

# DATA SHEET

Premium Efficiency Motor: **PEWWE20-18-256T**

**60 Hz**

WorldWide Electric Corporation

1 (800) 808-2131

Worldwideelectric.net



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Customer:

## MOTOR INFORMATION

|                         |                                        |
|-------------------------|----------------------------------------|
| HP                      | 20                                     |
| RPM                     | 1800                                   |
| Phase                   | 3                                      |
| Frequency               | 60 Hz                                  |
| Voltage                 | 230/460 V                              |
| Frame Size              | 256T                                   |
| Enclosure               | TEFC                                   |
| Degree of Protection    | IP55                                   |
| Service Factor          | 1.25                                   |
| Poles                   | 4                                      |
| Full Load Speed         | 1765                                   |
| Insulation Class        | F                                      |
| Temp Rise               | 80°C                                   |
| NEMA Code Letter        | G                                      |
| Duty Cycle              | S1 / Continuous                        |
| Slip                    | 1.94%                                  |
| NEMA Design             | B                                      |
| Moment of Inertia       | 2.32 lb.ft.^2                          |
| Locked Rotor Time (Hot) | 22 seconds                             |
| Sound Pressure Level    | 68 dB(A)                               |
| Number of Starts        | 2 Cold/ 1 Hot                          |
| Max Ambient Temperature | 40°C                                   |
| Max Elevation           | 1000 m.a.s.l (3300 f.a.s.l)            |
| Mounting                | F1                                     |
| Rotation                | Bi-Directional                         |
| Area of Classification  | Class I, Division 2, Groups A, B, C, D |
| Inverter Rating         | 10:1 CT / 20:1 VT PWM Type             |
| Standard                | NEMA MG-1                              |
| Approvals               | CSA-US, CE                             |

## EFFICIENCY/POWER FACTOR

| LOAD | EFF    | P. F. |
|------|--------|-------|
| 100% | 93.0 % | 0.85  |
| 75%  | 93.2 % | 0.82  |
| 50%  | 92.9 % | 0.72  |

## TORQUE

| FULL LOAD   | LRT   | BDT   |
|-------------|-------|-------|
| 59.5 lb.ft. | 180 % | 250 % |

## AMPERAGE INFORMATION

|                   | 230V  | 460V  |
|-------------------|-------|-------|
| Full Load Amps    | 47.4A | 23.7A |
| Locked Rotor Amps | 290A  | 145A  |
| No Load Current   | 18A   | 9A    |
| Usable at 208V    | 52.4A |       |

## BEARING INFORMATION

|                         |            |
|-------------------------|------------|
| DE Bearing              | 6309 C3    |
| ODE Bearing             | 6209 C3    |
| Grease Type             | -          |
| DE Regreasing Interval  | 5000 Hours |
| ODE Regreasing Interval | 5000 Hours |

## ADDITIONAL DATA

|                    |                        |
|--------------------|------------------------|
| F2 Suitable        | Yes                    |
| Shaft Material     | 1045 Carbon Steel      |
| Connection Diagram | 230 / 460 V - 9 Lead Δ |
| Approximate Weight | 297 lbs.               |

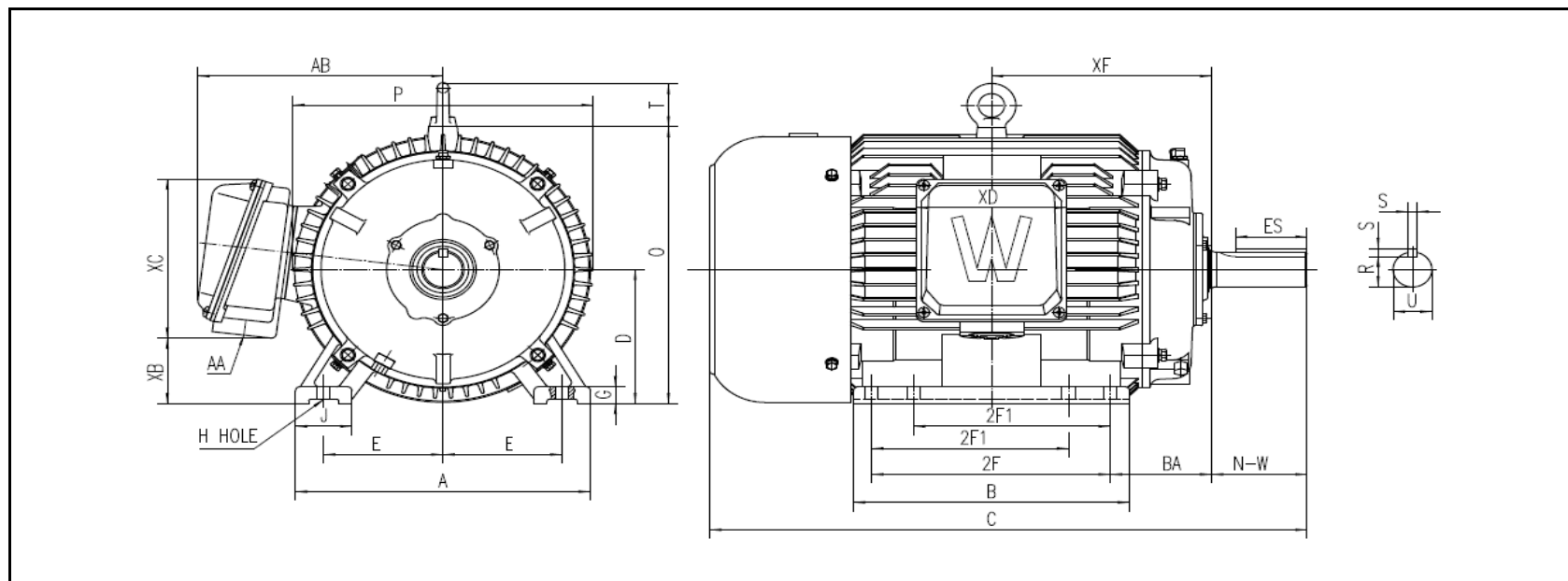
# MOTOR DRAWING

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## DIMENSION - INCHES

| MOUNTING |      |    |      |      | A      | B      | C      | D    | G     | J     | P      | O      | T     | AB     |
|----------|------|----|------|------|--------|--------|--------|------|-------|-------|--------|--------|-------|--------|
| E        | 2F1  | 2F | H    | BA   |        |        |        |      |       |       |        |        |       |        |
| 5        | 8.25 | 10 | 0.53 | 4.25 | 12.362 | 11.575 | 25.041 | 6.25 | 0.787 | 2.362 | 12.598 | 12.894 | 2.006 | 10.276 |

| SHAFT & KEY |      |       |     |       |
|-------------|------|-------|-----|-------|
| S           | ES   | R     | N-W | U     |
| 0.375       | 2.91 | 1.416 | 4   | 1.625 |

| TERMINAL BOX |       |       |       |      |
|--------------|-------|-------|-------|------|
| AA           | XB    | XC    | XD    | XF   |
| 1 1/2        | 3.047 | 7.406 | 6.299 | 9.23 |

# PERFORMANCE CURVES

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Premium Efficiency Motor:

**PEWWE20-18-256T**

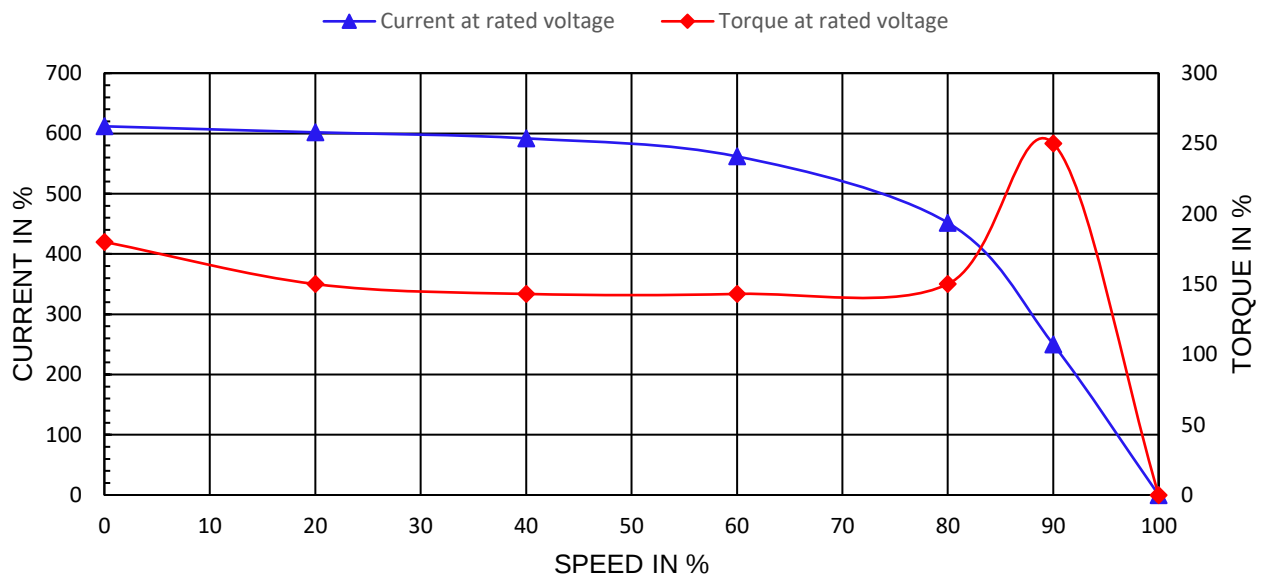
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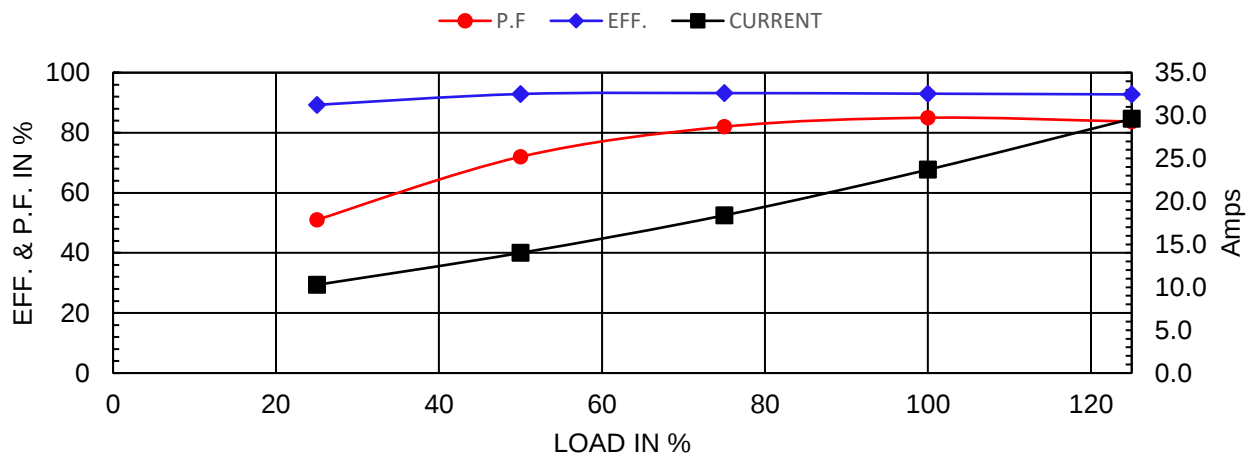
Customer:

|                    |              |  |            |      |              |        |
|--------------------|--------------|--|------------|------|--------------|--------|
| Motor Type         | PEWWE        |  | FL Speed   | 1765 |              |        |
| Output Rating (HP) | 20           |  | LRT (%FLT) | 180  | 460 volt FLA | 23.7 A |
| Full Load Torque   | 59.5 lb.ft   |  | BDT (%FLT) | 250  | 230 volt FLA | 47.4 A |
| Rotor Wk^2         | 2.32 lb-ft^2 |  |            |      |              |        |

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F. & CURRENT CURVE



# NAMEPLATE / WIRING

Premium Efficiency Motor:

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## SAMPLE NAMEPLATE DATA

|                               |         |                     |   |                                |                         |              |             |              |  |
|-------------------------------|---------|---------------------|---|--------------------------------|-------------------------|--------------|-------------|--------------|--|
|                               |         | <b>NEMA Premium</b> |   | <b>3-PHASE INDUCTION MOTOR</b> |                         | 259277<br>   |             | CE<br>CC006A |  |
| Model                         |         |                     |   |                                | Ser No.                 |              |             |              |  |
| HP                            |         | S.F.                |   | IP                             |                         | Encl         |             |              |  |
| Frame                         |         | P.F.                |   | Code                           |                         | Type         |             |              |  |
| Voltage                       | 230/460 | Hz                  |   | Ins Cl                         |                         | Rating       | °C Amb Cont |              |  |
| Amps                          |         | RPM                 |   | Design                         |                         | Date         |             |              |  |
| Nom.Eff.                      | FL      | % 3/4               | % | 230/460V                       | 10:1 CT 20:1 VT PWM VFD | 1.0SF        |             |              |  |
| Class I DIV. 2 Groups A B C D |         |                     |   | Amb.40°C                       | T3C(160°C)              | DE Brng      |             |              |  |
| Class I Zone 2 IIC            |         |                     |   | Amb.55°C                       | T3A(180°C)              | ODE Brng     |             |              |  |
|                               |         |                     |   |                                |                         | Grease type: |             |              |  |
| 50Hz                          | HP      | V                   | A | rpm                            | S.F1.0                  |              |             |              |  |

Model **PEWWE20-18-256T**

HP **20** S.F. **1.25** IP **IP55** Encl **TEFC**

Frame **256T** P.F. **0.85** Code **G** Type

Voltage **230/460 V** Hz **60 Hz** Ins Cl **F** Ambient **40°C**

Amps **47.4/23.7** RPM **1765** Design **B** DE Brng **6309 C3**

Nom.Eff. **FL 93.0% 3/4 93.2%** ODE Brng **6209 C3**

Grease type: **-**

**50Hz 20 HP 200/400 V 55.9/28 A 1460 rpm**