

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | | | | | | | | | | | | | | | |
|--|---|----------------------|------------------|----------------------|----------------|-----------|---------|-----------|--------|--------|------------------------|---------|---------|--------------------|------|-----|------------------|------------------|--|
| Customer : | | | | | | | | | | | | | | | | | | | |
| Product line : NEMA Premium Efficiency Three-Phase | Product code : 12711993 | | | | | | | | | | | | | | | | | | |
| | Catalog # : 00718ET3H213JM-W22 | | | | | | | | | | | | | | | | | | |
| Frame : 213/5JM | Locked rotor time : 36s (cold) 20s (hot) | | | | | | | | | | | | | | | | | | |
| Output : 7.5 HP (5.5 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 : 7.34 A | Protection degree : IP55 | | | | | | | | | | | | | | | | | | |
| L. R. Amperes : 52.1 A | Cooling method : IC411 - TEFC | | | | | | | | | | | | | | | | | | |
| LRC : 7.1x(Code H) | Mounting : F-1 | | | | | | | | | | | | | | | | | | |
| No load current : 3.52 A | Rotation ¹ : Both (CW and CCW) | | | | | | | | | | | | | | | | | | |
| Rated speed : 1765 rpm | Noise level ² : 58.0 dB(A) | | | | | | | | | | | | | | | | | | |
| Slip : 1.94 % | Starting method : Direct On Line | | | | | | | | | | | | | | | | | | |
| Rated torque : 22.3 ft.lb | Approx. weight ³ : 170 lb | | | | | | | | | | | | | | | | | | |
| Locked rotor torque : 220 % | | | | | | | | | | | | | | | | | | | |
| Breakdown torque : 310 % | | | | | | | | | | | | | | | | | | | |
| Insulation class : F | | | | | | | | | | | | | | | | | | | |
| Service factor : 1.25 | | | | | | | | | | | | | | | | | | | |
| Moment of inertia (J) : 1.34 sq.ft.lb | | | | | | | | | | | | | | | | | | | |
| Design : B | | | | | | | | | | | | | | | | | | | |
| Output 25% 50% 75% 100% | Foundation loads | | | | | | | | | | | | | | | | | | |
| Efficiency (%) 88.6 89.5 91.0 91.7 | Max. traction : 305 lb | | | | | | | | | | | | | | | | | | |
| Power Factor 0.40 0.66 0.76 0.82 | Max. compression : 475 lb | | | | | | | | | | | | | | | | | | |
| | <table border="0"><tr><td></td><td><u>Drive end</u></td><td><u>Non drive end</u></td></tr><tr><td>Bearing type :</td><td>6309 Z C3</td><td>6207 ZZ</td></tr><tr><td>Sealing :</td><td>V'Ring</td><td>V'Ring</td></tr><tr><td>Lubrication interval :</td><td>20000 h</td><td>40000 h</td></tr><tr><td>Lubricant amount :</td><td>13 g</td><td>0 g</td></tr><tr><td>Lubricant type :</td><td colspan="2">Mobil Polyrex EM</td></tr></table> | | <u>Drive end</u> | <u>Non drive end</u> | Bearing type : | 6309 Z C3 | 6207 ZZ | Sealing : | V'Ring | V'Ring | Lubrication interval : | 20000 h | 40000 h | Lubricant amount : | 13 g | 0 g | Lubricant type : | Mobil Polyrex EM | |
| | <u>Drive end</u> | <u>Non drive end</u> | | | | | | | | | | | | | | | | | |
| Bearing type : | 6309 Z C3 | 6207 ZZ | | | | | | | | | | | | | | | | | |
| Sealing : | V'Ring | V'Ring | | | | | | | | | | | | | | | | | |
| Lubrication interval : | 20000 h | 40000 h | | | | | | | | | | | | | | | | | |
| Lubricant amount : | 13 g | 0 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 | 13/04/2022 | | 1 / 6 | | | | | | | | | | | | | | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



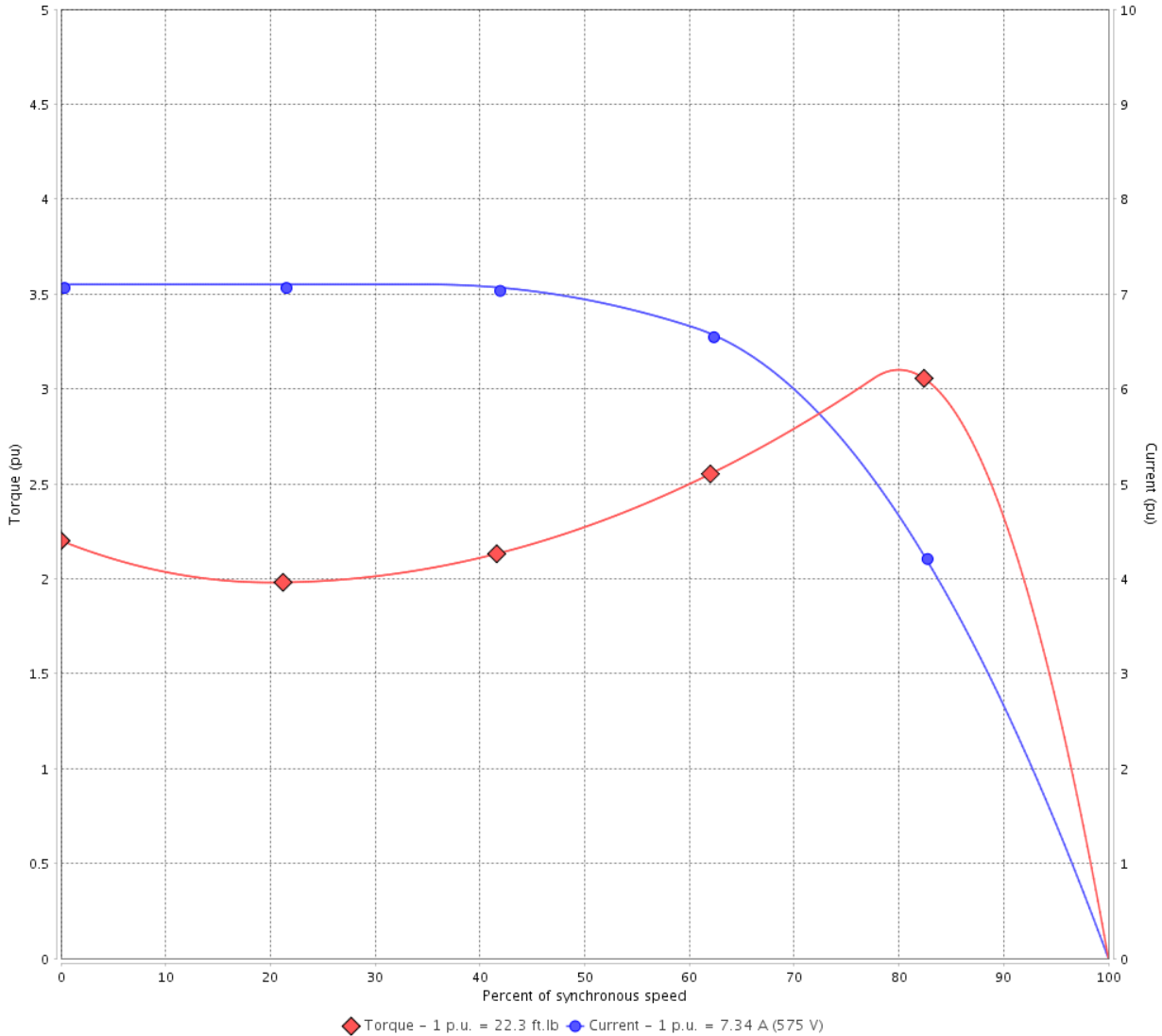
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12711993

Catalog # : 00718ET3H213JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 7.34 A | Moment of inertia (J) | : 1.34 sq.ft.lb |
| LRC | : 7.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 22.3 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 310 % | Temperature rise | : 80 K |
| Rated speed | : 1765 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 2 / 6 | Revision |
| Checked by | | | | |
| Date | 13/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

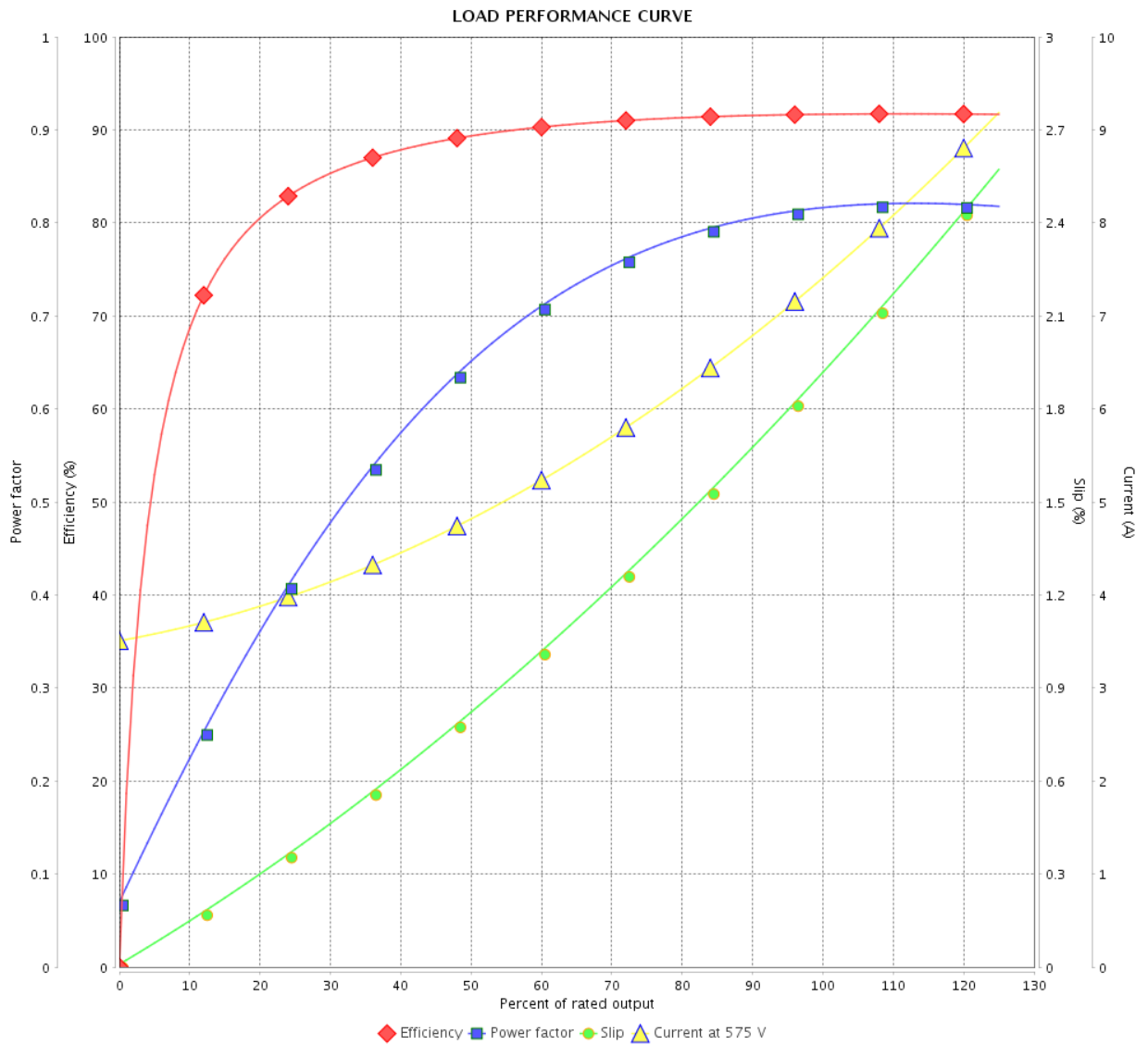


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12711993

Catalog # : 00718ET3H213JM-W22



Performance : 575 V 60 Hz 4P

Rated current : 7.34 A
 LRC : 7.1
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 310 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 1.34 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 | | 3 / 6 | | |
| Date | | 13/04/2022 | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12711993
Catalog # : 00718ET3H213JM-W22

Performance : 575 V 60 Hz 4P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 7.34 A | Moment of inertia (J) | : 1.34 sq.ft.lb |
| LRC | : 7.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 22.3 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 310 % | Temperature rise | : 80 K |
| Rated speed | : 1765 rpm | Design | : B |

Heating constant

Cooling constant

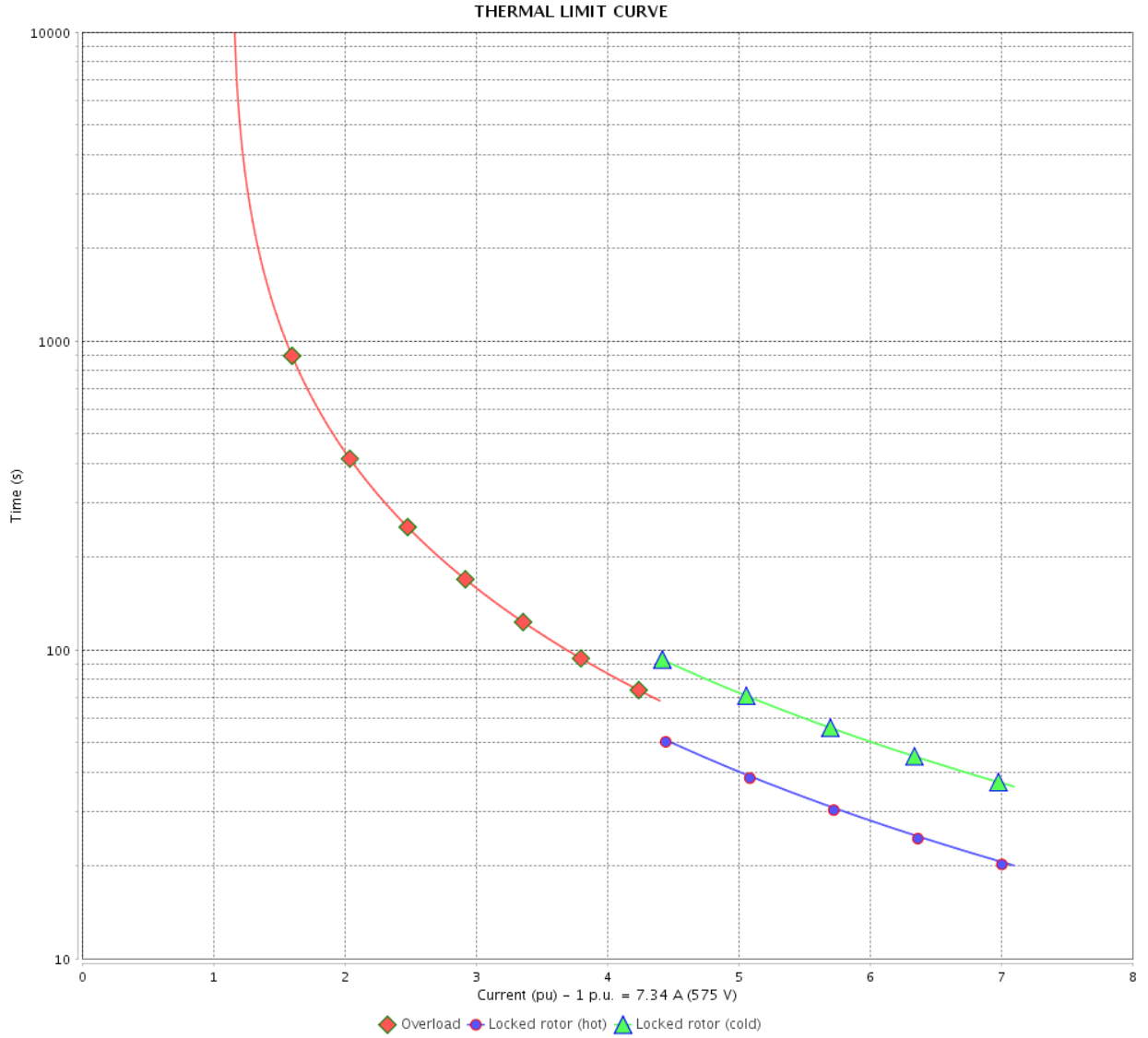
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 13/04/2022 | | 4 / 6 | |

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



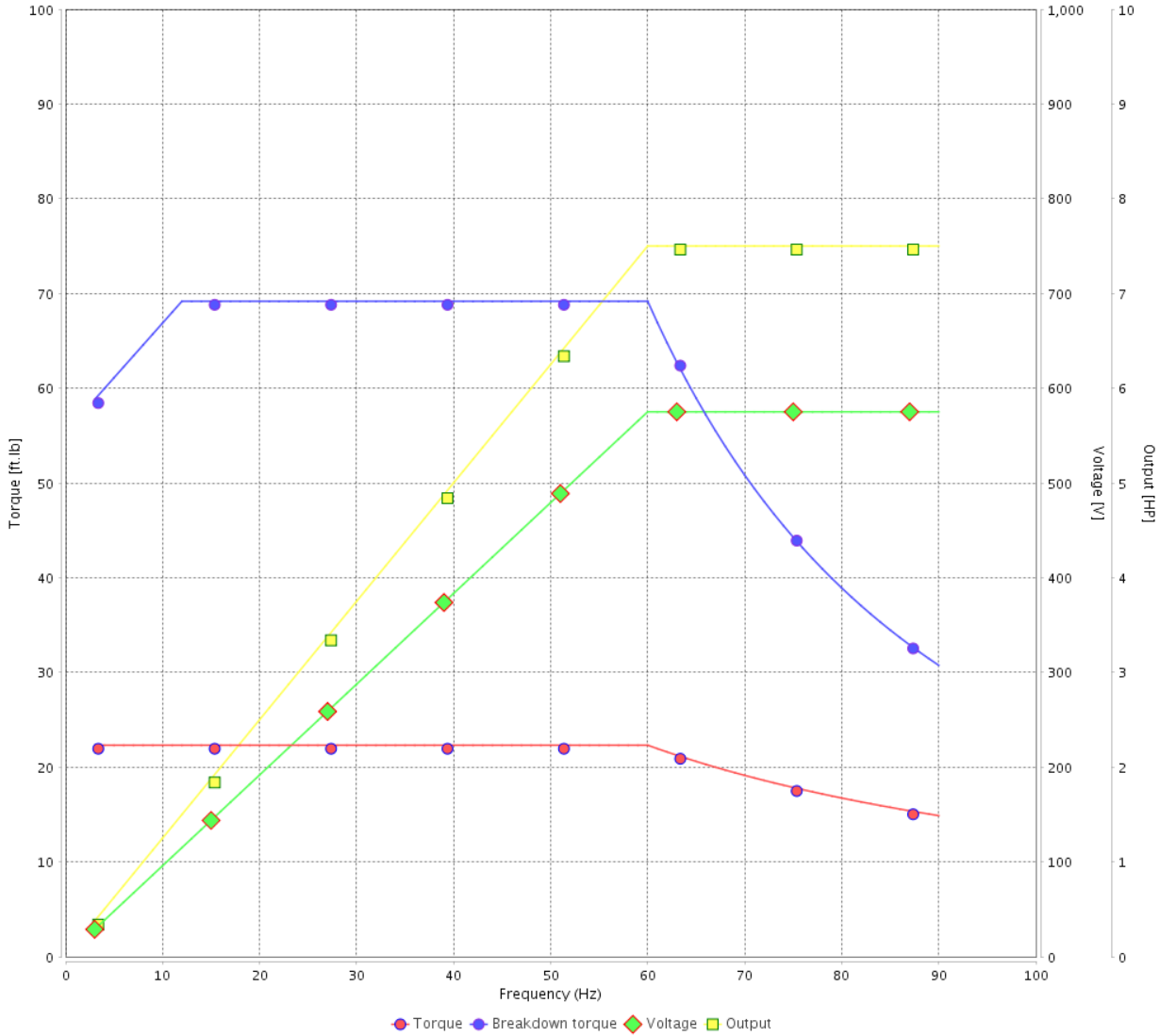
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12711993

Catalog # : 00718ET3H213JM-W22

VFD OPERATION CURVE



Performance : 575 V 60 Hz 4P

Rated current : 7.34 A
 LRC : 7.1
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 310 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 1.34 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

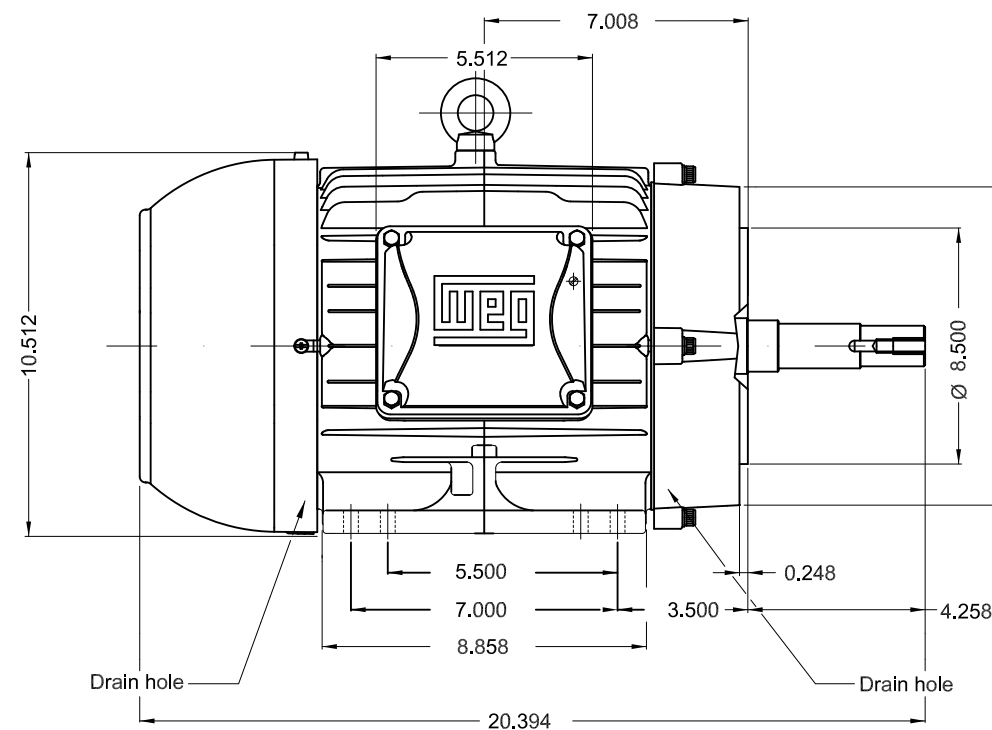
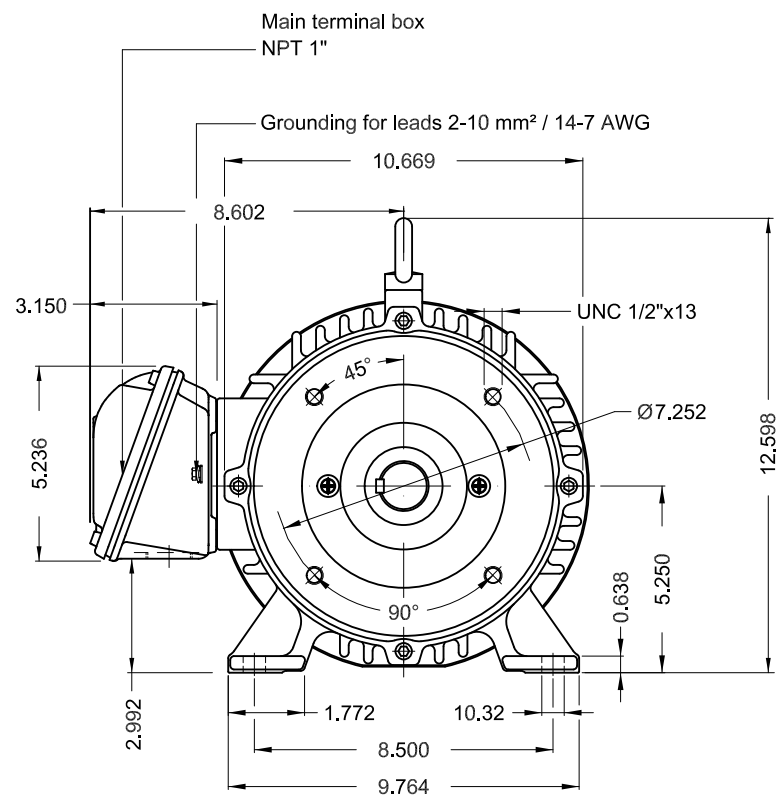
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 6 / 6 | Revision |
| Checked by | | | | |
| Date | 13/04/2022 | | | |

1 2 3 4 5 6

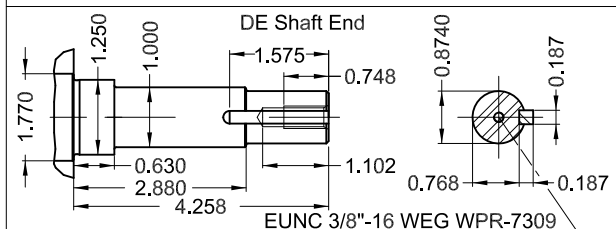
A

B

C



D




E

Color RAL 5009
 Painting plan 207A
 Mounting NEMA F-1
 Mounting B34R(D)

7.5 HP 04 Poles 60 Hz

A

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--|---------------------|-------------|----------|------|-----|
| EXECUTED | PIRWBUSER |  THREE PH. MOTOR JM/JP/JET PUMP W22 PREM. EFF. FRAME 213/5JM IP55 TEFC | | | | | |
| CHECKED | | | | | | | |
| RELEASED | | | | | | | |
| REL DT. | | | | | | | |
| | WMO | Jaragua do Sul | Product Engineering | SHEET 1 / 1 | | | |

PREVIEW
 WDD

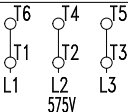


**W22**
CC029A**NEMA Premium**® Inverter Duty Motor
Severe Duty

12711993

MADE IN BRAZIL JM007504NPW22

| | | | | | |
|---------------------|------------|-----------------|---------------------------|------------------|-------------------|
| PH 3 | FR 213/5JM | HP(kw) 7.5(5.5) | Hz 60 | SF 1.25 | PF 0.82 |
| V 575 | A 7.34 | RPM 1765 | INS. CL.F Δ T 80 K | | |
| NEMA NOM EFF 91.7 % | | | | DES B DUTY CONT. | |
| ENCL TEFC | | | IP55 | | SFA 9.18 |
| | | | | | ALT 1000 m.a.s.l. |
| | | | | | CODE H |

MOBIL POLYREX EM
13 g 20000 h

170 Lbs

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, 1.0SF, T3A

FOR SAFE AREA
MOD.TE1BFOXON