SECTION 6

HPS UNIVERSAL™
LOW VOLTAGE LIGHTING
TRANSFORMERS

Encapsulated Single Phase Enclosed

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SINGLE PHASE LOW VOLTAGE TRANSFORMER APPLICATIONS

For a cost effective approach to supply low voltage for recreational, lighting, light duty industrial and pool and spa applications or for a general purpose load including actuating relays, bells, control and low voltage circuits, these type 3R style encapsulated transformers are specifically designed for the following applications:

- General purpose applications used to adjust a supply voltage to match load equipment.
- Supplying machine tool circuits.
- Actuating relays, bells, signal and alarm systems.
- Operating small motors, valves and dampers.
- Industrial lighting and circuit isolation.
- Pool and spa (must be ordered in a type 4X stainless steel enclosure. Only available up to 1000VA as 60 Hz unit.)

HPS single phase encapsulated control transformers, with ratings from 50VA up to 5000VA in three voltage ratings, feature the newest technology and manufacturing processes.

LOW VOLTAGE LIGHTING TRANSFORMER STANDARD SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>15 to 333 kVA</th>
<th>15 to 1500 kVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL Listed</td>
<td>File: E50394</td>
<td>File: E50394</td>
</tr>
<tr>
<td>CSA Certified</td>
<td>File: LR3902</td>
<td>File: LR3902</td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Insulation System</td>
<td>130°C (80°C rise)</td>
<td>180°C (115°C rise)</td>
</tr>
<tr>
<td>Standard Design</td>
<td>Single phase, core construction made with high quality, high permeability silicon steel laminations. Computer designed coils are accurately wound from high quality copper magnetic wire.</td>
<td>Single phase, core construction made with high quality, high permeability silicon steel laminations. Computer designed coils are accurately wound from high quality copper magnetic wire.</td>
</tr>
<tr>
<td>Encapsulation</td>
<td>All units from 50VA to 5kVA are encapsulated with electrical grade silica sand and resin compounds.</td>
<td>All units from 50VA to 5kVA are encapsulated with electrical grade silica sand and resin compounds.</td>
</tr>
<tr>
<td>Enclosure Type</td>
<td>Heavy duty encapsulated type 3R optional type 4, 4X (stainless) &amp; 12 available</td>
<td>Heavy duty encapsulated type 3R optional type 4, 4X (stainless) &amp; 12 available</td>
</tr>
<tr>
<td>Termination</td>
<td>ANSI 61 Grey, UL50</td>
<td>ANSI 61 Grey, UL50</td>
</tr>
<tr>
<td>Conduit Knock-Outs</td>
<td>Side and rear standard on all units (no knock-outs on Stainless Steel enclosures).</td>
<td>Side and rear standard on all units (no knock-outs on Stainless Steel enclosures).</td>
</tr>
<tr>
<td>Mounting</td>
<td>Standard wall mounting.</td>
<td>Standard wall mounting.</td>
</tr>
</tbody>
</table>
## Single Phase Specification Tables

### Group A

**Primary Voltage:** 120/240

**Secondary Voltage:** 12/24

**VA** | **Catalog Number** | **Case Style** | **Approx. Dimensions (Inches)** | **Approx. Weight (Lbs.)** | **Mtg Type W - Wall** | **Wiring Diagram** (Page)
---|---|---|---|---|---|---
50 | QC05ERCB | NQ0 | 3.75 5.25 7.25 | 6 | W | SCD 1
100 | QC10ERCB | NQ0 | 3.75 5.25 7.25 | 7 | W | SCD 1
150 | QC15ERCB | NQ0 | 3.75 5.25 7.25 | 8 | W | SCD 1
200 | QC20ERCB | NQ1 | 4.50 5.75 7.25 | 11 | W | SCD 1
250 | QC25ERCB | NQ1 | 4.50 5.75 7.25 | 13 | W | SCD 1
350 | QC35ERCB | NQ1 | 4.50 5.75 7.25 | 14 | W | SCD 1
500 | QC50ERCB | NQ2 | 5.00 4.75 9.25 | 15 | W | SCD 1
750 | QC75ERCB | NQ2 | 5.00 4.75 9.25 | 18 | W | SCD 1
1000 | Q1C0ERCB | NQ3 | 5.88 5.50 10.50 | 25 | W | SCD 1
1500 | Q1C5ERCF | NQ4 | 7.00 6.50 11.75 | 36 | W | SCD 1
2000 | Q002ERCF | NQ4 | 7.00 6.50 11.75 | 46 | W | SCD 1
3000 | Q003ERCF | NQ5 | 10.00 7.75 17.25 | 65 | W | SCD 1
5000 | Q005ERCF | NQ5 | 10.00 7.75 17.25 | 105 | W | SCD 1

### Group B

**Primary Voltage:** 120/240

**Secondary Voltage:** 16/32

**VA** | **Catalog Number** | **Case Style** | **Approx. Dimensions (Inches)** | **Approx. Weight (Lbs.)** | **Mtg Type W - Wall** | **Wiring Diagram** (Page)
---|---|---|---|---|---|---
50 | QC05E5CB | NQ0 | 3.75 5.25 7.25 | 6 | W | SCD 1
100 | QC10E5CB | NQ0 | 3.75 5.25 7.25 | 7 | W | SCD 1
150 | QC15E5CB | NQ0 | 3.75 5.25 7.25 | 8 | W | SCD 1
200 | QC20E5CB | NQ1 | 4.50 5.75 7.25 | 11 | W | SCD 1
250 | QC25E5CB | NQ1 | 4.50 5.75 7.25 | 13 | W | SCD 1
350 | QC35E5CB | NQ1 | 4.50 5.75 7.25 | 14 | W | SCD 1
500 | QC50E5CB | NQ2 | 5.00 4.75 9.25 | 15 | W | SCD 1
750 | QC75E5CB | NQ2 | 5.00 4.75 9.25 | 18 | W | SCD 1
1000 | Q1C0E5CB | NQ3 | 5.88 5.50 10.50 | 25 | W | SCD 1
1500 | Q1C5E5CF | NQ4 | 7.00 6.50 11.75 | 36 | W | SCD 1
2000 | Q002E5CF | NQ4 | 7.00 6.50 11.75 | 46 | W | SCD 1
3000 | Q003E5CF | NQ5 | 10.00 7.75 17.25 | 65 | W | SCD 1
5000 | Q005E5CF | NQ5 | 10.00 7.75 17.25 | 105 | W | SCD 1

### Group C

**Primary Voltage:** 240/480

**Secondary Voltage:** 24/48

**VA** | **Catalog Number** | **Case Style** | **Approx. Dimensions (Inches)** | **Approx. Weight (Lbs.)** | **Mtg Type W - Wall** | **Wiring Diagram** (Page)
---|---|---|---|---|---|---
50 | QC05DTCB | NQ0 | 3.75 5.25 7.25 | 6 | W | SCD 1
100 | QC10DTCB | NQ0 | 3.75 5.25 7.25 | 7 | W | SCD 1
150 | QC15DTCB | NQ0 | 3.75 5.25 7.25 | 8 | W | SCD 1
200 | QC20DTCB | NQ1 | 4.50 5.75 7.25 | 11 | W | SCD 1
250 | QC25DTCB | NQ1 | 4.50 5.75 7.25 | 13 | W | SCD 1
350 | QC35DTCB | NQ1 | 4.50 5.75 7.25 | 14 | W | SCD 1
500 | QC50DTCB | NQ2 | 5.00 4.75 9.25 | 15 | W | SCD 1
750 | QC75DTCB | NQ2 | 5.00 4.75 9.25 | 18 | W | SCD 1
1000 | Q1C0DTCB | NQ3 | 5.88 5.50 10.50 | 25 | W | SCD 1
1500 | Q1C5DTCF | NQ4 | 7.00 6.50 11.75 | 36 | W | SCD 1
2000 | Q002DTCF | NQ4 | 7.00 6.50 11.75 | 46 | W | SCD 1
3000 | Q003DTCF | NQ5 | 10.00 7.75 17.25 | 65 | W | SCD 1
5000 | Q005DTCF | NQ5 | 10.00 7.75 17.25 | 105 | W | SCD 1

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