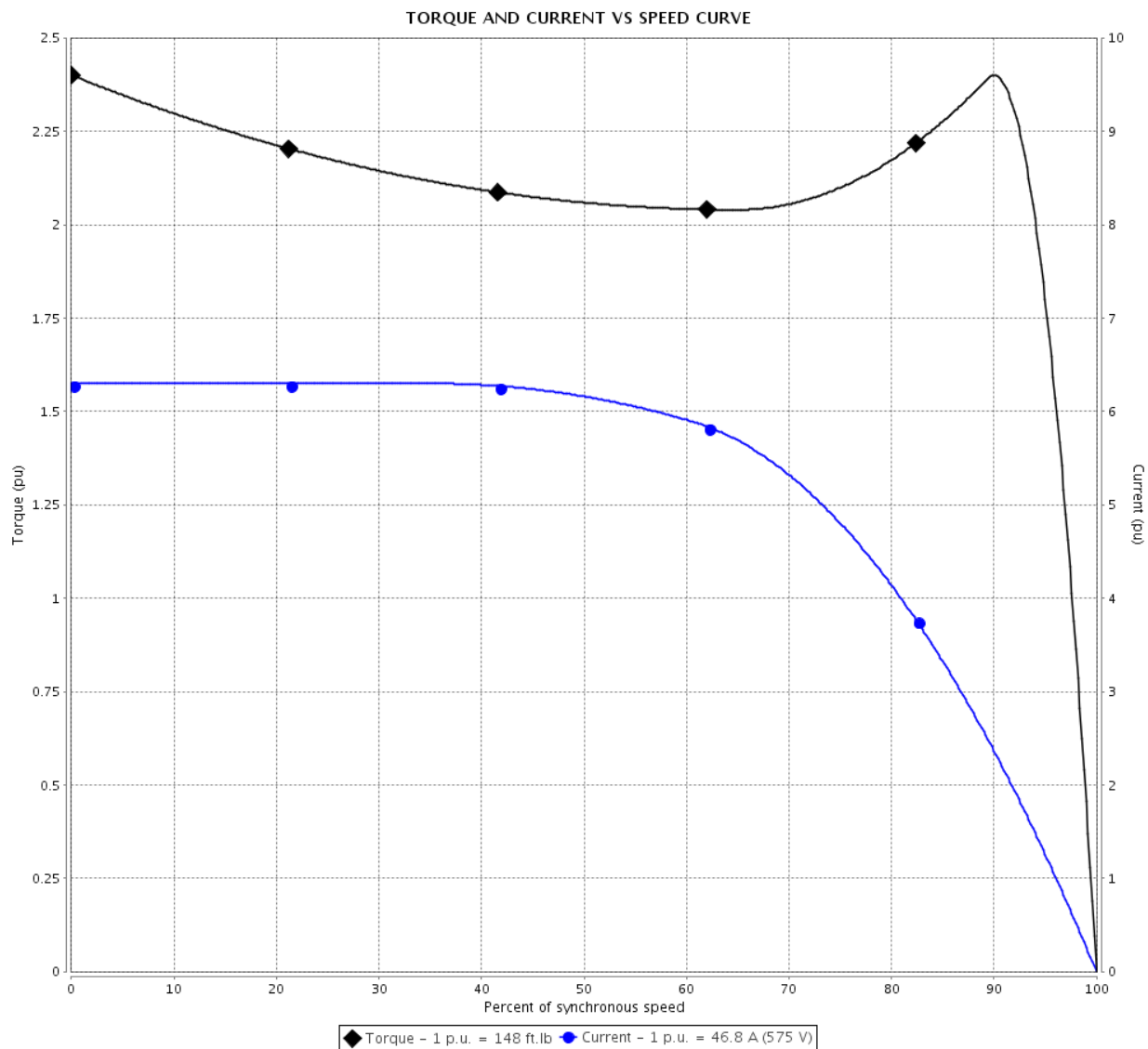


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14497311

Catalog # : 05018OT3H326TC-W40



Performance : 575 V 60 Hz 4P

Rated current	: 46.8 A	Moment of inertia (J)	: 7.08 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1775 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		<div style="display: flex; justify-content: space-between;"> <div>Page 2 / 6</div> <div>Revision</div> </div>		
Checked by				
Date	10/04/2020			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

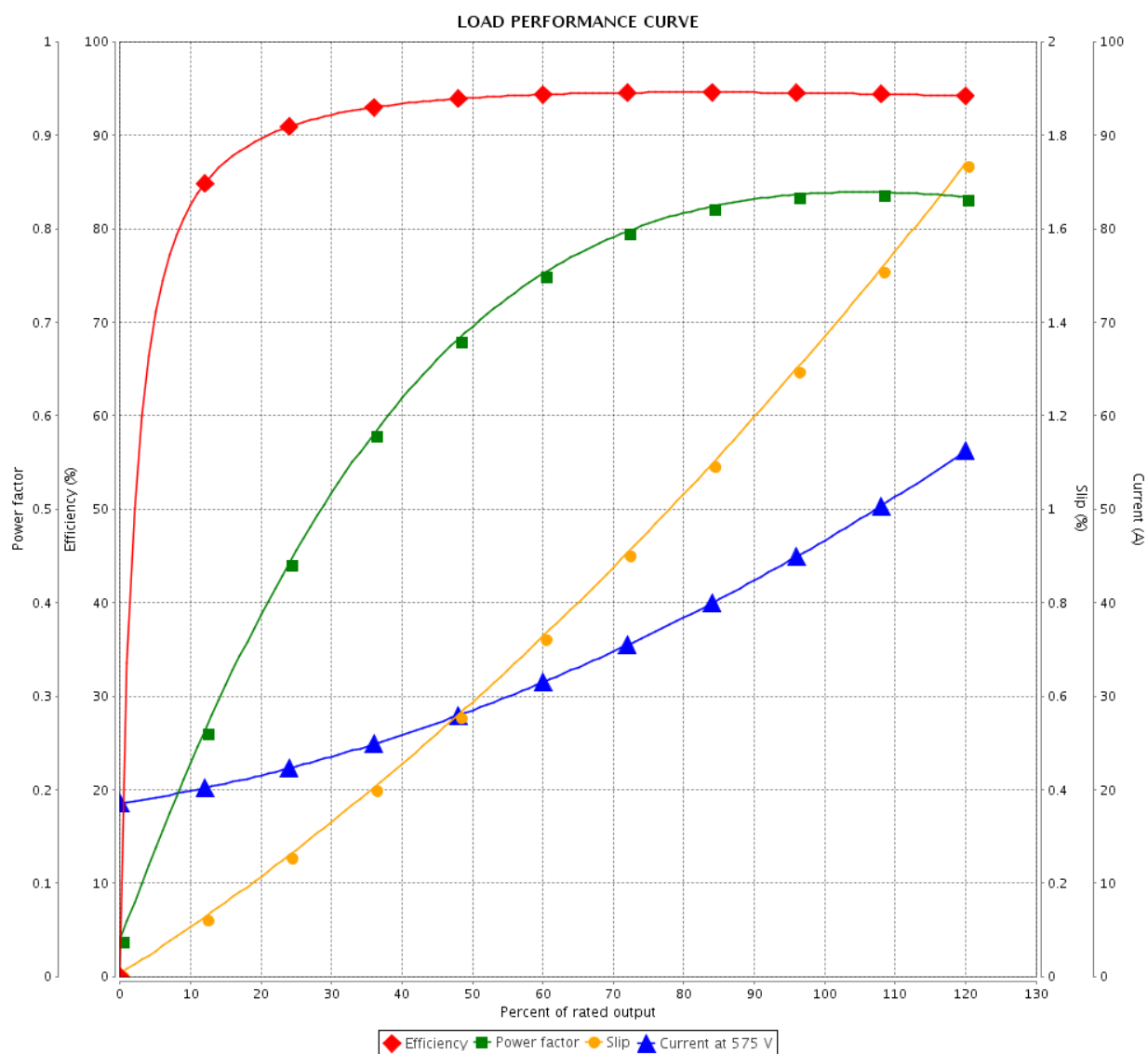


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14497311

Catalog # : 05018OT3H326TC-W40



Performance : 575 V 60 Hz 4P

Rated current : 46.8 A  
LRC : 6.3  
Rated torque : 148 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 240 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 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	10/04/2020			

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer

:

Product line

: W40 NEMA Premium Efficiency  
Three-Phase

Product code :

14497311

Catalog # :

05018OT3H326TC-W40

Performance : 575 V 60 Hz 4P

Rated current

: 46.8 A

LRC

: 6.3

Rated torque

: 148 ft.lb

Locked rotor torque

: 240 %

Breakdown torque

: 240 %

Rated speed

: 1775 rpm

Moment of inertia (J)

: 7.08 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

Checked by

Date

10/04/2020

Page

4 / 6

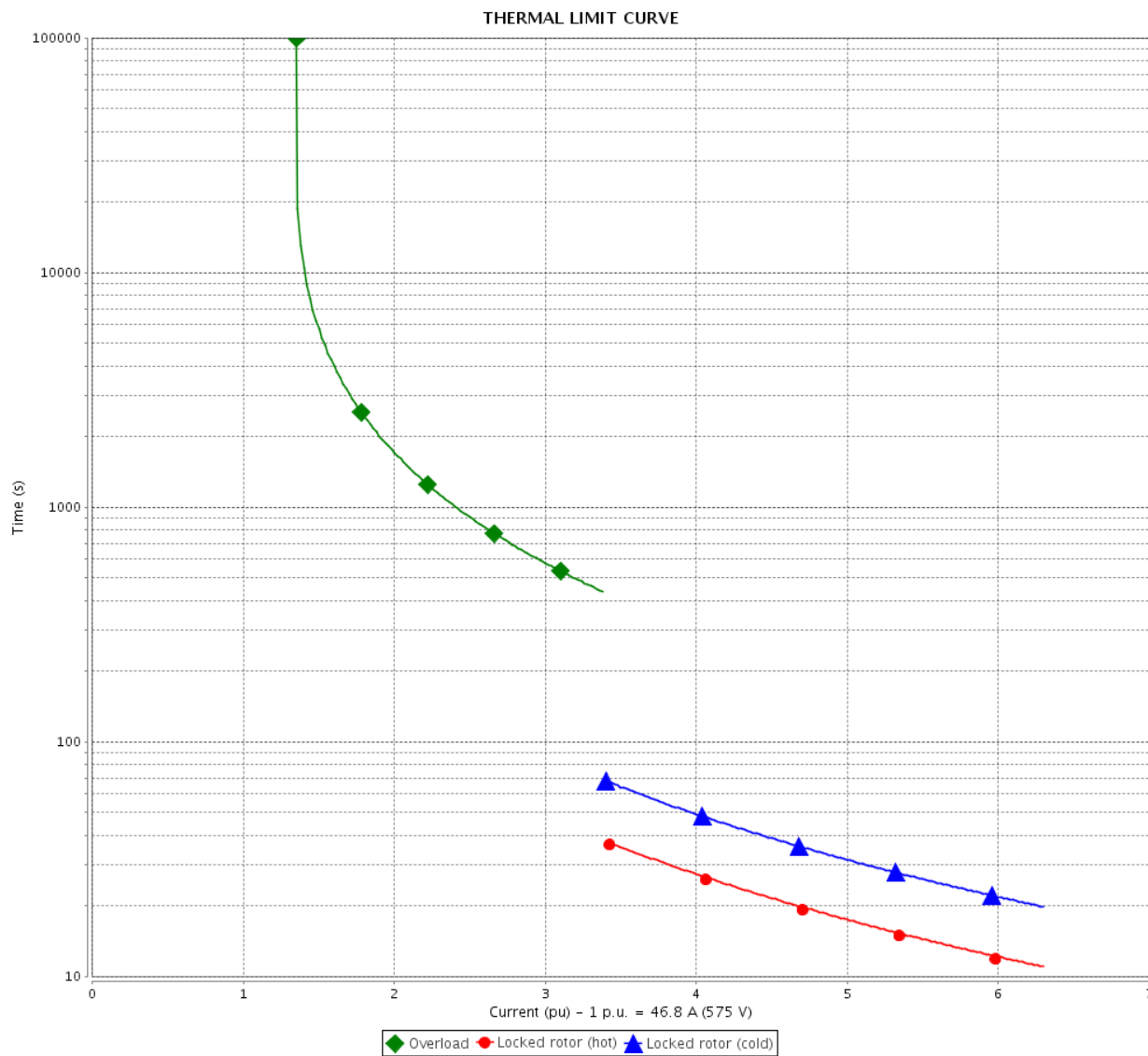
Revision

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	10/04/2020				
			Page 5 / 6	Revision	

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

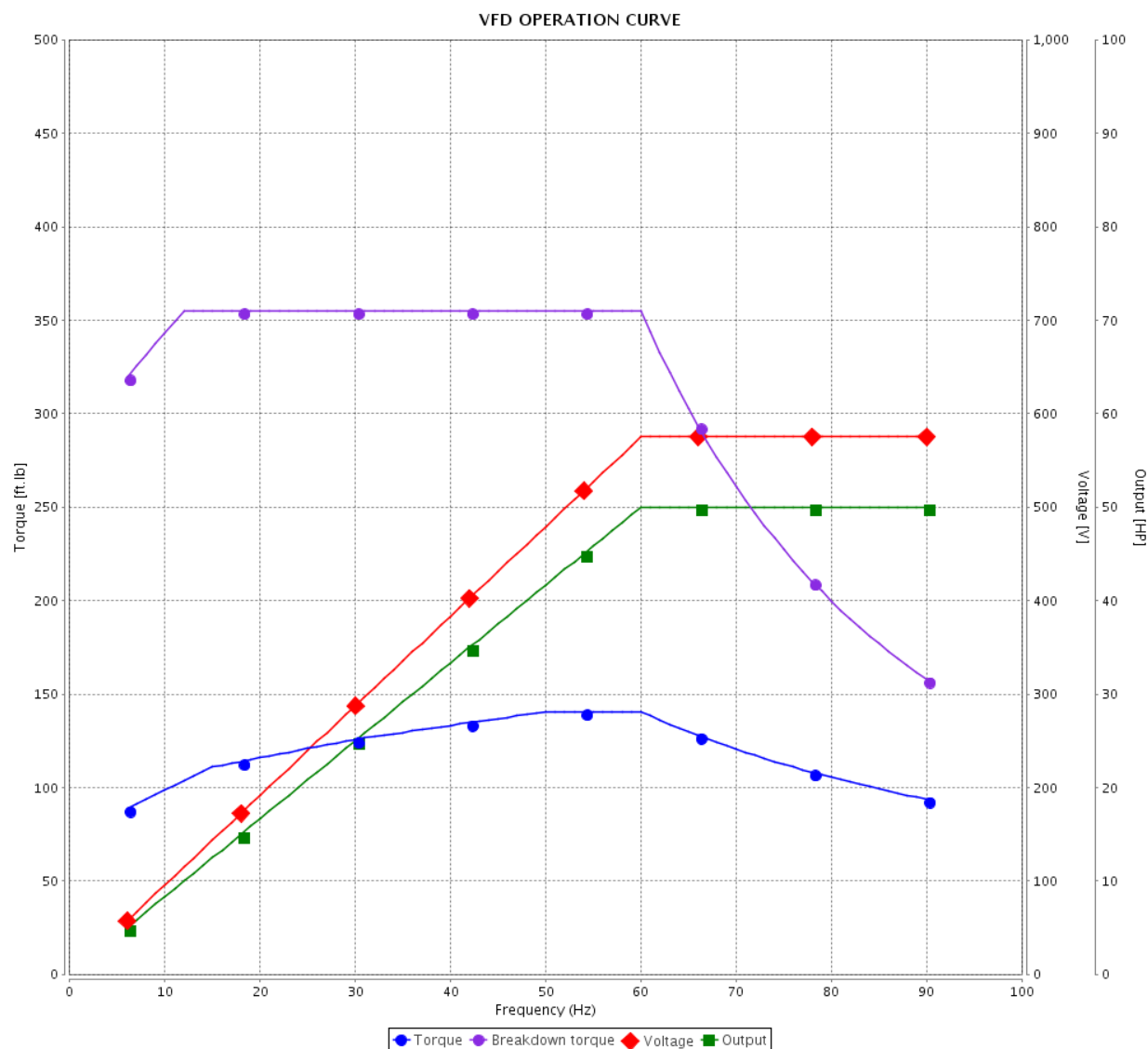


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14497311

Catalog # : 05018OT3H326TC-W40



Performance : 575 V 60 Hz 4P

Rated current : 46.8 A  
LRC : 6.3  
Rated torque : 148 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 240 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 7.08 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				
	10/04/2020			Revision

