

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line	: NEMA Premium Efficiency Three-Phase	Product code :	11165224
		Catalog # :	20018ET3HRB447T-W22

Frame	: 445/7T	Locked rotor time	: 28s (cold) 16s (hot)
Output	: 200 HP (150 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	: 184 A	Protection degree	: IP55
L. R. Amperes	: 1251 A	Cooling method	: IC411 - TEFC
LRC	: 6.8x(Code G)	Mounting	: F-1
No load current	: 56.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1785 rpm	Noise level ²	: 73.0 dB(A)
Slip	: 0.83 %	Starting method	: Direct On Line
Rated torque	: 588 ft.lb	Approx. weight ³	: 2213 lb
Locked rotor torque	: 229 %		
Breakdown torque	: 250 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 76.2 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	95.8	96.2	96.2	Max. traction	: 2815 lb
Power Factor	0.73	0.82	0.85	Max. compression	: 5027 lb

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	NU-319 C3	6316 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	5000 h	10000 h
Lubricant amount	:	45 g	34 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	14/04/2022		1 / 6	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



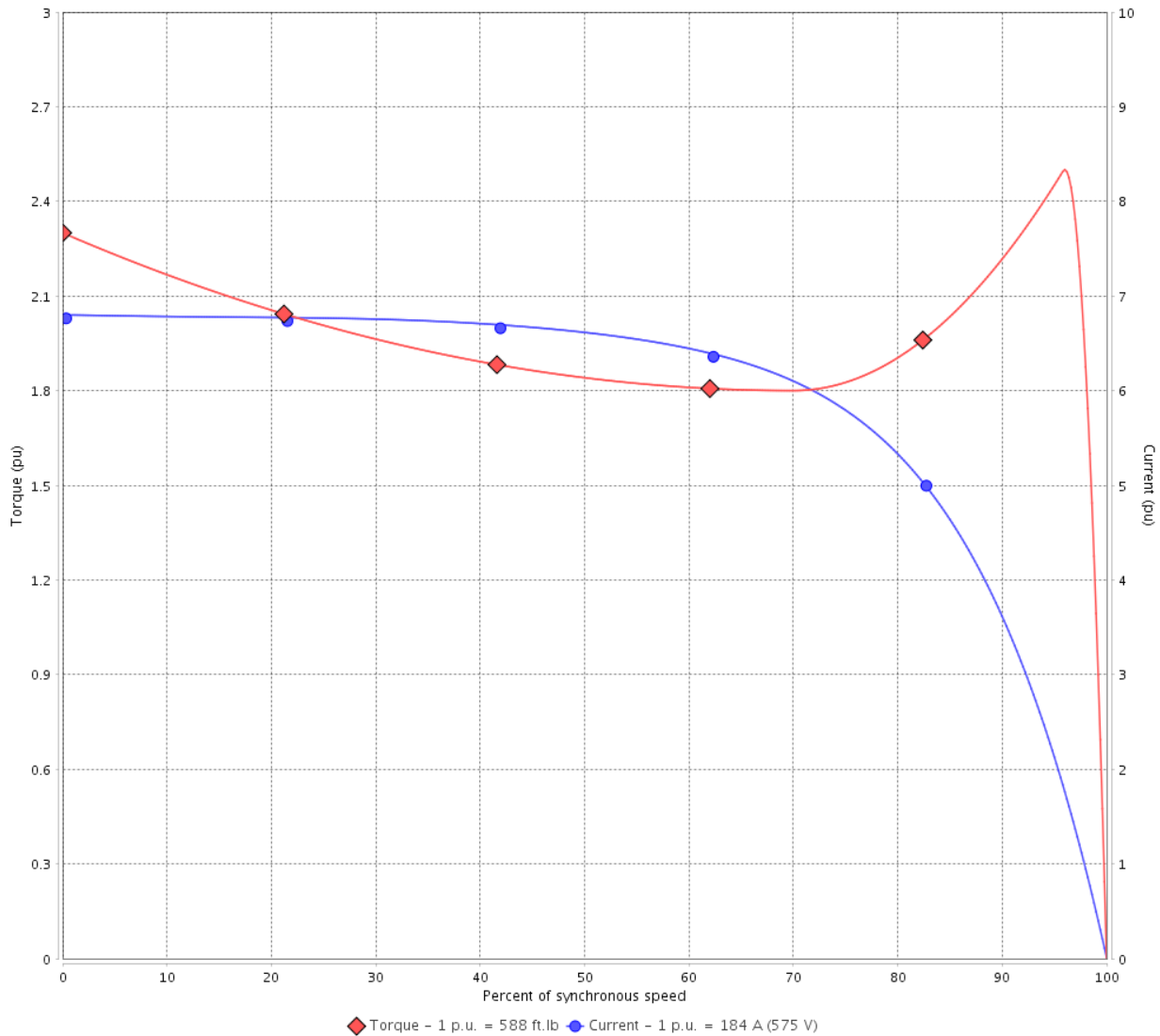
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11165224

Catalog # : 20018ET3HRB447T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 184 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 588 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

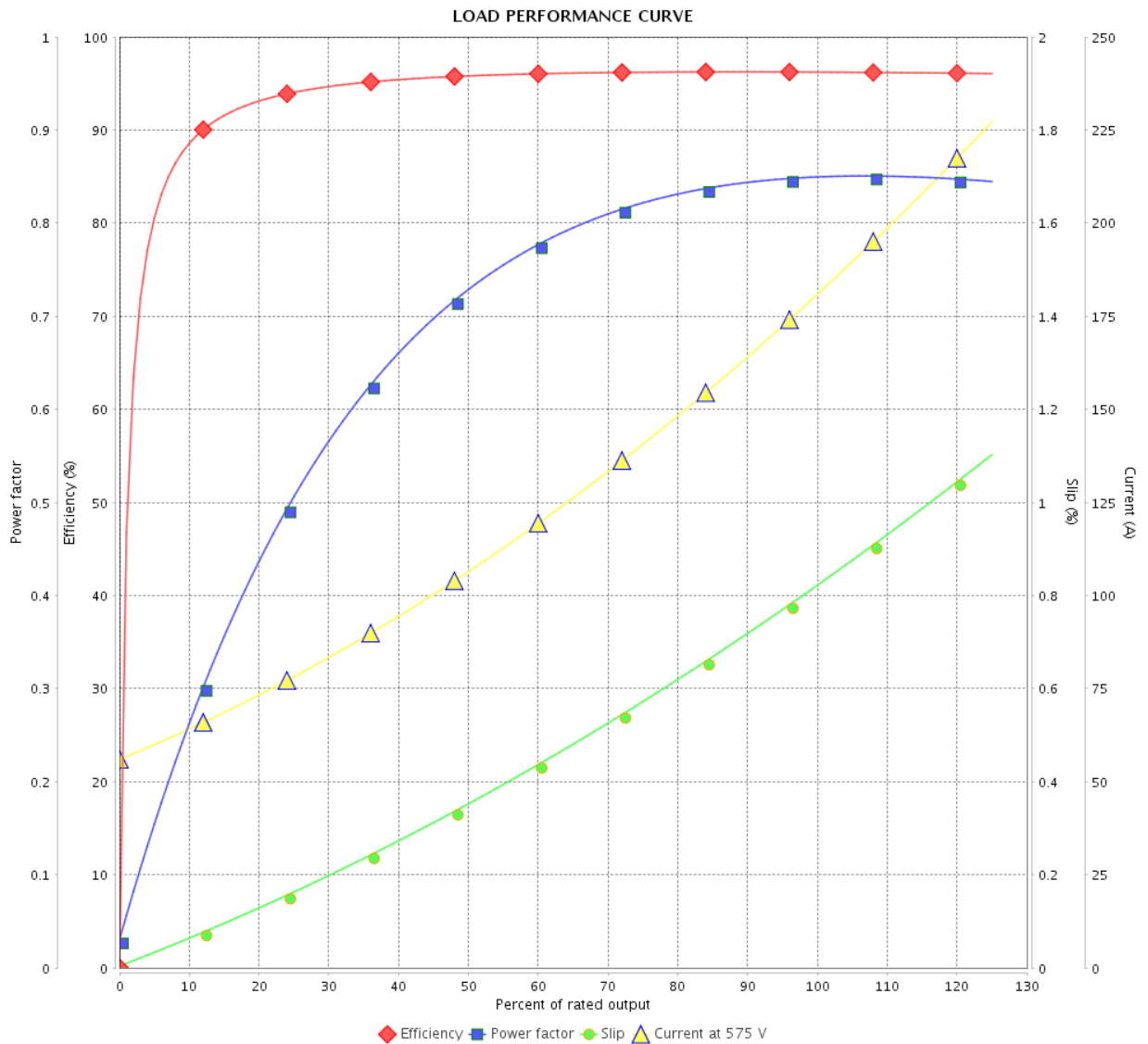


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11165224

Catalog # : 20018ET3HRB447T-W22



Performance : 575 V 60 Hz 4P

Rated current : 184 A
 LRC : 6.8
 Rated torque : 588 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 250 %
 Rated speed : 1785 rpm

Moment of inertia (J) : 76.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		3 / 6		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11165224
Catalog # : 20018ET3HRB447T-W22

Performance : 575 V 60 Hz 4P

Rated current	: 184 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 588 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: B

Heating constant

Cooling constant

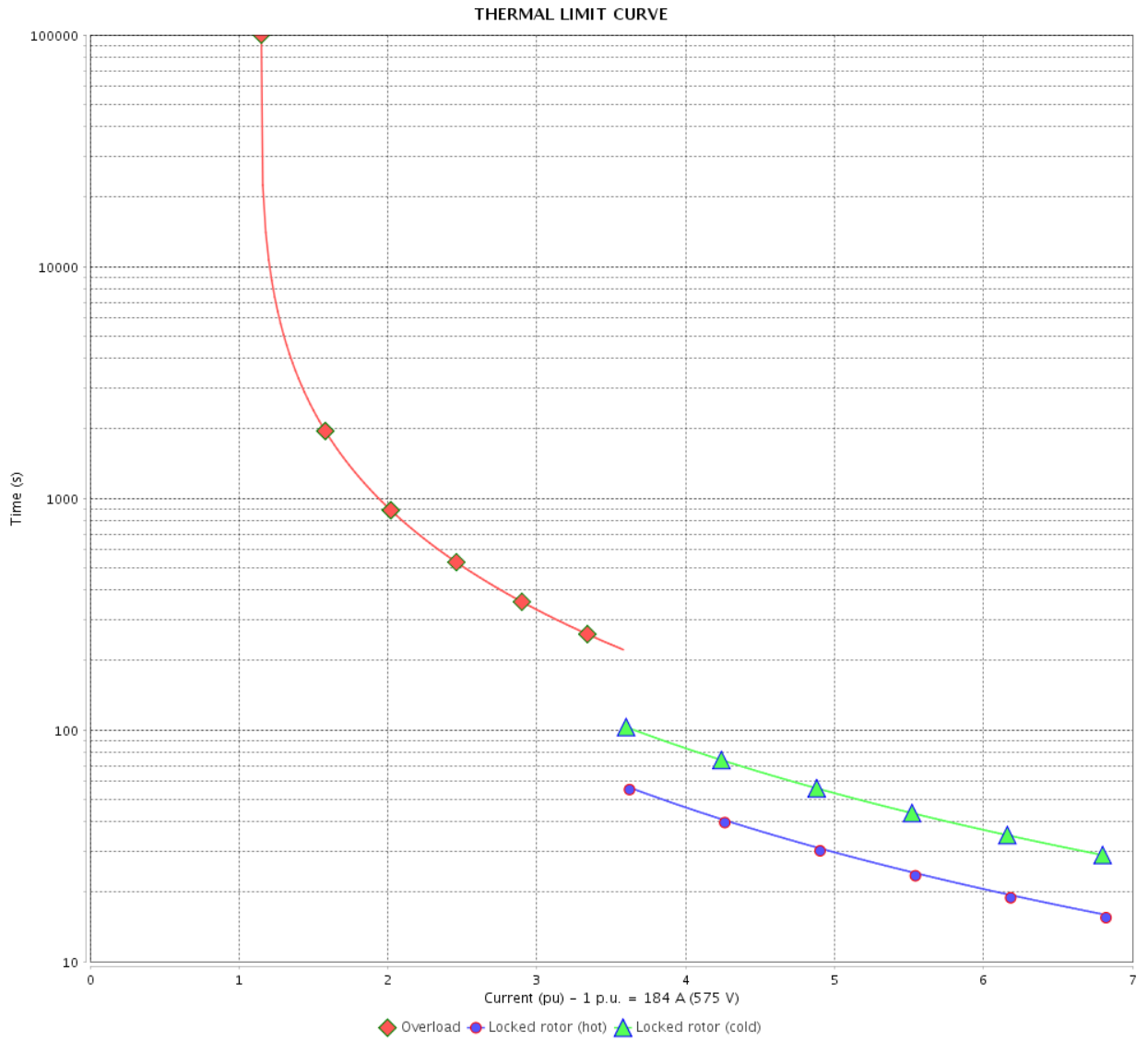
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		4 / 6	

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



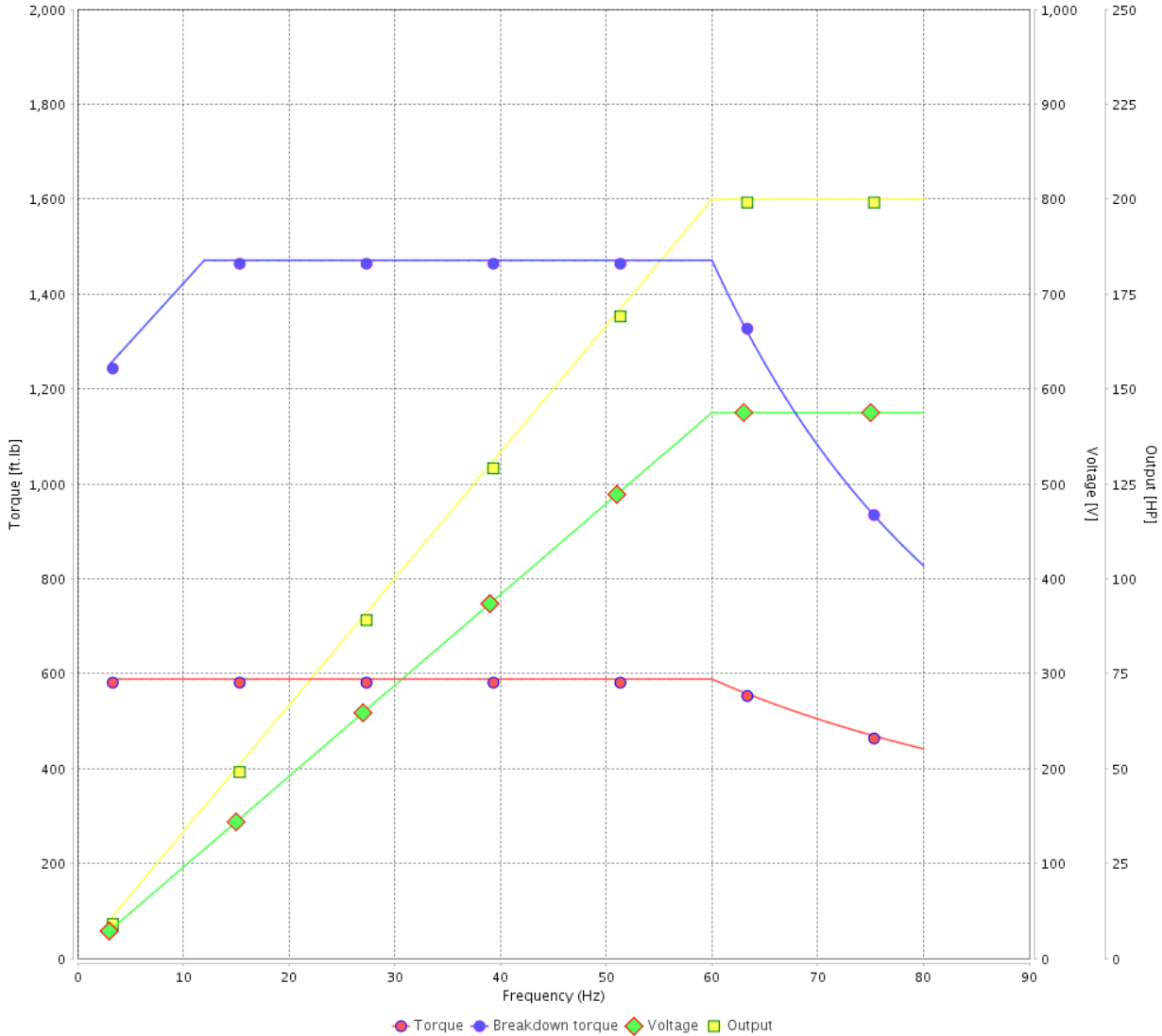
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11165224

Catalog # : 20018ET3HRB447T-W22

VFD OPERATION CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 184 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 588 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 6	Revision
Checked by				
Date	14/04/2022			

EIXO/SHAFT	
PADRÃO/STANDARD	X
OPCIONAL/OPTIONAL	
ESPECIAL/SPECIAL	

Dimensões em polegada
Dimensions in inches

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.

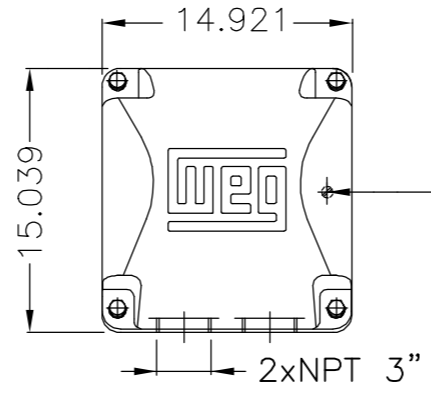
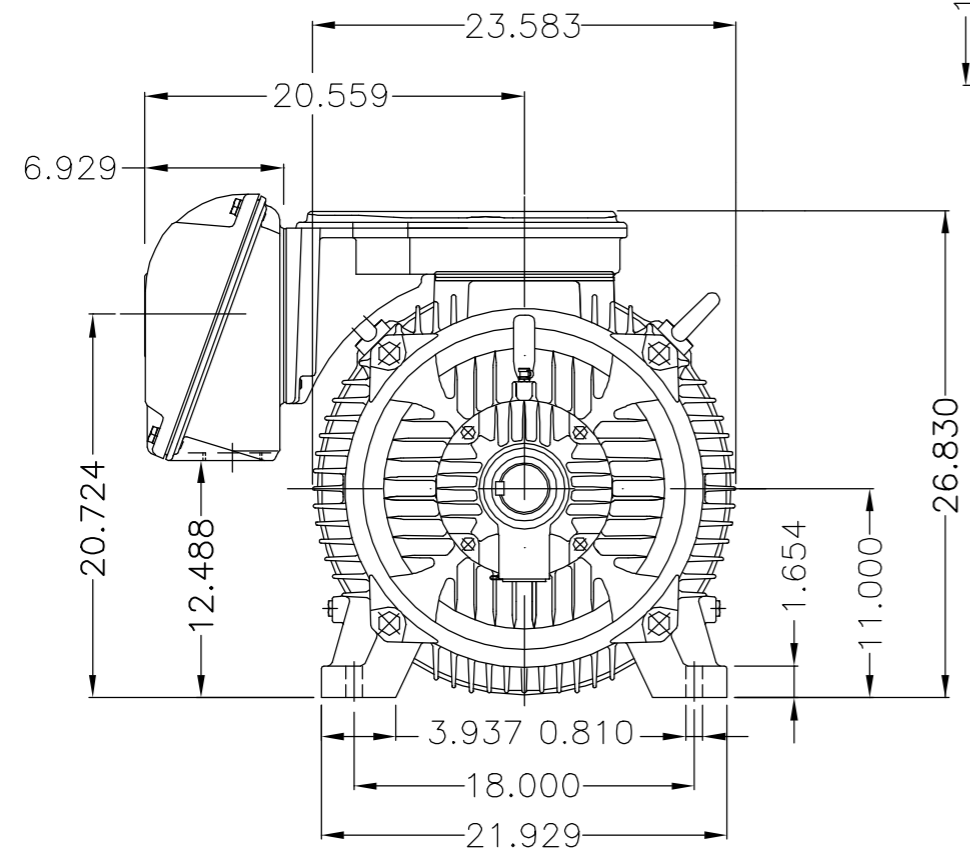
A

B

C

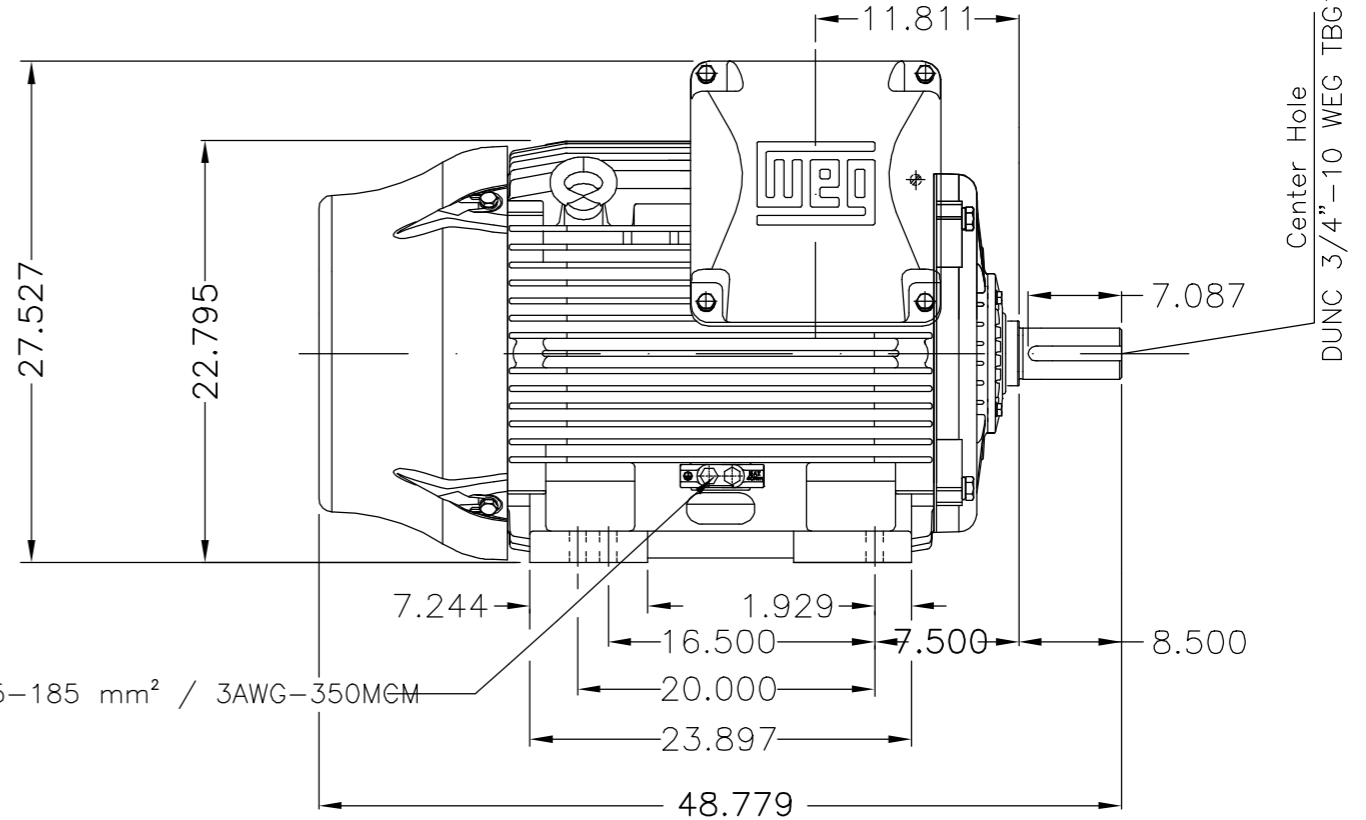
D

E



Main terminal box

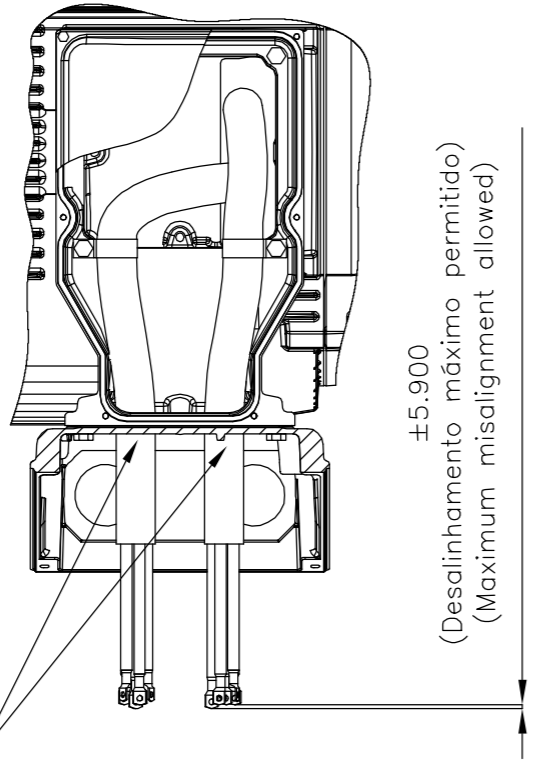
Grounding for leads 35-70 mm² / 1-2/0 AWG



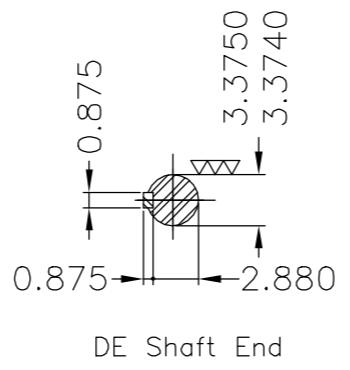
Grounding for leads 25-185 mm² / 3AWG-350MCM

Center Hole
DUNC 3/4"-10 WEG TBG12

Fixar o conduto no suporte com abraçadeiras.
Fasten the conduit on support with cables ties.



±5.900
(Desalinhamento máximo permitido)
(Maximum misalignment allowed)



DE Shaft End

Linha do motor: Crusher Duty / Motor purpose: Crusher Duty						
Rolamento dianteiro de rolos / DE roller bearing						
Conduite para cabos no interior do suporte da caixa de ligação						
Cables conduit inside terminal box support						
Dispositivo de travamento de eixo / Shaft locking device						
Cor RAL 5009 / Color RAL 5009						
Plano de pintura 203A / Painting plan 203A						
Forma construtiva B3D / Mounting B3R(D)						
WEG EQUIPAMENTOS ELETRICOS S/A						

500001331189	ADIC.NOTA CONDUITE/ADD NOTE CONDUIT	MENSOR		EANJOS	05.07.2017	03
500001323616	ALTERADO CONFORME CLAIM 414658625	MENSOR		JMANENTE	20.06.2017	02
ECM	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED
EXECUTED	GABRIELID	THREE PHASE W22 MOTOR FRAME 445/7T IP55 TEFC		10004923855 000 04		
CHECKED						
RELEASED	JMANENTE					
REL DT	09.05.2017	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1

200 HP	06 Poles	60Hz	414668751	D
150 HP	06 Poles	60Hz	414668751	C
250 HP	04 Poles	60Hz	414658029	B
200 HP	04 Poles	60Hz	414668751	A



NEMA
Premium
W22



FOR SAFE AREA
Mod.TE1BFOXON
CC029A



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 - T3C
For use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3

MODEL 20018ET3HRB447T-W22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 445/7T 1000m.a.s.l. IP55 TEFC 2306lb

V 575

A 184

HP 200

kW 150

SF 1.15

SFA 212

RPM 1785

PF 0.85

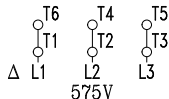
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 96.2%

DUTY CONT.

DES B Code G

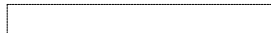


→ NU-319-C3 (45g)

→ 6316-C3 (34g)



MOBIL POLYREX EM (5000h)



MADE IN BRAZIL
11165224