Edge Lighting

3flex™

Solution Document

Introduction

- Expected Life of the LED 50,000+ hours to 70% of its original brightness (about 7-10 yrs)
- Proprietary Edge Lit design with White or RGB 3flex LED’s
- White is 4000K, optional dimming available
- RGB (Red, Green, Blue) allows any color with different controls available
- Indoor use, dry location
- SGS listed conforming to UL Standards 2108 & 8750 and CSA standard 22.2

For more information, please visit 3-form.com or call 800.726.0126

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Specifications

LEDs

<table>
<thead>
<tr>
<th>Part Number</th>
<th>LEDs</th>
<th>Watts/ Foot</th>
<th>LEDs/ Foot</th>
<th>Beam Angle</th>
<th>Volts</th>
<th>Can Be Cut Every</th>
<th>Max Run Length For Class 2 Electrical Rating</th>
<th>Flexible Strip Width</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-60-2275</td>
<td>4000K Color Temp</td>
<td>9.6 W</td>
<td>12</td>
<td>120°</td>
<td>24VDC</td>
<td>3&quot;</td>
<td>10'</td>
<td>.394&quot; (10mm)</td>
<td>795 Lumens/ft</td>
</tr>
<tr>
<td>3-60-2276</td>
<td>Tri-Color RGB</td>
<td>6.6 W</td>
<td>18</td>
<td>120°</td>
<td>24VDC</td>
<td>4&quot;</td>
<td>12'</td>
<td>.720&quot; (18.3mm)</td>
<td>Requires RGB Controller</td>
</tr>
</tbody>
</table>

For both White and RGB 3flex: Use thermal transfer tape for easy mounting. Must be mounted to 3form provided or approved heat sink. Wire leads solder mounted at either end of strip. Indoor use only.

Power and Electrical

The Countertop and the Fin come with a 16' long 4-pin cable with connector. A mating 16’ cable is also supplied to connect to the RGB controller, dimmer, or power supply. This allows remote mounting of the power supply and controller up to 32’ away. If additional length is needed, 14AWG wires can be added by the electrician to extend this length up to 50’. The same cable is used for both White and RGB options. See wiring diagrams on pages 9 through 12 for appropriate wire connections.

A 24 VDC, 100 Watt Power Supply is used for standard Class 2 low voltage operation. Each 100 Watt Power Supply will power up to 10’ of White or 12’ of RGB 3flex in either the Fin or Countertop.

Drivers - White

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Dimensions</th>
<th>Input Voltage</th>
<th>Input Current</th>
<th>Output Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-60-497</td>
<td>0-10V Slide Control Wall Dimmer</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3-60-765</td>
<td>96W Dimmable Power Supply</td>
<td>11.7”×2.36”×1.4”</td>
<td>120-277VAC</td>
<td>.8/.35</td>
<td>96</td>
<td>24</td>
<td>4</td>
</tr>
</tbody>
</table>

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Specifications

Drivers - RGB

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Dimensions</th>
<th>Input Voltage</th>
<th>Input Current</th>
<th>Output Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-60-001</td>
<td>9 Channel PWM DMX Interface</td>
<td>4.21&quot;x2.99&quot;x2.32&quot;</td>
<td>12-48VDC</td>
<td>-</td>
<td>-</td>
<td>12-48</td>
<td>2 amps/Ch</td>
</tr>
<tr>
<td>3-60-510</td>
<td>Light Drive RGB DMX Wall Control</td>
<td>3.94&quot;x6.7&quot;x1.77&quot;</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3-60-723</td>
<td>480W Power Supply</td>
<td>3.37&quot; Wx4.93&quot; Tx5.06&quot; D</td>
<td>115/230</td>
<td>5A/25A</td>
<td>480</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>3-60-724</td>
<td>185W Power Supply</td>
<td>9.00&quot; Lx2.68&quot; Wx1.53&quot; T</td>
<td>115/230/277</td>
<td>1.8/.8/.7</td>
<td>185</td>
<td>24</td>
<td>7.8</td>
</tr>
<tr>
<td>3-60-725</td>
<td>Din Rail 39&quot;</td>
<td>For use with 3-60-001 and 3-60-723</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes:

For larger installations, the 185W (3-60-724) or 480W (3-60-723) Power Supplies can be used with the 9-Channel Interface (3-60-001) and 3-60-510 Wall Controller.

The 9 Channel Interface can alternately be controlled by an external DMX signal or controller.
Solution 1
RTG 300.36.02.OI
300.36.02.HF
Plank Fin

Dimensions
Base profile is 2\(\frac{3}{4}\)” x 2\(\frac{1}{2}\)”
Minimum length is 12”
Maximum length is 120”

Fin material available in \(\frac{1}{2}\)” or 1” gauge
Maximum recommended width with 1” gauge material is 18”
Maximum recommended width with \(\frac{1}{2}\)” gauge material is 14”
Minimum recommended width is 4”

Weight
Base (not including the panel) is 1.25 lbs/linear foot
\(\frac{1}{2}\)” gauge Chroma panel is 3.1 lb/ft2
1” gauge Chroma panel is 6.2 lb/ft2

Example: 1” gauge Chroma Fin 8’ long x 18” wide (1.25*8 + 8*1.5*6.2) is 84.4 lbs.
Solution 2
RTG 300.37.02
Knife Fin

Dimensions
Base profile is 2¼" × 2¼"
Minimum length is 12"
Maximum length is 120"

Fin material available in ½" or 1" gauge
Maximum recommended width is 12"
Minimum recommended width is 4"
No more than 10lbs/ft on shelf when anchored into a solid substrate such as concrete or wood blocking

Weight
Base (not including the panel) is 1.25 lbs/linear foot
½" gauge Chroma panel is 3.1 lb/ft²
1" gauge Chroma panel is 6.2 lb/ft²

Example: 1" gauge Chroma Fin 8' long × 18" wide (1.25*8 + 8*1.5*6.2) is 84.4 lbs.
Solution 3
RTG 500.04.02
Fin Shelf

Dimensions
Base profile is 2¾" × 2½"
Minimum length is 12"
Maximum length is 120"

Fin material available in ½" or 1" gauge
Maximum recommended width is 12"
Minimum recommended width is 4"
No more than 10lbs/ft on shelf when anchored into a solid substrate such as concrete or wood blocking

Weight
Base (not including the panel) is 1.25 lbs/linear foot
½" gauge Chroma panel is 3.1 lb/ft²
1" gauge Chroma panel is 6.2 lb/ft²

Example: 1" gauge Chroma Fin 8' long × 18" wide (1.25*8 + 8*1.5*6.2) is 84.4 lbs.
Solution 4

RTG 600.17.02.OI
600.17.02.TI

Countertop

Dimensions

Countertop available in 1" or 2" gauge Chroma

Maximum Countertop width for 1" gauge is 24"  
Maximum Countertop width for 2" gauge is 30"

Maximum Countertop length is 120"

Countertops can be butted or field seamed for continuous length.  
Specify left or right side cable exit for each Countertop section.

Weight

LED Channel (not including the panel) is .25 lbs/linear foot

1" gauge Chroma panel is 6.2 lb/ft²  
2" gauge Chroma panel is 12.4 lb/ft²

Example: 1" gauge Chroma Countertop 8' long x 24" wide (.25*8 + 8*2*6.2) is 101.2 lbs.
The Fin will come assembled from the factory. The cover extrusions may be shipped loose or installed at the factory. If they are installed you will need to remove them to fasten the Fin to the wall. Remove the top end cap and slide a screwdriver or thin rod between the cover and base near the top. Pry outward to snap off covers.

The Chroma Fin may be removed for installation to prevent scratching or damage if desired. Remove the nuts and bolts fastening the Fin and pull it out of the channel.

Mounting holes are not pre-drilled at the factory in the base extrusion. This will allow hole placement to match structure on site such as studs or furring strips. Drill ¼" diameter holes on both sides of base extrusion along drill guide lines. Holes should be spaced no more than 30" apart and no more than 12" in from the top/bottom.

Fasten the Fin to the wall using appropriate anchors for the substrate. Recommend ⅜" x 1½" long wood screws for wood and ⅛", ⅛", or M6 anchors for concrete or cement.

Re-install Chroma Fin if it was removed and snap the cover extrusions in place.

Connect cable to power supply or controller (See wiring diagrams on pages 9 through 12).
Installation

RTG  600.17.02.OI
600.17.02.TI

Countertop

The LED lighting will come fully assembled from the factory. The LED channel is partially recessed into a routed groove on the bottom of the counter and held in place with double side VHB tape.

The LED's are rated for 50K hours and should not require maintenance, but it is important to consider access to the channel in case of premature failure or connection issues.

It is recommended to allow the countertop to overhang the millwork by 2¼” on the channel side. This will allow ventilation of the channel to maximize the life of the LED’s. It will also allow access if any maintenance is required.

If no overhang is desired, there should be at least 2” of airspace around the channel for heat dissipation.

The channel can be removed if necessary by sliding a thin knife along the outer edge to cut through the center of the foam tape. Then the channel can be pulled out of the countertop. New tape will be required to re-install the channel.

Installation of the countertop is fairly simple. The countertop can be placed on top of the counter or millwork. It can be secured with VHB tape or structural silicone if required.
Installation

Wiring Diagram for White 3flex - No Dimming

Wiring Diagram for White 3flex - with Dimming <=100W

Note: Wiring is as shown unless shown differently on 3form Lighting Layout Drawing

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Installation

Wiring Diagram for White 3flex - with Dimming 100-1200W

Note: Wiring is as shown unless shown differently on 3form Lighting Layout Drawing
Installation

Wiring Diagram for 12’ RGB 3flex

With 9-Channel Interface (3-60-001) and Wall Control (3-60-510) max 100W or 12’ RGB 3flex length

Multiple 9-Channel interfaces can be controlled by one Light Drive wall control. They can be daisy chained with CAT V cable to the DMX in/out ports with a simple RJ45 plug in connector.
Installation

Wiring Diagram for 36' RGB 3flex

With 9-Channel Interface (3-60-001) and Wall Control (3-60-510) max 300W or 36' RGB 3flex length (3 runs of 12' each)

Multiple 9-Channel interfaces can be controlled by one Light Drive wall control. They can be daisy chained with CAT V cable to the DMX in/out ports with a simple RJ45 plug in connector.
Dimensions

3-60-765 - Dimmable Power Supply

3-60-001 - 9 Channel PWM DMX Interface
Dimensions and Operating Instructions
3-60-510 - Light Drive RGB - DMX Wall Control

160mm / 6.3"
80mm / 3.15"

*See the Light Drive Manual for further details
Dimensions

3-60-723 - 480W Power Supply

3-60-724 - 185W Power Supply