

**Quotation Guide**  
**Three-Phase, Open-Wound, Medium Voltage, Dry-Type Transformer**

End-user name: \_\_\_\_\_  
Project name: \_\_\_\_\_  
Ship-to location: \_\_\_\_\_  
Distributor: \_\_\_\_\_  
Howard sales agent: \_\_\_\_\_  
Customer name: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Office phone: \_\_\_\_\_ Mobile phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**Transformer Rating**

**Power Rating (check one)**

Self-Cooled, AA (kVA)	Fan-Cooled, AA/FA (kVA)
<input type="checkbox"/> 225	<input type="checkbox"/> 225/300
<input type="checkbox"/> 300	<input type="checkbox"/> 300/400
<input type="checkbox"/> 500	<input type="checkbox"/> 500/667
<input type="checkbox"/> 750	<input type="checkbox"/> 750/1,000
<input type="checkbox"/> 1,000	<input type="checkbox"/> 1,000/1,333
<input type="checkbox"/> 1,500	<input type="checkbox"/> 1,500/2,000
<input type="checkbox"/> 2,000	<input type="checkbox"/> 2,000/2,666
<input type="checkbox"/> 2,500	<input type="checkbox"/> 2,500/3,333

**Fans**

Fans to be supplied (check one): ☐ No ☐ Yes

If "Yes," (check one): ☐ Furnish 1Ø CPT with fans  
☐ No CPT power for fans. Controller supplied by others

If "No," (check one): ☐ Furnish future fan provisions—no wiring/no controller  
☐ Furnish future fan provisions—with wiring/without controller  
☐ Furnish future fan provisions—with wiring/with controller

**Required Safety Certifications (check one)**

☐ None ☐ UL

**Frequency (check one)**

☐ 60 Hz ☐ 50 Hz

**Special K-Factor (check one)**

☐ No  
☐ Yes (check one): ☐ K-1 ☐ K-4 ☐ K-9

**High-Voltage Rating**

Voltage: \_\_\_\_\_ Volts BIL: \_\_\_\_\_ kV  
Delta, Grounded Wye, or Wye (check one): ☐ Delta ☐ Grounded Wye ☐ Wye (contact factory)

**Low-Voltage Rating**

Voltage: \_\_\_\_\_ Volts BIL: \_\_\_\_\_ kV  
Delta, Grounded Wye, or Wye (check one): ☐ Delta ☐ Grounded Wye ☐ Wye

**Average Winding Temperature Rise (check one)**

☐ 150 °C (standard) ☐ 115 °C ☐ 80 °C

**High-Voltage Taps (check one)**

☐ No taps  
☐ Standard full-capacity taps (two 2-1/2% above and below nominal high-voltage rating)  
☐ Other taps \_\_\_\_\_

**Sound Level (check one)**
☐ Standard    ☐ Special \_\_\_\_\_ dB
**Efficiency (check any that apply)**
 DOE minimum efficiency (check one):    ☐ No    ☐ Yes (required in continental U.S. and U.S. territories)  
 NEMA Premium® efficiency (check one):    ☐ No    ☐ Yes
**Impedance (check one)**
☐ Standard    ☐ Other \_\_\_\_\_
**Transformer Construction****Enclosure (check one)**
☐ Indoor (NEMA 1)
**External Paint Color (check one)**
☐ ANSI 61 gray (standard)    ☐ ANSI 49 (gray)    ☐ ANSI (70 gray)
**Construction Type (check one)**
☐ HV General Purpose (HVGp), cable-in/cable-out without separate air terminal compartment  
☐ Motor drive isolation construction  
☐ Unit substation construction (check primary side & secondary side requirements below)

Unit Substation Primary Side	Unit Substation Secondary Side
<input type="checkbox"/> Close-coupled to switchgear (flange)	<input type="checkbox"/> Close-coupled to switchgear (flange)
<input type="checkbox"/> Full-height terminal chamber	<input type="checkbox"/> Full-height terminal chamber
<input type="checkbox"/> Throat	<input type="checkbox"/> Throat
<input type="checkbox"/> Bolted panel only	<input type="checkbox"/> Bolted panel only
Segment: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	Segment: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
Cable in: <input type="checkbox"/> Top <input type="checkbox"/> Bottom	Cable out: <input type="checkbox"/> Top <input type="checkbox"/> Bottom

**Transformer Protection****Primary Surge (Lightning) Arresters (check one)**
☐ None  
☐ Distribution class \_\_\_\_\_ kV  
☐ Intermediate class \_\_\_\_\_ kV  
☐ Station class \_\_\_\_\_ kV
**Secondary Surge (Lightning) Arresters (check one)**
☐ None  
☐ Distribution class \_\_\_\_\_ kV  
☐ Intermediate class \_\_\_\_\_ kV  
☐ Station class \_\_\_\_\_ kV
**Factory Testing****Factory Testing (check all that apply)**

Standard tests are performed on all units (includes routine tests per IEEE C57.12.01 and 100% full-wave impulse test).

 Special tests (If "Yes" Check all below that apply) ----- ☐ No    ☐ Yes  
     IEEE C57.12.91 impulse ----- ☐ No    ☐ Yes  
     Audible sound ----- ☐ No    ☐ Yes  
     Heat run (temperature) ----- ☐ No    ☐ Yes  
     Partial discharge ----- ☐ No    ☐ Yes  
     Other \_\_\_\_\_
**Other Requirements****Other Features (check all that apply)**

Copper ground bus-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Current transformers-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Potential transformers (contact factory)-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Digital temperature monitor-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Altitude above 3,000 feet-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes (Altitude: _____ feet)
Space heaters with thermostat-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Dust filters-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Rodent proofing-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Electrostatic Shield between HV and LV windings-----	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Winding material-----	<input type="checkbox"/> Aluminum	<input type="checkbox"/> Copper