Champ VMV LED luminaires

The Champ VMV LED family
Champ® VMV LED luminaires are designed to provide full-spectrum, crisp, white light with custom IES Type I, III and V distribution. Nine versions of the VMV LED are available, providing ideal solutions for a wide range of applications.

Applications:
- For areas with mounting heights of up to 60 feet
- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, indoor/outdoor spotlighting, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Classified and hazardous locations

Features:
- Instant illumination and restrike
- Cold temperature operation/no warm-up required
- Option for redundancy in drivers with multiple series circuits connected to each driver to avoid complete loss of illumination
- Easy installation – compact modular fixture attaches onto existing Champ mounting module
- Energy-efficient technology – up to 77% energy savings over HID fixtures
- Contains no mercury or other hazardous substances
- Shock- and vibration-resistant solid state luminaires have no filaments or glass components that could break – greatly reduces the risk of premature failure
- Operating ambient: -40°C to 65°C (VMV3L-VMV11L models); -40°C to 55°C (VMV13L-VMV25L models)
- Up to 60,000 hours lifetime at 55°C
- 5 year fixture warranty
- Dimmable driver standard

Certifications and compliances:
- DesignLights Consortium® Qualified (some models are not DLC qualified)
  - NEC/CEC:
    - Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, nA; Class II, Groups E, F, G; Class III
    - Zone 2 tb
    - Simultaneous Presence
    - Wet locations, NEMA 4X, IP66
  - UL standards:
    - UL844; UL1598 – Luminaires; UL1598A – Marine; UL8750; UL50; UL50E
  - CSA standard:
    - cUL Listed to CSA standard CSA C22.2 No. 137
  - IEC:
    - II 3 G Ex na IIC T* Gc -40 to +40
    - II 3 G Ex na IIC T* Gc -40 to +55
    - II 3 G Ex na IIC T* Gc -40 to +65
    - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +40
    - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +55
    - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +65
    - VMV3L-VMV11L only
      - DEMKO 13 ATEX 1475031X; DEMKO 13 ATEX 1305741X
    - VMV13L-VMV25L only
      - DEMKO 14 ATEX 1324722X; DEMKO 14 ATEX 2274231X
  - ATEX/CE:
    - II 3 G Ex na IIC T* Gc -40 to +40
    - II 3 G Ex na IIC T* Gc -40 to +55
    - II 3 G Ex na IIC T* Gc -40 to +65
    - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +40
    - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +55
    - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +65
    - VMV3L-VMV11L only
      - DEMKO 13 ATEX 1475031X; DEMKO 13 ATEX 1305741X
    - VMV13L-VMV25L only
      - DEMKO 14 ATEX 1324722X; DEMKO 14 ATEX 2274231X

Photometrics:
- Complete photometrics can be found at www.crouse-hinds.com/photometrics

<table>
<thead>
<tr>
<th>Model</th>
<th>Typical lumens (Type V)</th>
<th>Watts</th>
<th>Lumens per watt</th>
<th>Equivalent HID luminaire</th>
<th>Typical energy savings / lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMV3L</td>
<td>3,531</td>
<td>29</td>
<td>122</td>
<td>70W-100W</td>
<td>Up to 77%</td>
</tr>
<tr>
<td>VMV5L</td>
<td>5,265</td>
<td>41</td>
<td>129</td>
<td>100W-150W</td>
<td>Up to 67%</td>
</tr>
<tr>
<td>VMV7L</td>
<td>7,120</td>
<td>54</td>
<td>131</td>
<td>150W-175W</td>
<td>Up to 67%</td>
</tr>
<tr>
<td>VMV9L</td>
<td>8,134</td>
<td>74</td>
<td>124</td>
<td>250W-320W</td>
<td>Up to 74%</td>
</tr>
<tr>
<td>VMV11L</td>
<td>11,034</td>
<td>89</td>
<td>123</td>
<td>320W-400W</td>
<td>Up to 74%</td>
</tr>
<tr>
<td>VMV13L</td>
<td>13,226</td>
<td>130</td>
<td>102</td>
<td>400W</td>
<td>Up to 88%</td>
</tr>
<tr>
<td>VMV17L</td>
<td>18,793</td>
<td>168</td>
<td>112</td>
<td>400W-600W</td>
<td>Up to 72%</td>
</tr>
<tr>
<td>VMV21L</td>
<td>22,110</td>
<td>196</td>
<td>119</td>
<td>500W-750W</td>
<td>Up to 74%</td>
</tr>
<tr>
<td>VMV25L</td>
<td>26,531</td>
<td>222</td>
<td>114</td>
<td>750W-1000W</td>
<td>Up to 77%</td>
</tr>
</tbody>
</table>

Certifications and compliances (continued):

- IECEx/ATEX/CE:
  - II 3 G Ex na IIC T* Gc -40 to +40
  - II 3 G Ex na IIC T* Gc -40 to +55
  - II 3 G Ex na IIC T* Gc -40 to +65
  - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +40
  - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +55
  - II 2 D Ex tb IIIC T*°C Db IP66 -40 to +65
  - VMV3L-VMV11L only
    - DEMKO 13 ATEX 1475031X; DEMKO 13 ATEX 1305741X
  - VMV13L-VMV25L only
    - DEMKO 14 ATEX 1324722X; DEMKO 14 ATEX 2274231X

Standard materials:
- Lamp housing and adapter – die cast aluminum with Corro-free epoxy powder coat
- Lens – heat- and impact-resistant glass
- Gaskets – silicone
- External hardware – stainless steel
- Factory sealed, no external seals required

Photometrics:
- Complete photometrics can be found at www.crouse-hinds.com/photometrics

**Tolerance +/- 10%.
**Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.
**VMV3L-VMV11L rated to +65°C; VMV13L-VMV25L rated to +55°C.

*See temperature code table on following page.
**LED system:**
- High intensity discrete power emitters
- Cool white (5000K, 70 CRI) (standard); warm white (3000K, 80 CRI) or neutral white (4000K, 70 CRI) (optional)
- Custom Type I, III and V optics available
- Optics clocking in field to align Type I and Type III light patterns to illumination path for VMV13L-VMV25L

**Drivers:**

<table>
<thead>
<tr>
<th>Option</th>
<th>Voltage: VMV3L-VMV25L</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNV1</td>
<td>120-277 VAC, 50/60 Hz; 108-250 VDC, 50/60 Hz</td>
</tr>
<tr>
<td>UNV34</td>
<td>347-480 VAC, 50/60 Hz</td>
</tr>
</tbody>
</table>

**Colored LED options:**
- Available in green and amber
- Reduction in light pollution for night space observation and sky glow due to isolating blue wavelength in red and amber colors
- Wildlife-friendly
- Improves visibility for telescopes in observatories during night sky space exploration

**Custom optics:**
Three optical options to maximize light distribution and intensity:

**TYPE I**
Long and rectangular for hallways, walkways, loading docks, catwalks.
Ideal for:
- Mining conveyor belts
- Aisleways and hallways
- Catwalks and walkways
- Ramps and loading docks
- Tunnels with overhead mounts

**TYPE III**
Stanchion and wall mount light distribution, minimizing spillover on the wall.
Ideal for:
- Narrow crosswalks or passages with wall mounted fixtures
- Tunnels with wall mount
- Wall or stanchion mount requiring 180° forward throw beam patterns

**TYPE V**
Regular circular distribution pattern for high/low bay indoor and outdoor ceiling or pendant mount lighting.
Ideal for:
- Pendant, ceiling or stanchion mount overhead building mounts
- Processing mills, industrial plants, large buildings, warehouses, etc.

**Electrical ratings:**

<table>
<thead>
<tr>
<th>Lamp / lumen output</th>
<th>Driver type</th>
<th>Ambient temp. °C</th>
<th>Class I, Div. 2</th>
<th>Class II, Div. 1</th>
<th>Simultaneous rating</th>
<th>Class I, Zone 2</th>
<th>AEx nA; Ex nA</th>
<th>Zone 21, AEx tb IIIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2L 3L 5L 7L 9L 11L</td>
<td>UNV1</td>
<td>40</td>
<td>15</td>
<td>15</td>
<td>13A</td>
<td>15</td>
<td>15</td>
<td>121°C</td>
</tr>
<tr>
<td>3L 5L 7L 9L 11L</td>
<td>UNV1</td>
<td>65</td>
<td>14A</td>
<td>14A</td>
<td>13A</td>
<td>14</td>
<td>14</td>
<td>192°C</td>
</tr>
<tr>
<td>3L 5L 7L 9L 11L</td>
<td>UNN34</td>
<td>40</td>
<td>13C</td>
<td>15</td>
<td>13C</td>
<td>14</td>
<td>14</td>
<td>170°C</td>
</tr>
<tr>
<td>3L 5L 7L 9L 11L</td>
<td>UNN34</td>
<td>55</td>
<td>13A</td>
<td>14A</td>
<td>13A</td>
<td>14</td>
<td>14</td>
<td>185°C</td>
</tr>
<tr>
<td>2L 3L 5L 7L 9L 11L</td>
<td>UNN34</td>
<td>65</td>
<td>13A</td>
<td>14A</td>
<td>13A</td>
<td>14</td>
<td>14</td>
<td>192°C</td>
</tr>
<tr>
<td>13L 17L</td>
<td>UNV1/UNN34</td>
<td>40</td>
<td>14A</td>
<td>15</td>
<td>14A</td>
<td>16</td>
<td>16</td>
<td>166°C</td>
</tr>
<tr>
<td>13L 17L</td>
<td>UNN34</td>
<td>55</td>
<td>14</td>
<td>14A</td>
<td>14</td>
<td>15</td>
<td>15</td>
<td>181°C</td>
</tr>
<tr>
<td>2L 25L</td>
<td>UNV1/UNN34</td>
<td>40</td>
<td>14A</td>
<td>15</td>
<td>14A</td>
<td>16</td>
<td>16</td>
<td>171°C</td>
</tr>
<tr>
<td>2L 25L</td>
<td>UNN34</td>
<td>55</td>
<td>14</td>
<td>14A</td>
<td>14</td>
<td>15</td>
<td>15</td>
<td>186°C</td>
</tr>
</tbody>
</table>

*Custom optics not available with colored LEDs.*
## Champ VMV LED luminaires

### Ordering information:

Part number example: VMV17LW2AR1G/UNV1 S890

### VMV 17L W 2A R1 G /UNV1 S890

<table>
<thead>
<tr>
<th>Lamp / function</th>
<th>3L</th>
<th>5L</th>
<th>7L</th>
<th>9L</th>
<th>11L</th>
<th>13L</th>
<th>17L</th>
<th>21L</th>
<th>25L</th>
<th>GL</th>
<th>AL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,531 lumens LED</td>
<td>5,296 lumens LED</td>
<td>7,120 lumens LED</td>
<td>9,134 lumens LED</td>
<td>11,034 lumens LED</td>
<td>13,226 lumens LED</td>
<td>18,793 lumens LED</td>
<td>22,110 lumens LED</td>
<td>26,531 lumens LED</td>
<td>Green (4,300 lumens LED)</td>
<td>Amber (5,000 lumens LED)</td>
<td></td>
</tr>
</tbody>
</table>

### Color temperature

- BLANK: Cool (5000K) or colored
- N: Neutral (4000K)
- W: Warm (3000K)

Consult factory for additional color temperature options.

### Mounting style

- BLANK: No cover
- J: 1-1/2” stanchion, 25° angled
- P: 1-1/2” stanchion, straight
- 2A: 1/4” pendant
- 3A: 1” pendant
- 20A: 20mm pendant
- 25A: 25mm pendant
- 2B: 1/4” cone pendant
- 3B: 1” cone pendant

<table>
<thead>
<tr>
<th>Mounting style</th>
<th>2C</th>
<th>3C</th>
<th>20C</th>
<th>25C</th>
<th>2HA</th>
<th>2TW</th>
<th>3TW</th>
<th>20TW</th>
<th>25TW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4” ceiling</td>
<td>1” ceiling</td>
<td>20mm ceiling</td>
<td>25mm ceiling</td>
<td>¼” flexible pendant</td>
<td>¼” wall</td>
<td>1” wall</td>
<td>20mm wall</td>
<td>25mm wall</td>
<td></td>
</tr>
</tbody>
</table>

### Voltage

- /UNV1: 120-277 VAC, 50/60 Hz; 108-250 VDC, 50/60 Hz
- /UNV34: 347-480 VAC, 50/60 Hz

### Guard

- BLANK: No guard
- G: P3001 wire guard (3L-11L) P3002 wire guard (13L-25L)

### Options

- S812: Trunnion mount kit with pin
- S831: Safety cable
- S890: Quick-Clip
- S891: Diffused lens
- S892: Redundant driver
- S896: Teflon coated lens
- S903: Polycarbonate lens
- TB6: Six-pole terminal block
- BR: Certified for Brazil, INMETRO

### Accessory options

**Description**

- Photocell, 120V, 50/60 Hz
- Photocell, 208-277V
- Trunnion mount kit with pin
- Wire guard with captive mounting hardware (3L-11L)
- Wire guard with captive mounting hardware (13L-25L)
- Top hat adapter

**Cat. #**

- D2S208 277
- VMVL S812 K1
- P3001
- P3002
- CHMM1

**For retrofitting Appleton® MercMaster III top hats to Champ VMV luminaires**

1. Custom optics not available with colored LEDs.
2. For VMV3L-VMV11L only.
3. Order with ceiling mount only.
4. Not available for IEC.
5. Available for VMV9L and VMV7L only. Redundant driver standard on VMV9L-VMV25L models. 7L = 6,616 lumens with S892 suffix.
Champ VMV LED luminaires

Dimensions – 3L-11L:

Stanchion - 25° angled

Pendant

Wall

Cone pendant

Trunnion

Bracket for wall mount or SPA diphitter

2X top hat

2X top hat mounting hardware

2X trunnion rotation hardware

UL/cUL Listed
IECEx/ATEX/CE
Wet Locations
NEMA 4X; IP66

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2, nA
Cl. II, Groups E, F, G
Cl. III & Simultaneous Presence
Champ VMV LED luminaires

Dimensions – 13L-25L:

**Ceiling**
Top view: 13L-25L

13L & 17L

21L & 25L

**Pendant**
Top view: 13L-25L

13L & 17L

21L & 25L

**Cone pendant**
Top view: 13L-25L

13L & 17L

21L & 25L

**Stanchion**
Top view: 13L-25L

13L & 17L

21L & 25L

**Wall**
Top view: 13L-25L

13L & 17L

21L & 25L

**Trunnion**

13L & 17L

21L & 25L

UL/cUL Listed
IECEx/ATEX/CE
Wet Locations
NEMA 4X; IP66

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2, nA
Cl. II, Groups E, F, G
Cl. III & Simultaneous Presence
Champ VMV LED luminaires

**Family tree:**

- **Pendant**
  - APM2
  - APM3
  - HPM2
- **Cone**
  - BPM2
  - BPM3
- **Ceiling**
  - CM2
  - CM3
- **Wall**
  - TWM2
  - TWM3
- **Stanchion**
  - JM5
  - PM5

**Net luminaire weights:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Lbs.</th>
<th>Kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMV3L-VMV11L</td>
<td>20.80</td>
<td>9.43</td>
</tr>
<tr>
<td>VMV13L &amp; VMV17L</td>
<td>36.00</td>
<td>16.32</td>
</tr>
<tr>
<td>VMV21L &amp; VMV25L</td>
<td>44.00</td>
<td>19.95</td>
</tr>
</tbody>
</table>

- **Add mounting modules:**
  - Pendant: 1.25 / 0.57
  - Cone pendant: 4.00 / 1.81
  - Flexible pendant: 1.50 / 0.68
  - Ceiling: 2.75 / 1.25
  - Wall: 4.50 / 2.04
  - Angled stanchion: 3.50 / 1.60
  - Straight stanchion: 4.50 / 2.04

- Angled stanchion for VMV3L-VMV11L models only.

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2, nA
Cl. II, Groups E, F, G
Cl. III & Simultaneous Presence
UL/cUL Listed
IECEx/ATEX/CE
Wet Locations
NEMA 4X; IP66