

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14272880  
Catalog # : 12518OT3G405T-W40

Frame	: 404/5T	Locked rotor time	: 18s (cold) 10s (hot)
Output	: 125 HP	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 138 A	Protection degree	: IP23
L. R. Amperes	: 952 A	Cooling method	: IC01 - ODP
LRC	: 6.9x(Code G)	Mounting	: F-1
No load current	: 47.0 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 1780 rpm	Noise level <sup>2</sup>	: 69.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 369 ft.lb	Approx. weight <sup>3</sup>	: 1026 lb
Locked rotor torque	: 270 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 25.5 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	94.9	95.0	95.4	95.4	Max. traction	: 2892 lb
Power Factor	0.50	0.75	0.83	0.86	Max. compression	: 3918 lb

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6316 C3	6212 Z C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	34 g	13 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
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Date	10/04/2020			

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

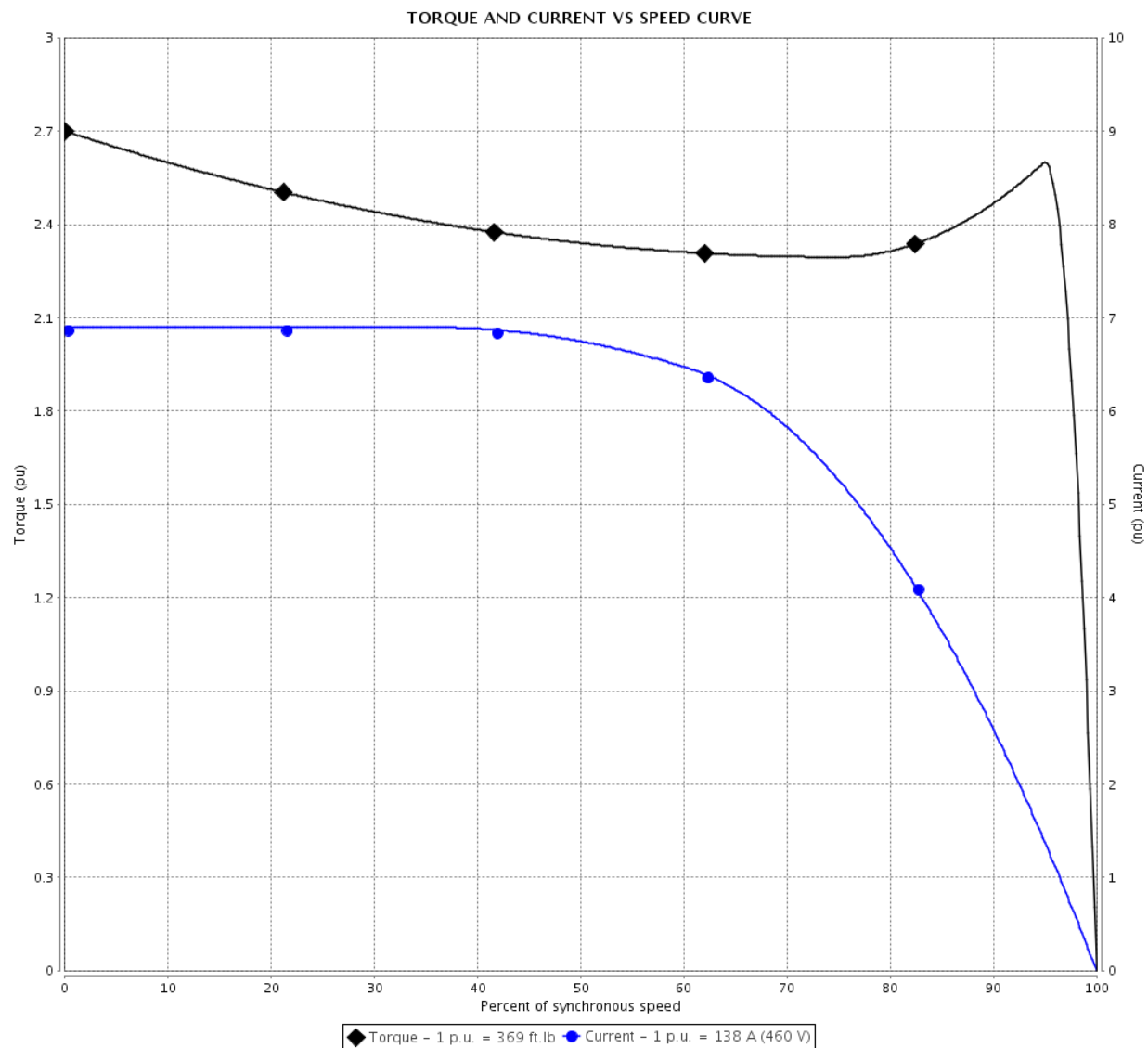


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272880

Catalog # : 12518OT3G405T-W40



Performance : 460 V 60 Hz 4P

Rated current	: 138 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 369 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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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

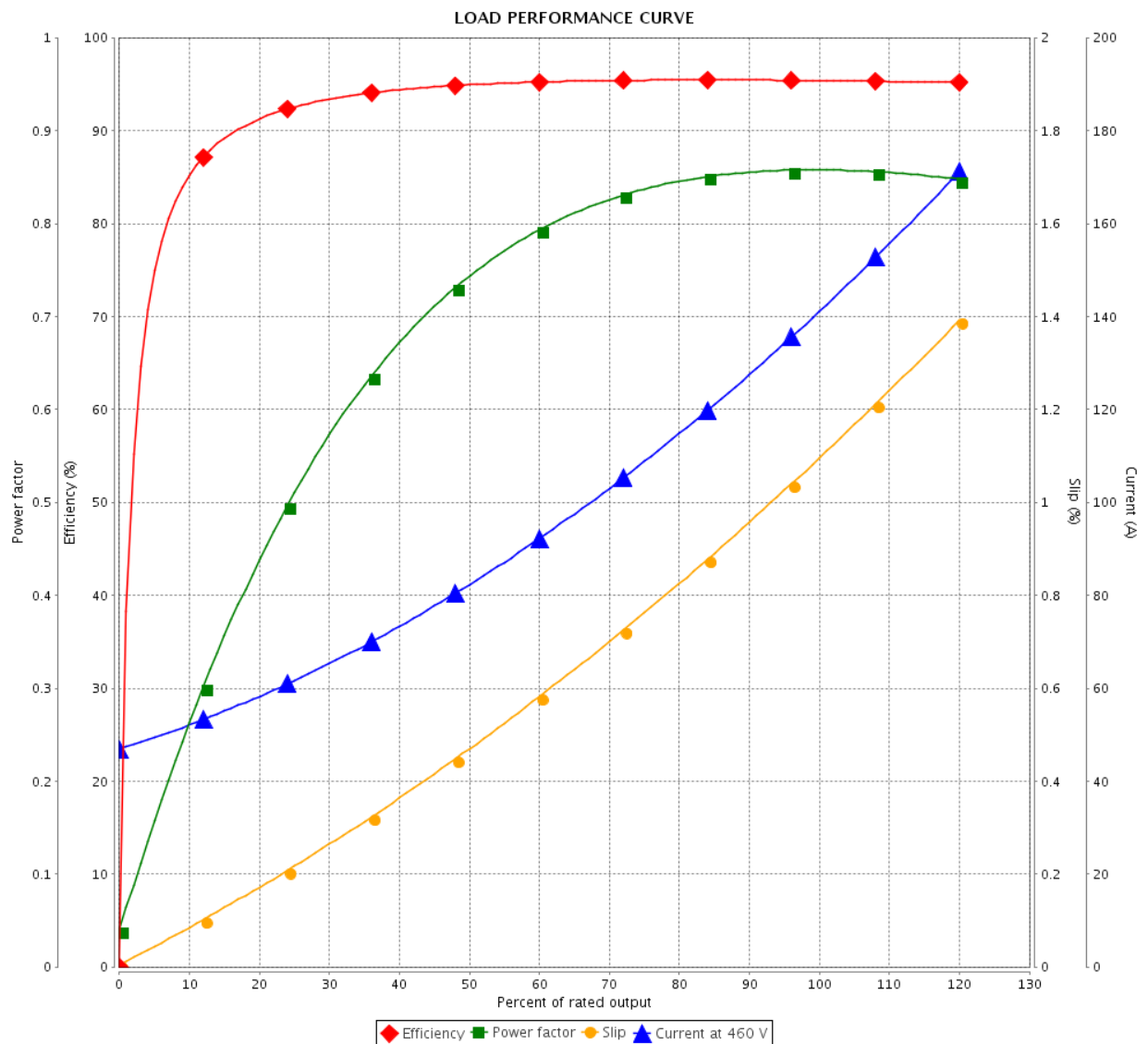


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272880

Catalog # : 12518OT3G405T-W40



Performance : 460 V 60 Hz 4P

Rated current : 138 A  
LRC : 6.9  
Rated torque : 369 ft.lb  
Locked rotor torque : 270 %  
Breakdown torque : 260 %  
Rated speed : 1780 rpm

Moment of inertia (J) : 25.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer

:

Product line

: W40 NEMA Premium Efficiency  
Three-Phase

Product code :

14272880

Catalog # :

12518OT3G405T-W40

Performance : 460 V 60 Hz 4P

Rated current

: 138 A

LRC

: 6.9

Rated torque

: 369 ft.lb

Locked rotor torque

: 270 %

Breakdown torque

: 260 %

Rated speed

: 1780 rpm

Moment of inertia (J)

: 25.5 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.

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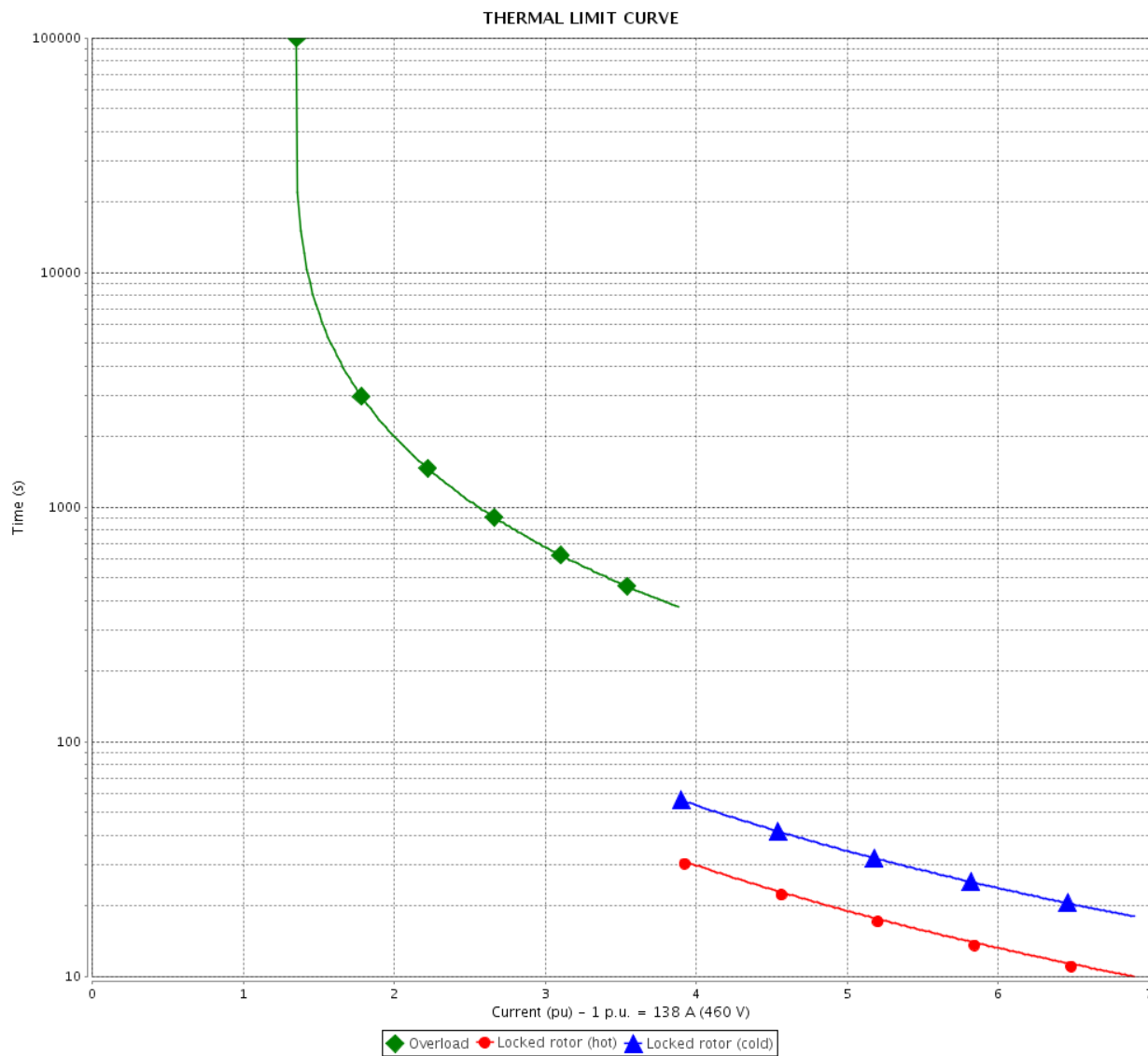
Revision

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

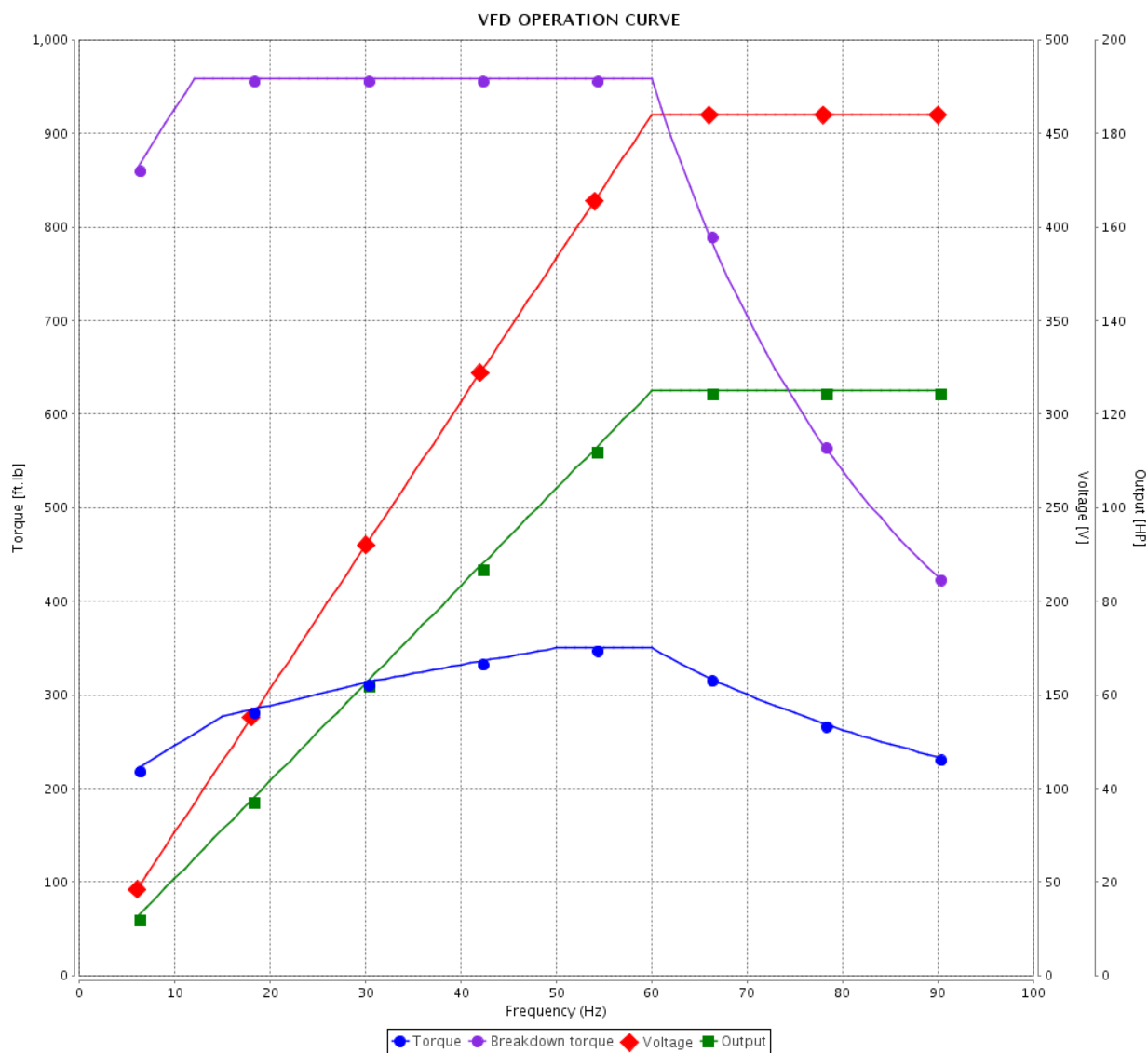


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272880

Catalog # : 12518OT3G405T-W40



Performance : 460 V 60 Hz 4P

Rated current : 138 A  
LRC : 6.9  
Rated torque : 369 ft.lb  
Locked rotor torque : 270 %  
Breakdown torque : 260 %  
Rated speed : 1780 rpm

Moment of inertia (J) : 25.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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MODEL 125180T3G405T-W40  
MADE IN BRAZIL  
14272880



IEC 60034-1  
MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 2:1, 1.0SF

PH 3	FR 404/5T	HP(kW) 125(90)		Hz 60	PART-WINDING						WYE-DELTA					
V 460		A 138		IP23	START			RUN			START			RUN		
					 T12	 T10	 T11	 T12	 T10	 T11	 T12	 T10	 T11	 T12	 T10	 T11
					 T7	 T8	 T9	 T7	 T8	 T9	 T6	 T4	 T5	 T6	 T4	 T5
					 T6	 T4	 T5	 T6	 T4	 T5	 T7	 T8	 T9	 T7	 T8	 T9
					 T1	 T2	 T3	 T1	 T2	 T3	 T1	 T2	 T3	 T1	 T2	 T3
					L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
ENCL ODP		DUTY CONT.		INS. CL. F $\Delta$ T 80 K	 → 6316-C3(34g) MOBIL POLYREX EM											
PF 0.86		DES B		CODE G	AMB. 40°C		 → 6212-Z-C3(13g) 20000 h									
SF 1.25		SFA 173		ALT 1000 m.a.s.l.		1027 Lbs										
100HP 75kW 50Hz 380V 138A 1480RPM SF1.00 EFF 95.0% (IE3)																