

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | |
|---|-----------------|---|--|-------------------------------|
| Customer : | | | | |
| Product line | | : W22 NEMA Premium Efficiency Three-Phase | | Product code : 11355339 |
| | | | | Catalog # : 10012ET3E444T-W22 |
| Frame : 444/5T Output : 100 HP (75 kW) Poles : 6 Frequency : 60 Hz Rated voltage : 208-230/460 V Rated current : 268-242/121 A L. R. Amperes : 1659-1500/750 A LRC : 6.2x(Code G) No load current : 86.2-100/50.0 A Rated speed : 1185 rpm Slip : 1.25 % Rated torque : 437 ft.lb Locked rotor torque : 220 % Breakdown torque : 260 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 87.3 sq.ft.lb Design : B | | Locked rotor time : 36s (cold) 20s (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 ¹ : Both (CW and CCW) Noise level ² : 69.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 1685 lb | | |
| Output | 50% | 75% | 100% | Foundation loads |
| Efficiency (%) | 94.5 | 95.0 | 95.0 | Max. traction : 2711 lb |
| Power Factor | 0.68 | 0.78 | 0.82 | Max. compression : 4395 lb |
| | | <u>Drive end</u> | <u>Non drive end</u> | |
| Bearing type | : | 6319 C3 | 6316 C3 | |
| Sealing | : | WSeal | WSeal | |
| Lubrication interval | : | 13000 h | 16000 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 |
| | | | | |
| Performed by | | | | |
| Checked by | | | | |
| Date | 22/04/2019 | | | |
| | | | Page 1 / 6 | Revision |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

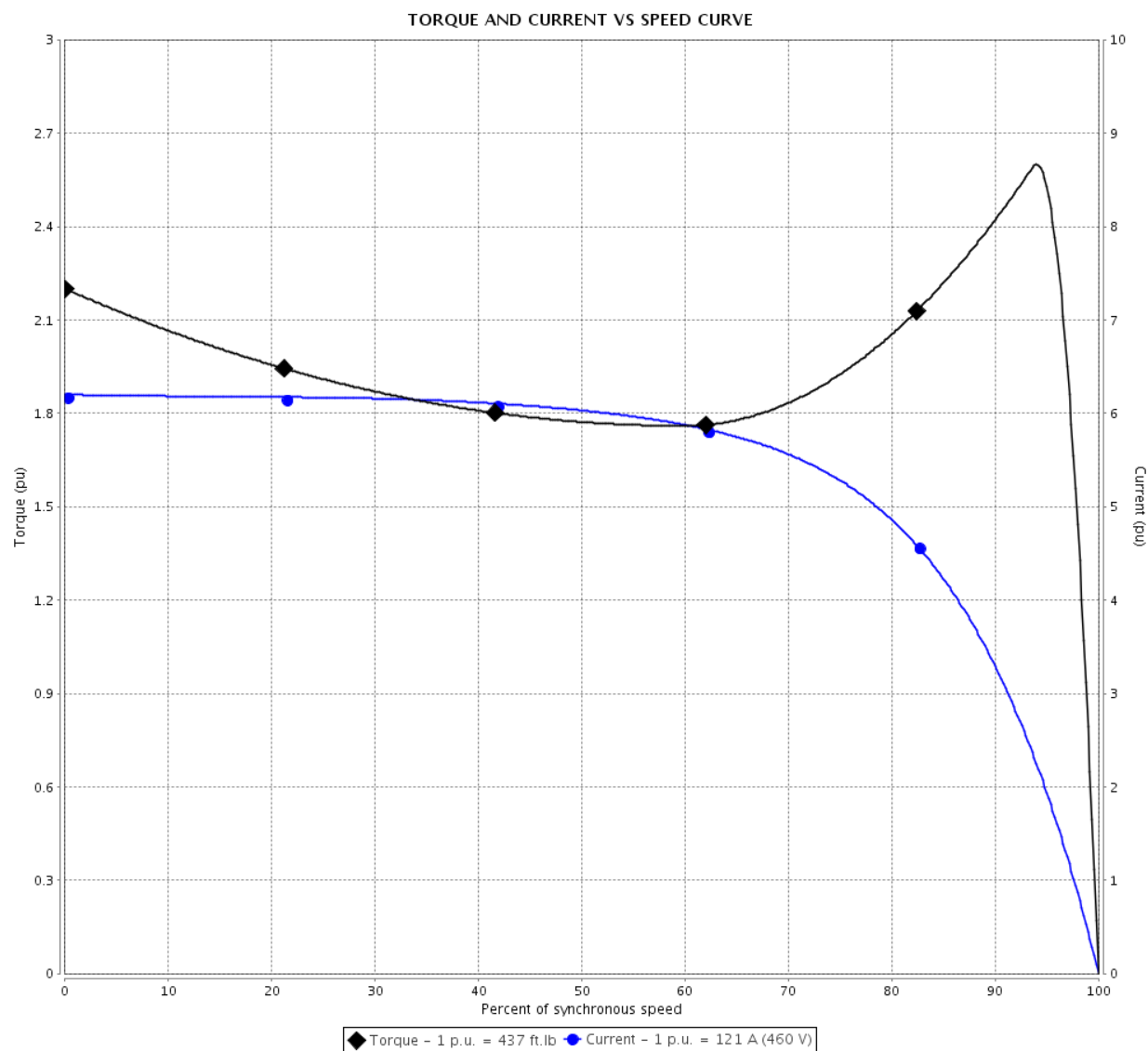


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11355339

Catalog # : 10012ET3E444T-W22



Performance : 208-230/460 V 60 Hz 6P

Rated current : 268-242/121 A
LRC : 6.2
Rated torque : 437 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 260 %
Rated speed : 1185 rpm

Moment of inertia (J) : 87.3 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|--------------------------|---------|------|
| | | | | |
| Performed by | | Page 2 / 6 Revision | | |
| Checked by | | | | |
| Date | 22/04/2019 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

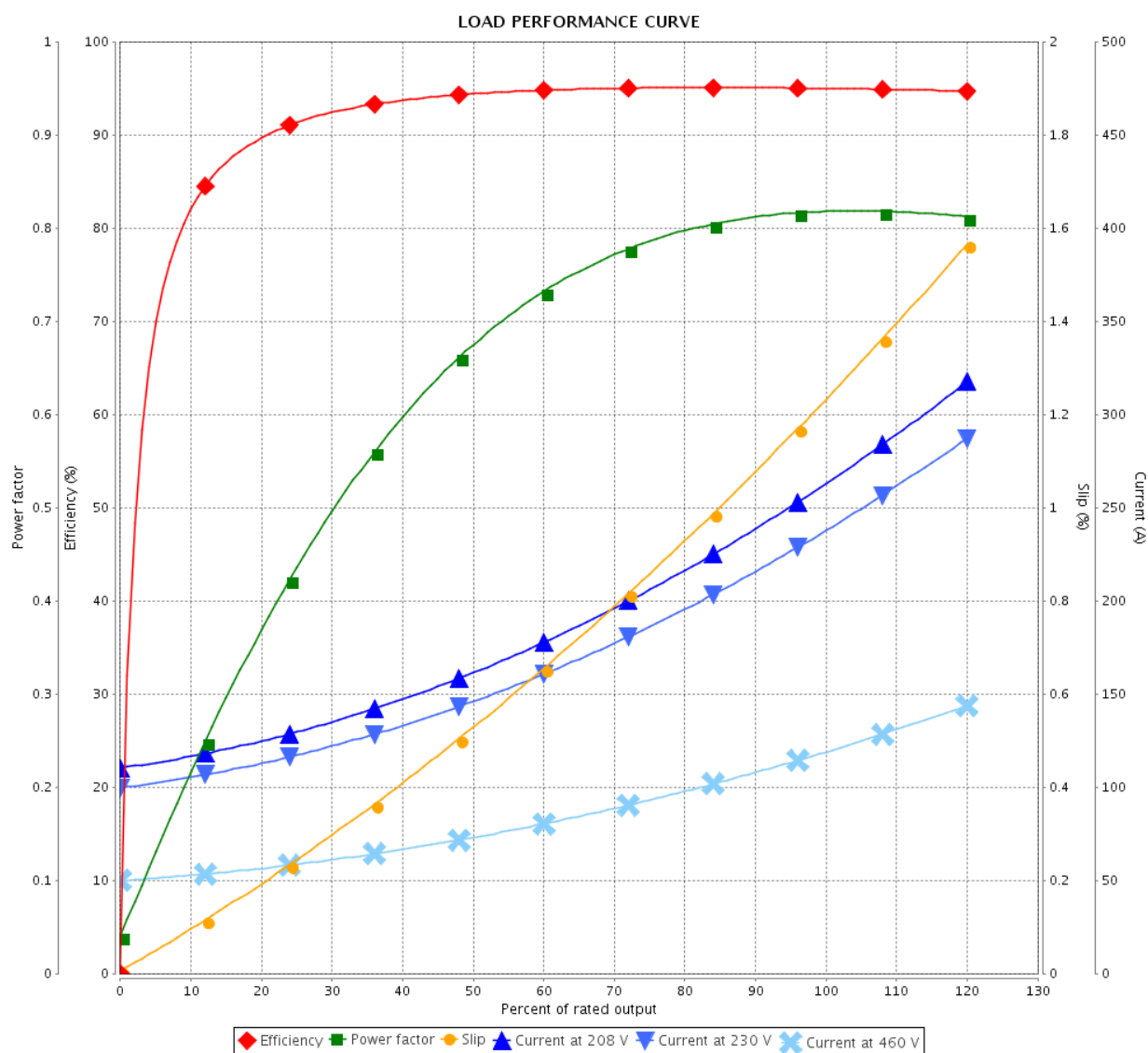


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| | | | | |
| Performed by | | Page 3 / 6Revision | | |
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer

:

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: W22 NEMA Premium Efficiency
Three-Phase

Product code :

11355339

Catalog # :

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

22/04/2019

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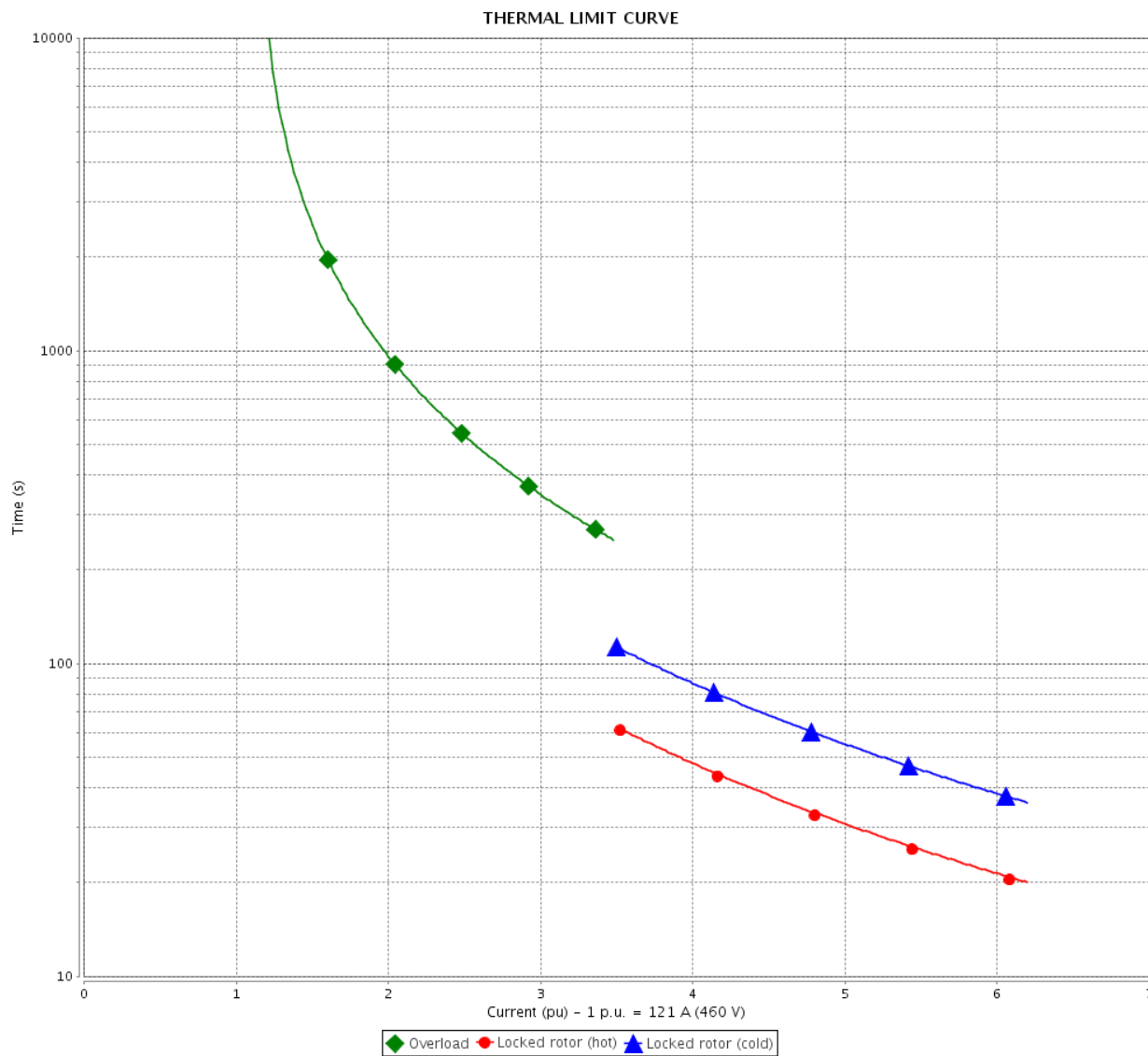
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------------|----------|
| | | | | | |
| Performed by | | | | | |
| Checked by | | | | | |
| Date | 22/04/2019 | | | | |
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

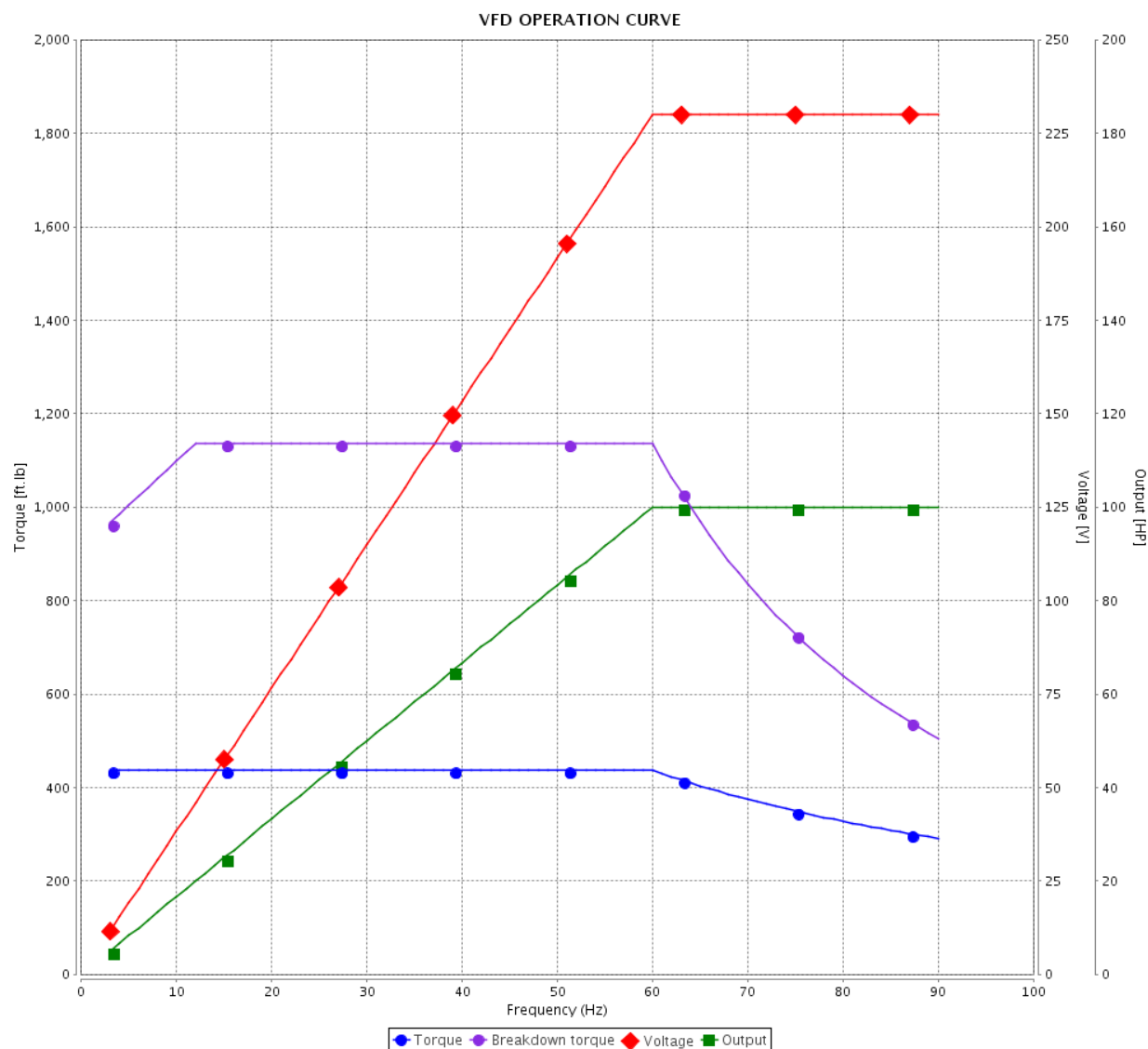


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Three-Phase

Product code : 11355339

Catalog # : 10012ET3E444T-W22



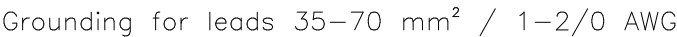
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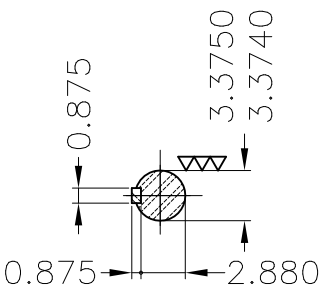
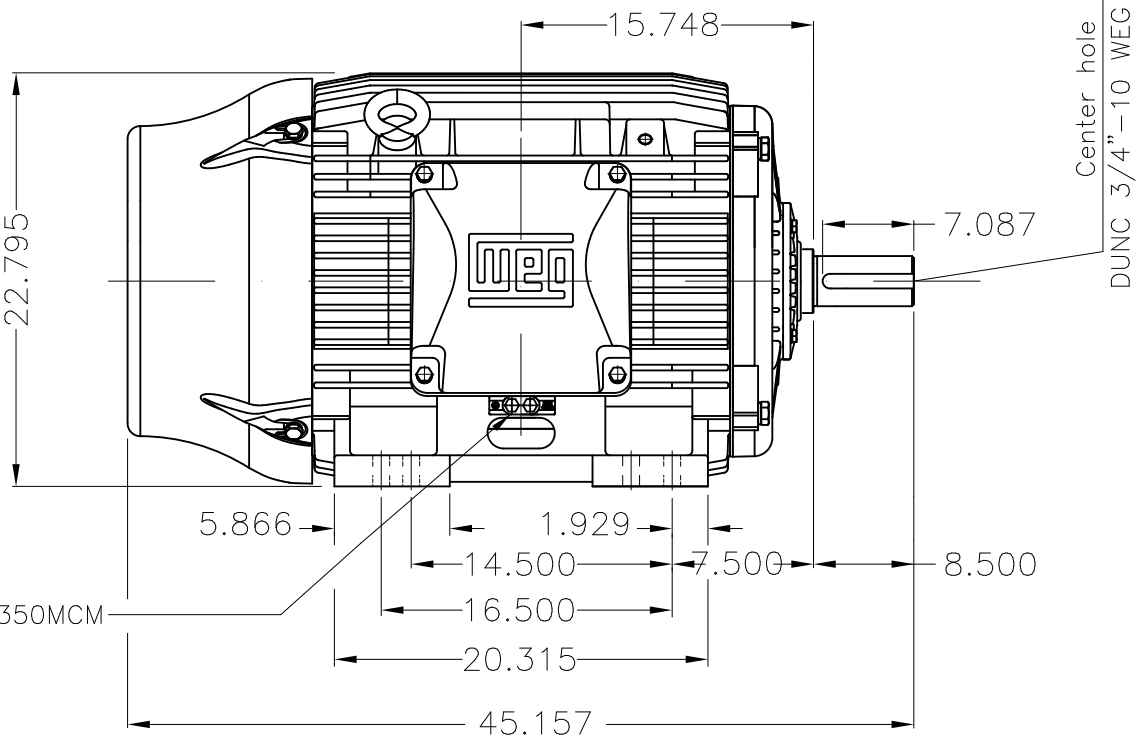
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Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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| Performed by | | Page 6 / 6Revision | | |
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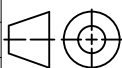

THIS IS AN UPDATED REVISION, THE
PREVIOUS ONE MUST BE DISREGARDED.



Main terminal box



DE Shaft End

| | | | | | | | | | |
|--------------------|------------|---|--|---------------------|-------|---|---------|------------------|----------|
| Color RAL 5009 | | | | | | | | | |
| Painting plan 203A | | | | | | | | | |
| Mounting B3R(D) | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| ECM | LOC | SUMMARY OF MODIFICATIONS | | | | EXECUTED | CHECKED | RELEASED | DATE VER |
| EXECUTED | USERADMIN |  | THREE PHASE W22 MOTOR - NEMA PREMIUM EFF | | |  | | <div>1 / 1</div> | |
| CHECKED | | | FRAME 444/5T IP55 TEFC | | | | | | |
| RELEASED | | | WEG code: 11355339 | | | | | | |
| REL DT | 22.04.2019 | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | | |

MODEL 10012ET3E444T-W22
MADE IN MEXICO
11355339

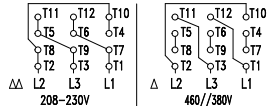


FOR SAFE AREA
MOD.TE1BFOXON

For 60Hz: 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 60Hz use on PWM, Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.0SF, T3A



| | | | |
|---|----------------------------|--------------------|-------------|
| PH 3 | FR 444/5T | HP(kW) 100.0(75.0) | Hz 60 |
| V 230/460 | A 242/121 | RPM 1185 | DES B |
| NEMA NOM EFF 95.0 % | INS. CL. F Δ T 80 K | IP55 | |
| ENCL TEFC | DUTY CONT. | AMB. 40°C | |
| CODE G | PF 0.82 | SF 1.25 | SFA 303/151 |
| USABLE @208V 268 A | SF 1.10 | SFA 295 | |
| 100HP 75kW 50Hz 380V 145A 980RPM SF1.00 EFF 93.6% (IE1) | | | |



→ 6319-C3 (45g)
→ 6316-C3 (34g)

MOBIL POLYREX EM
13000 h

ALT 1000 m.a.s.l. 1676 Lbs