Wellhead Junction Box

Enables venting of gas that migrates from downhole cables so it does not reach the variable speed drive

- **Ambient temperature rating:**
  - –40 to 70 degC [–40 to 158 degF]
- **Dimensions:**
  - 520 × 520 × 230 mm [20.5 × 20.5 × 9 in]

**Applications**
Oilfield artificial lift applications on land

**How it improves wells**
Small amounts of gas can migrate up downhole cables used to power artificial lift equipment in oilfield applications. The wellhead junction box is used for electrical power surface connections, enabling the gas to be vented and preventing it from reaching variable speed drives (VSD) or switchboards.

**How it works**
Custom-designed for oilfield applications, the high-voltage wellhead junction box features six louvered vents, two drainholes, and three 5-kV insulator standoffs. Three-phase cables are connected at the three sets of 6 AWG to 350-kcmil [185-mm²] double-barrel lugs.

**What it replaces**
Junction boxes that do not have relevant ANSI, UL, and CSA safety certifications

**Additional features**
- One 14 AWG through 2/0 AWG double-barrel lug inside the enclosure for ground installation
- One 4 AWG through 3/0 AWG single-barrel lug outside the enclosure for ground installation
- 35-mm rail-mounted provision for anticondensation heater

**Certifications**
- ANSI/UL 1332 Certified Paint, DTOV2
- ANSI/UL 157 Certified Gasket, JMST23
- ANSI/UL 94 Flammability V-2 rated
- CSA 22.2 No. 94-M91 Clause 6.13.3, Resistance to Impact
- ANSI/UL 67/891 Certified Insulators, QEU Y2
- ANSI/UL 486A/B Certified Lugs, ZMVV
- Class C321111 Industrial Control Equipment, Enclosures for Electrical Equipment
- Class C321191 Industrial Control Equipment, Enclosures for Electrical Equipment: US Requirements
- CSA C22.2 No. 94.1/UL50, Enclosures for Electrical Equipment, Nonenvironmental Considerations
- CSA C22.2 No. 94.2-15/UL50E, Enclosures for Electrical Equipment, Environmental Considerations
- Class C464130 Switch Gear, Subassemblies, Components Acceptance
- Class C464190 Switch Gear, Subassemblies, Components Acceptance: Certified to US Standards
- CSA C22.2 No. 31-14, Switchgear Assemblies

**Wellhead Junction Box Standard Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Enclosure type</td>
<td>High voltage, 5-kV AC</td>
</tr>
<tr>
<td>Ingress protection</td>
<td>CSA Type 3R†</td>
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<tr>
<td>Material</td>
<td>14-gauge [2-mm] cold-rolled steel</td>
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<tr>
<td>Ambient temperature rating</td>
<td>–40 to 70 degC [–40 to 158 degF]</td>
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<tr>
<td>Maximum terminations</td>
<td>Three conductors for three-phase cables</td>
</tr>
<tr>
<td>Earthing</td>
<td>Studs on enclosure and gland plates</td>
</tr>
<tr>
<td>Dimensions, width × height × depth</td>
<td>520 × 520 × 230 mm [20.5 × 20.5 × 9 in]</td>
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<tr>
<td>Area classification</td>
<td>Class 1, Division 2 outdoor nonhazardous</td>
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</table>

† Indoor or outdoor use. Provides a degree of protection against rain and snow, undamaged by the external formation of ice on the enclosure.