## **DATA SHEET**

### Three Phase Induction Motor - Squirrel Cage



Customer : Automation Direct

Product line : Premium Efficiency Three-Phase Product code : 14799098

Catalog # : 00218ET3E56C-S

Frame : 56HC Locked rotor time : 27s (cold) 15s (hot)

Output : 2 HP (1.5 kW) Temperature rise : 80 K Poles : 4 Duty cycle : Cont.(S1) Frequency : 60 Hz Ambient temperature : -20°C to +40°C : 230/460 V Rated voltage Altitude : 1000 m.a.s.l.

Rated current : 5.44/2.72 A Protection degree : IP55

 L. R. Amperes
 : 44.6/22.3 A
 Cooling method
 : IC411 - TEFC

 LRC
 : 8.2x(Code K)
 Mounting
 : F-1

No load current : 2.80/1.40 A Rotation¹ : Both (CW and CCW)
Rated speed : 1745 rpm Noise level² : 52.0 dB(A)

Slip : 3.06 % Starting method : Direct On Line

Rated torque : 6.02 ft.lb Approx. weight<sup>3</sup> : 42.9 lb

Locked rotor torque : 270 %

Breakdown torque : 300 %
Insulation class : F

Moment of inertia (J) : 0.1296 sq.ft.lb

Design : B

 Output
 25%
 50%
 75%
 100%
 Foundation loads

 Efficiency (%)
 86.0
 85.5
 87.5
 86.5
 Max. traction
 : 194 lb

Power Factor 0.35 0.60 0.73 0.80 Max. compression : 237 lb

Bearing type : 6204 ZZ 6202 ZZ
Sealing : V'Ring Without Bearing Seal

Lubrication interval : - -

Lubricant amount : - -

Lubricant type : Mobil Polyrex EM

: 1.15

Notes

Service factor

USABLE @208V 6.02A SF 1.00 SFA 6.02A

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 |
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## TORQUE AND CURRENT VS SPEED CURVE

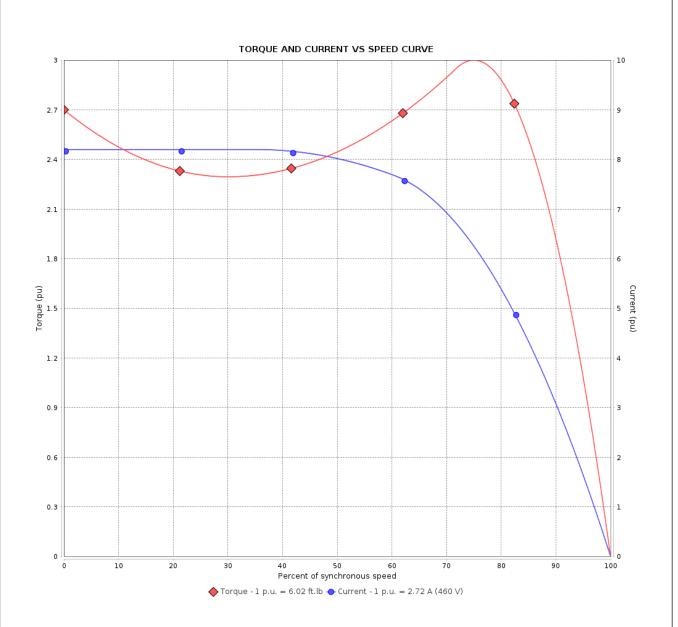
#### Three Phase Induction Motor - Squirrel Cage



Customer : Automation Direct

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Catalog #: 00218ET3E56C-S



Performance : 230/460 V 60 Hz 4P Rated current : 5.44/2.72 A Moment of inertia (J) : 0.1296 sq.ft.lb **LRC** : 8.2 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 6.02 ft.lb Locked rotor torque : 270 % Service factor Breakdown torque : 300 % Temperature rise : 80 K Rated speed : 1745 rpm Design : B

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

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
|--------------|-----------------|--|-----------|---------|----------|
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| Performed by |                 |  |           |         |          |
| Checked by   |                 |  |           | Page    | Revision |
| Date         | 22/08/2022      |  |           | 2/5     |          |

# LOAD PERFORMANCE CURVE

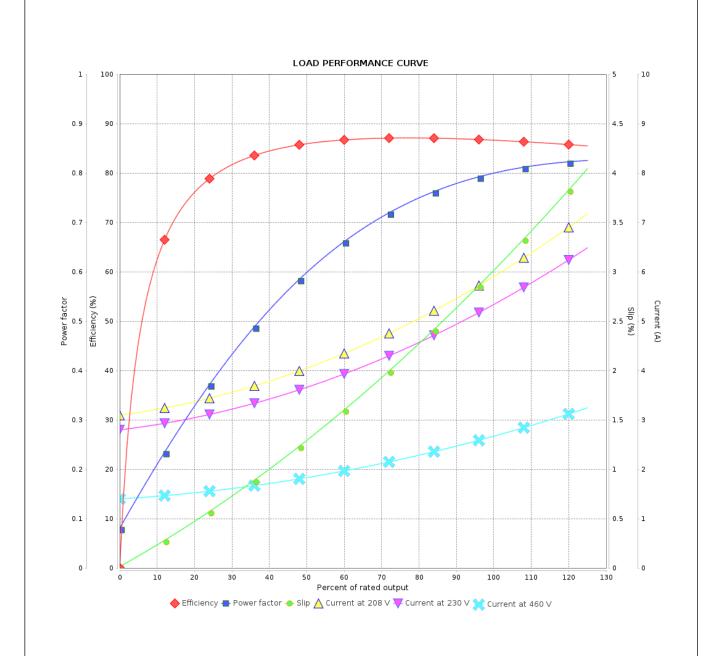
## Three Phase Induction Motor - Squirrel Cage



Customer : Automation Direct

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Catalog #: 00218ET3E56C-S



| Performance         | ::         | : 230/460 V 60 Hz 4P    |                  |                                  |             |          |  |  |
|---------------------|------------|-------------------------|------------------|----------------------------------|-------------|----------|--|--|
| Rated current       | :          | : 5.44/2.72 A Moment of |                  | of inertia (J) : 0.1296 sq.ft.lb |             | lb       |  |  |
| LRC                 |            | 8.2                     | Duty cycle       |                                  | : Cont.(S1) |          |  |  |
| Rated torque        |            | 6.02 ft.lb              | Insulation class |                                  | :F          |          |  |  |
| Locked rotor torque |            | 270 %                   | Service factor   |                                  | :           |          |  |  |
| Breakdown torque    | :          | 300 %                   | Temperature rise |                                  | : 80 K      |          |  |  |
| Rated speed         | :          | : 1745 rpm [            |                  |                                  | : B         |          |  |  |
| Rev.                |            | Changes Summary         |                  | Performed                        | Checked     | Date     |  |  |
| Performed by        |            |                         |                  |                                  |             |          |  |  |
| Checked by          |            |                         |                  |                                  | Page        | Revision |  |  |
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# THERMAL LIMIT CURVE

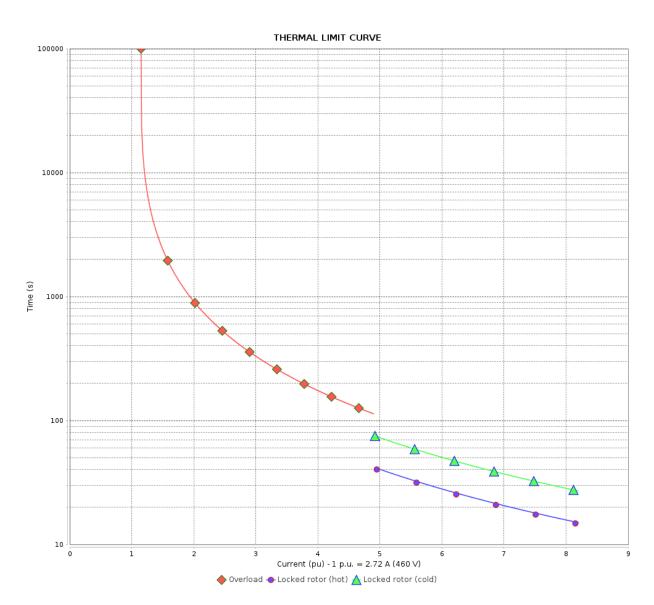
### Three Phase Induction Motor - Squirrel Cage



Customer : Automation Direct

Product line : Premium Efficiency Three-Phase Product code: 14799098

> Catalog #: 00218ET3E56C-S



| Performance  | : 230/460 V 60 Hz 4P   |  |   |
|--|--|--|---|
| Rated current<br>LRC<br>Rated torque<br>Locked rotor torque<br>Breakdown torque<br>Rated speed | : 5.44/2.72 A<br>: 8.2<br>: 6.02 ft.lb<br>: 270 %<br>: 300 %<br>: 1745 rpm | Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design | : 0.1296 sq.ft.lb<br>: Cont.(S1)<br>: F<br>:<br>: 80 K<br>: B |
| Heating constant   |  |  |   |
| Cooling constant   |  |  |   |

Cooling constant

|              | •          |                 |           |         |          |
|--------------|------------|-----------------|-----------|---------|----------|
| Rev.         |            | Changes Summary | Performed | Checked | Date     |
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# VFD OPERATION CURVE

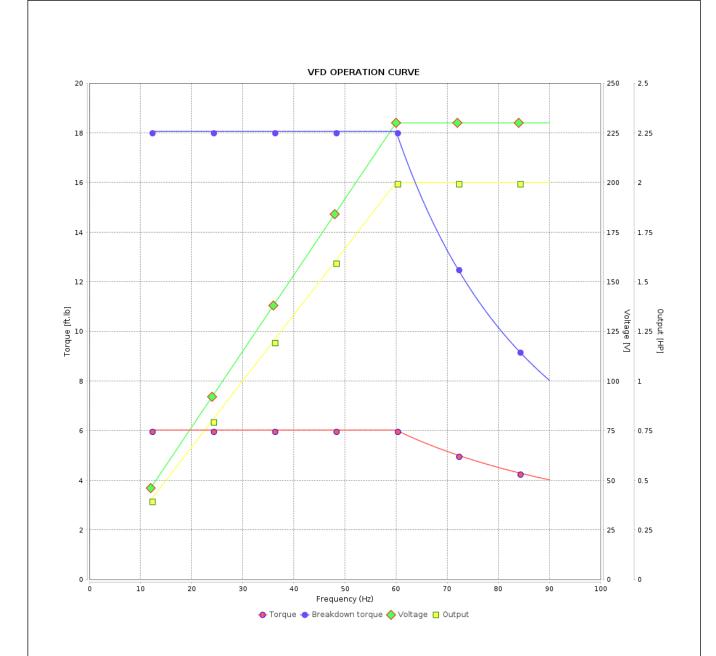
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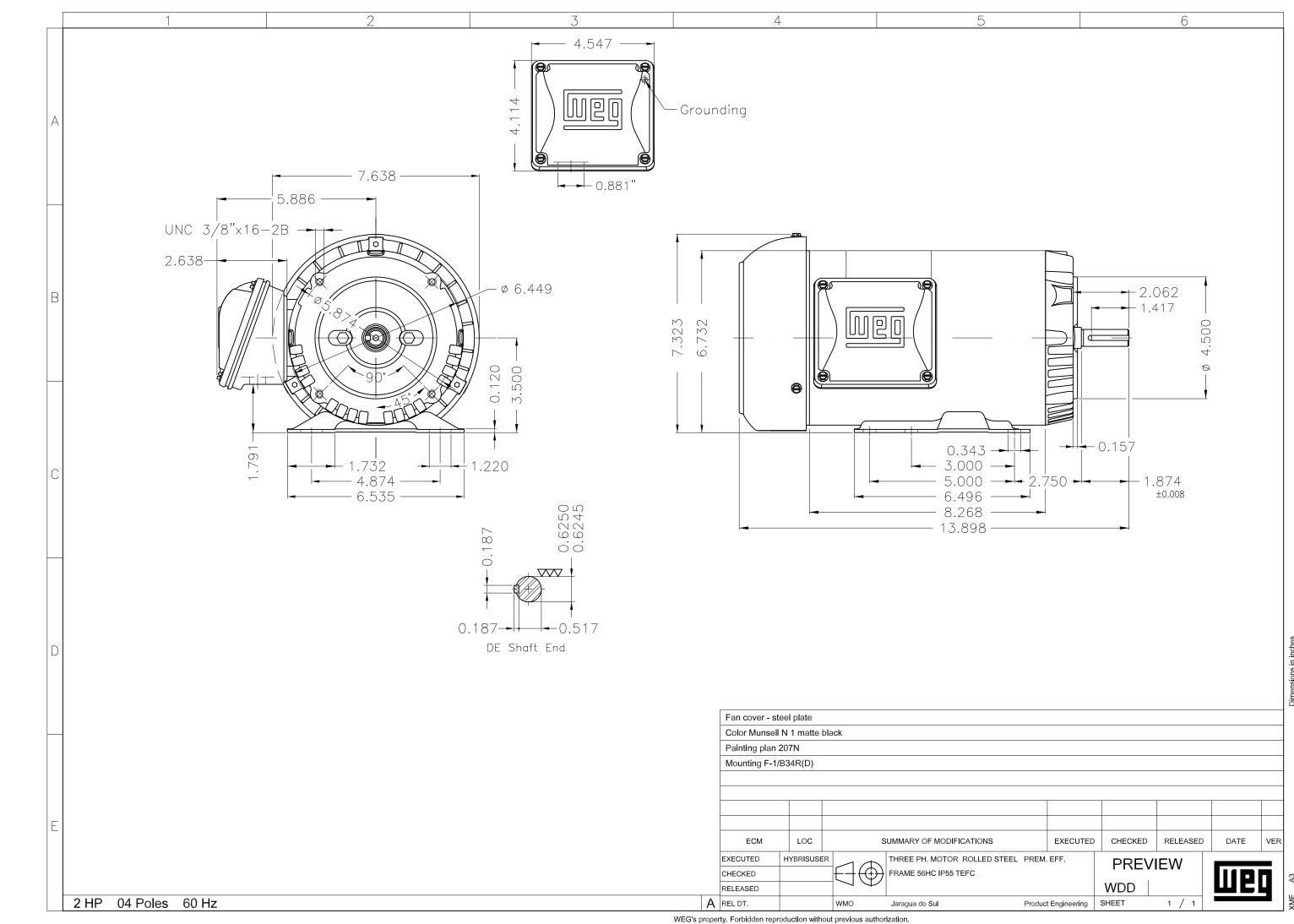
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Product line : Premium Efficiency Three-Phase Product code : 14799098

Catalog #: 00218ET3E56C-S



| Performance         |                 | : 230/460 V 60 Hz 4P |            |                       |         |             |  |  |
|---------------------|-----------------|----------------------|------------|-----------------------|---------|-------------|--|--|
| Rated current : 5.4 |                 | 44/2.72 A            | Moment of  | Moment of inertia (J) |         | .lb         |  |  |
| LRC : 8.2           |                 | 2                    | Duty cycl  | Duty cycle            |         | : Cont.(S1) |  |  |
| Rated torque : 6.   |                 | 02 ft.lb             | Insulation | Insulation class      |         | :F          |  |  |
|                     |                 | 70 %                 | Service fa | Service factor        |         | :           |  |  |
| Breakdown torque    |                 | 00 %                 | Temperat   | Temperature rise      |         | : 80 K      |  |  |
| Rated speed         | : 17            | 745 rpm              | Design     | Design                |         |             |  |  |
| Rev.                | Changes Summary |                      | /          | Performed             | Checked | Date        |  |  |
|                     |                 |                      |            |                       |         |             |  |  |
| Performed by        |                 |                      |            |                       |         |             |  |  |
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| Date                | 22/08/2022      |                      |            |                       | 5/5     |             |  |  |





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FOR SAFE AREA

3PT9

Energy Verifi

NO1.TEOICOXOX 14799098 MADE IN BRAZIL

For 60Hz: Class I, Zone 2, IIC Class I, DIv.2, Gr. A,B,C,D - T3 Div 2 Inverter Duty (SF1.00) CT 2:1/VT 1000:1

> MODEL 00218ET3E56C-S ë B 5AUG2022

8 4 1000 m.a.s.l 56HC CONT

5.44/2.72 5.26/3.13

230/460 1.15

> P55 CODE SH SABLE @ 208V 6.02A F AT 80K

TEFC 20°C

NSC

ALTERNATE RATING:

SF1.00 NCL W

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT. 5:1 CT ODE 6202-22 2.0HP 3.50-5.79/3.25-3.07A

1415RPM 50 Hz

8204-ZZ

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**EFF 82.6%** 

IEC 60034-1

SF1.15

190-220/380-415V

86.5%

NOM EFF NEMA

ZPM 3FA 냃 쌆

MOBIL POLYREX EM

T2-WHT

13-ORG 1-810

T9-RRK RFD I7-PNK F5-BLK

T8-RED F6-GRY r4-YEL

choc électrique grave. Déconnectez l'alimentation ayant l'entretien de la machine.

conformément aux codes électriques locaux et nationaux afin d'éviter tout

AVERTISSEMENT: Le moteur doit être mis à la terre shocks. Disconnect power source before servicing unit. NTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical