

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase			
Product code :	11360152			
Catalog # :	03036XT3H286TS			
Frame : 286TS Output : 30 HP (22 kW) Poles : 2 Frequency : 60 Hz Rated voltage : 575 V Rated current : 27.0 A L. R. Amperes : 181 A LRC : 6.7x(Code G) No load current : 6.00 A Rated speed : 3545 rpm Slip : 1.53 % Rated torque : 44.4 ft.lb Locked rotor torque : 250 % Breakdown torque : 240 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 3.08 sq.ft.lb Design : B	Locked rotor time : 77s (cold) 43s (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> : 75.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 506 lb			
Output	25%    50%    75%    100%			
Efficiency (%)	92.2    92.4    93.0    93.0			
Power Factor	0.58    0.78    0.86    0.88			
Foundation loads				
Max. traction : 212 lb				
Max. compression : 718 lb				
Bearing type	: <u>Drive end</u> 6311 2RS C3 <u>Non drive end</u> 6211 2RS C3			
Sealing	: Oil Seal    Lip Seal			
Lubrication interval	: -    -			
Lubricant amount	: -    -			
Lubricant type	: POLYREA ESTER OIL (WT/ ENS)			
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 / 7	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

### Thermal protection

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		2 / 7	

# TORQUE AND CURRENT VS SPEED CURVE



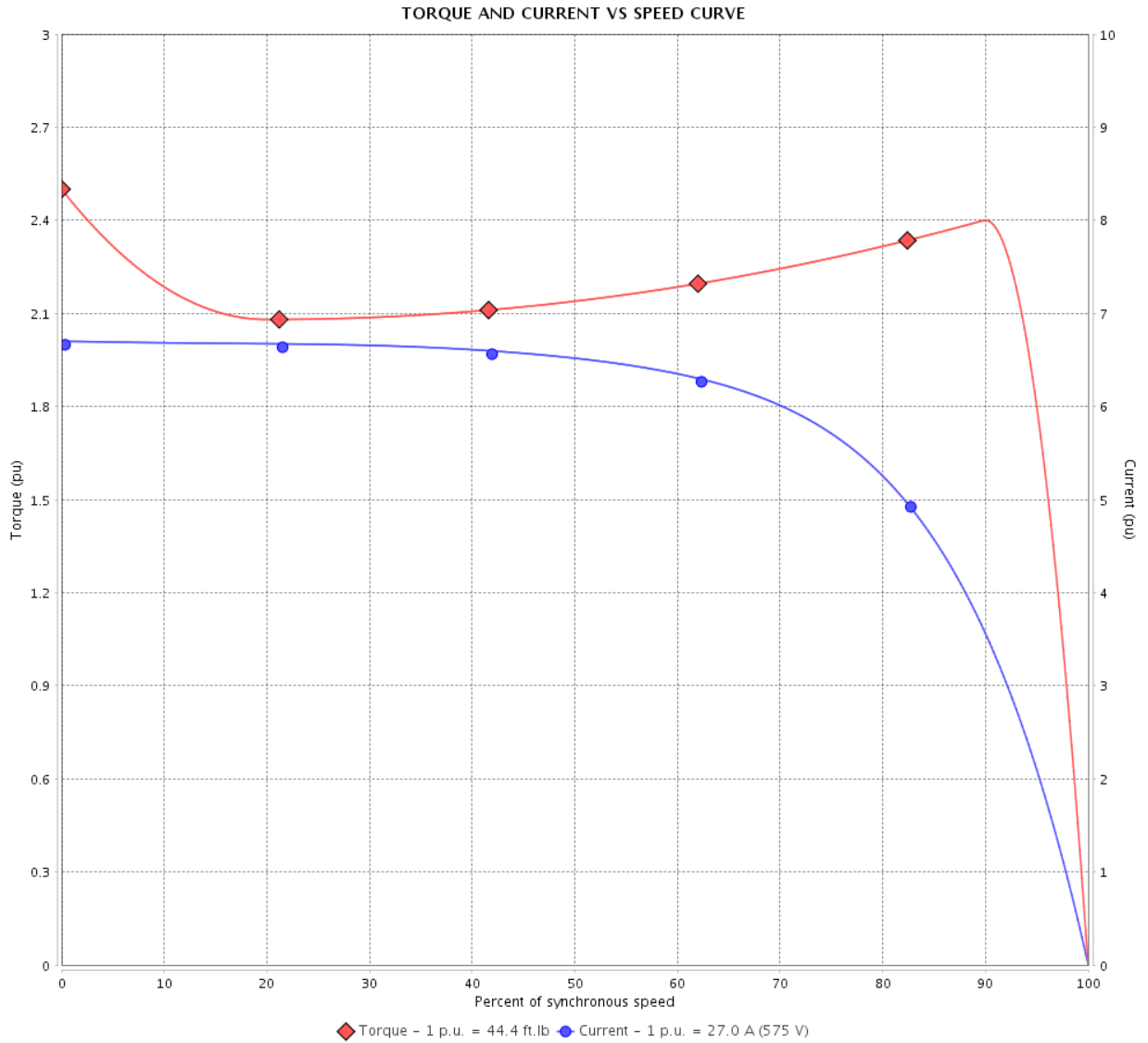
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11360152

Catalog # : 03036XT3H286TS



Performance : 575 V 60 Hz 2P

Rated current	: 27.0 A	Moment of inertia (J)	: 3.08 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 44.4 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

Locked rotor time : 77s (cold) 43s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 7	Revision
Checked by				
Date	14/04/2022			

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



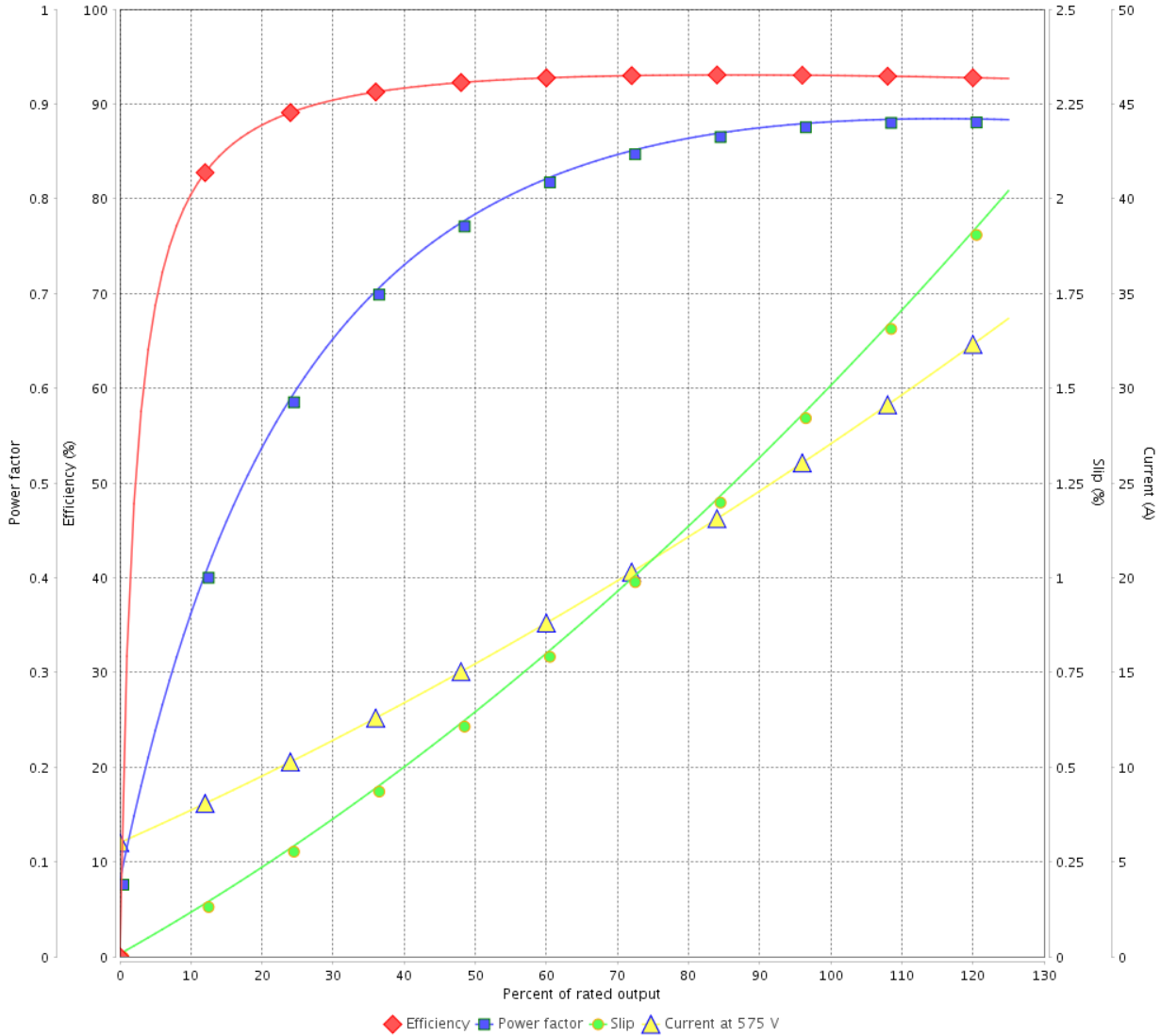
Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11360152

Catalog # : 03036XT3H286TS

LOAD PERFORMANCE CURVE



Performance : 575 V 60 Hz 2P

Rated current : 27.0 A  
 LRC : 6.7  
 Rated torque : 44.4 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 240 %  
 Rated speed : 3545 rpm

Moment of inertia (J) : 3.08 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			Page 4 / 7	Revision
Checked by				
Date	14/04/2022			

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11360152

Catalog # : 03036XT3H286TS

Performance : 575 V 60 Hz 2P

Rated current : 27.0 A  
 LRC : 6.7  
 Rated torque : 44.4 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 240 %  
 Rated speed : 3545 rpm

Moment of inertia (J) : 3.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Heating constant

Cooling constant

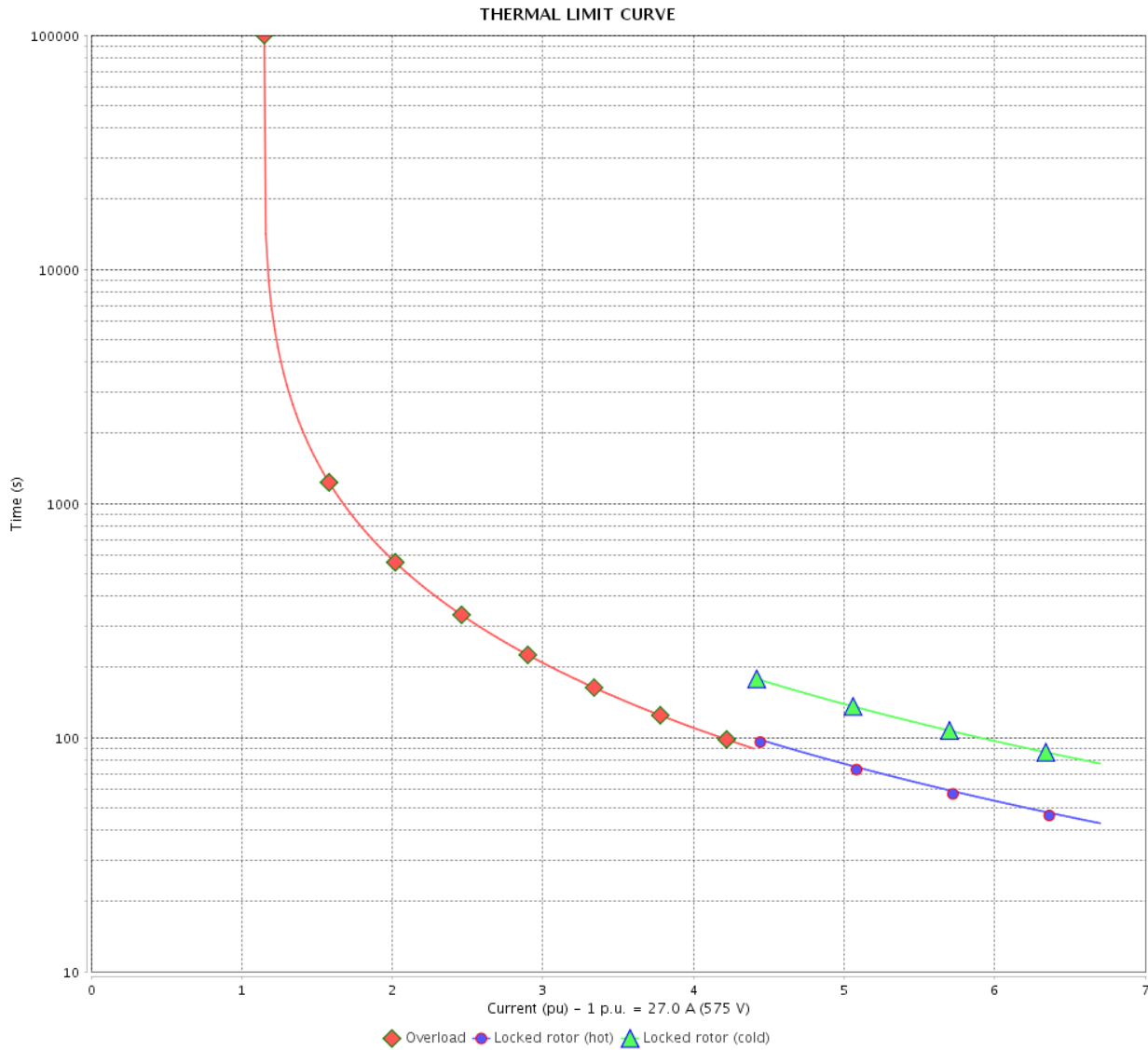
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 7	Revision
Checked by				
Date	14/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 6 / 7		Revision
Checked by				
Date				

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

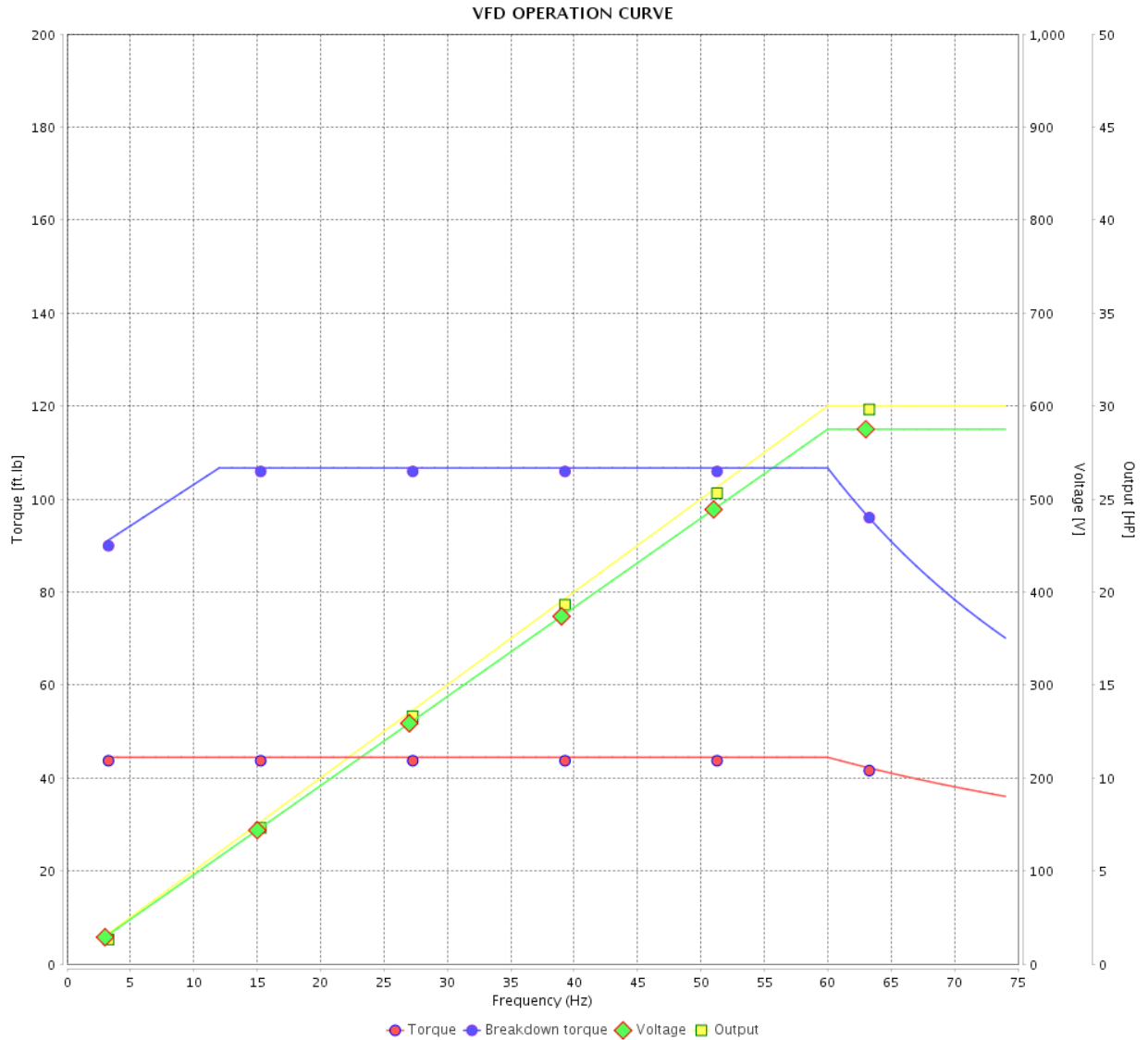


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11360152

Catalog # : 03036XT3H286TS



Performance : 575 V 60 Hz 2P

Rated current : 27.0 A  
 LRC : 6.7  
 Rated torque : 44.4 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 240 %  
 Rated speed : 3545 rpm

Moment of inertia (J) : 3.08 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		Page		Revision
Checked by		7 / 7		
Date		14/04/2022		

1 2 3 4 5 6

A

B

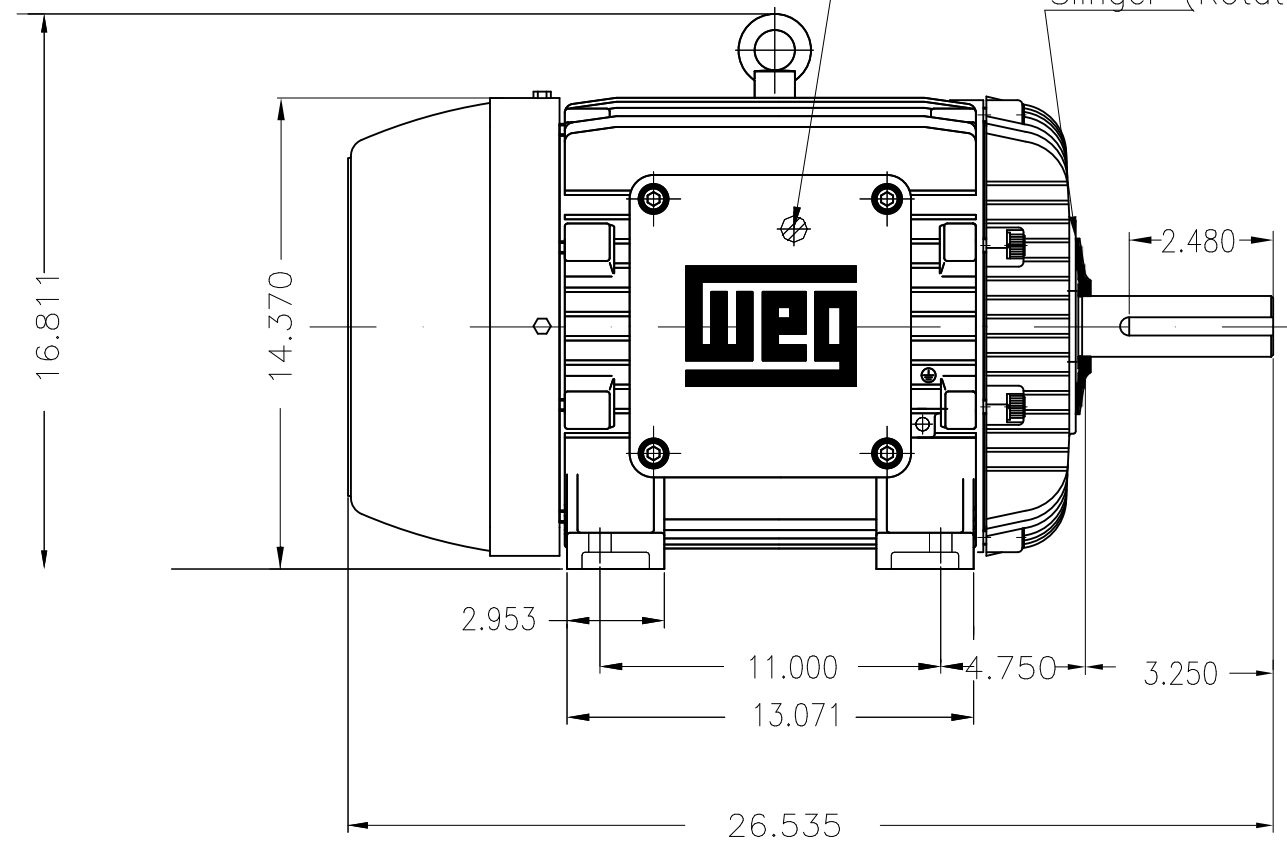
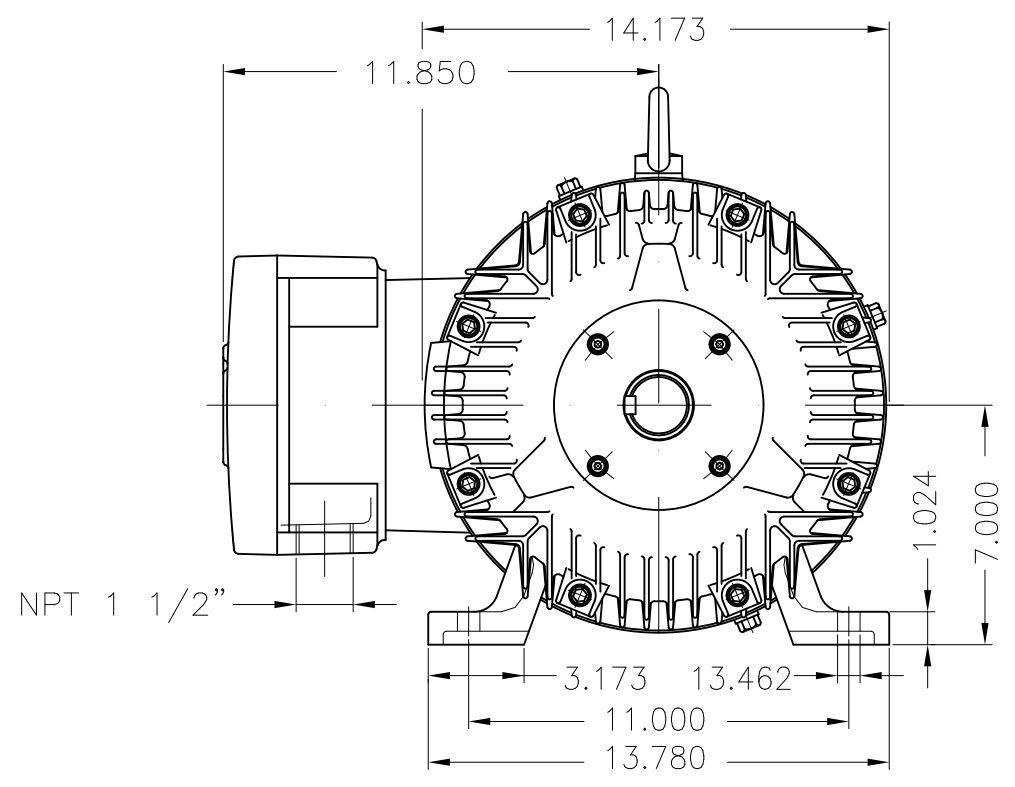
C

D

E

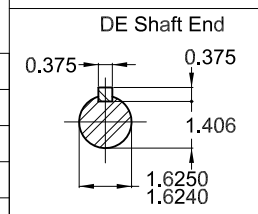
Grounding for leads 5.2–25 mm<sup>2</sup> / 10–4 AWG

Slinger (Rotating Seal)




30 HP 02 Poles 60 Hz A

Without Grease fitting  
 Grease - POLYUREA ESTER OIL  
 Color RAL 5009  
 Painting plan 202P  
 Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 286TS IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

**PREVIEW**  
 WDD |   
 SHEET 1 / 1

Dimensions in inches XME A3



MADE IN BRAZIL


**W21X NEMA**  
**Premium**

11360152

CC029A

*Inverter Duty Motor*  
*Severe Duty*


LISTED

MODEL 03036XT3H286TS

PH 3 | FR 286TS

HP(kW) 30(22)

HZ 60

IP55

V 575

A 27.0

RPM 3545

NEMA NOM EFF 93.0%

PF 0.88

SFA 31.0

DES B

INS CL F  $\Delta$ T 80 K | SF 1.15

ENCL TEFC

DUTY CONT.

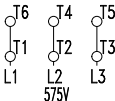
CODE G

ALT 1000

m.a.s.l.

AMB 40°C

AMB 55°C SF1.0



→ 6311-2RS-C3 POLYREA ESTER OIL

→ 6211-2RS-C3 (WT/ ENS)

507 Lbs


 TEMP CODE T3C  
 CSA/UL: Class I - Div. 1 - Groups C and D  
 CSA: Class II - Div. 1 - Groups F and G  
 CSA: Class I - Zone 1 - IIB

EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 6:1CT, 1.0SF, T3C, AMB 40°C.