

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14272903
Catalog # : 06018OT3E364TC-W40G

Frame	: 364/5TC	Locked rotor time	: 34s (cold) 19s (hot)
Output	: 60 HP (45 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 140/69.9 A	Protection degree	: IP23
L. R. Amperes	: 909/454 A	Cooling method	: IC01 - ODP
LRC	: 6.5x(Code G)	Mounting	: F-1
No load current	: 49.4/24.7 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1780 rpm	Noise level ²	: 69.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 177 ft.lb	Approx. weight ³	: 771 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 15.6 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	94.4	94.5	95.0	95.0	Max. traction	: 1250 lb
Power Factor	0.48	0.73	0.82	0.85	Max. compression	: 2021 lb

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6314 C3	6212 Z C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	27 g	13 g
Lubricant type	:	Mobil Polyrex EM	

Notes
USABLE @208V 155A SF 1.15 SFA 178A

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

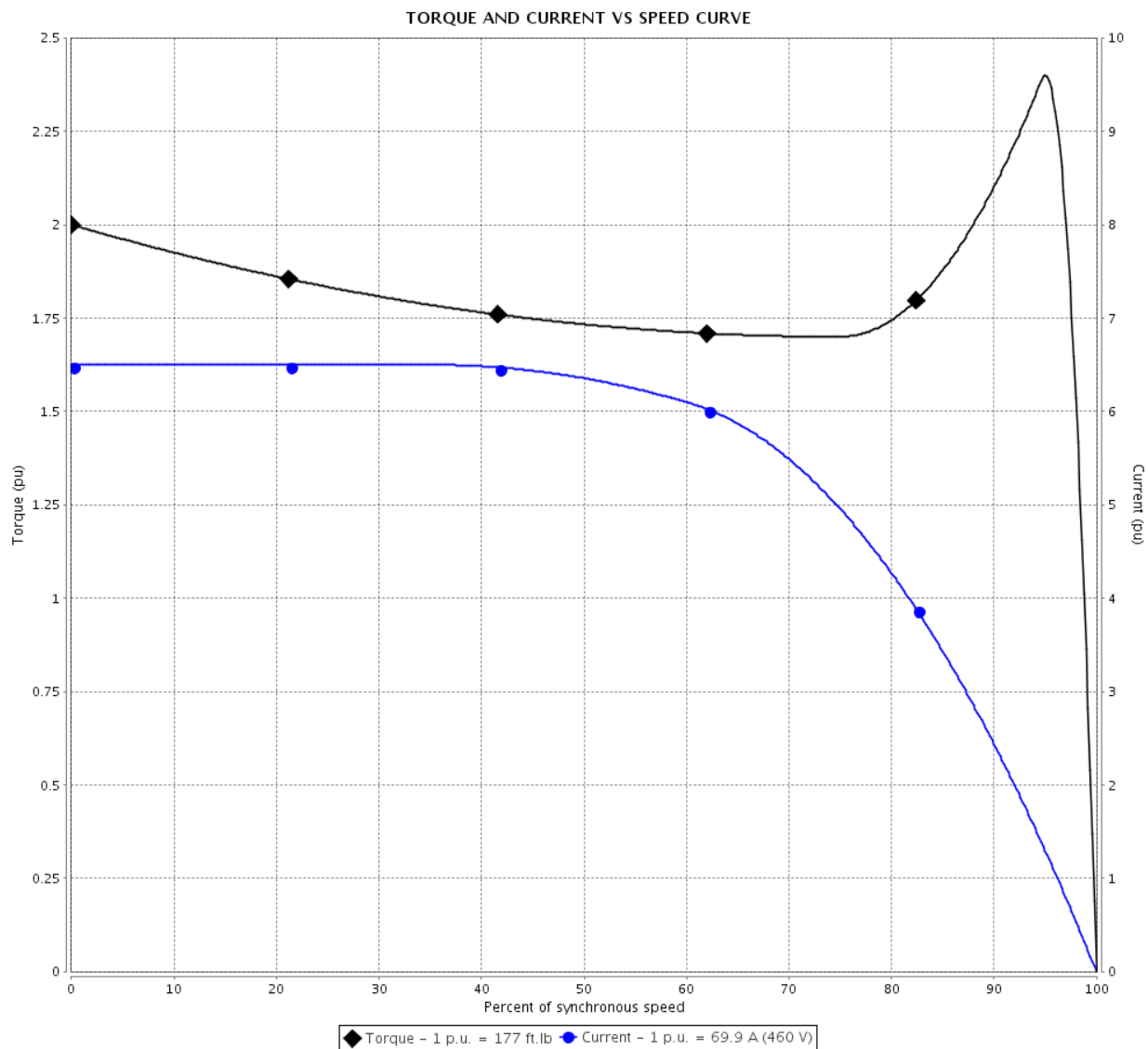


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272903

Catalog # : 06018OT3E364TC-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A
 LRC : 6.5
 Rated torque : 177 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Locked rotor time : 34s (cold) 19s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		<div>Page 2 / 6</div> <div>Revision</div>		
Checked by				
Date	10/04/2020			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

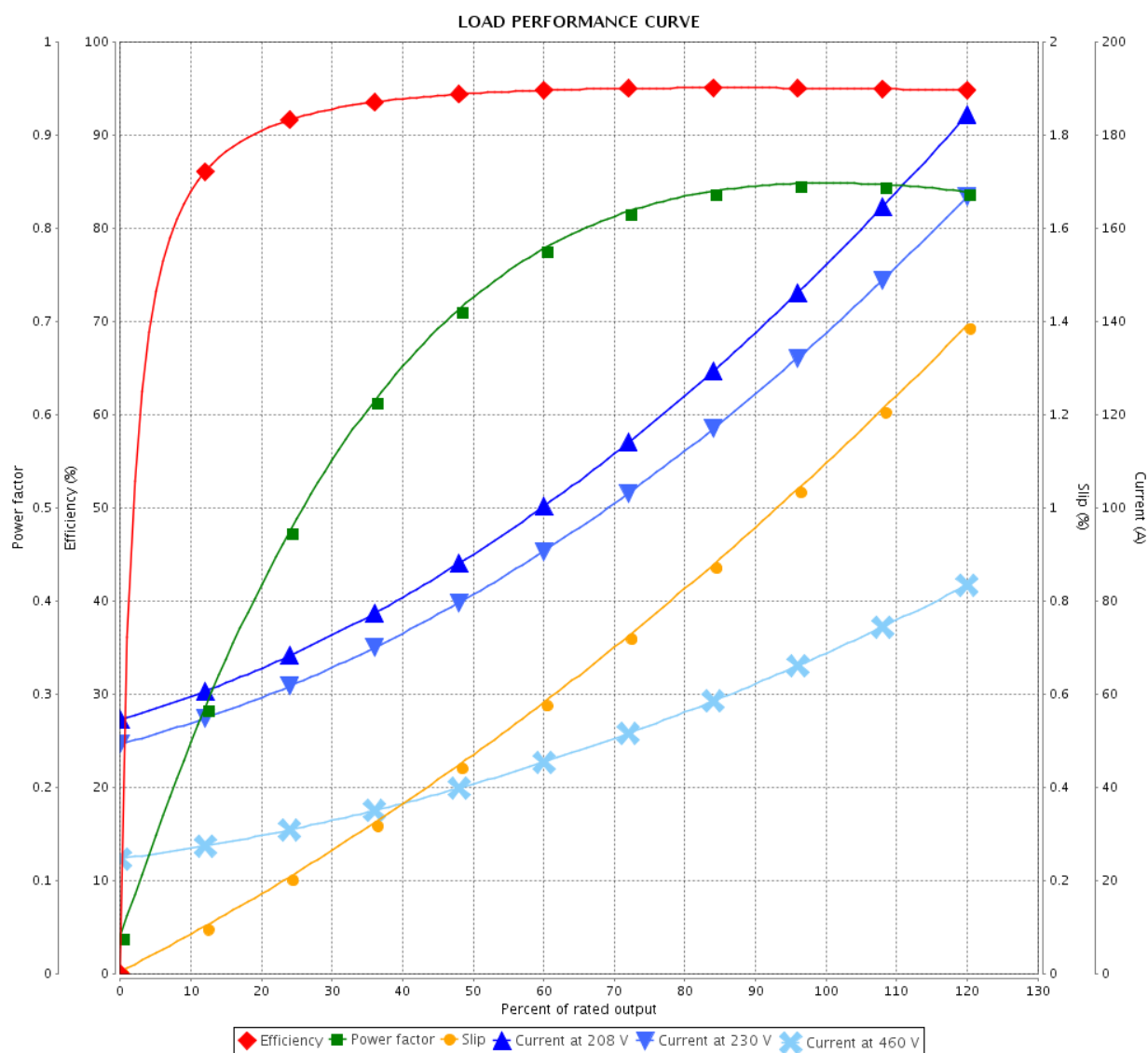


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272903

Catalog # : 06018OT3E364TC-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A
LRC : 6.5
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 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 / 6		
Checked by				
Date	10/04/2020			
		Revision		

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272903

Catalog # : 06018OT3E364TC-W40G

Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A
LRC : 6.5
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

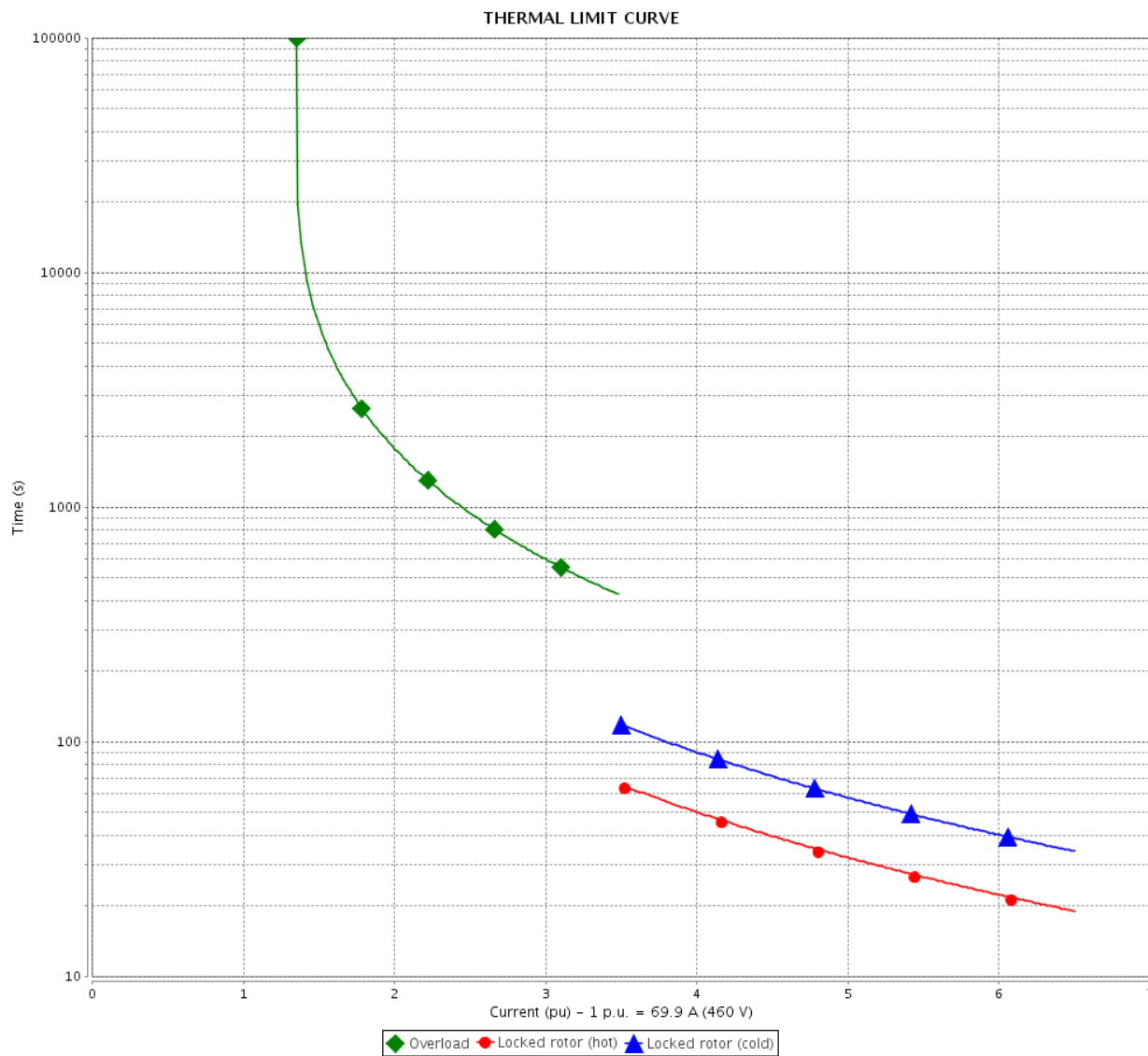
Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by					
Date	10/04/2020			4 / 6	

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

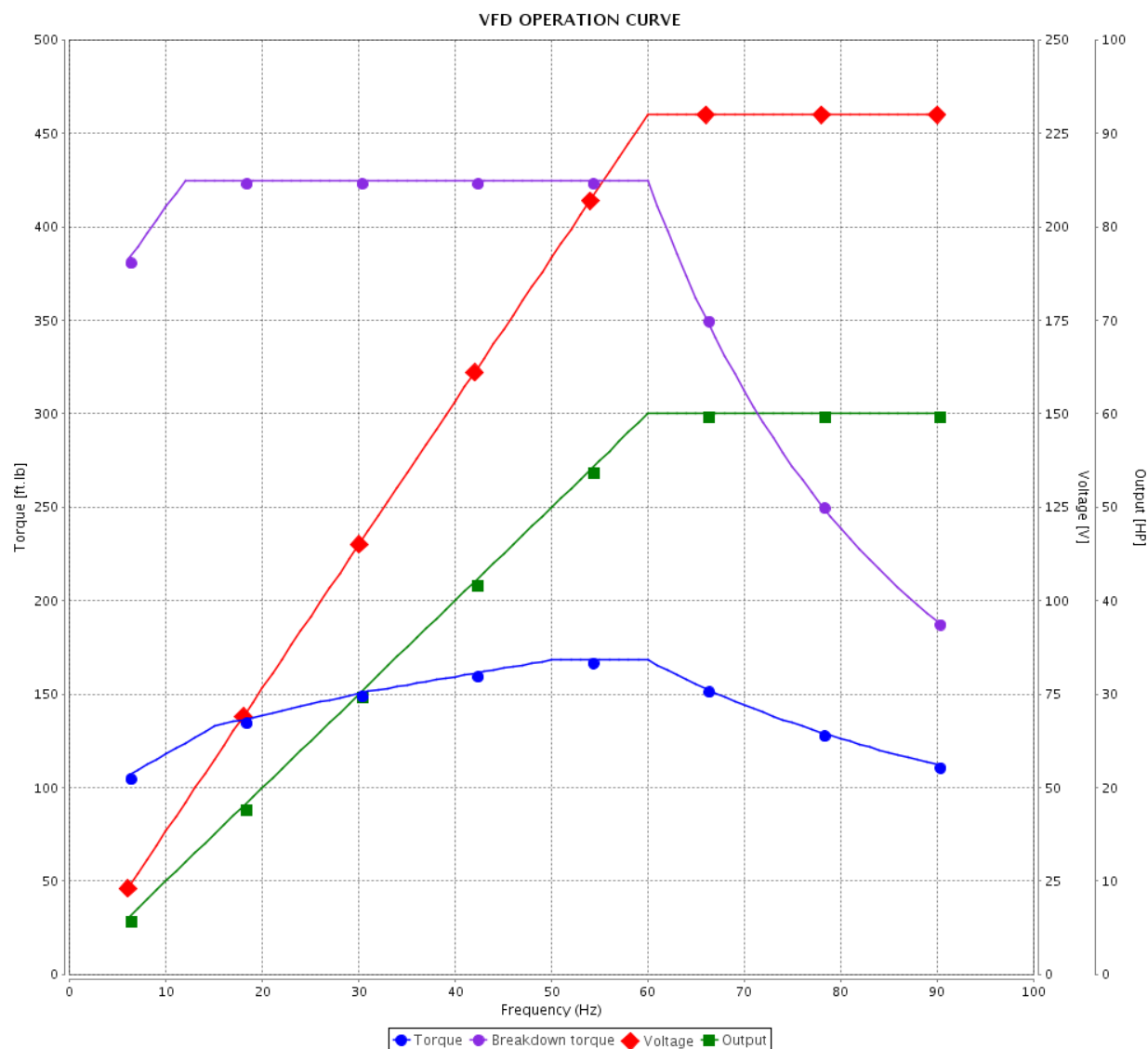


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272903

Catalog # : 06018OT3E364TC-W40G

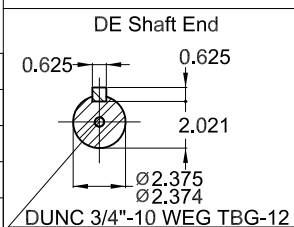
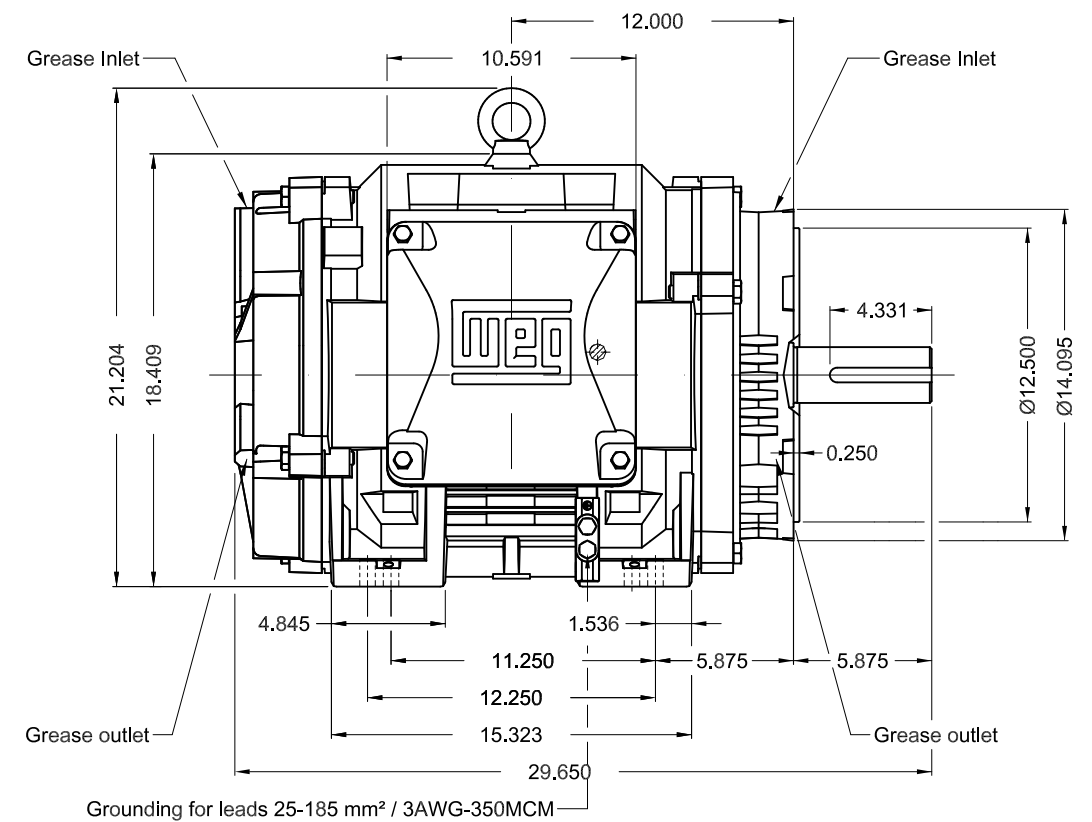
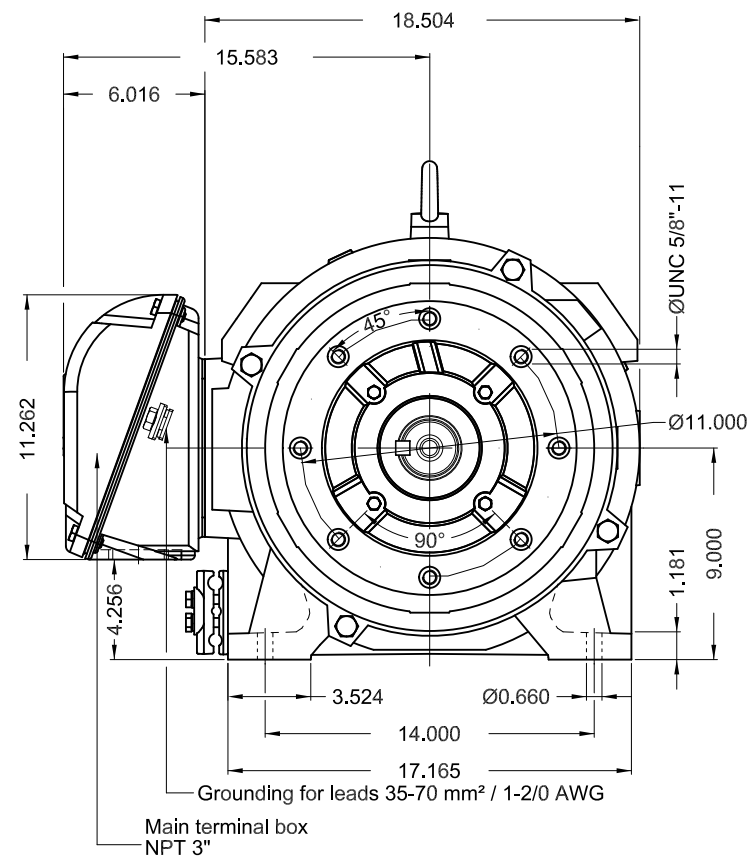


Performance : 230/460 V 60 Hz 4P



Rated current : 140/69.9 A
LRC : 6.5
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 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		<div>Page 6 / 6</div> <div>Revision</div>		
Checked by				
Date	10/04/2020			



Internal AEGIS ground ring on the DE
Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B34R(D)

60 HP 04 Poles 60Hz										A	
								1:8			
ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER		THREE PHASE W40 MOTOR NEMA PREMIUM EFF FRAME 364/5TC IP23 ODP				PREVIEW WDD				
CHECKED											
RELEASED											
REL DT.		WMO	Jaragua do Sul		Product Engineering		SHEET	1	/	1	

MODEL 060180T3E364TC-W40G

MADE IN BRAZIL

14272903


W40 NEMA
CC029A Premium

Inverter Duty Motor


 3PT9
 LISTED

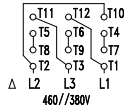
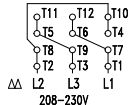
IEC 60034-1

MOD.T01#FOXON


 C US
 Energy Verified

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

PH 3	FR 364/5TC	HP(kW) 60.0(45.0)	Hz 60
V 230/460	A 140/69.9	RPM 1780	DES B
NEMA NOM EFF 95.0 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.85	SF 1.25	SFA 175/87.4
USABLE @208V 155 A	SF 1.15	SFA 178	
50HP 37kW 50Hz 380V 69.6A 1480RPM SF1.00 EFF 93.9% (IE3)			


 → 6314-C3(27g)
 → 6212-Z-C3(13g)

 MOBIL POLYREX EM
 20000 h

ALT 1000 m.a.s.l. 772 Lbs