



No.:

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor



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

Catalog Number : 15009ET3GKD447T-W22

List Price : \$30,677.00

Notes:

Performed by:

Checked:

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: W22 NEMA Premium Efficiency Three-Phase	Product code :	13500588		
		Catalog # :	15009ET3GKD447T-W22		
Frame	: 445/7T	Locked rotor time	: 27s (cold) 15s (hot)		
Output	: 150 HP (110 kW)	Temperature rise	: 105 K		
Poles	: 8	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	: 185 A	Protection degree	: IP55		
L. R. Amperes	: 1110 A	Cooling method	: IC411 - TEFC		
LRC	: 6.0x(Code G)	Mounting	: F-1		
No load current	: 80.0 A	Rotation <sup>1</sup>	: Both (CW and CCW)		
Rated speed	: 890 rpm	Noise level <sup>2</sup>	: 63.0 dB(A)		
Slip	: 1.11 %	Starting method	: Direct On Line		
Rated torque	: 121 kgfm	Approx. weight <sup>3</sup>	: 1035 kg		
Locked rotor torque	: 190 %				
Breakdown torque	: 210 %				
Insulation class	: F				
Service factor	: 1.15				
Moment of inertia (J)	: A				
Design					
Output	25%	50%	75%	100%	
Efficiency (%)	94.4	94.5	94.5	94.5	
Power Factor	0.39	0.64	0.74	0.79	
Foundation loads					
Max. traction : 1699 kgf					
Max. compression : 2734 kgf					
		<u>Drive end</u>	<u>Non drive end</u>		
Bearing type	:	NU-319 C3	6316 C3		
Sealing	:	WSeal	WSeal		
Lubrication interval	:	15000 h	20000 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.		
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Checked by					
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# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

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# TORQUE AND CURRENT VS SPEED CURVE



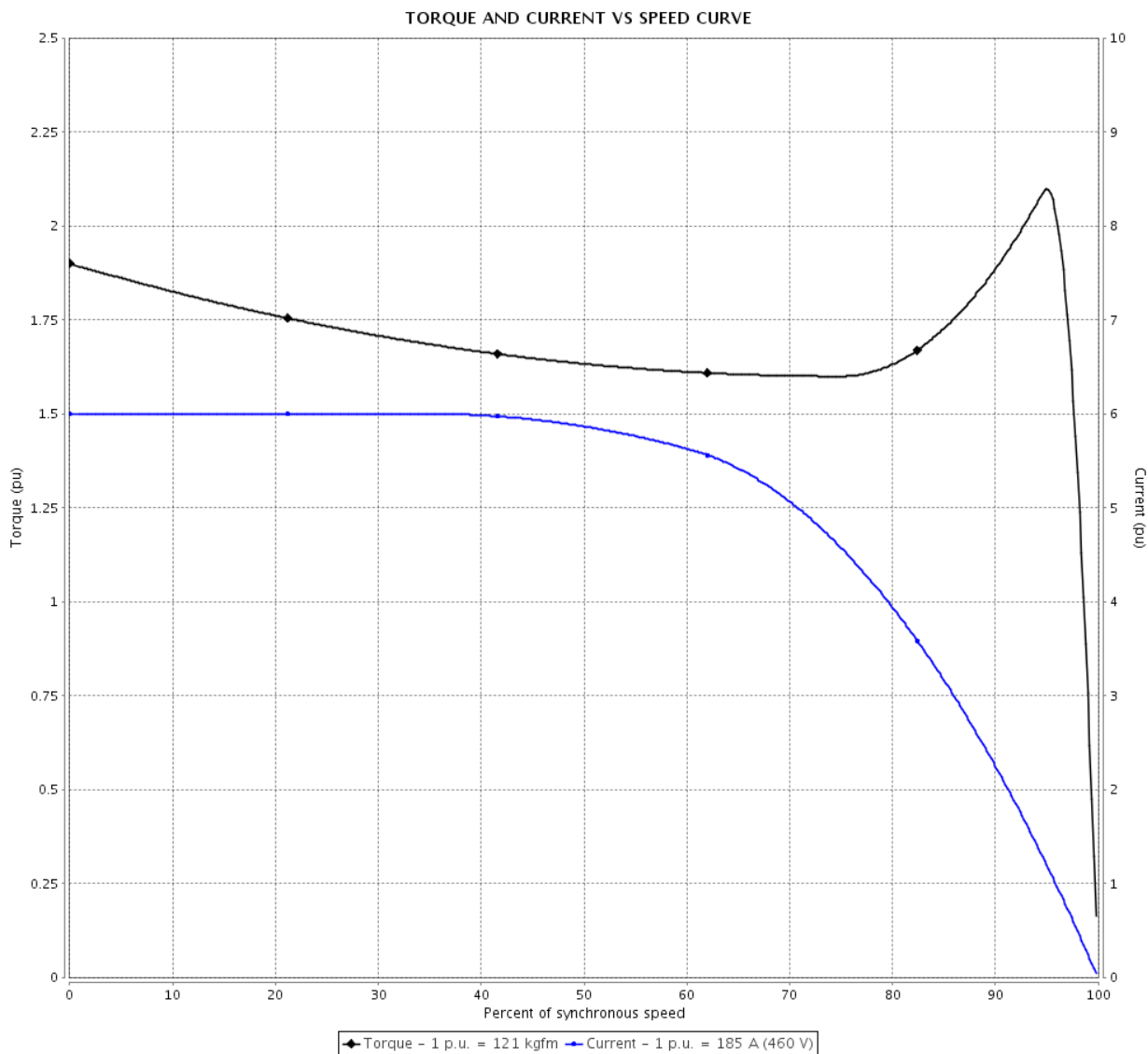
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500588

Catalog # : 15009ET3GKD447T-W22



Performance : 460 V 60 Hz 8P

Rated current	: 185 A	Moment of inertia (J)	
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 121 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 890 rpm	Design	: A

Locked rotor time : 27s (cold) 15s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

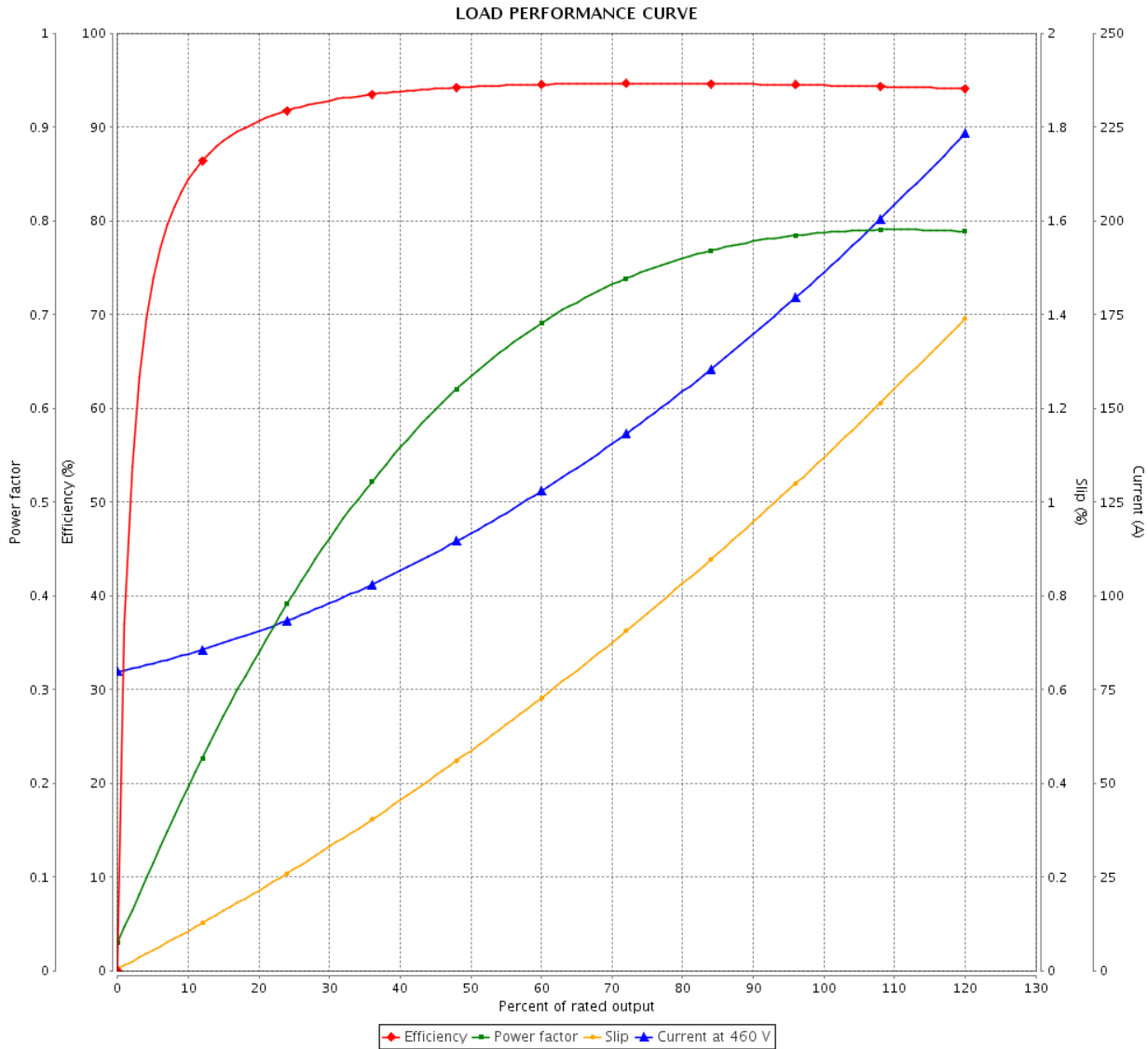


Customer : \_\_\_\_\_

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500588

Catalog # : 15009ET3GKD447T-W22



Performance : 460 V 60 Hz 8P

Rated current : 185 A  
 LRC : 6.0  
 Rated torque : 121 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 210 %  
 Rated speed : 890 rpm

Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K  
 Design : A

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Date	24/04/2018			

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 13500588  
 Catalog # : 15009ET3GKD447T-W22

Performance : 460 V 60 Hz 8P

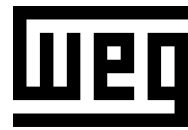
Rated current : 185 A	Moment of inertia (J)
LRC : 6.0	Duty cycle : Cont.(S1)
Rated torque : 121 kgfm	Insulation class : F
Locked rotor torque : 190 %	Service factor : 1.15
Breakdown torque : 210 %	Temperature rise : 105 K
Rated speed : 890 rpm	Design : A

Heating constant  
 Cooling constant

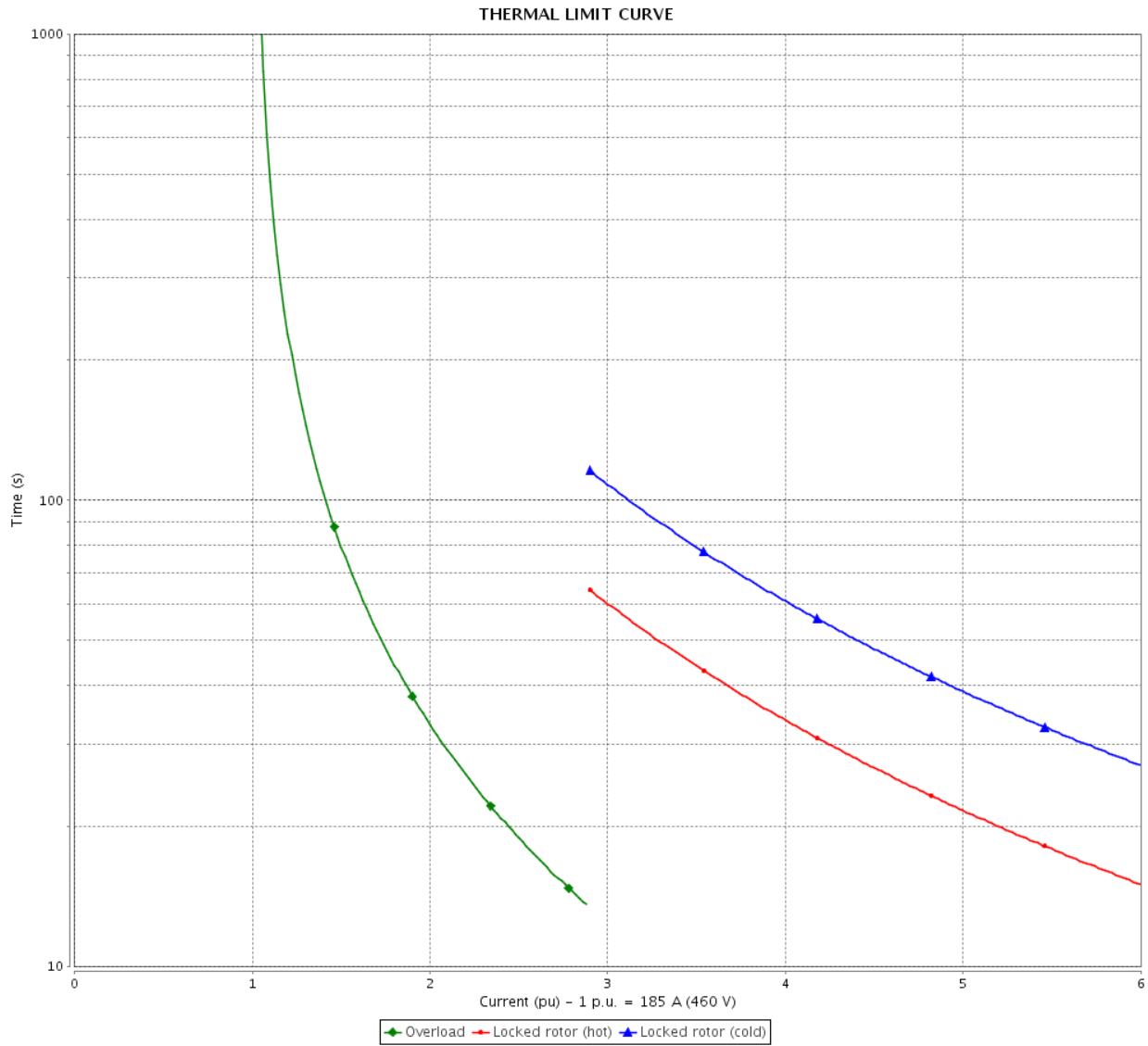
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date	24/04/2018			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

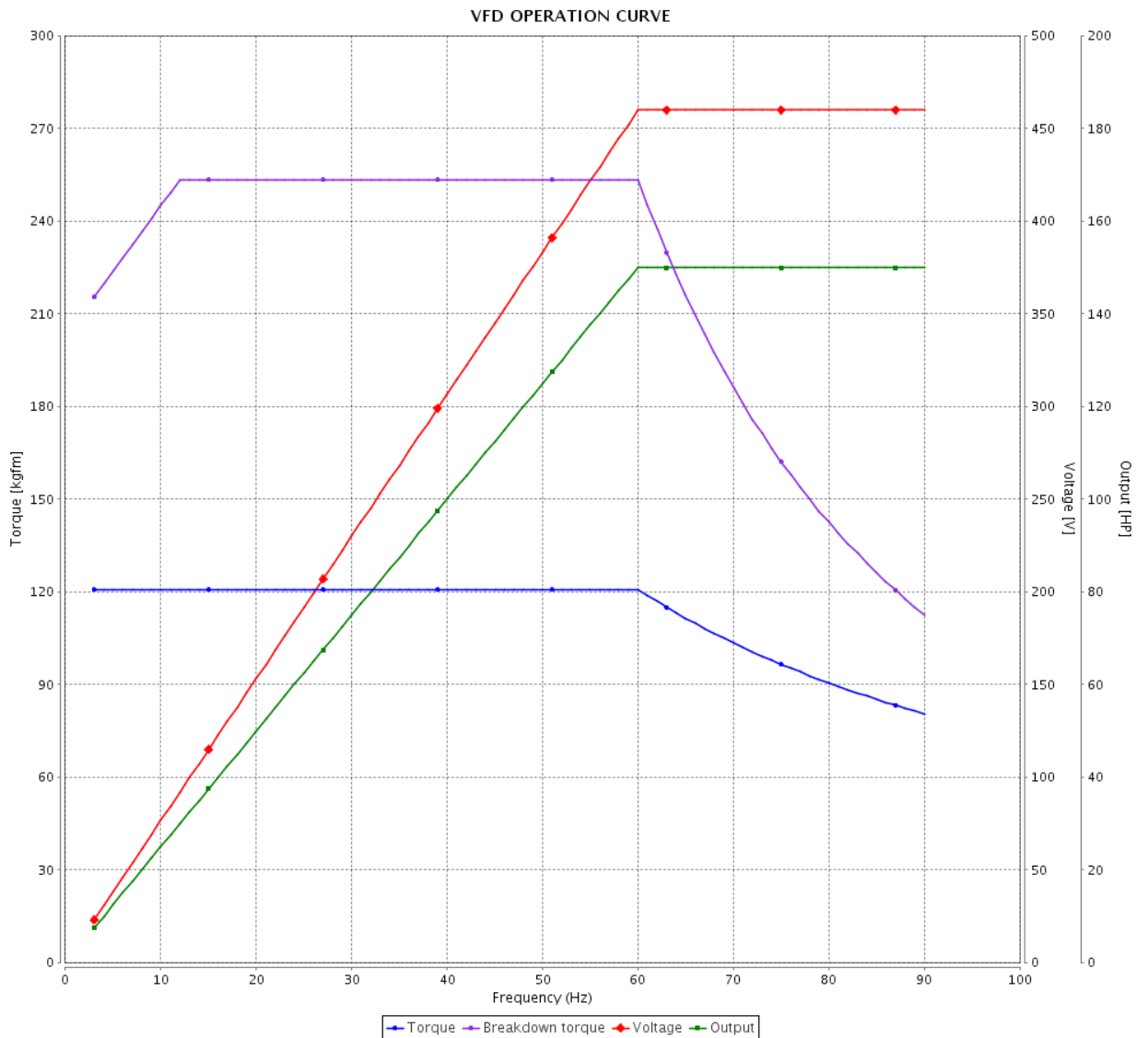


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500588

Catalog # : 15009ET3GKD447T-W22



Performance : 460 V 60 Hz 8P

Rated current : 185 A  
LRC : 6.0  
Rated torque : 121 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 210 %  
Rated speed : 890 rpm

Moment of inertia (J)  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 105 K  
Design : A

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				Revision



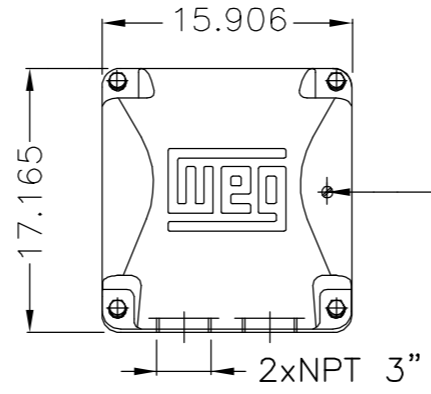
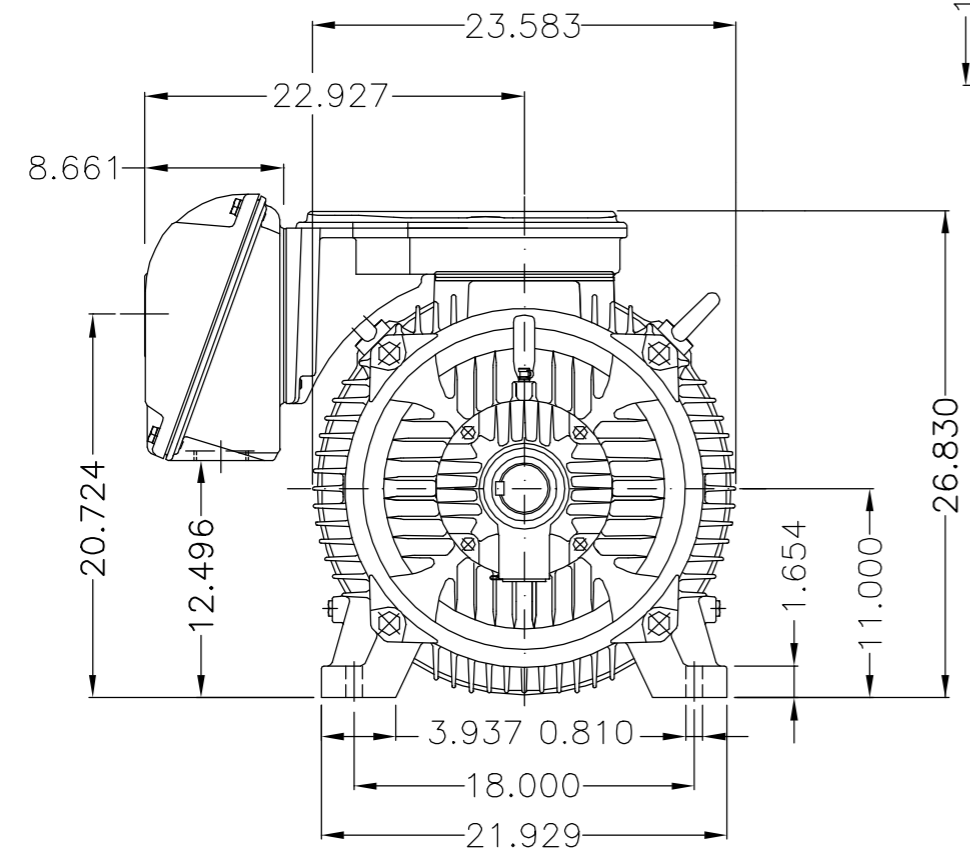
EIXO/SHAFT	
PADRÃO/STANDARD	X
OPCIONAL/OPTIONAL	
ESPECIAL/SPECIAL	

Dimensões em polegada  
Dimensions in inches

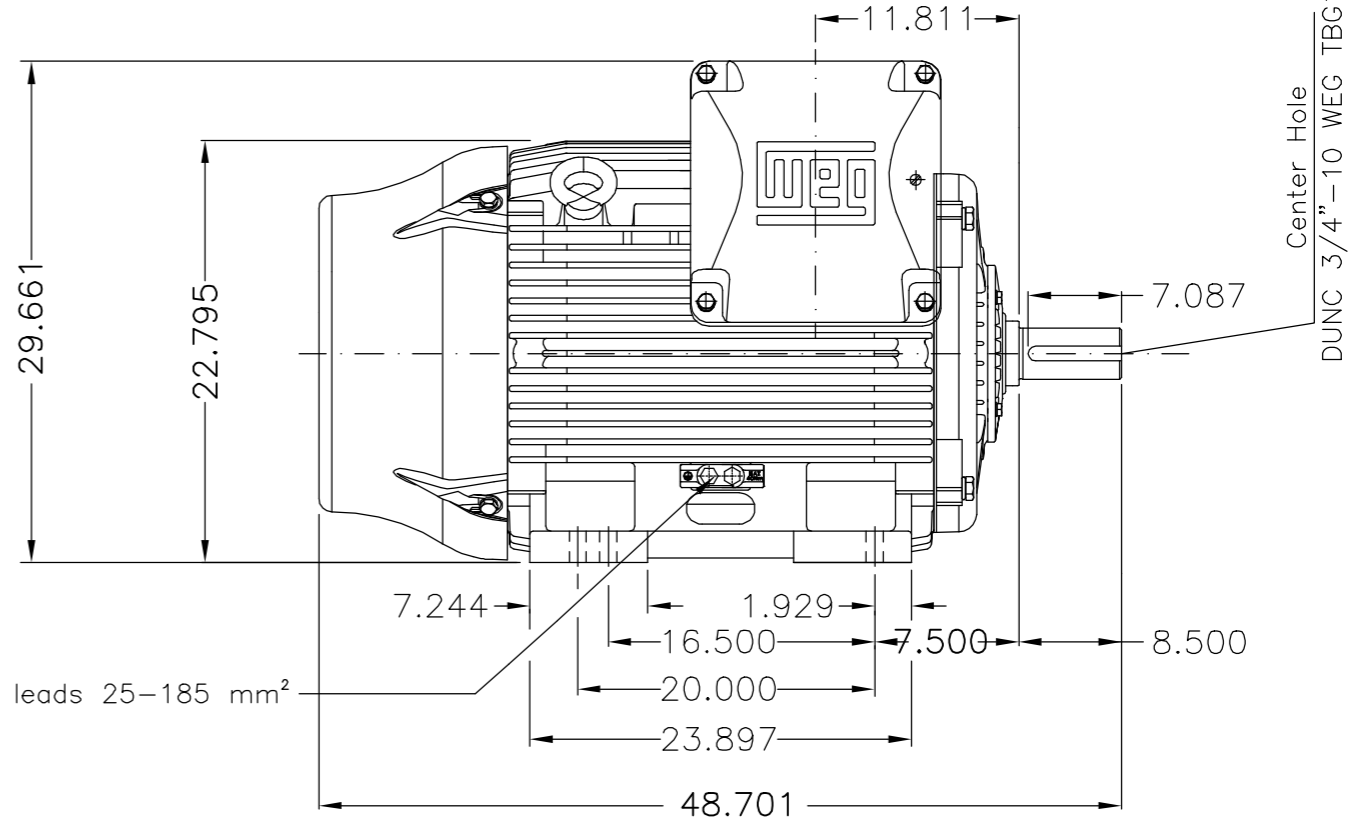
**CERTIFIED WEG MOTORES**  
Certified document.  
Not subject to changes.

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

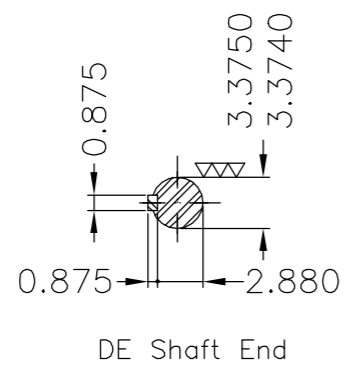
A  
B  
C  
D  
E



Main terminal box



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



DE Shaft End

Caixa de ligação da carcaça IEC 355 // NEMA 586/7T / Terminal box from frame IEC 355 // NEMA 586/7T						
Base intermediária / Intermediate base						
Categoria A / Design A						
Proteção térmica desligamento - termistor 155°C / Thermistors 155°C To trip						
Linha do motor: Crusher Duty / Motor purpose: Crusher Duty						
Rolamento dianteiro de rolos / DE roller bearing						
Dispositivo de travamento de eixo / Shaft locking device						
Placa de bornes com 12 pinos / Terminal block with 12 terminals						
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)						
<b>WEG ELECTRIC CORPORATION - WEC</b>						

500001349543		RETIRADO DETALHE DE CONDUITE	MENSOR	JMANENTE	18.08.2017	04
500001331189		ADIC.NOTA CONDUITE/ADD NOTE CONDUIT	MENSOR	EANJOS	05.07.2017	03
ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE VER
EXECUTED	DVEGINI	THREE PHASE W22 MOTOR - NEMA PREMIUM EFF FRAME 445/7T IP55	10004040047			
CHECKED			000	04		
RELEASED	CVITORINO					
REL DT	25.01.2016	WMO	Jaraguá do Sul	Product Engineering	SHEET	1 / 1

150 HP 08 Poles 60Hz 414149563/0 MEC

A

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RELEASED  
ZME A3