## **DATA SHEET**

#### Three Phase Induction Motor - Squirrel Cage



Customer Product line : Standard Efficiency Three-Phase Product code: 12895593 Catalog #: .2518ES3H56C-S : 56C Locked rotor time Frame : 68s (cold) 38s (hot) Output : 0.25 HP (0.18 kW) Temperature rise : 80 K Poles Duty cycle : Cont.(S1) Frequency : 60 Hz Ambient temperature : -20°C to +40°C Rated voltage : 575 V Altitude : 1000 m.a.s.l. Protection degree Rated current : 0.417 A : IP55 Cooling method : IC411 - TEFC L. R. Amperes : 2.63 A **LRC** : 6.3x(Code M) Mounting : F-1 : Both (CW and CCW) No load current : 0.360 A Rotation<sup>1</sup> Rated speed : 1765 rpm Noise level<sup>2</sup> : 52.0 dB(A) Slip : 1.94 % Starting method : Direct On Line Rated torque : 0.744 ft.lb Approx. weight<sup>3</sup> : 18.7 lb Locked rotor torque : 240 % Breakdown torque : 300 % : F Insulation class Service factor : 1.15 Moment of inertia (J) : 0.0453 sq.ft.lb 25% 75% 100% Output 50% Foundation loads Efficiency (%) 54.4 57.5 66.0 70.0 Max. traction : 12 lb : 31 lb Power Factor 0.24 0.43 0.54 0.62 Max. compression Non drive end Drive end 6203 ZZ Bearing type 6202 ZZ Without Bearing Seal Sealing V'Ring Lubrication interval Lubricant amount 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         | 11/04/2022 |                 |           | 1/5     |          |

## TORQUE AND CURRENT VS SPEED CURVE

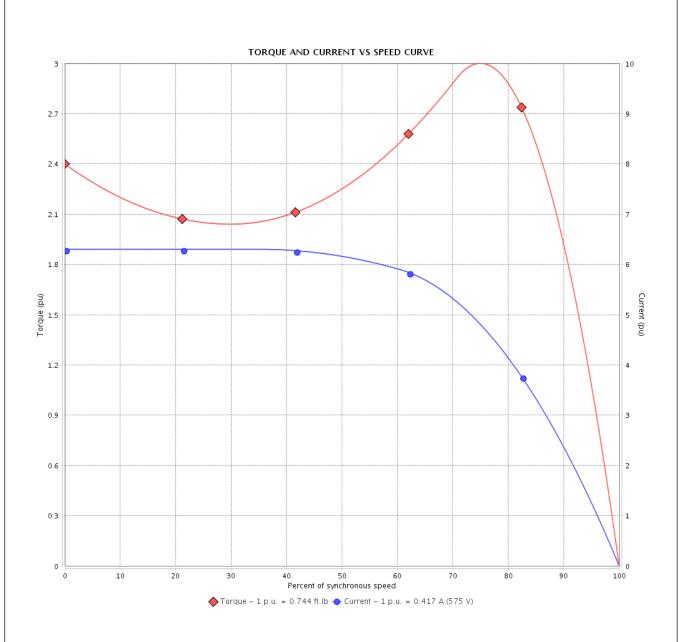
#### Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase Product code : 12895593

Catalog #: .2518ES3H56C-S



Performance : 575 V 60 Hz 4P

: 1765 rpm

Rated current : 0.417 A | Moment of inertia (J) : 0.0453 sq.ft.lb LRC : 6.3 | Duty cycle : Cont.(S1) Rated torque : 0.744 ft.lb | Insulation class : F

Locked rotor torque : 240 % Service factor : 1.15
Breakdown torque : 300 % Temperature rise : 80 K

Locked rotor time : 68s (cold) 38s (hot)

Rated speed

| Rev.         |            | Changes Summary | Performed | Checked | Date     |
|--------------|------------|-----------------|-----------|---------|----------|
|              |            |                 |           |         |          |
| Performed by |            |                 |           |         |          |
| Checked by   |            |                 |           | Page    | Revision |
| Date         | 11/04/2022 |                 |           | 2/5     |          |

# LOAD PERFORMANCE CURVE

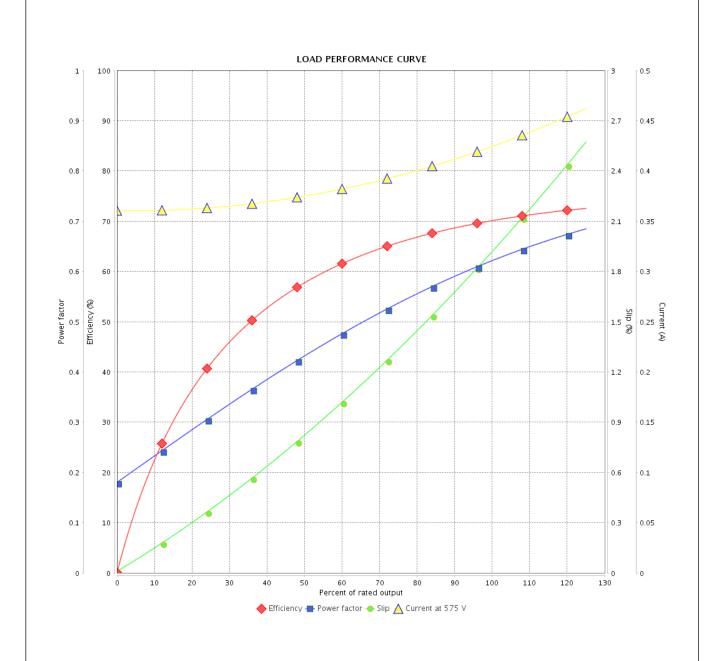
### Three Phase Induction Motor - Squirrel Cage



Customer

Product line : Standard Efficiency Three-Phase Product code : 12895593

Catalog #: .2518ES3H56C-S



| Performance   | : 575 V 60 Hz 4P |  |               |  |      |
|---|------------------|--|---------------|--|------|
| Rated current<br>LRC<br>Rated torque<br>Locked rotor tord<br>Breakdown torqu<br>Rated speed | •                | Moment of Duty cycle Insulation Service fa | class<br>ctor | : 0.0453 sq.ft<br>: Cont.(S1)<br>: F<br>: 1.15<br>: 80 K | .lb  |
| Rev. Changes Summary  |                  | '  | Performed     | Checked  | Date |

| Rev.         |            | Changes Summary | Performed | Checked | Date     |
|--------------|------------|-----------------|-----------|---------|----------|
|              |            |                 |           |         |          |
| Performed by |            |                 |           |         |          |
| Checked by   |            |                 |           | Page    | Revision |
| Date         | 11/04/2022 |                 |           | 3/5     |          |

## THERMAL LIMIT CURVE

#### Three Phase Induction Motor - Squirrel Cage

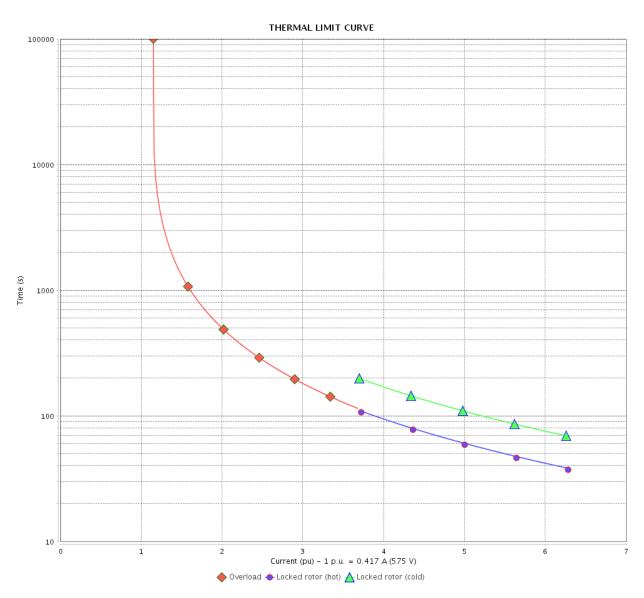


| Customer  |  |
|-----------|--|
| Cusionici |  |

Product line : Standard Efficiency Three-Phase Product code :

Catalog #: .2518ES3H56C-S

12895593



Performance : 575 V 60 Hz 4P Rated current : 0.417 A Moment of inertia (J) : 0.0453 sq.ft.lb **LRC** Duty cycle : Cont.(S1) : 6.3 Insulation class Rated torque : 0.744 ft.lb : F : 240 % Locked rotor torque Service factor : 1.15 : 300 % Breakdown torque Temperature rise : 80 K Rated speed : 1765 rpm Heating constant

Cooling constant

| 000          | •          |                 |           |         |          |
|--------------|------------|-----------------|-----------|---------|----------|
| Rev.         |            | Changes Summary | Performed | Checked | Date     |
|              |            |                 |           |         |          |
| Performed by |            |                 |           |         |          |
| Checked by   |            |                 |           | Page    | Revision |
| Date         | 11/04/2022 |                 |           | 4/5     |          |

# VFD OPERATION CURVE

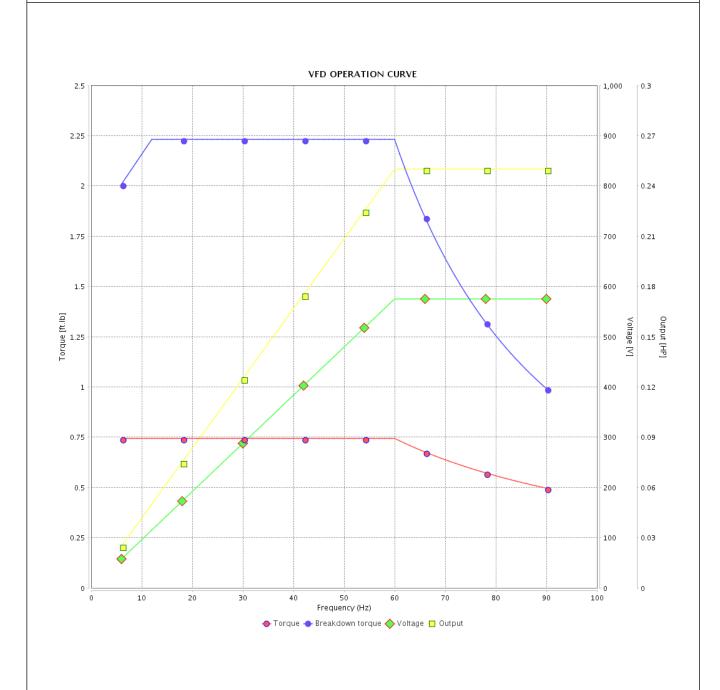
### Three Phase Induction Motor - Squirrel Cage



Customer :

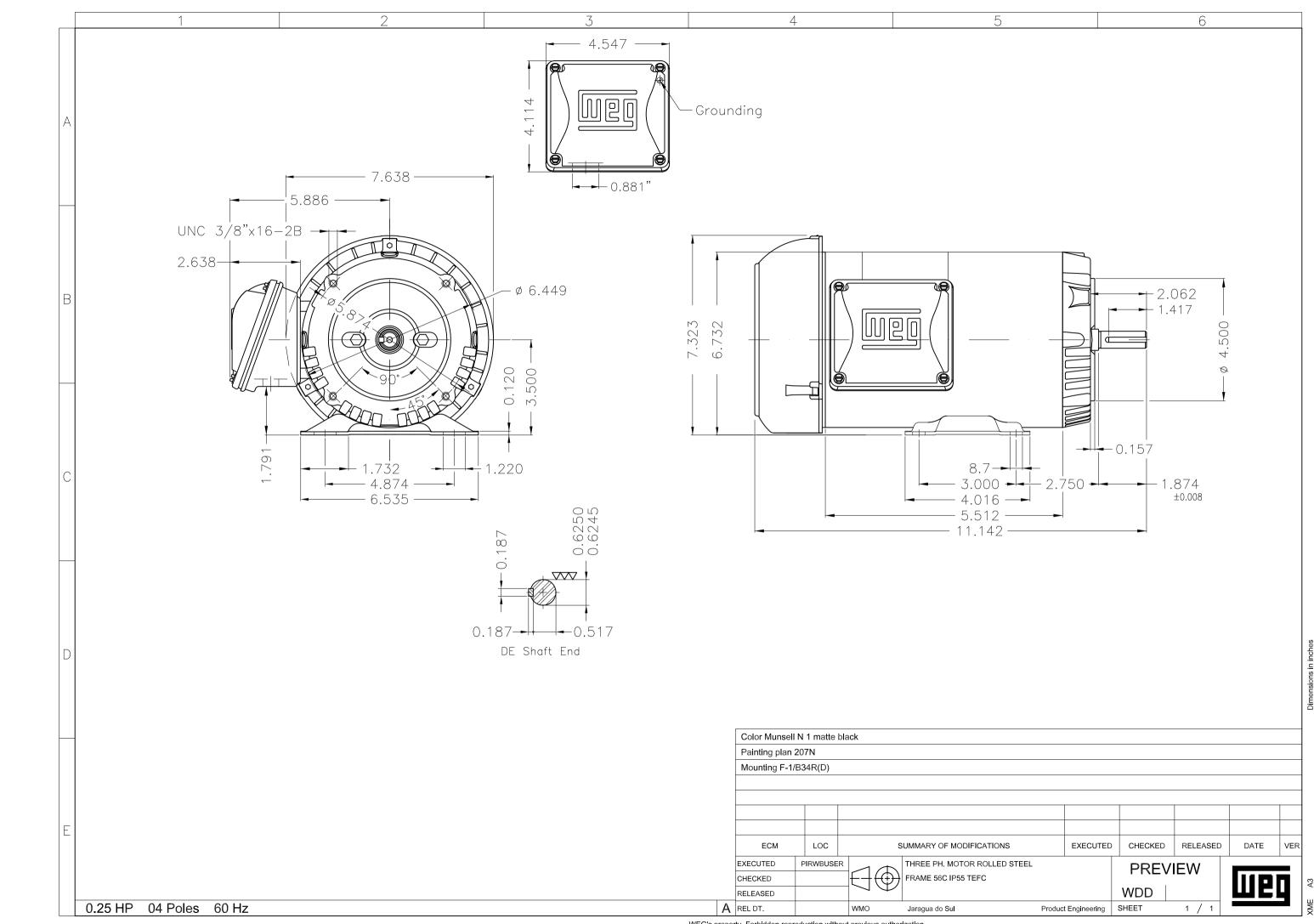
Product line : Standard Efficiency Three-Phase Product code : 12895593

Catalog #: .2518ES3H56C-S



| Performance   | : 575 V 60 Hz 4P  |   |   |  |
|---|---|---|---|--|
| Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed | : 0.417 A<br>: 6.3<br>: 0.744 ft.lb<br>: 240 %<br>: 300 %<br>: 1765 rpm | Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise | : 0.0453 sq.ft.lb<br>: Cont.(S1)<br>: F<br>: 1.15<br>: 80 K |  |

| D            |            | 01              | D         | Ob a also al | D-4-     |
|--------------|------------|-----------------|-----------|--------------|----------|
| Rev.         |            | Changes Summary | Performed | Checked      | Date     |
|              |            |                 |           |              |          |
| Performed by |            |                 |           |              |          |
| Checked by   |            |                 |           | Page         | Revision |
| Date         | 11/04/2022 |                 |           | 5/5          |          |





For 60Hz: Class I, Zone 2, **JL)**US LISTED 3PT9 FOR SAFE AREA

Class I, Dlv.2, Gr. A.B,C,D - T3 Div 2 Inverter Duty (SF1.00) CT 2:1/VT 1000:1 9 ž 1765 HP(kW) 0.25(0.18)

MODEL .2518ES3H56C-S

17JUL2019

W01.TE0IC0X0X

MAT: 12895593

56C

Œ 0.417 575 PH 3

ZN: 띪 PF 0.62 40°C CONT CODE Z Z RPM 80K AMB

INS CL F AT

5 1000

0.480

SFA

CHE P55

> %0.02 NEMA NOM.EFF.

ALTERNATE RATING: m.a.s.l.

T1-BLU

T2-WHT

T3-ORG

For safe area-inverter duty motor For use on VPWM 1000:1 VT. 10:1 CT INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

WARNING: Motor must be grounded in accordance with local and national MOBIL POLYREX EM 6202-ZZ ODE

6203-ZZ

électrique grave. Déconnectez l'allmentation avant l'entretien de la machine

electrical codes to prevent serious electrical shocks. Disconnect nower source before servicing unit.

AVERTISSEMENT: Le moteur doit être mis à la terre conformément aux codes électriques locaux et nationaux afin d'éviter tout choc