B413
COMPACT EMERGENCY LIGHTING EQUIPMENT

One-lamp emergency operation for 2-pin compact fluorescent lamps with integral starters

Product Summary

UL LISTED
Factory or Field Installation
(Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
200 - 625 Lumens

Full Warranty
2 Years (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
270 mA

AC Input Power Rating
3.5 Watts

Test Switch
Single Pole

Battery
High-Temperature, Maintenance-Free Nickel-Cadmium Battery
7- to 10-Year Life Expectancy

Battery Charging Current
270 mA

Recharge Time
24 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
0°C to +50°C
(32°F to 122°F)

Dimensions
9.4" x 2.4" x 1.5"
(238 mm x 60 mm x 38 mm)
2" (610 mm) Flex Conduit Each End
Mounting Center 8.9" (226 mm)

Weight
3.4 lbs. (1.5 kg)

APPLICATION

The B413 emergency ballast works in conjunction with an AC ballast to convert new or existing fluorescent fixtures into emergency lighting. The emergency ballast consists of a high-temperature nickel-cadmium battery, charger and electronic circuitry in one compact red case. The B413 can be used with most 5 - 13 W compact fluorescent lamps with integral starters, including (2-pin) twin or quad-tube compacts (see Table 1). If used with an emergency-only fixture, no AC ballast is necessary. The B413 is suitable for indoor and damp locations. It is not suitable for air handling heated air outlets or wet or hazardous locations. For information about specific lamp and ballast compatibility, please call the factory.

OPERATION

When AC power fails, the B413 switches to emergency mode, operating one lamp at a reduced lumen output for a minimum of 90 minutes. When AC power is restored, the B413 automatically returns to the charging mode.

INSTALLATION

The B413 does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot must be connected to the emergency ballast. The emergency ballast must be fed from the same branch circuit as the AC ballast. The B413 may be installed inside, on top of or remote from the fixture. The emergency ballast may be remotely installed up to half the distance the AC ballast manufacturer recommends remoting the AC ballast from the lamp or up to 50 feet, whichever is less. Installation is not recommended with fixtures where the ambient temperature may fall below 0° C. For simple visual inspection of the charging indicator light and easy operational testing, the test/monitor plate can be installed near the fixture wall switch. It may also be installed in the ceiling near the fixture to ensure an unobtrusive installation.

UL and CODE COMPLIANCE

The B413 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, “Emergency Lighting and Power Equipment,” and is UL Listed for factory or field installation. Emergency illumination exceeds the National Electrical Code (NEC), Life Safety Code (NFPA–LSC) and UL 90-minute requirements.
EMERGENCY ILLUMINATION
Depending upon the wattage and type of lamp, the B413 produces 200 - 625 lumens initial emergency light output. During emergency operation, one lamp is illuminated, even if installed with a multi-lamp AC ballast.

SPECIFICATION
Emergency lighting shall be provided by using a twin or quad-tube compact fluorescent fixture equipped with a B413 emergency ballast. The B413 shall consist of a high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one 9 3/8” x 2 3/8” x 1 1/2” red metal case with 2’ of flexible conduit at each end. A solid-state charging indicator light to monitor the charger and battery, a single-pole test switch and installation hardware shall be provided. The emergency ballast shall be capable of operating one _________ (wattage) [twin or quad] _________ (base, see Table 1) compact fluorescent lamp at _________ lumens (see Table 2) initial light output in the emergency mode for a minimum of 90 minutes. It shall be suitable for indoor and damp locations. The B413 shall have 3.5 Watts of input power and a 14.4 Watt-hour battery capacity and shall comply with emergency standards set forth by the current NEC. The emergency ballast shall be UL Listed and warranted for a full two years from date of purchase.

WARRANTY
Model B413 is warranted for two (2) full years from date of purchase. This warranty covers only properly installed Philips Bodine emergency ballast used under normal conditions. For the warranty period, Philips Emergency Lighting will, at its option, repair or replace without charge a defective emergency ballast, provided it is returned to the factory transportation prepaid and our inspection determines it to be defective under terms of the warranty. Repair or replacement, as stated above, shall constitute the purchaser’s exclusive warranty, which does not extend to transportation, installation, labor or any other charges; nor does it apply to any equipment of another manufacturer used in conjunction with the emergency ballast.

Table 1 - Lamp Compatibility

<table>
<thead>
<tr>
<th>LAMP</th>
<th>BASE</th>
<th>WATTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twin Tube</td>
<td>G23</td>
<td>5, 7, 9</td>
</tr>
<tr>
<td></td>
<td>G24d</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>G24c</td>
<td>13</td>
</tr>
<tr>
<td>Quad Tube</td>
<td>G23</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>G24c</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 2 - Initial Lumen Output

<table>
<thead>
<tr>
<th>LAMP</th>
<th>WATTAGE</th>
<th>LUMEN OUTPUT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twin Tube</td>
<td>13</td>
<td>625</td>
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<tr>
<td></td>
<td>9</td>
<td>475</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>300</td>
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<td>5</td>
<td>200</td>
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<td>Quad Tube</td>
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<td>525</td>
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<tr>
<td></td>
<td>9</td>
<td>425</td>
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</tbody>
</table>

*Initial Lumen Output

For the most current technical information and notices, please visit TechNotes on our website.