



**MODEL:** OPTIM® TEFC  
**TYPE:** AEHH8N, AFHH



Effective 10-11-22  
 Supercedes All Previous

### APPLICATIONS

- Fans & Blowers
- Crushers
- Mixers
- Pumps
- Compressor
- Conveyors

### PRODUCT OVERVIEW

- 1-800 HP
- 60Hz, 230/460V, 460V or 575V
- 3600, 1800, 1200 & 900 RPM
- Totally Enclosed Fan Cooled IP54 Design, IP55 for 5000 Frames and Larger
- Horizontal F1 Mount
- NEMA Premium Efficiency

### DESIGN FEATURES

- 1.15 S.F. Sine Wave Power; 1.0 S.F. VFD Power
- Continuous Duty
- Class F Insulation
- NEMA Design B or C
- Max Elevation 3300ft
- 40°C Ambient

### MECHANICAL FEATURES

- Shielded Bearings Frames 140T-280T and Open Bearings with Regreaseable Provisions Frames 280TS, 320T and Larger
- Polyrex EM Grease in all Regreaseable Bearings, Multemp SRL Grease in Shielded Bearings
- Aluminum Rotor up to 440T Frames; Copper/Copper Alloy or Aluminum Rotor 5000 and Larger
- Cast-Iron Frame and End Brackets
- Cast-Iron Conduit Box up to 449T Frames; Fabricated Steel Conduit Box 5000 Frames and Larger
- Non-Sparking Plastic Fan up to 449T 4,6 & 8 Pole Motors; Bronze Fan 440TS 2 Pole Motors; Aluminum Fan 5000 Frames and Larger
- Number of Leads 230/460V: 9 Leads 1-5 HP; 12 Leads 7.5-125 HP; 6 Leads 150 and Above
- Number of Leads 575V: 3 Leads up to 449T; 6 Leads 5000 Frames and Larger
- Solderless Lug Terminals on All Leads
- Grounding Terminal Inside Main Terminal Box, Additional Grounding Terminal on Frame for 5000 Frames and Larger
- Interchangeable F1 and F2 mounting up to 449T, F3 Available 5000 Frames and Larger
- Dual Drilled Feet for Longer Frames (i.e. 145T also Drilled for 143T) 449T and Below
- Paint System: Phenolic Rust Proof Base with Lacquer Top Coat
- Insulated NDE Bearing Standard for 5000 Frames and Larger
- Rubber Flinger on DE up to 280T; Brass Flinger on Both Ends 280TS to 449T; Steel Flinger on Both Ends Interchangeable with Inpro Seals 5000 Frames and Larger
- \*HPE™ High Pulse Endurance Spike Resistant Wire
- 2 Dips Phenolic Alkyd Resin Varnish 140T-440T, 2 Dips Epoxy Resin 5000 Frames and Larger; Spray Enamel Top Coat on all Frames
- Bi-Directional Rotation Except 3600RPM Motors 5000 Frames and Larger Which are CW From NDE
- Winding RTD's, Space Heaters and Provisions for Bearing RTD's Standard 5000 Frames and Larger

### OTHER FEATURES

- CSA Certified for Class I, Division 2, Groups B, C & D (Class I, Zone 2, Groups IIB+H2, IIB and IIA)
- CSA Certified Class II, Division 2 (Class II, Zone 22) available for 440 Frames and larger upon request
- \*Speed Ranges up to 10:1 CT, and 20:1 VT. Refer to data sheet for rating specific turn down ratios
- \*Meets NEMA MG1 Part 31.4.4.2

\* Precautions should be taken to eliminate or reduce voltage spikes and shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.