



No.:

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor



Product line : Three-Phase: W22 Crusher Duty TEFC (IP55)

Catalog Number : 20012ET3GKD505Z-W22

List Price : \$23,040.00

Notes:

Performed by:

Checked:

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	13500594		
		Catalog # :	20012ET3GKD505Z-W22		
Frame	: 504/5TZ	Locked rotor time	: 36s (cold) 20s (hot)		
Output	: 200 HP (150 kW)	Temperature rise	: 80 K		
Poles	: 6	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	: 244 A	Protection degree	: IP55		
L. R. Amperes	: 1708 A	Cooling method	: IC411 - TEFC		
LRC	: 7.0x(Code H)	Mounting	: F-1		
No load current	: 101 A	Rotation <sup>1</sup>	: Both (CW and CCW)		
Rated speed	: 1191 rpm	Noise level <sup>2</sup>	: 70.0 dB(A)		
Slip	: 0.75 %	Starting method	: Direct On Line		
Rated torque	: 120 kgfm	Approx. weight <sup>3</sup>	: 1219 kg		
Locked rotor torque	: 220 %				
Breakdown torque	: 260 %				
Insulation class	: F				
Service factor	: 1.15				
Moment of inertia (J)	: A				
Design					
Output	25%	50%	75%	100%	
Efficiency (%)	94.9	95.0	95.4	95.4	
Power Factor	0.40	0.65	0.76	0.81	
Foundation loads					
Max. traction : 1851 kgf					
Max. compression : 3071 kgf					
		<u>Drive end</u>	<u>Non drive end</u>		
Bearing type	:	NU-322 C3	6316 C3		
Sealing	:	Taconite Labyrinth	Taconite Labyrinth		
Lubrication interval	:	7000 h	16000 h		
Lubricant amount	:	60 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
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

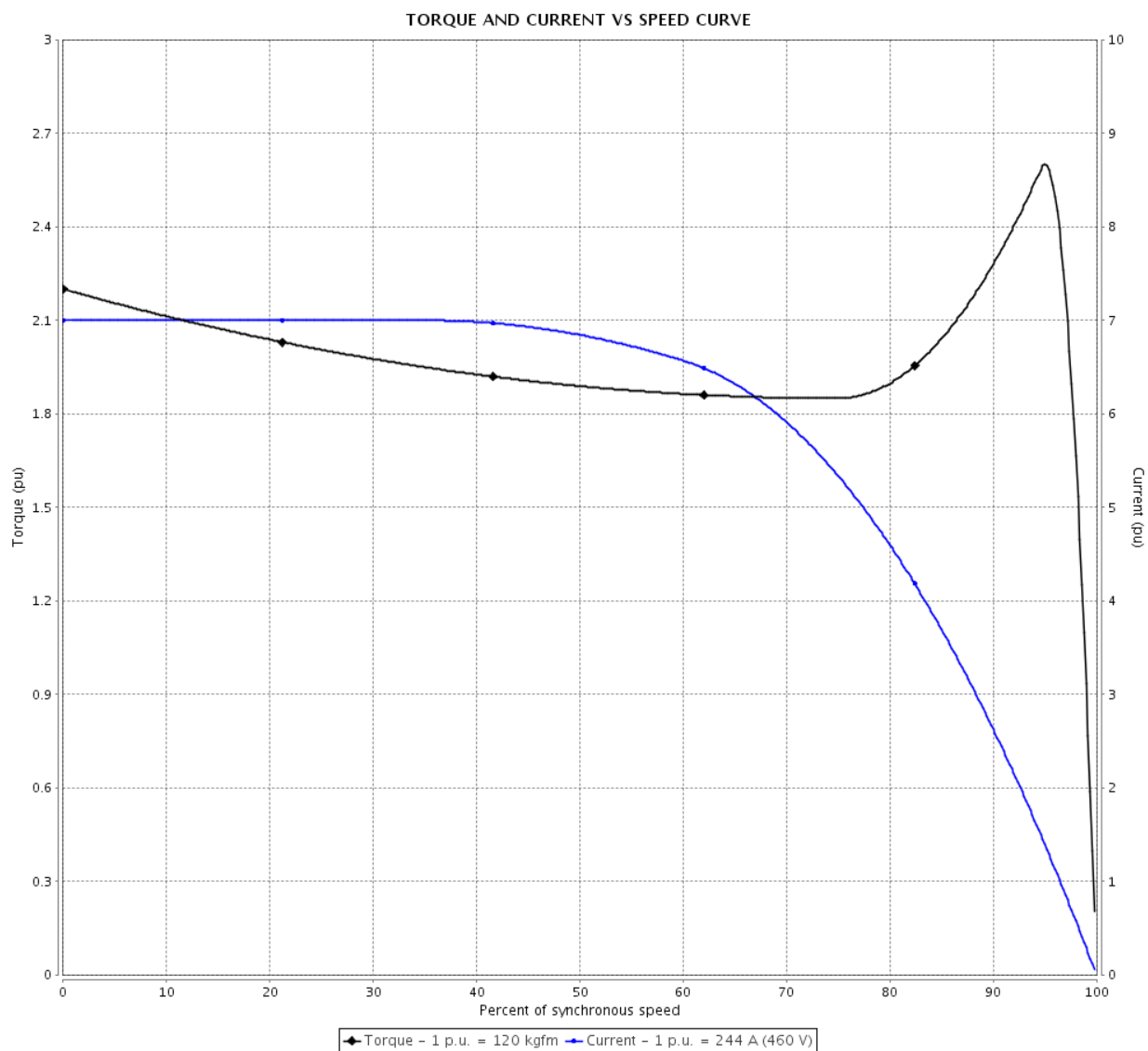


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500594

Catalog # : 20012ET3GKD505Z-W22



Performance : 460 V 60 Hz 6P

Rated current : 244 A  
LRC : 7.0  
Rated torque : 120 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 1191 rpm

Moment of inertia (J)  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : A

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

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Date	24/04/2018			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

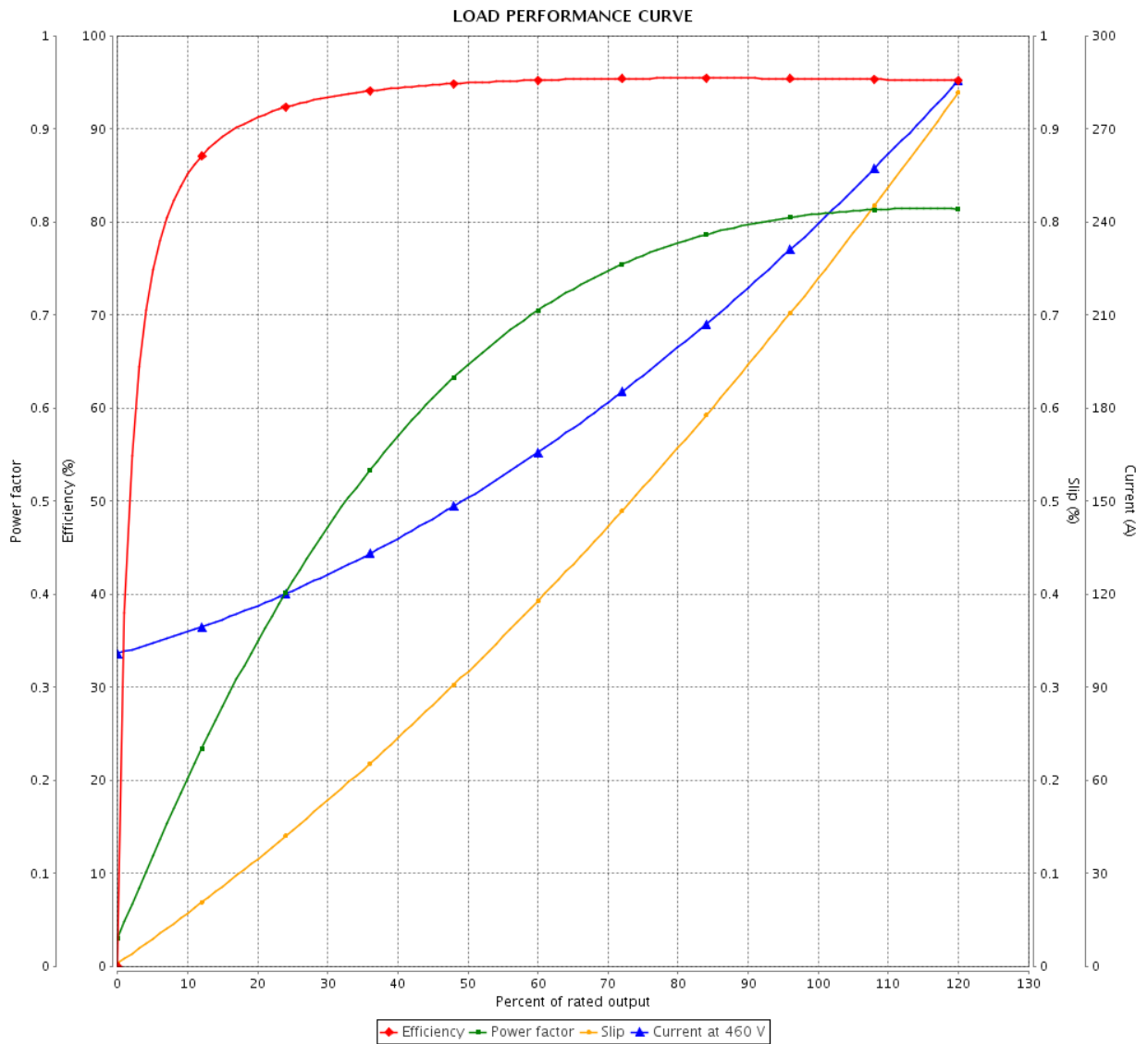


Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 13500594

Catalog # : 20012ET3GKD505Z-W22



Performance : 460 V 60 Hz 6P

Rated current : 244 A  
 LRC : 7.0  
 Rated torque : 120 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 1191 rpm

Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : A

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500594

Catalog # : 20012ET3GKD505Z-W22

Performance : 460 V 60 Hz 6P

Rated current	: 244 A	Moment of inertia (J)	
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 120 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1191 rpm	Design	: A

Heating constant

Cooling constant

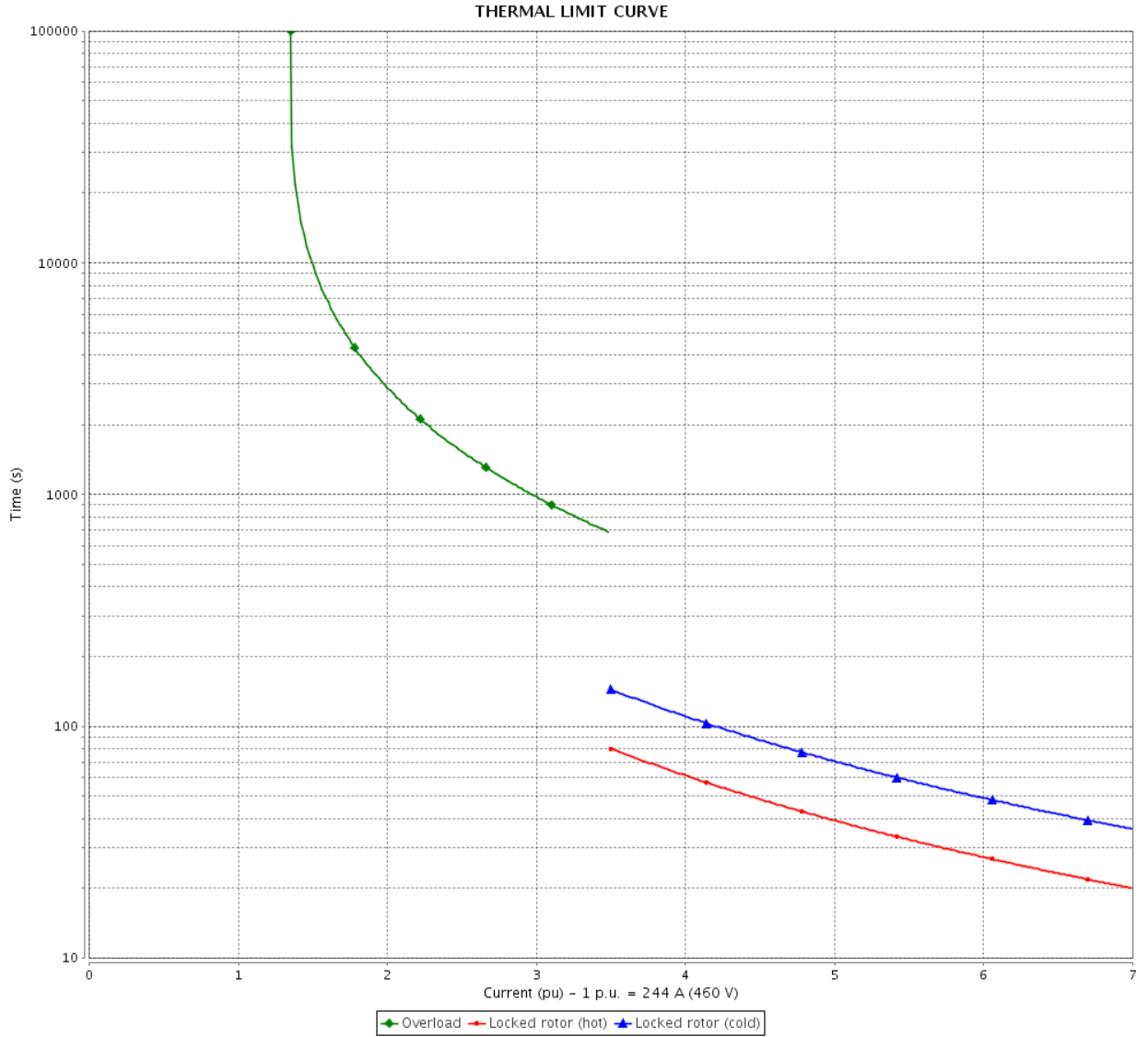
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



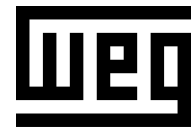
Customer : \_\_\_\_\_



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				Revision

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

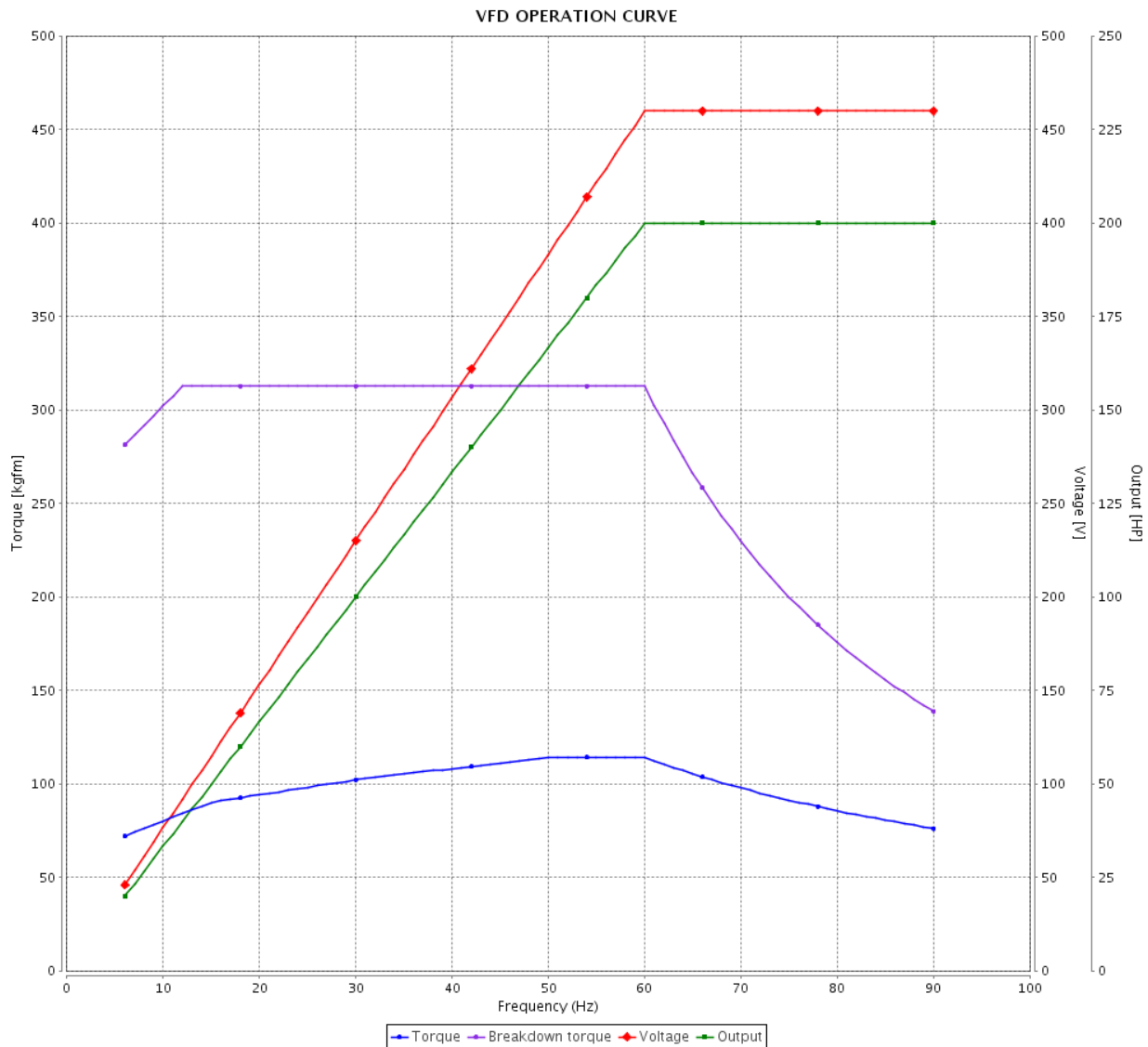


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500594

Catalog # : 20012ET3GKD505Z-W22



Performance : 460 V 60 Hz 6P

Rated current : 244 A  
LRC : 7.0  
Rated torque : 120 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 1191 rpm

Moment of inertia (J)  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : A

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Date	24/04/2018			

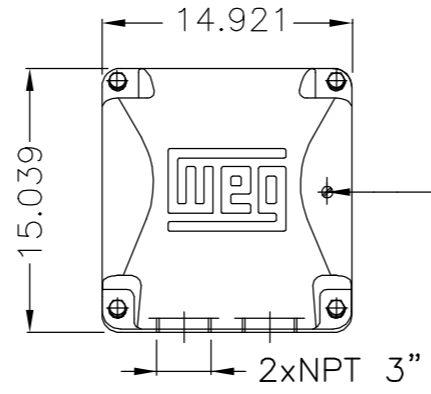
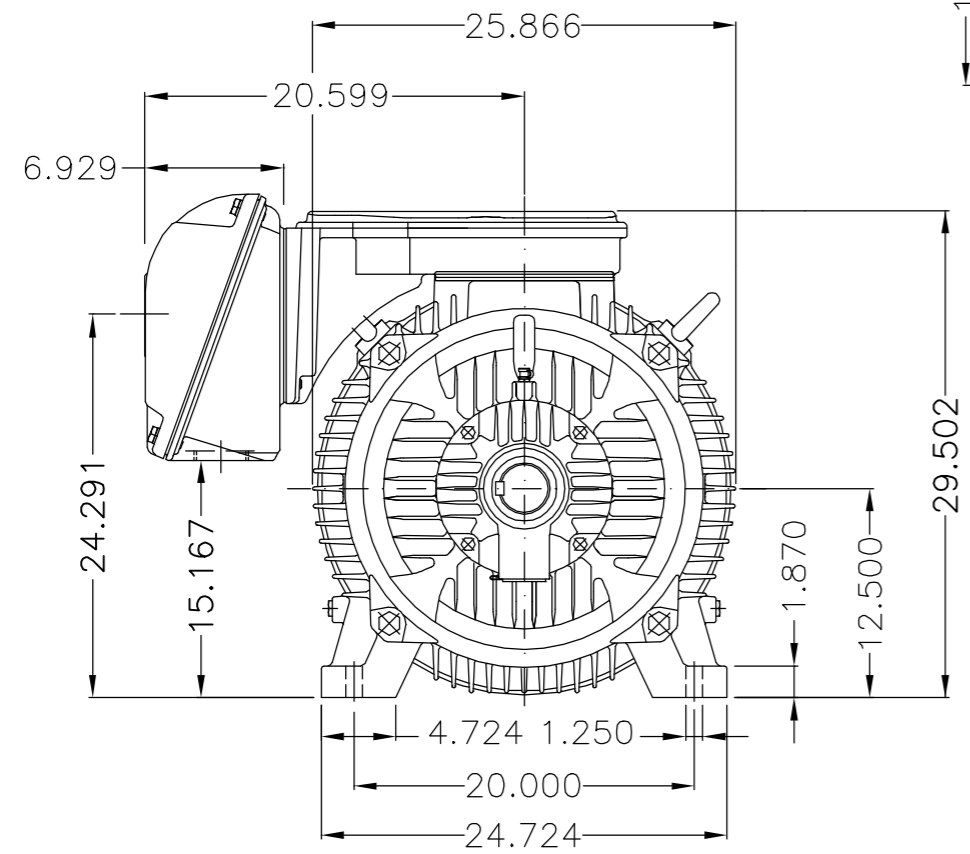
EIXO/SHAFT	
PADRÃO/STANDARD	
OPCIONAL/OPTIONAL	
ESPECIAL/SPECIAL	X

Dimensões em polegada  
Dimensions in inches

**CERTIFIED WEG MOTORES**  
Certified document.  
Not subject to changes.

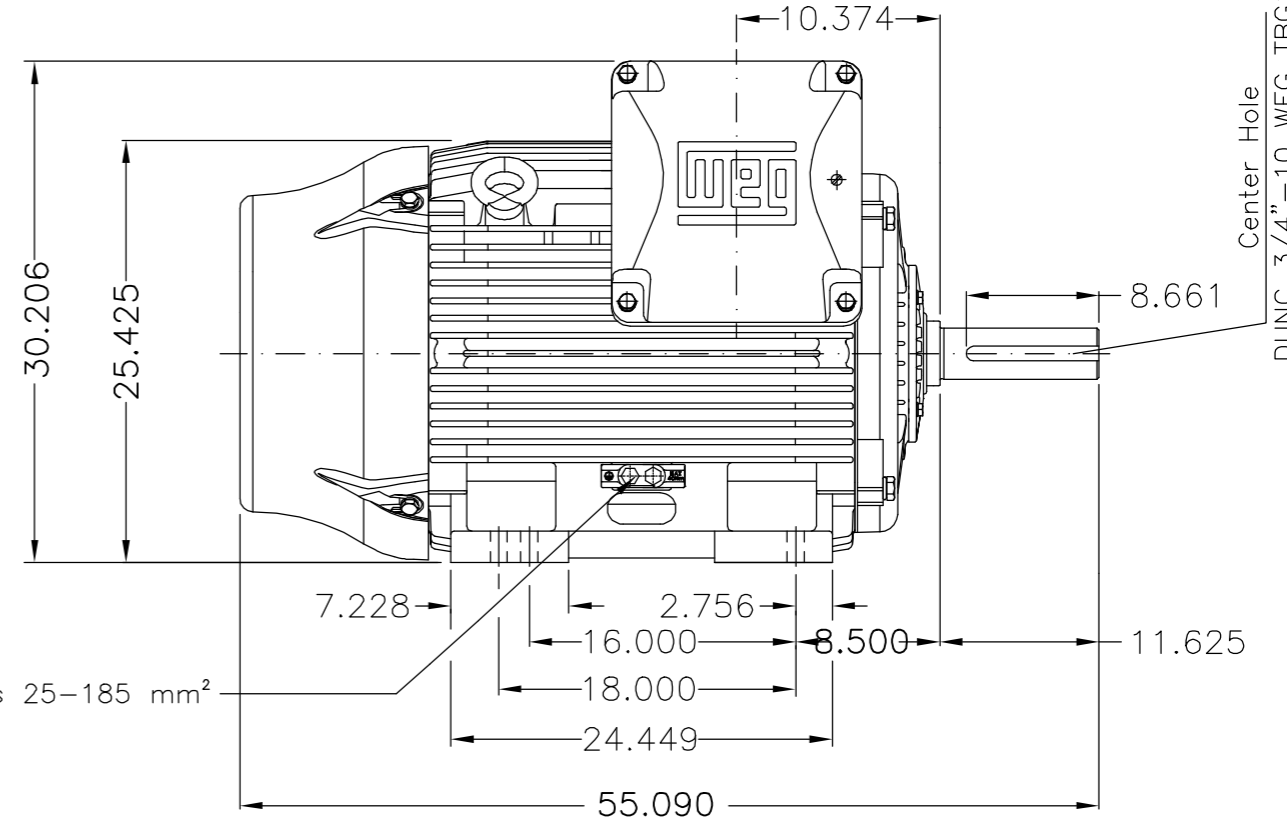
THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.

A  
B  
C  
D  
E



Main terminal box

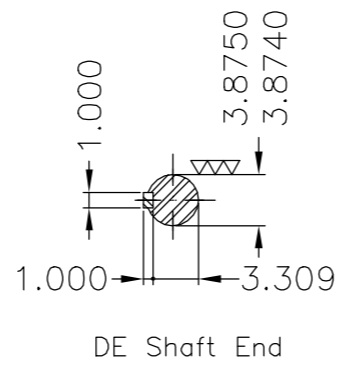
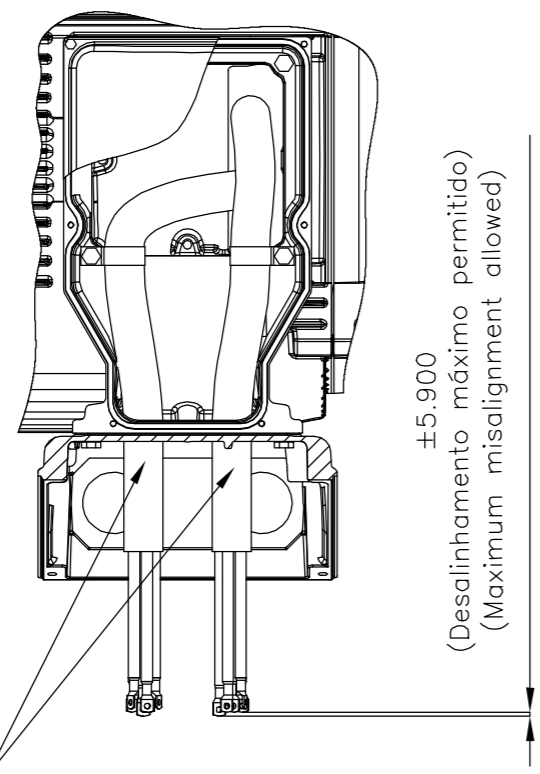
Grounding for leads 35-70 mm<sup>2</sup>



Grounding for leads 25-185 mm<sup>2</sup>

Center Hole  
DUNC 3/4"-10 WEG TBG12

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



DE Shaft End

- Vedação - labirinto Taconite / Sealing - Taconite labyrinth
- Ventilador de Alumínio / Aluminum fan
- Categoria A / Design A
- Tampa dianteira especial / Special DE endshield
- Conduite para cabos no interior do suporte da caixa de ligação  
Cables conduit inside terminal box support
- Linha do motor: Crusher Duty / Motor purpose: Crusher Duty
- Rolamento dianteiro de rolos NU-322 C3 / NU-322 C3 DE roller bearing
- Dispositivo de travamento de eixo / Shaft locking device
- Tampa traseira com mancal eletricamente isolado  
NDE endshield with electrically insulated bearing hub
- Cor RAL 5009 / Color RAL 5009
- Plano de pintura 203A / Painting plan 203A
- Forma construtiva NEMA F-1 / Mounting NEMA F-1
- Forma construtiva B3D / Mounting B3R(D)

**WEG ELECTRIC CORPORATION - WEC**

500001331189		ADIC.NOTA CONDUITE/ADD NOTE CONDUIT	MENSOR		EANJOS	05.07.2017	04
500001323616		ALTERADO CONFORME CDP 414658625	MENSOR		JMANENTE	20.06.2017	03
ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	DVEGINI	THREE PHASE W22 MOTOR - NEMA PREMIUM EFF FRAME 504/5TZ IP55			10004037836		
CHECKED					000	04	
RELEASED	NSCHMIDT						
REL DT	22.01.2016	WMO	Jaraguá do Sul	Product Engineering	SHEET	1 / 1	

200 HP 06 Poles 60Hz 414149562/0 MEC

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RELEASED

ZME A3