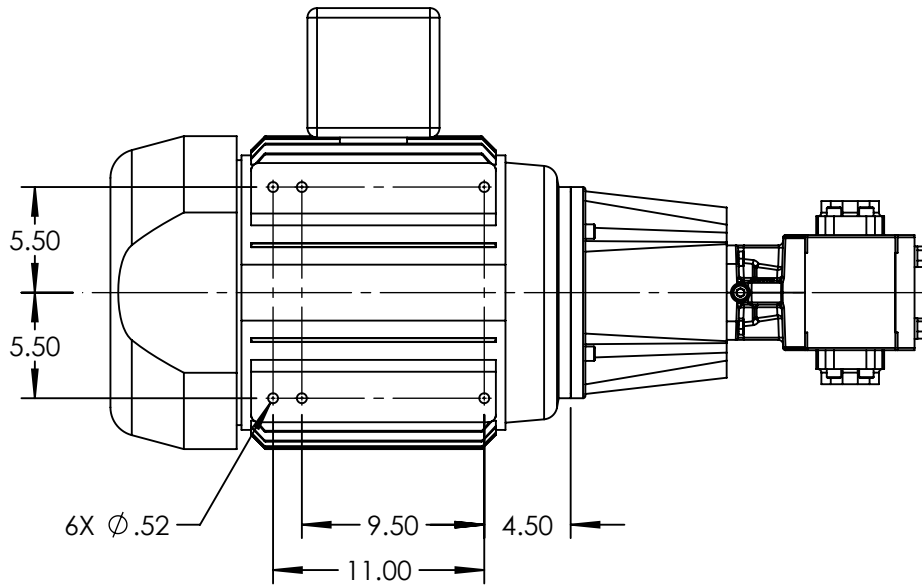
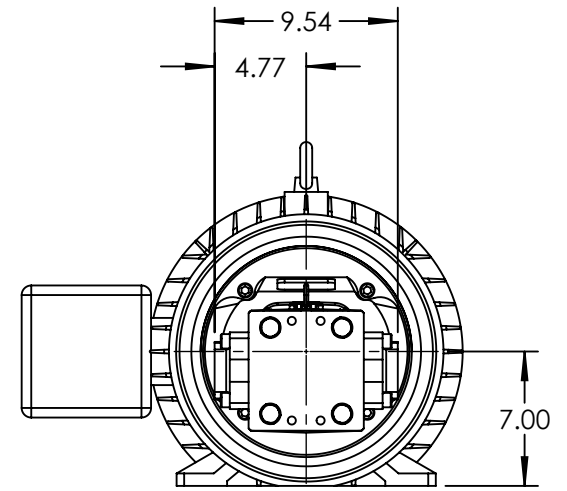
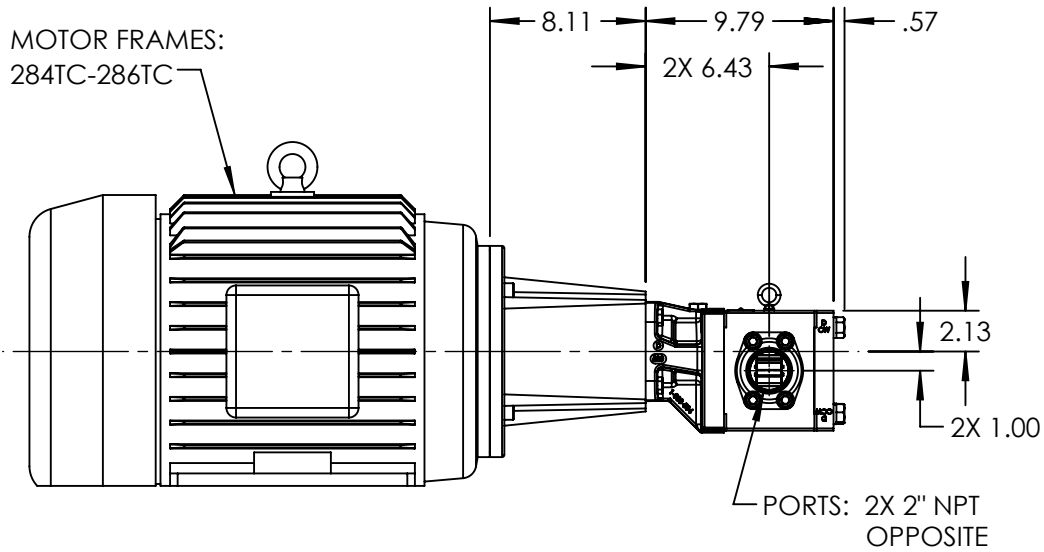


MOTOR FRAMES:  
284TC-286TC



STANDARD MODELS: GB-41013-G00-M, GB-41013-G10-M

NOTES:

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.

STATE	Released	07/16/2021
DRAWN	bmanernach	6/23/2021
CHECKED	JAG	07/16/2021

DIMENSIONS ARE IN INCHES
PROJECT: E331
WAS:



VIKING PUMP, INC.  
A Unit of IDEX Corporation  
Cedar Falls, IA 50613  
U.S.A.

THIS DRAWING IS THE PROPERTY OF  
VIKING PUMP, INC. AND IS PROPRIETARY  
IN GENERAL AND DETAIL. IT SHALL NOT BE  
COPIED OR ITS CONTENTS REVEALED TO  
OUTSIDE PARTIES WITHOUT THE WRITTEN  
CONSENT OF VIKING PUMP, INC.

3D

DWG. NO. SHEET 1 OF 1  
GPV-1013-041-U

REV. A.0  
07/16/2021

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer : _____					
Product line : W22 NEMA Premium Efficiency Three-Phase		Product code : 12447067		Catalog # : 02518ET3E284TC-W22	
Frame : 284/6TC	Output : 25 HP (18.5 kW)	Locked rotor time : 43s (cold) 24s (hot)	Temperature rise : 80 K	Duty cycle : Cont.(S1)	
Poles : 4	Frequency : 60 Hz	Ambient temperature : -20°C to +40°C	Altitude : 1000 m.a.s.l.	Protection degree : IP55	
Rated voltage : 230/460 V	Rated current : 59.0/29.5 A	Cooling method : IC411 - TEFC	Mounting : F-1	Rotation <sup>1</sup> : Both (CW and CCW)	
L. R. Amperes : 366/183 A	LRC : 6.2x(Code G)	Noise level <sup>2</sup> : 63.0 dB(A)	Starting method : Direct On Line	Approx. weight <sup>3</sup> : 422 lb	
No load current : 21.0/10.5 A	Rated speed : 1765 rpm				
Slip : 1.94 %	Rated torque : 74.4 ft.lb				
Locked rotor torque : 240 %	Breakdown torque : 270 %				
Insulation class : F	Service factor : 1.25				
Moment of inertia (J) : 5.11 sq.ft.lb	Design : B				
Output	50%	75%	100%	Foundation loads	
Efficiency (%)	92.4	93.0	93.6	Max. traction : 809 lb	
Power Factor	0.70	0.80	0.84	Max. compression : 1230 lb	
		<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 65.2A SF 1.15 SFA 75.0A					
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				Page	Revision
Date	17/03/2020			1 / 6	

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :						
Product line		: W22 NEMA Premium Efficiency Three-Phase		Product code : 11457085		
				Catalog # : 03018ET3E286TC-W22		
Frame : 284/6TC Output : 30 HP (22 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 208-230/460 V Rated current : 77.6-70.2/35.1 A L. R. Amperes : 474-428/214 A LRC : 6.1x(Code G) No load current : 22.4-26.0/13.0 A Rated speed : 1765 rpm Slip : 1.94 % Rated torque : 12.2 kgfm Locked rotor torque : 240 % Breakdown torque : 240 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 0.2467 kgm <sup>2</sup> Design : B			Locked rotor time : 36s (cold) 20s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 63.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 208 kg			
Output            25%      50%      75%      100%			Foundation loads			
Efficiency (%)    0.000    93.0    93.0    93.6			Max. traction                    : 408 kgf			
Power Factor    0.00    0.70    0.80    0.84			Max. compression             : 616 kgf			
		<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						
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					Page	Revision
Date		14/02/2020			1 / 6	

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

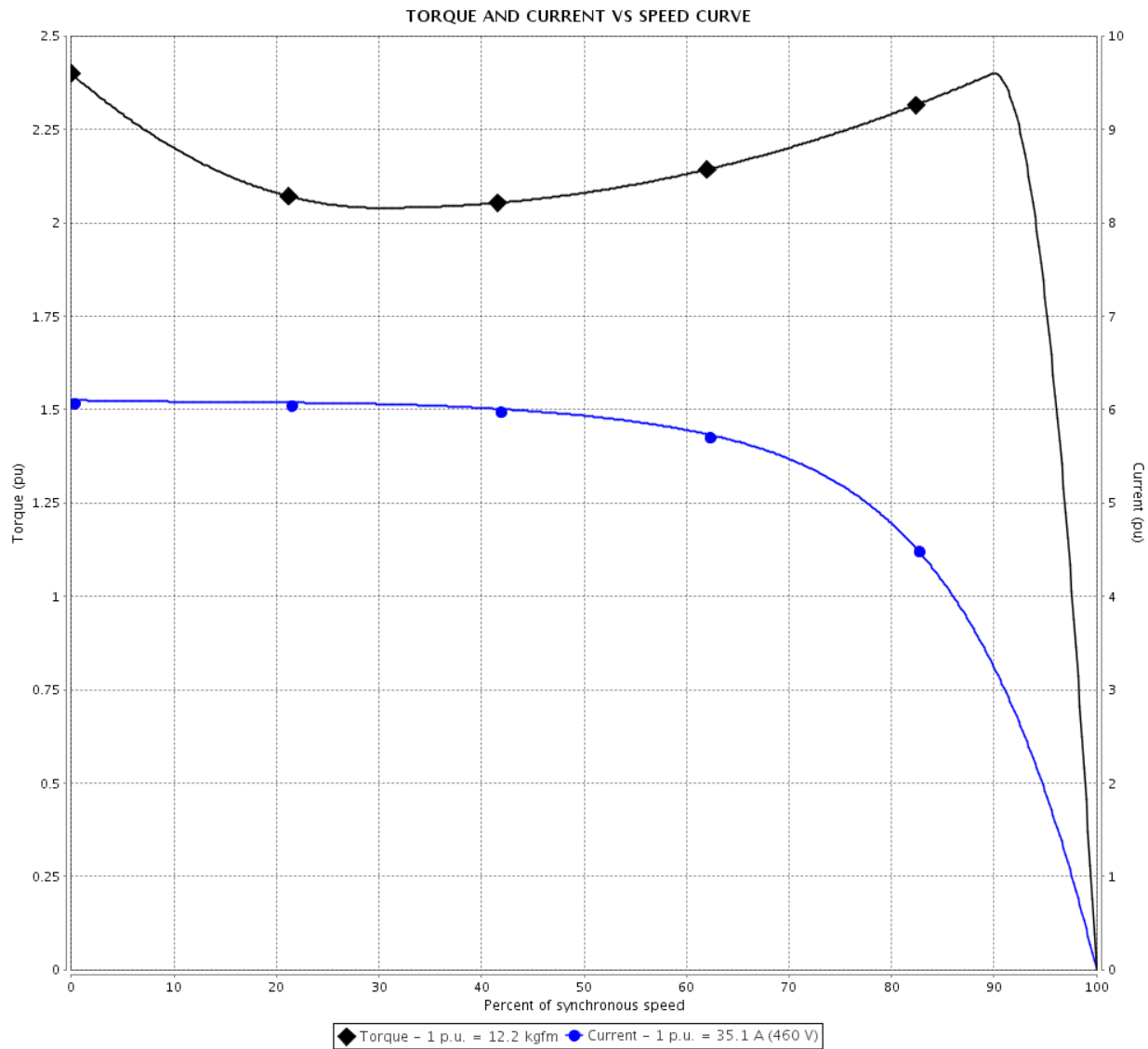


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11457085

Catalog # : 03018ET3E286TC-W22



Performance : 208-230/460 V 60 Hz 4P

Rated current	: 77.6-70.2/35.1 A	Moment of inertia (J)	: 0.2467 kgm <sup>2</sup>
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 12.2 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	14/02/2020			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

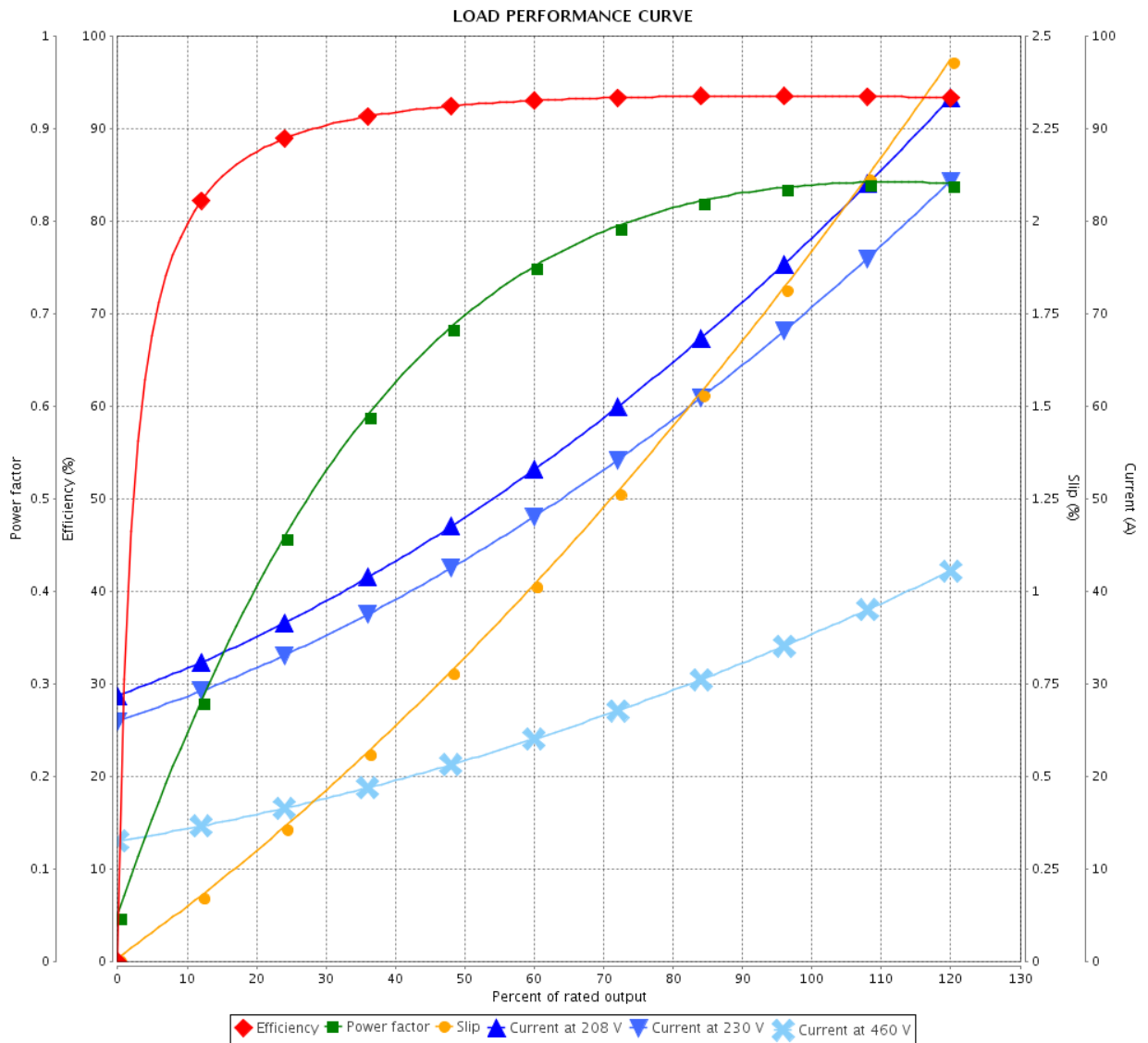


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11457085

Catalog # : 03018ET3E286TC-W22



Performance : 208-230/460 V 60 Hz 4P

Rated current : 77.6-70.2/35.1 A  
 LRC : 6.1  
 Rated torque : 12.2 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.2467 kgm<sup>2</sup>  
 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				
Date				

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11457085

Catalog # : 03018ET3E286TC-W22

Performance : 208-230/460 V 60 Hz 4P

Rated current : 77.6-70.2/35.1 A  
LRC : 6.1  
Rated torque : 12.2 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 240 %  
Rated speed : 1765 rpm

Moment of inertia (J) : 0.2467 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

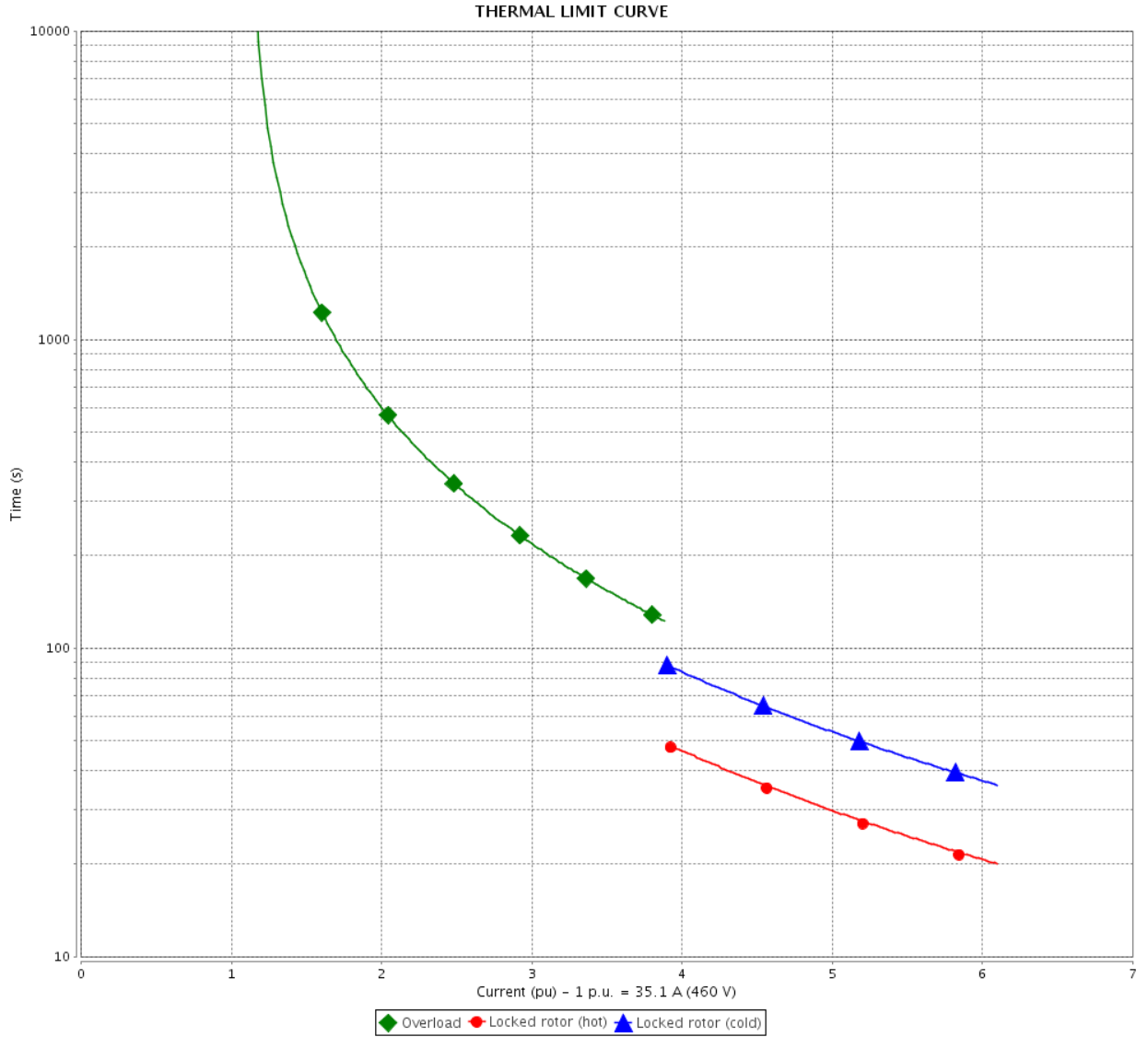
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/02/2020		4 / 6	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

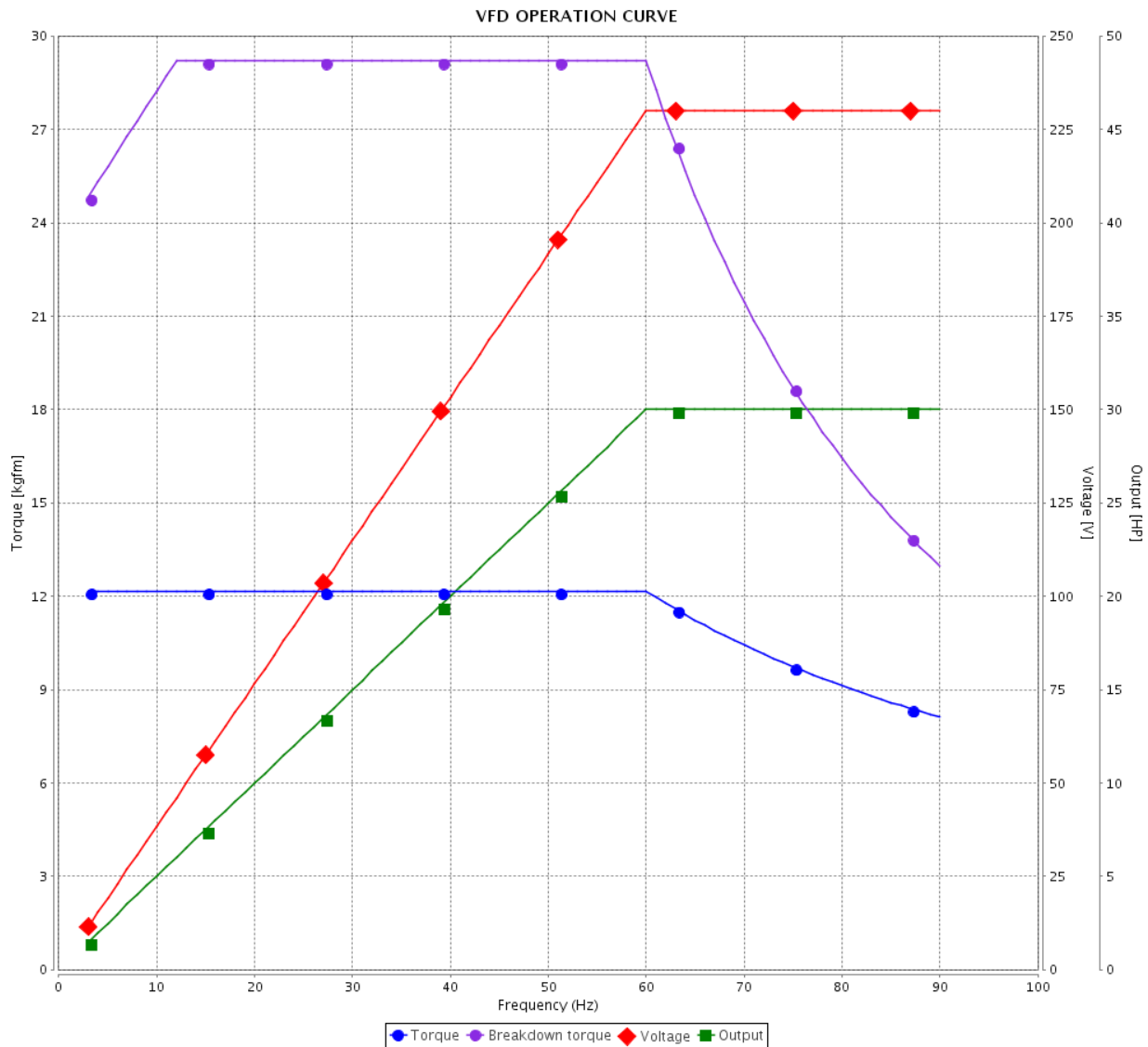


Customer : \_\_\_\_\_

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11457085

Catalog # : 03018ET3E286TC-W22



Performance : 208-230/460 V 60 Hz 4P

Rated current : 77.6-70.2/35.1 A  
 LRC : 6.1  
 Rated torque : 12.2 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.2467 kgm<sup>2</sup>  
 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	Revision
Checked by				
Date	14/02/2020			

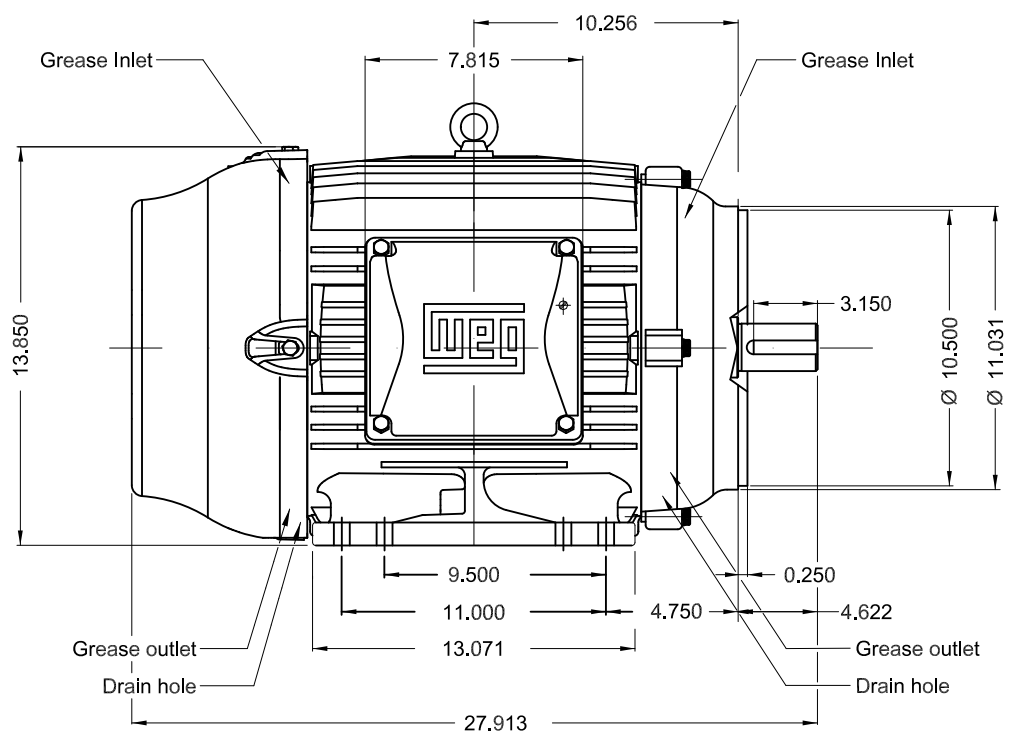
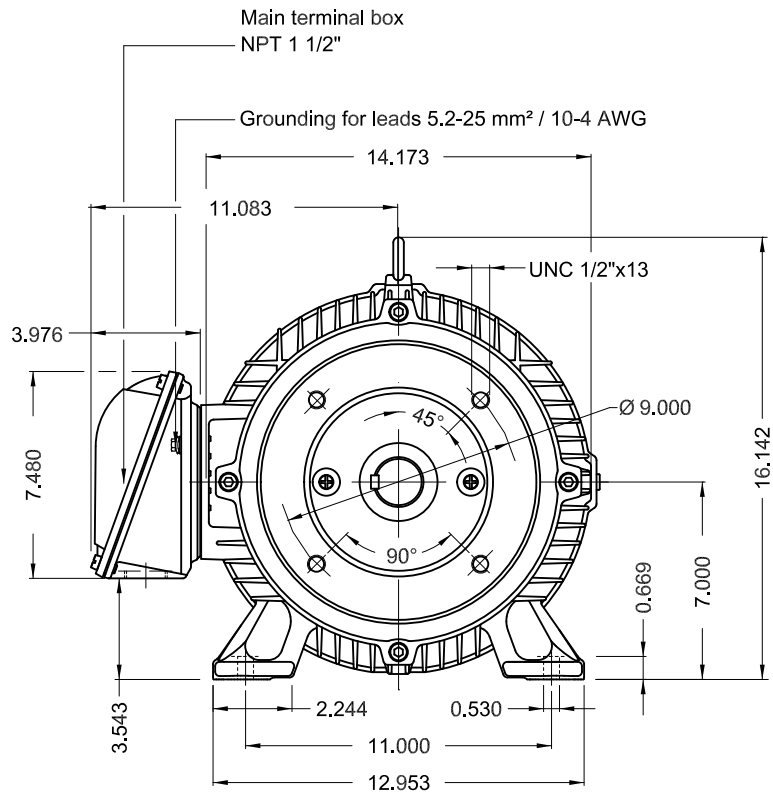


1 2 3 4 5 6

A

B

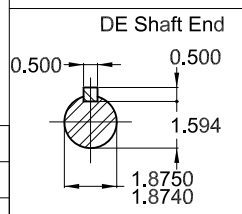
C



D

E

Color RAL 5009  
 Painting plan 203A  
 Mounting B34R(D)



30 HP 04 Poles 60Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PHASE W22 MOTOR - NEMA PREMIUM EFF FRAME 284/6TC IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering	SHEET	1 / 1	

PREVIEW  
 WDD



Dimensions in inches

XME A3

MODEL 03018ET3E286TC-W22  
MADE IN BRAZIL  
11457085



*Inverter Duty Motor  
Severe Duty*



FOR SAFE AREA  
MOD.TE1BFOXON

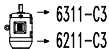
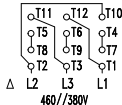
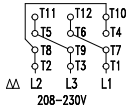


For 60Hz: Class I, Div 2, Gr. A, B, C and D - T3  
Class I, Zone 2, IIC - T3

Class II, Div 2, Gr. F and G - T4

For 60Hz use on PWM, Gr. A, B, C, D and F,  
VT 1000:1, CT 20:1, 1.0SF, T3A

PH 3	FR 284/6TC	HP(kW) 30.0(22.0)	Hz 60
V 230/460	A 70.2/35.1	RPM 1765	DES B
NEMA NOM EFF 93.6 %	INS. CL. F $\Delta$ T 80 K	IP55	
ENCL TEFC	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.84	SF 1.25	SFA 87.8/43.9
USABLE @208V 77.6 A	SF 1.15	SFA 89.2	
30HP 22kW 50Hz 380V 43.1A 1445RPM SF1.00 EFF 90.2% (IE1)	ALT 1000 m.a.s.l.	459 Lbs	



MOBIL POLYREX EM  
18 g 20000 h

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

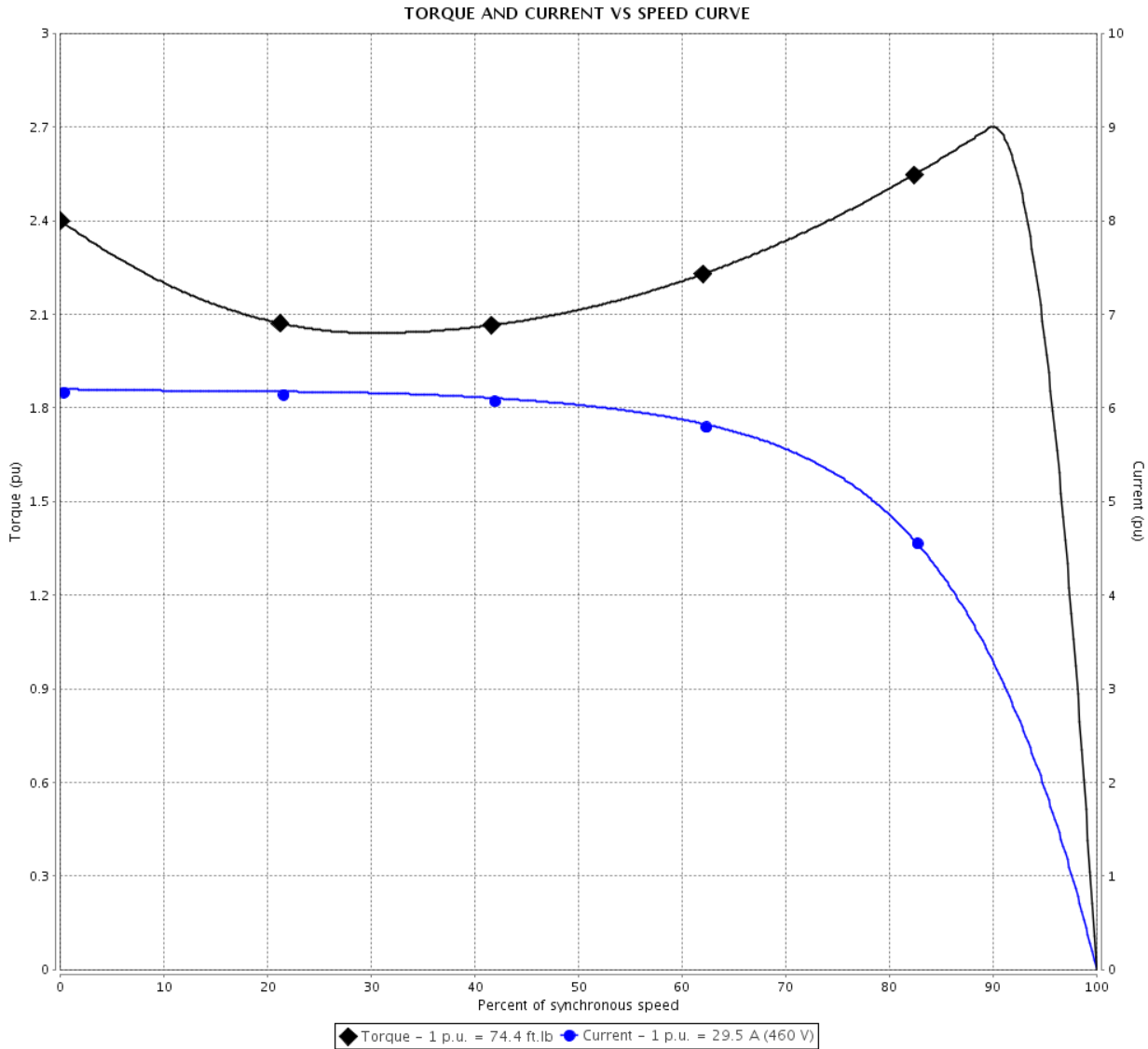


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12447067

Catalog # : 02518ET3E284TC-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 59.0/29.5 A  
LRC : 6.2  
Rated torque : 74.4 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 270 %  
Rated speed : 1765 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Locked rotor time : 43s (cold) 24s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	17/03/2020			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

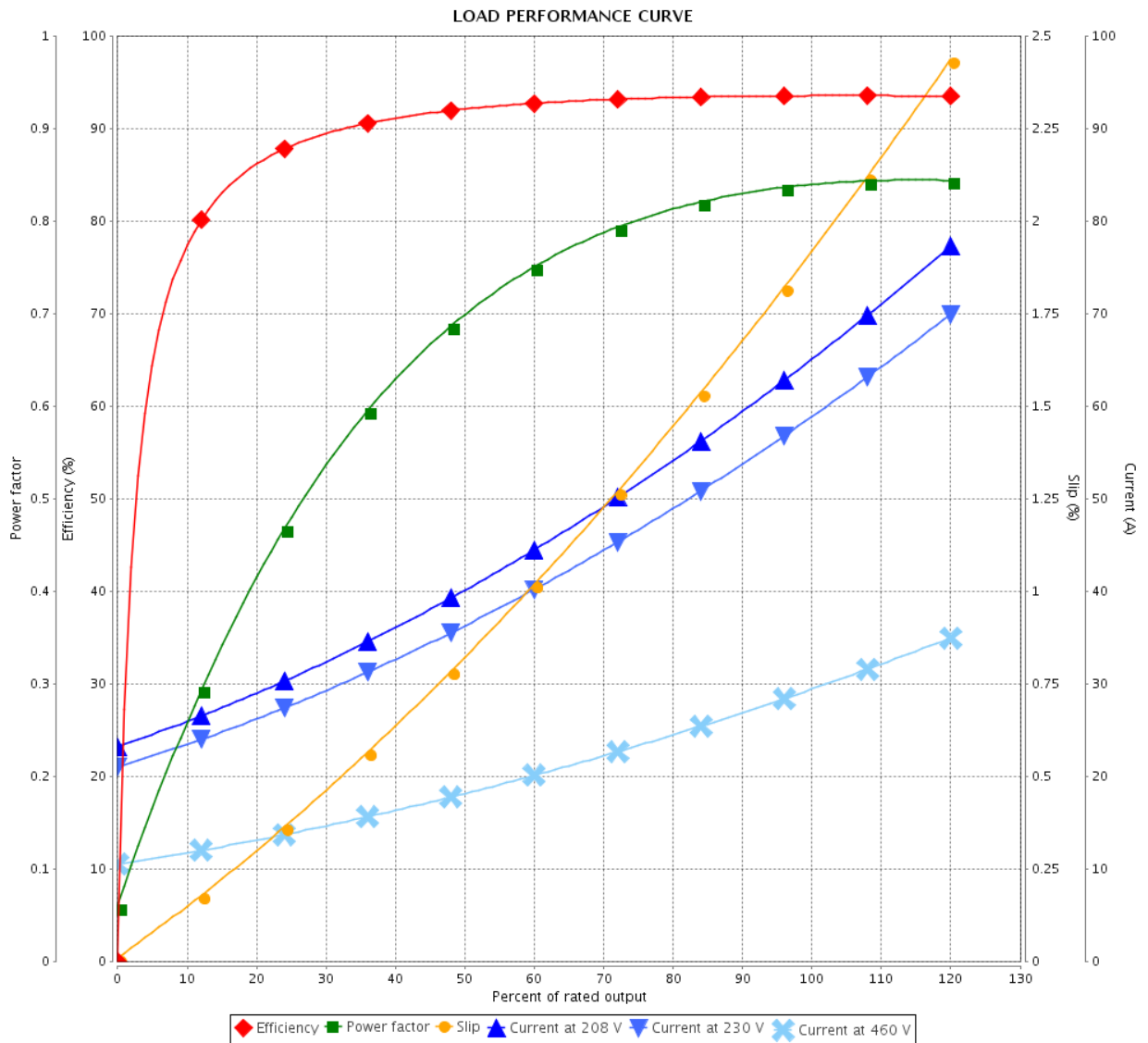


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12447067

Catalog # : 02518ET3E284TC-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 59.0/29.5 A  
 LRC : 6.2  
 Rated torque : 74.4 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 5.11 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	Revision
Checked by				
Date	17/03/2020			

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12447067

Catalog # : 02518ET3E284TC-W22

Performance : 230/460 V 60 Hz 4P

Rated current : 59.0/29.5 A  
LRC : 6.2  
Rated torque : 74.4 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 270 %  
Rated speed : 1765 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

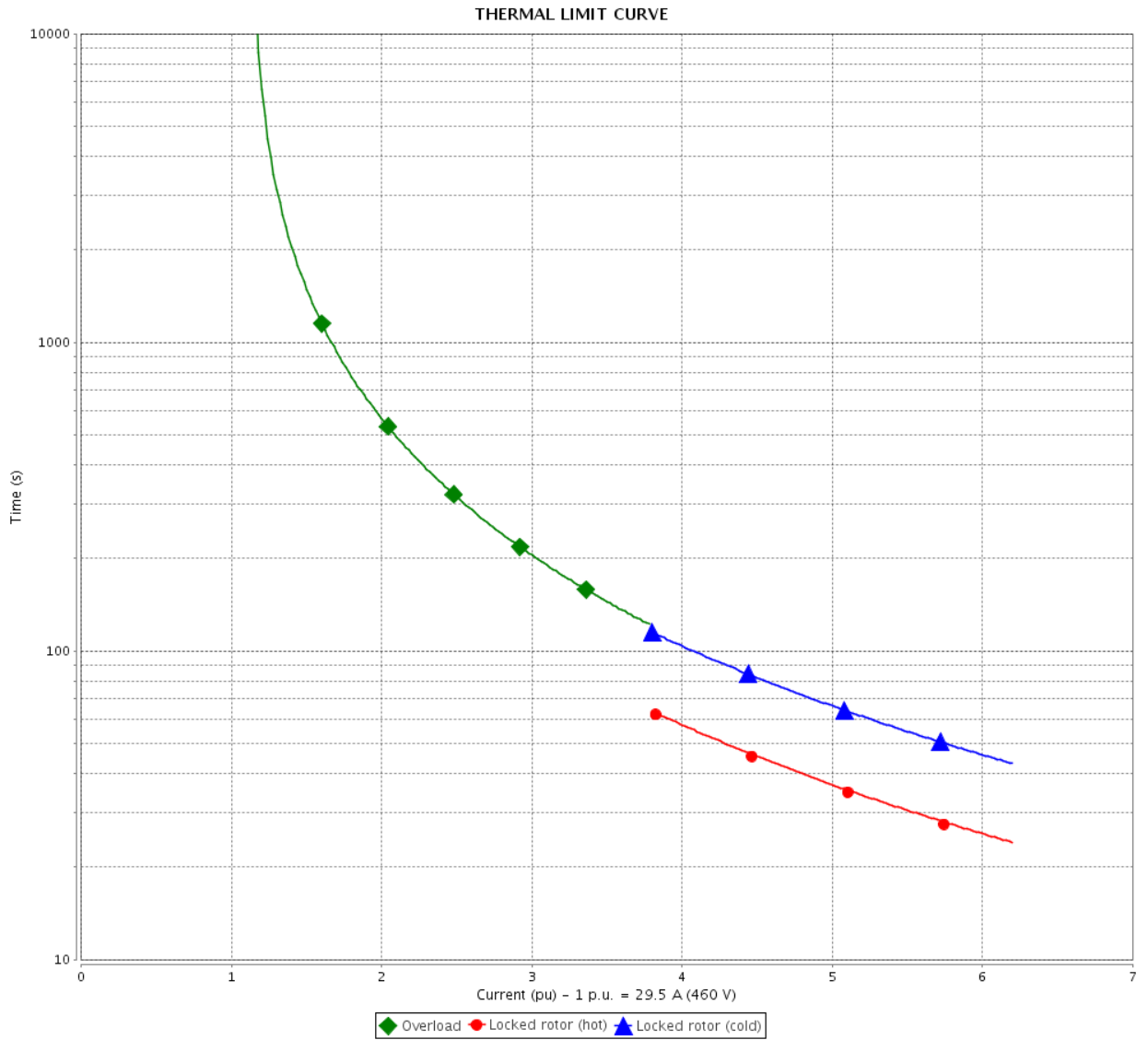
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	17/03/2020		4 / 6	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

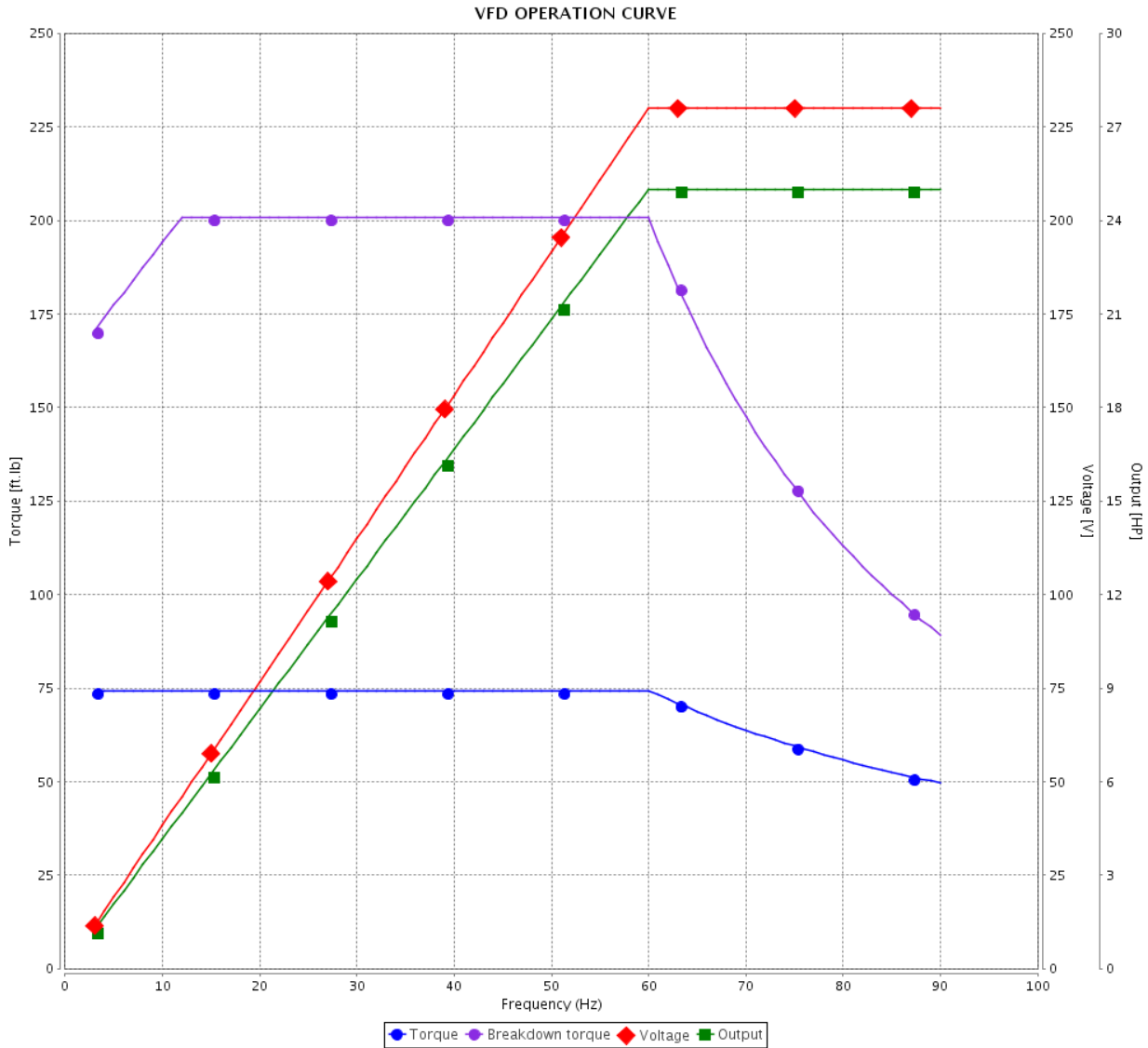


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12447067

Catalog # : 02518ET3E284TC-W22

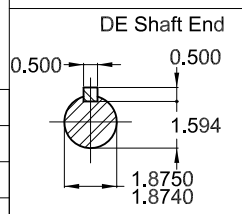
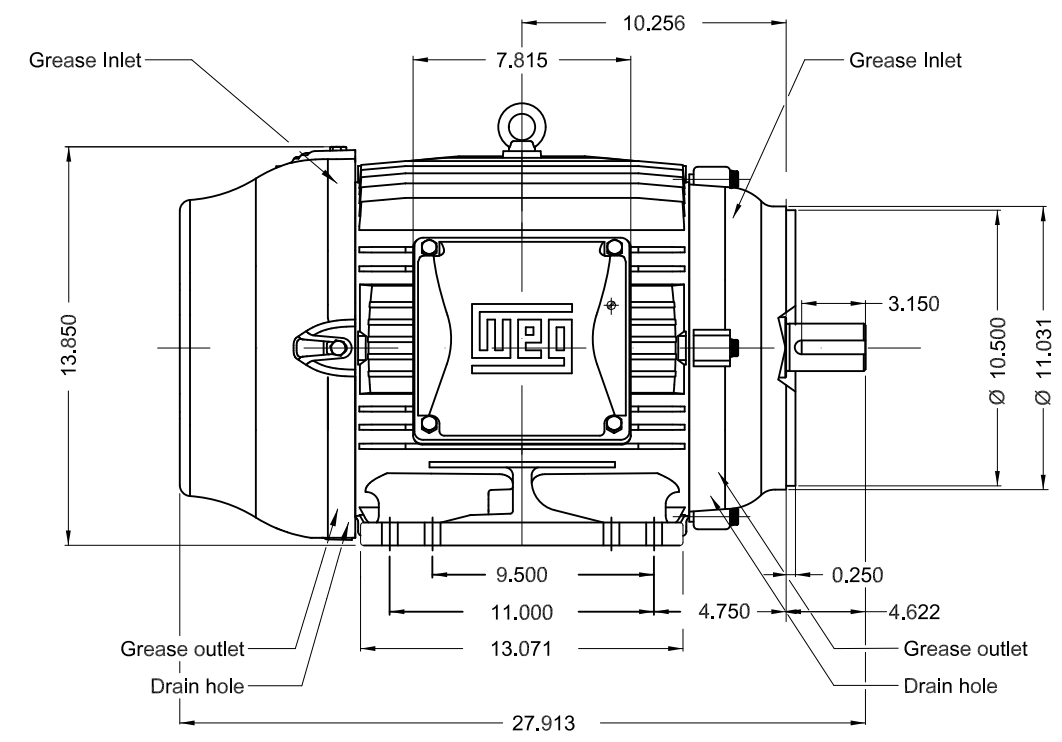
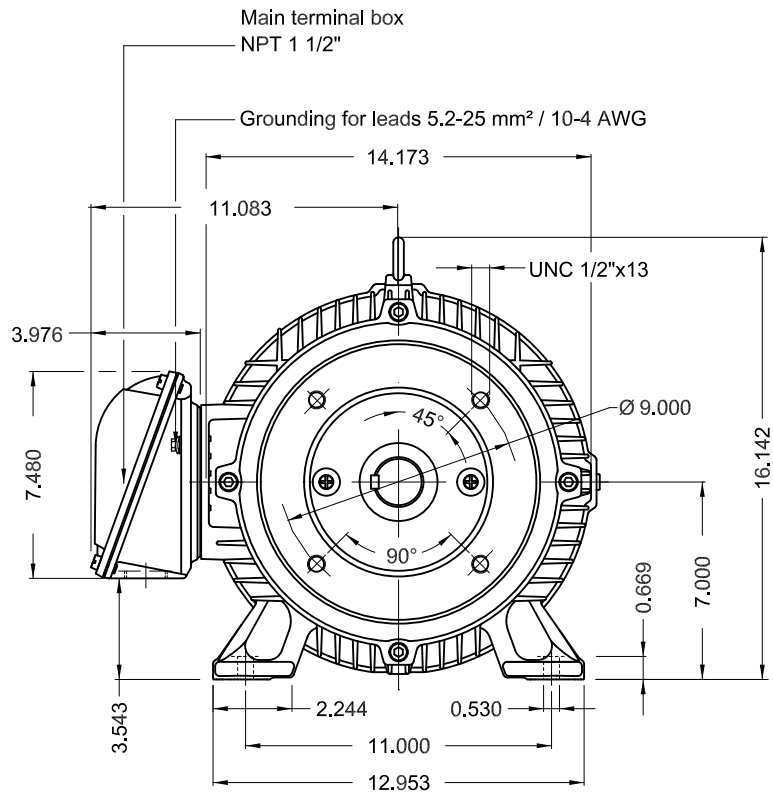


Performance : 230/460 V 60 Hz 4P

Rated current : 59.0/29.5 A  
 LRC : 6.2  
 Rated torque : 74.4 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 5.11 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	Revision
Checked by				
Date	17/03/2020			



Without vertical jackscrews  
 Color RAL 5009  
 Painting plan 203A  
 Mounting B34R(D)

25 HP 04 Poles 60Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PHASE W22 MOTOR - NEMA PREMIUM EFF FRAME 284/6TC IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering	SHEET	1 / 1	

**PREVIEW**

WDD



MODEL 02518ET3E284TC-W22  
MADE IN MEXICO  
12447067



*Inverter Duty Motor  
Severe Duty*



FOR SAFE AREA  
MOD.TE1BFOXON

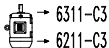
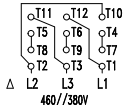
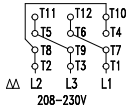


For 60Hz: Class I, Div 2, Gr. A, B, C and D - T3  
Class I, Zone 2, IIC - T3

Class II, Div 2, Gr. F and G - T4

For 60Hz use on PWM, Gr. A, B, C, D and F,  
VT 1000:1, CT 20:1, 1.0SF, T3A

PH 3	FR 284/6TC	HP(kW) 25.0(18.5)	Hz 60
V 230/460	A 59.0/29.5	RPM 1765	DES B
NEMA NOM EFF 93.6 %	INS. CL. F $\Delta$ T 80 K	IP55	
ENCL TEFC	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.84	SF 1.25	SFA 73.8/36.9
USABLE @208V	65.2 A	SF 1.15	SFA 75.0
25HP 18.5kW 50Hz 380V 35.6A 1445RPM SF1.00 EFF 91.7% (IE2)	ALT 1000 m.a.s.l.	421 Lbs	



MOBIL POLYREX EM  
18 g 20000 h