Severe Duty Motors

High performance with maximum energy efficiency is the goal of the new WEG electric motor. High efficiency and low cost of ownership throughout the entire motor lifetime have been the basis for the W22 development. A design created to maximize performance and energy savings.

Applications

Pumps, fans, crushers, conveyor belts, mills, centrifugal machines, presses, elevators, packaging equipment, grinders and more.

Standard Features

- 3-phase, 2, 4, 6 & 8 pole, 60 Hz
- Voltages: 2300V through 6600V
- Totally Enclosed Fan Cooled - TEFC (IP55) as per NEMA MG1
- Squirrel Cage rotor / Aluminum die cast
- Frames L447/9, 586/7 and 588/9 are all fitted with WSeal®
- Ball Bearings
- Regreasable bearings with grease fittings on DE and NDE
- AISI 4140 high strength steel shaft
- Class “F” insulation for all frames
- Form Wound and VPI impregnation insulation system
- Temperature rise limited to Class “B” (80K) unless otherwise indicated
- NEMA design “B”
- Service Factor: 1.15 unless otherwise indicated
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300ft (1000m)
- NPT threaded conduit hole
- Double Gasketed terminal box
- Field re-configurable terminal box (Mounting F1, F2, F3)
- Stainless steel nameplate AISI 316 with laser etching
- Paint: Synthetic enamel alkyd resin base (240 hours minimum ASTM B117 salt spray test)
- Paint Plan: 203A
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain plug
- 2 x RTD (PT100) per phase
- Plastic fan for 2 pole motors on frames L447/9 and 586/7
- Aluminum fan for frames L447/9 and 586/7 at 4, 6, or 8 poles and frame 588/9 on 2, 4, 6 and 8 poles
- Warranty – 18 months from manufacture date OR 12 months from delivery
- CSA Safe Area Certification provided as standard
- IEEE-841 compliant and nameplated up to and including 500HP
- IEC Standard available
- CSA CUS Hazardous Area Certification available
- CSA Certified

Optional Features

- 50 Hz motors
- Space heater
- Bearing RTDs
- Roller bearings available
- Shaft: special dimensions, double shaft, tapered, special steel
- Labyrinth tachonite seal available for all ratings
- Degrees of Protection: IP56(W), IP65(W), InproSeal
- Themostats, Thermistors
- Vertical Jackscrews
- Dowel Pin Provisions
- Additional terminal box
- Drip cover (canopy) for shaft down applications
- Cable glands
- NEMA FC Face and D flanges for all ratings
- Special painting plan or color
- VFD application available
- CSA Safe Area Certification provided as standard
- Standard Features
- Optional Features
## W22 Medium Voltage Motors – TEFC – Medium Voltage

### Medium Voltage Motors

- **Motor components are stocked for flexibility and quick shipment.**

<table>
<thead>
<tr>
<th>HP</th>
<th>RPM</th>
<th>NEMA Frame</th>
<th>Catalog Number</th>
<th>List Price</th>
<th>Multi- Equated</th>
<th>App. Shipping Weight (lbs)</th>
<th>FL Area (A)</th>
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www.weg.net/us

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## Notes:

- Motor components are stocked for flexibility and quick shipment.
- **SF = 1.00 and F.DT = 105K.
- Pricing is F.O.B. WEG USA Warehouse – Customer responsible for freight charges from any WEG USA warehouse to desired location.
**W22 Severe Duty Motors – TEFC – Medium Voltage**

### Medium Voltage 2300 – 4160V Electrical Data

<table>
<thead>
<tr>
<th>Rated Output</th>
<th>Full Load Efficiency</th>
<th>Locked Rotor Current</th>
<th>Power Factor</th>
<th>Locked Rotor Torque</th>
<th>NEMA Frame</th>
<th>HP</th>
<th>kW</th>
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<tbody>
<tr>
<td>125 90</td>
<td>2800 L447/9T H</td>
<td>7.3</td>
<td>161 1.40</td>
<td>270</td>
<td>900</td>
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<tr>
<td>125 110</td>
<td>3600 L447/9T H</td>
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<td>217 1.40</td>
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<tr>
<td>150 110</td>
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<td>225 205</td>
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<td>405 1.40</td>
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<td>610 1.40</td>
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<tr>
<td>325 260</td>
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<td>507 1.20</td>
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W22 Medium Voltage Motors – TEFC
Standard Dimensions

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**W22 Medium Voltage Motors – TEFC**

**Standard Dimensions**

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**Note:** Motor data and drawings are also available at the following website: [http://ecatalog.weg.net](http://ecatalog.weg.net)
Components Design

New Cooling System
- Aerodynamic design
- Noise level reduction
- Better airflow distribution over frame
- Increased mechanical strength

Fan
- Reinforced fan hub structure
- Noise level reduction
- Increased airflow
- Fan with higher stiffness

Frame
- Reduced temperature on windings and bearings
- Noise level reduction
- Terminal box position outlet on top

Pad for vibration sensor
- Displaced 90° from each other

- Easier handling - horizontal & vertical
- Higher mechanical strength and handling safety

Solid feet
- More impact resistance
- Ideal for high vibration level applications

Terminal Box
- Better connection quality
- Easier cable handling during installation
- More space available for accessory installation
- Easier Maintenance
- Mounting F1/F5/F9
- Rotation on 90° stages

Bearing Caps
- External
  - Finned surface for improved bearing heat dissipation
- Internal
  - Change of grease path for positive lubrication
  - Bearing lubrication quality improvement
  - Reduced bearing temperature

Seal Subsystem
- Increased dust and moisture protection
- Increased protection to high-pressure cleaning

Endshields Subsystem
- DE (Drive Endshield)
  - New fin design
  - Bearing moved outwards for better load support
  - Improved bearing heat dissipation for reduced bearing temperature
  - Reinforced endshields structure
- NDE (Non-Drive Endshield)
  - New design with smooth exterior surface
  - Improved airflow
  - Noise level reduction
  - Improved structural rigidity for low vibration

Can’t find what you are looking for? Call 1-800-ASK-4WEG (275-4934)