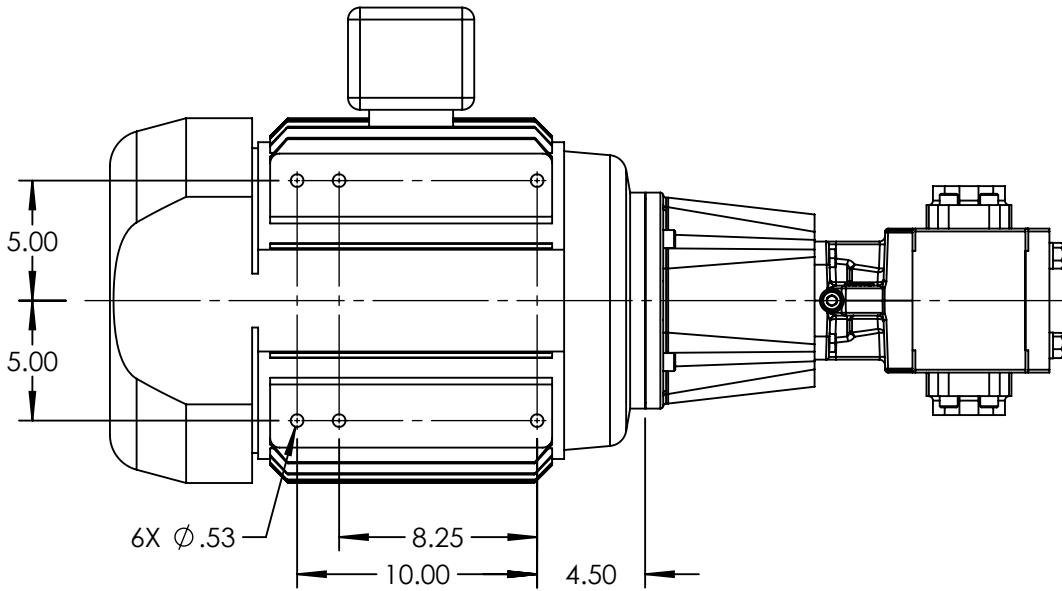
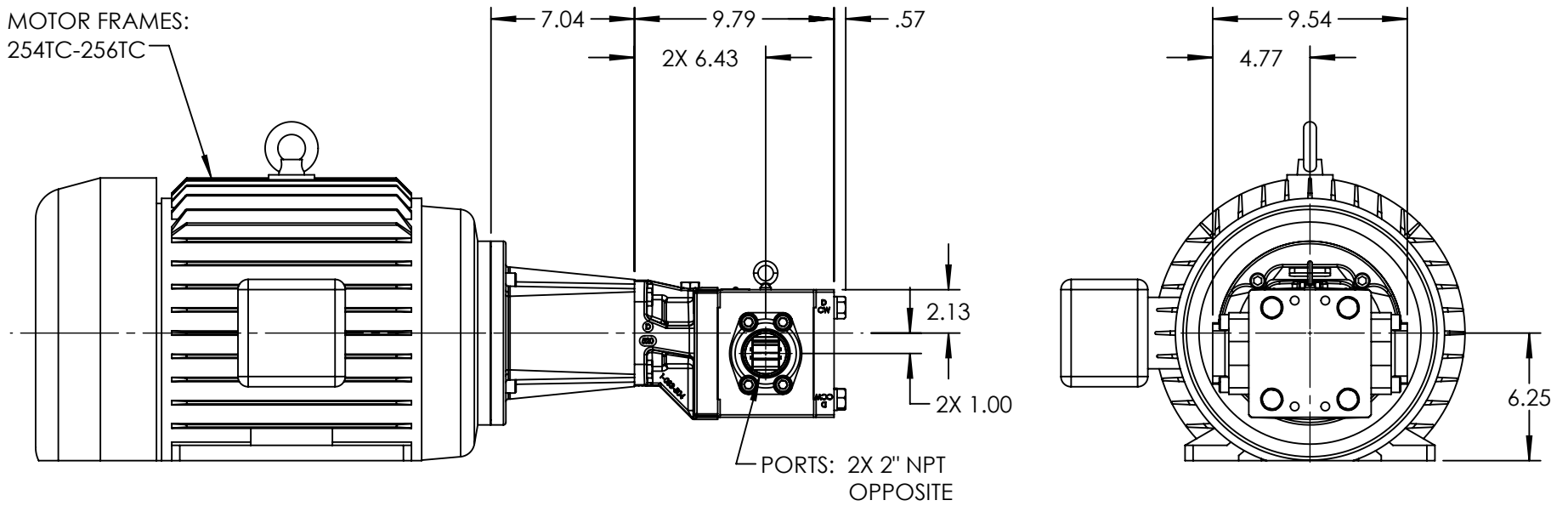


MOTOR FRAMES:
254TC-256TC



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

NOTES:

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.

STATE	Released	07/16/2021
DRAWN	bmanternach	6/22/2021
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.

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3D

DWG. NO. GPV-1013-040-U
SHEET 1 OF 1

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 : 11440444
 Catalog # : 02018ET3E256TC-W22

Frame	: 254/6TC	Locked rotor time	: 54s (cold) 30s (hot)
Output	: 20 HP (15 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	: 48.2/24.1 A	Protection degree	: IP55
L. R. Amperes	: 333/166 A	Cooling method	: IC411 - TEFC
LRC	: 6.9x(Code H)	Mounting	: F-1
No load current	: 19.2/9.60 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1770 rpm	Noise level ²	: 64.0 dB(A)
Slip	: 1.67 %	Starting method	: Direct On Line
Rated torque	: 59.3 ft.lb	Approx. weight ³	: 343 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 3.10 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	91.7	92.4	93.0	Max. traction	: 723 lb
Power Factor	0.68	0.79	0.84	Max. compression	: 1065 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)
7.5	6.4	5.8	3.6	2.5	1.6	1.1

	Drive end	Non drive end
Bearing type	: 6309 C3	: 6209 C3
Sealing	: V'Ring	: V'Ring
Lubrication interval	: 20000 h	: 20000 h
Lubricant amount	: 13 g	: 9 g
Lubricant type	: Mobil Polyrex EM	

Notes
 USABLE @208V 53.3A SF 1.15 SFA 61.3A

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	13/11/2023		1 / 6	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



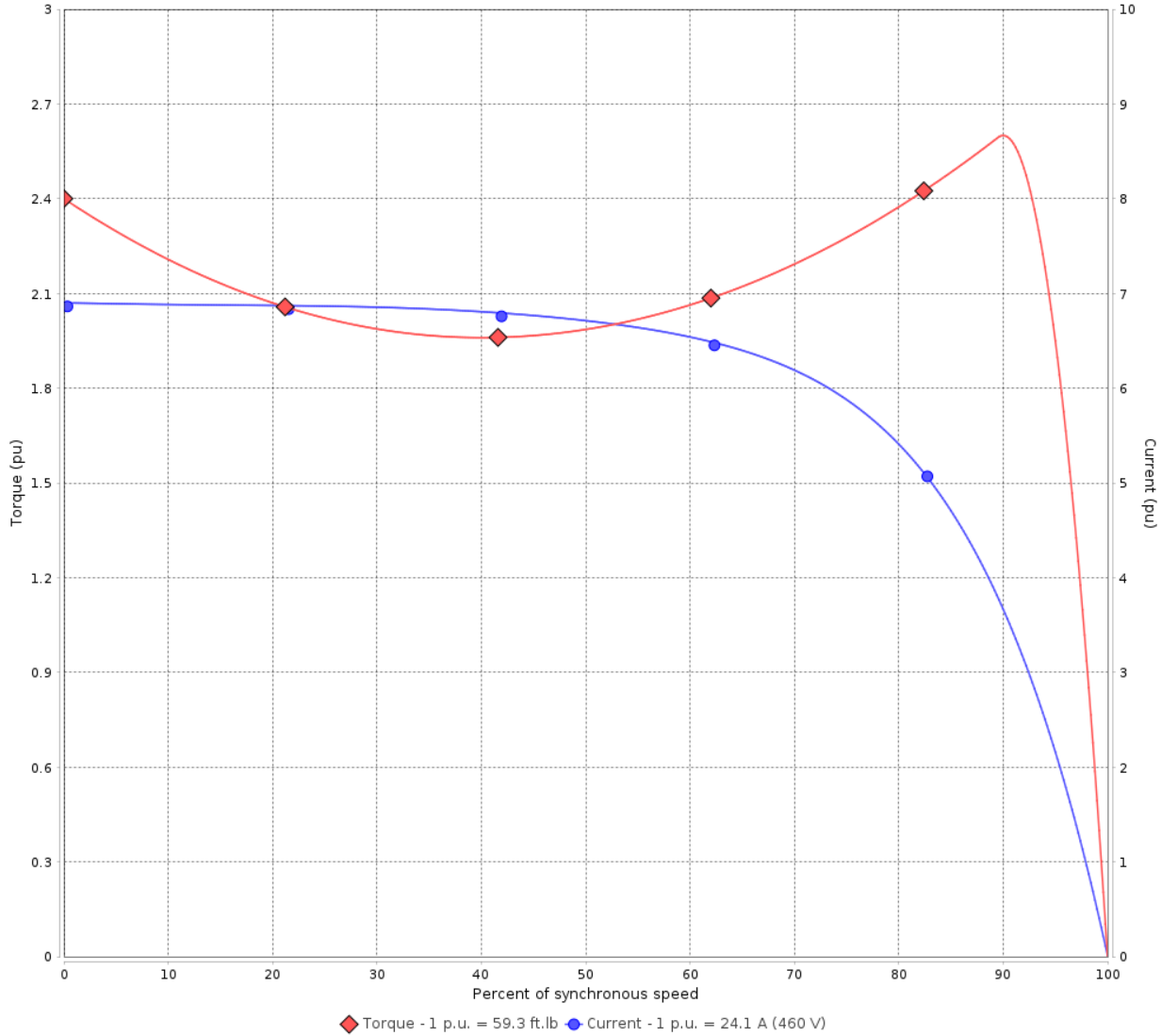
Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11440444

Catalog # : 02018ET3E256TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 48.2/24.1 A	Moment of inertia (J)	: 3.10 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 59.3 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 54s (cold) 30s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	13/11/2023			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

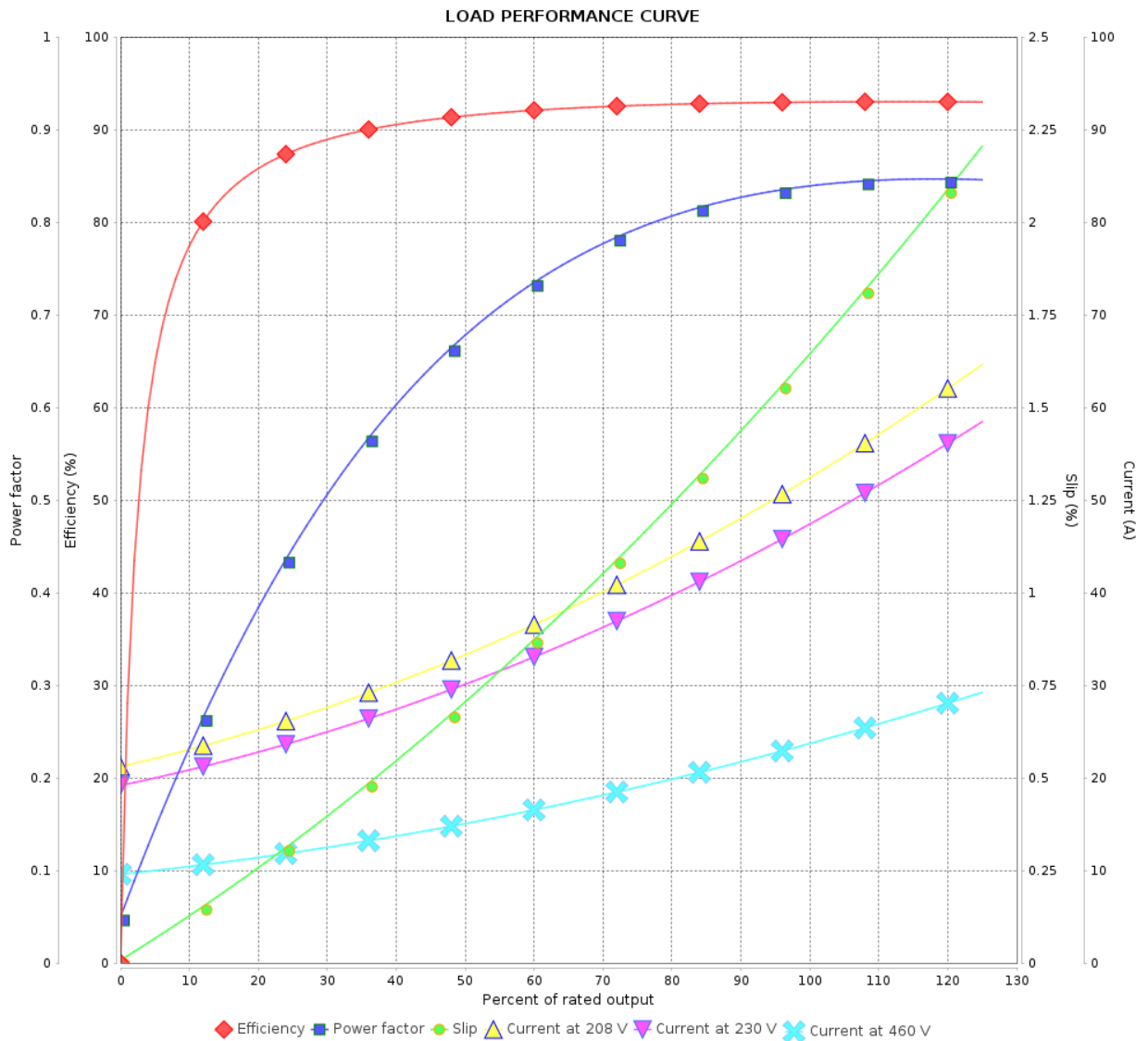


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11440444

Catalog # : 02018ET3E256TC-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 48.2/24.1 A
 LRC : 6.9
 Rated torque : 59.3 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1770 rpm

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 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

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Product code : 11440444

Catalog # : 02018ET3E256TC-W22

Performance : 230/460 V 60 Hz 4P

Rated current : 48.2/24.1 A
 LRC : 6.9
 Rated torque : 59.3 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 3.10 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Heating constant

Cooling constant

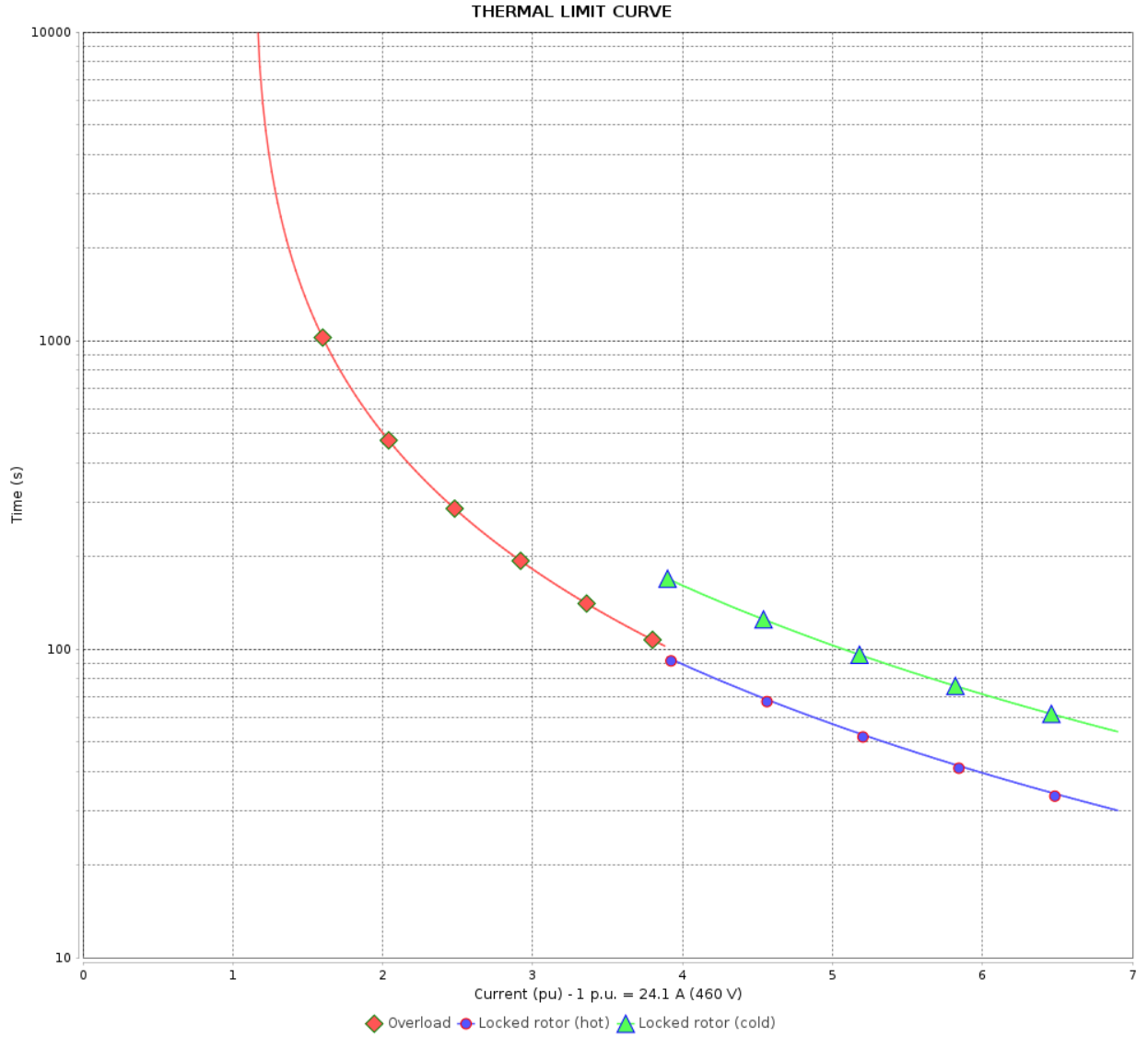
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 6	Revision
Checked by				
Date	13/11/2023			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by				
Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

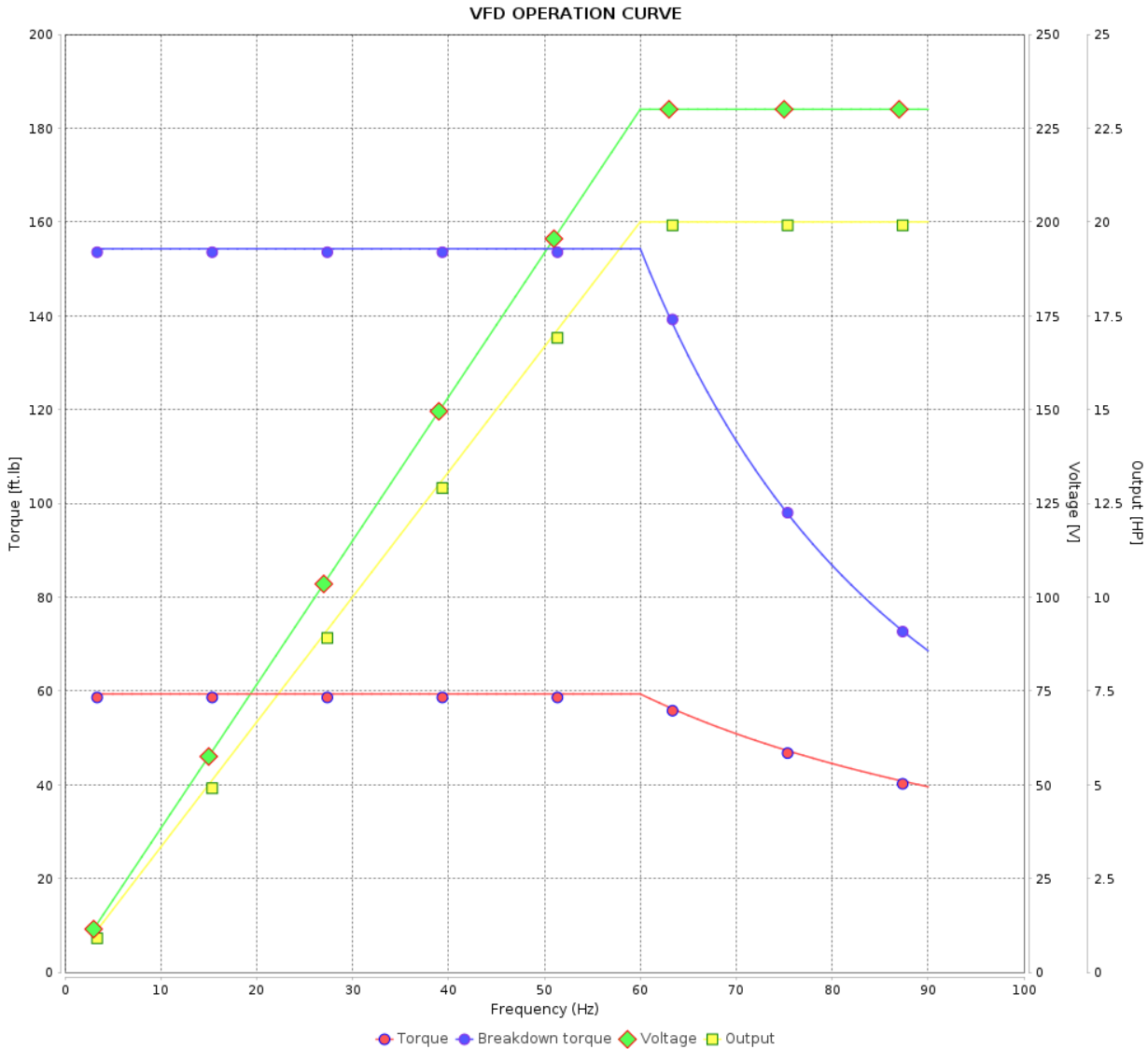


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11440444

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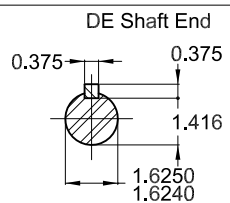
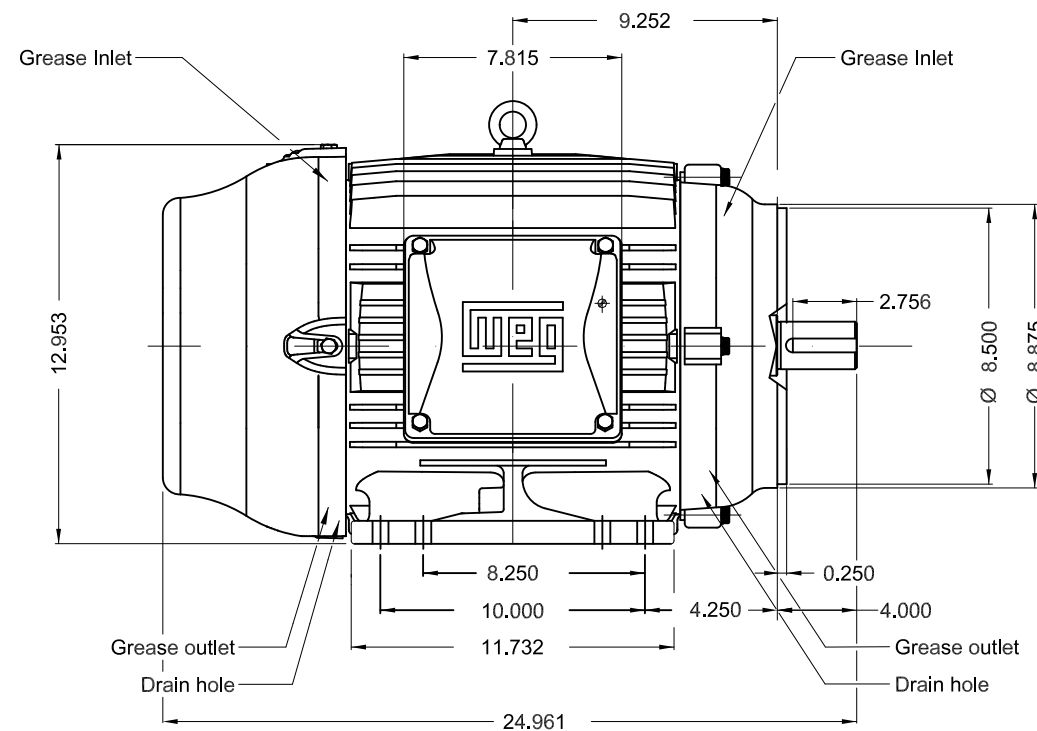
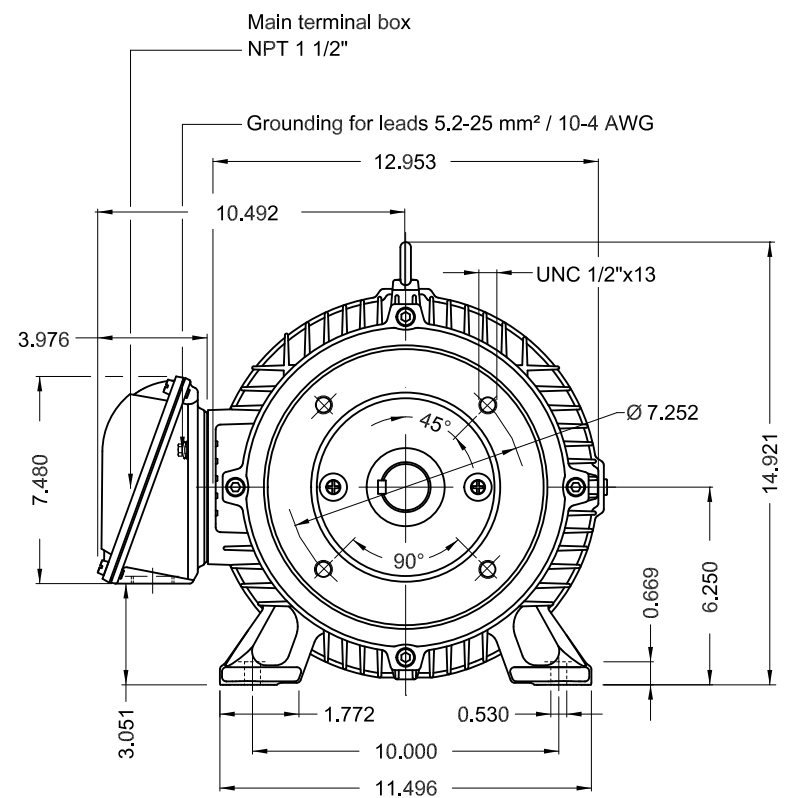


Performance : 230/460 V 60 Hz 4P

Rated current : 48.2/24.1 A
 LRC : 6.9
 Rated torque : 59.3 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 3.10 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	13/11/2023			



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

20 HP 04 Poles 60 Hz

						USERADMIN								00		
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER						
EXECUTED	USERADMIN	THREE PH. MOTOR W22 NEMA PREM. EFF.										PREVIEW				
CHECKED		FRAME 254/6TC IP55 TEFC										WDD		00		
RELEASED												SHEET		1 / 1		
REL. DATE		WMO Jaragua do Sul		Product Engineering												

Dimensions in inches

XME A3



FOR SAFE AREA
Mod. TE1BFOXON
CC029A



For use on 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 use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3A

MODEL 02018ET3E256TC-W22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 254/6TC 1000m.a.s.l. IP55 TEFC 343lb

V 230/460

A 48.2/24.1

HP 20

kW 15

SF 1.25

SFA 60.3/30.1

RPM 1770

PF 0.84

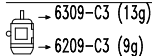
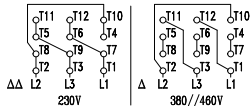
AMB 40°C

INS cl. F DT80K NEMA NOM EFF 93.0%

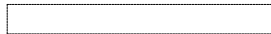
DUTY CONT.

DES B Code H

20HP 15kW 50Hz 380V 29.4A 1455RPM SF 1.00 EFF 90.2% (IE1)



MOBIL POLYREX EM (20000h)



MADE IN MEXICO
11440444

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

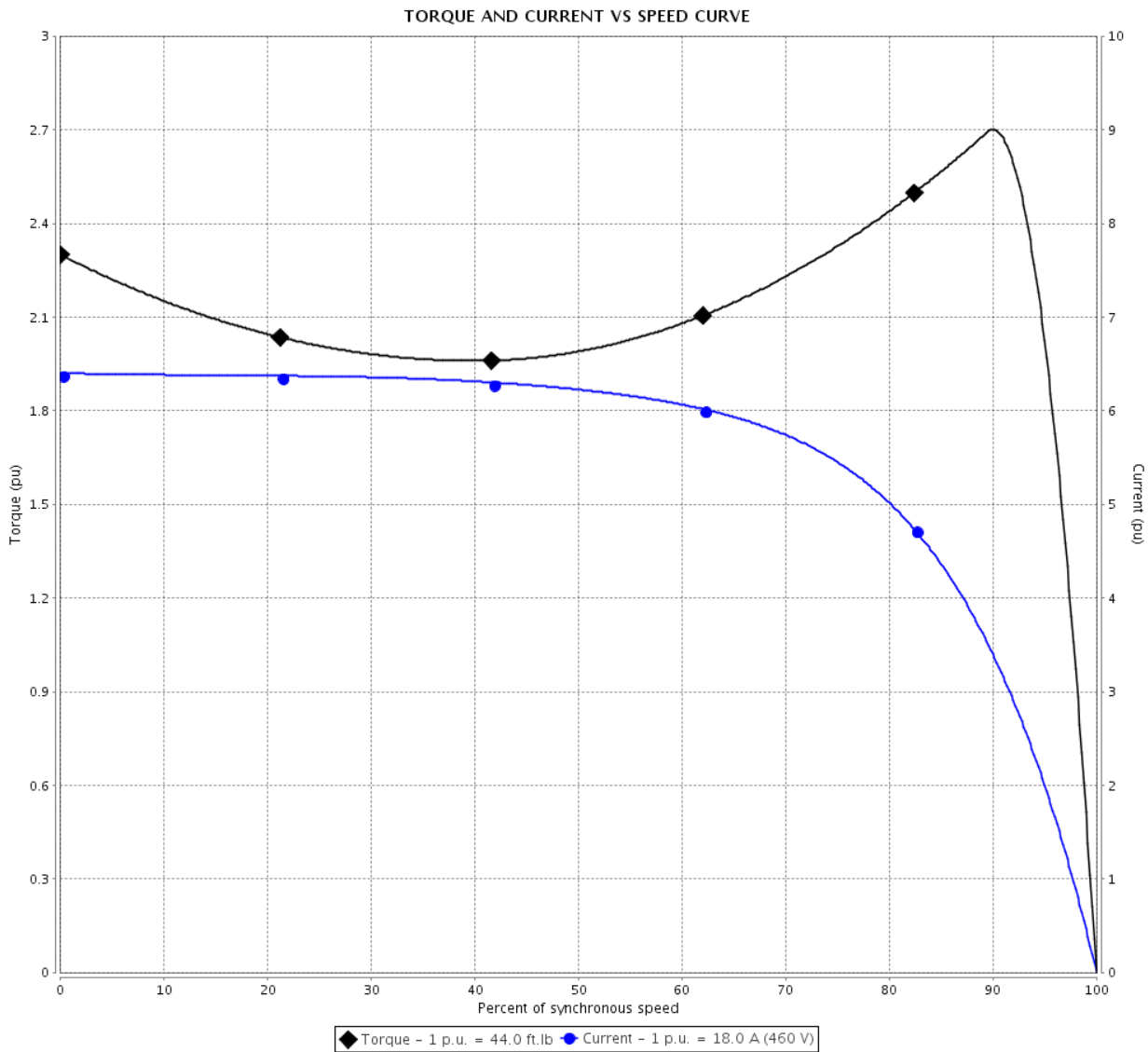


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12446945

Catalog # : 01518ET3E254TC-W22



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

Rated current	: 39.8-36.0/18.0 A	Moment of inertia (J)	: 2.62 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 44.0 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	23/08/2019			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

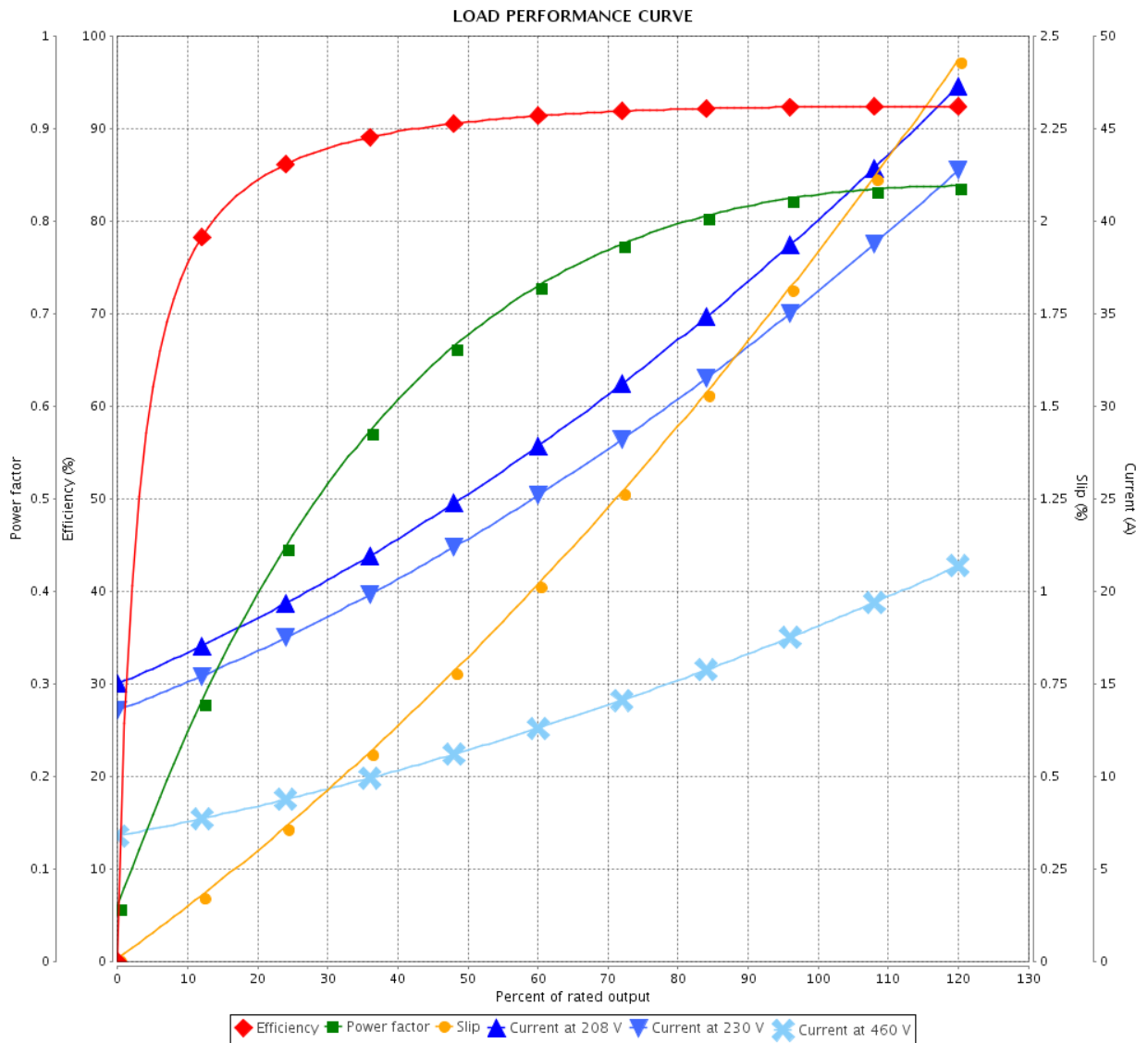


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Product code : 12446945

Catalog # : 01518ET3E254TC-W22



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 LRC : 6.4
 Rated torque : 44.0 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 270 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 2.62 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				
Date				

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

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Locked rotor torque : 229 %

Breakdown torque : 270 %

Rated speed : 1765 rpm

Moment of inertia (J) : 2.62 sq.ft.lb

Duty cycle : Cont.(S1)

Insulation class : F

Service factor : 1.25

Temperature rise : 80 K

Design : B

Heating constant

Cooling constant

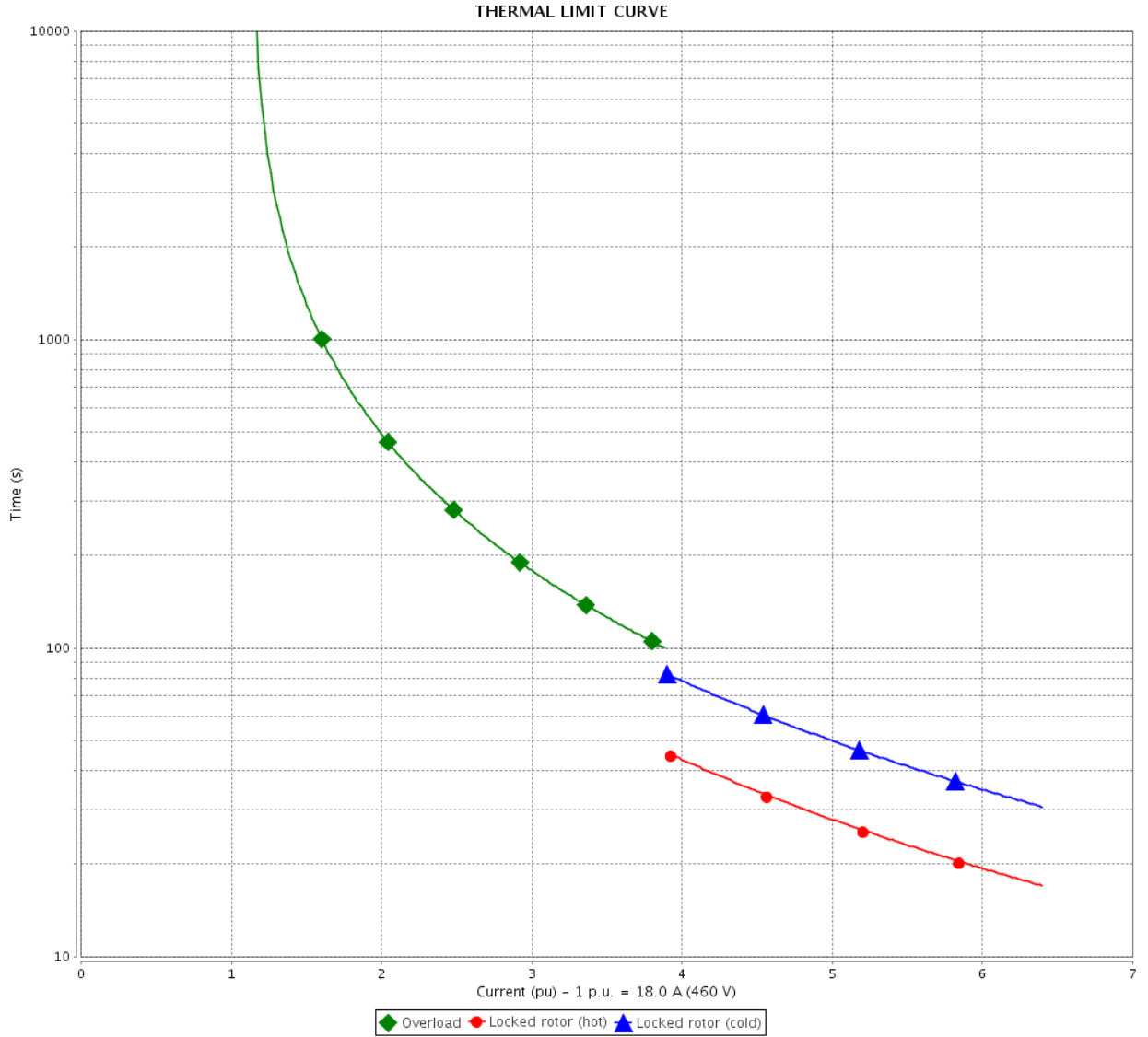
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	23/08/2019		4 / 6	

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

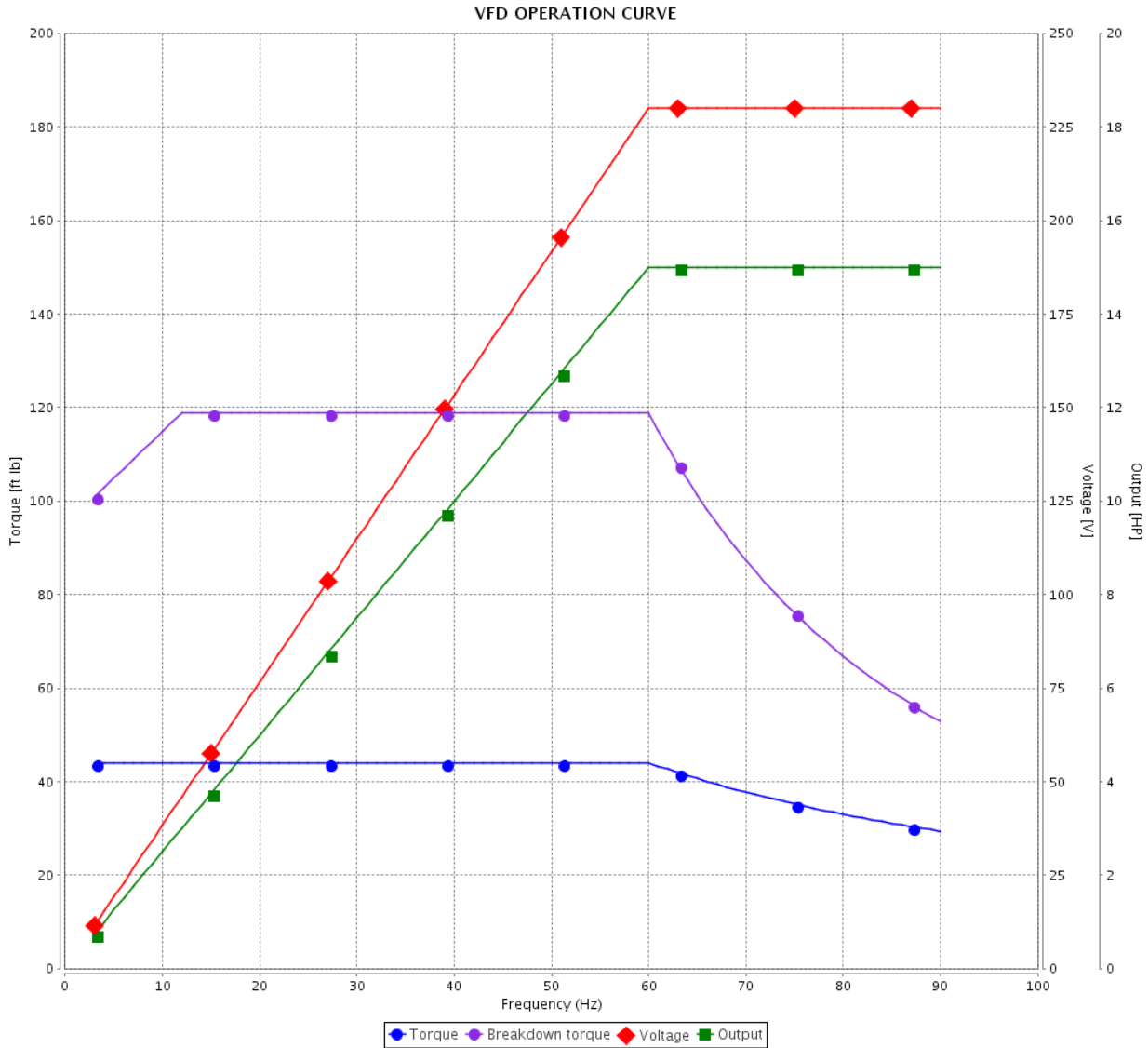


Customer :

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Product code : 12446945

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Moment of inertia (J) : 2.62 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

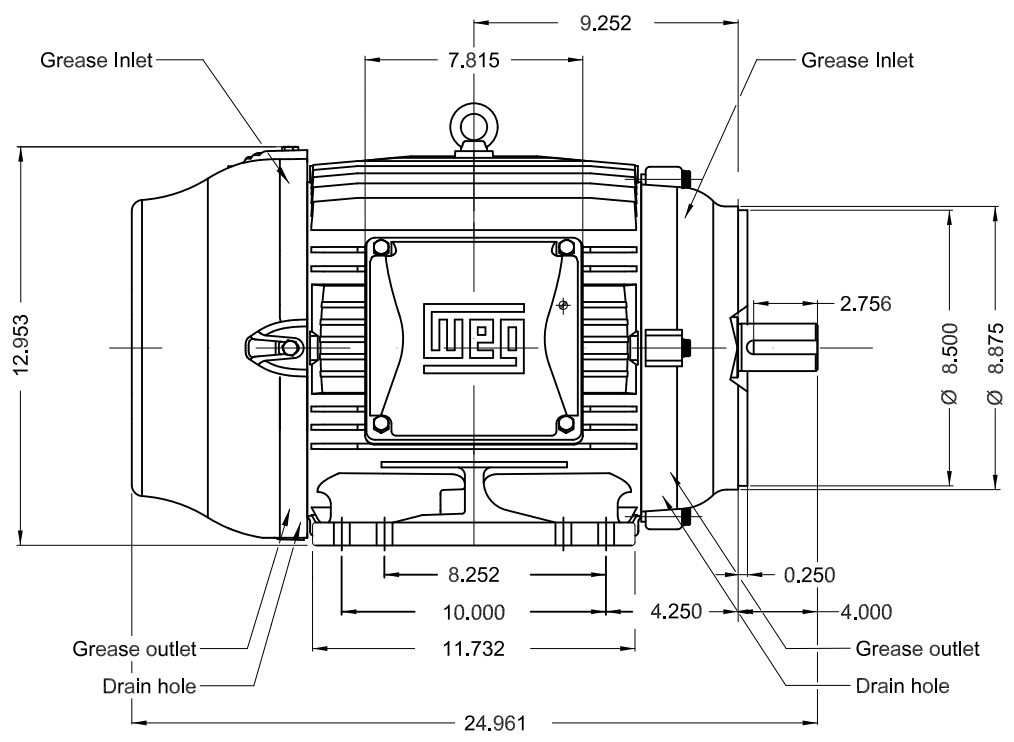
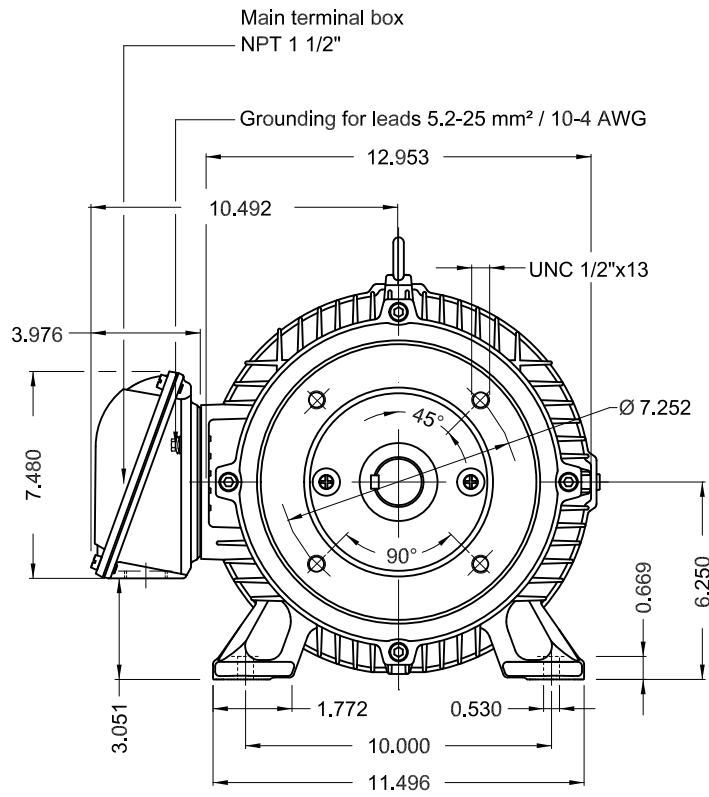
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 6	Revision
Checked by				
Date	23/08/2019			

1 2 3 4 5 6

A

B

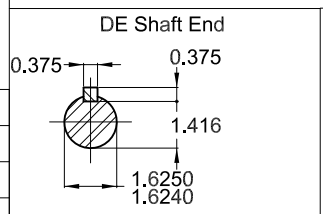
C



D

E

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



15 HP 04 Poles 60Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	USERADMIN	THREE PHASE W22 MOTOR - NEMA PREMIUM EFF FRAME 254/6TC IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	PREVIEW	WDD	SHEET	1 / 1

Dimensions in inches

XME A3



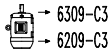
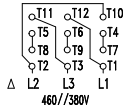
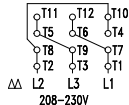
FOR SAFE AREA
MOD.TE1BFOXON



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

CT015404NPW22
MADE IN BRAZIL
12446945

PH 3	FR 254/6TC	HP(kW) 15.0(11.0)	Hz 60
V 230/460	A 36.0/18.0	RPM 1765	DES B
NEMA NOM EFF 92.4 %	INS. CL. F Δ T 80 K	IP55	
ENCL TEFC	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.83	SF 1.25	SFA 45.0/22.5
USABLE @208V 39.8 A	SF 1.15	SFA 45.8	
15HP 11kW 50Hz 380V 21.5A 1455RPM SF1.00 EFF 90.2% (IE2)	ALT 1000 m.a.s.l.	315 Lbs	



MOBIL POLYREX EM
13 g 20000 h