## HP 2-4-6

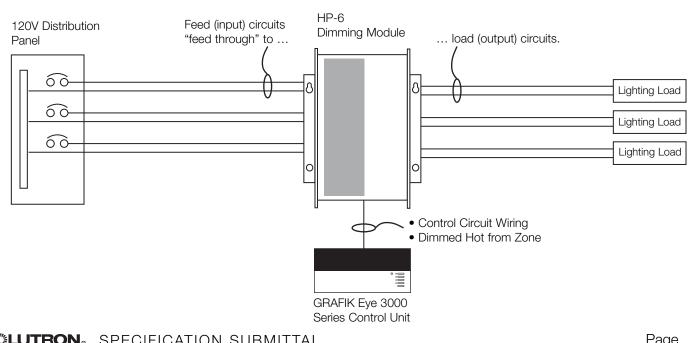
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# **Hi-Power Dimming Module System**



#### Description

- Used to dim or switch heavily loaded zones. Allows a wall dimmer or one zone on a GRAFIK Eye 3000 Series Control Unit to control loads of up to 30,000W/VA.
- Dims or switches most popular lighting sources and load types.
- Available in one, two, and three-circuit Dimming Modules. Up to five Modules may be linked to obtain the necessary load capacity.
- Accepts either 120V or 277V input power. Not compatible with 220-240V, 230V, or 100V input power.
- Control using GRAFIK Eye 3000 Series Control Units, Lutron Wallbox Controls, Spacer System, or any incandescent dimmer or Class 2 momentary contact raise/lower control.
- Allows control of 277V loads using a 120V lighting control.



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#### **Typical Three-Circuit Dimming Module**

# HP 2-4-6

# **Specifications**

### Power

- Input power: 120V or 277V, 50/60Hz, phase-to-neutral.
- Load (output) circuits: 120V or 277V, 50/60Hz, any phase.

## **Adjustable Settings**

- High-end trim reduces expensive relamping of incandescent/halogen sources.
- Provides raise/lower and "full on" functions when used with external momentary contact switches.
- Provides adjustable fade rate when used with Class 2 raise/lower control.

### Weight

15 lbs. (6.8kg)

#### Mounting

Surface mount indoors only. Allow space for ventilating 200 BTUs/hour per load (output) circuit.

#### Environment

32-104°F (0-40°C). Non-condensing relative humidity less than 90%.

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# Models, Sources, and Capacities

- All Dimming Modules accept either 120V or 277V input power. Do not mix voltages in the same Module.
- Each load circuit on HP-4 and HP-6 Dimming Modules can have different sources. Do not mix sources on the same load circuit.
- Up to five Modules may be linked to obtain the necessary load capacity.
- Do not use the HP Dimming Module with Capacitive Fluorescent Ballasts.

Model Number	Number of Circuits
HP-2	1
HP-4	2
HP-6	3

# Load Capacity per Circuit - Dimmed or Switched

(Not to exceed N.E.C. capacity rating; control voltage is always 120V)

Source	Dimmed (120V)	Switched (120V)	Dimmed (277V)	Switched (277V)
Incandescent	16A, 2000W/VA <sup>1</sup>	10A, 1200W/VA	-	-
Electronic Low Voltage <sup>2</sup>	16A, 2000W/VA <sup>1</sup>	10A, 1200W/VA	-	-
Magnetic Low Voltage	16A, 2000W/VA <sup>1</sup>	10A, 1200W/VA	16A, 4432W/VA	-
Fluorescent (Hi-Lume/Compact SE/Eco-10)	16A, 2000W/VA <sup>1</sup>	16A, 1920W/VA	16A, 4432W/VA	-
Fluorescent (Tu-Wire)	16A, 2000W/VA <sup>1</sup>	16A, 1920W/VA	-	-
Fluorescent (magnetic ballasts)	-	16A	-	-
Fluorescent (electronic ballasts)	-	10A	-	-
Neon/Cold Cathode	16A, 2000W/VA <sup>1</sup>	10A, 1200W/VA	-	-
High-Intensity Discharge	-	10A, 1200W/VA	-	-

<sup>1</sup> Measured current will not exceed continuous load rating due to voltage drop in the dimmer.

<sup>2</sup> Requires electronic low voltage transformer approved for use with forward phase control dimmers.

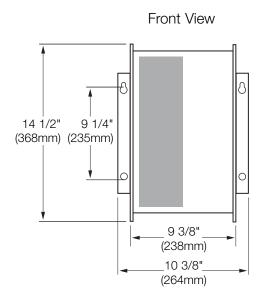
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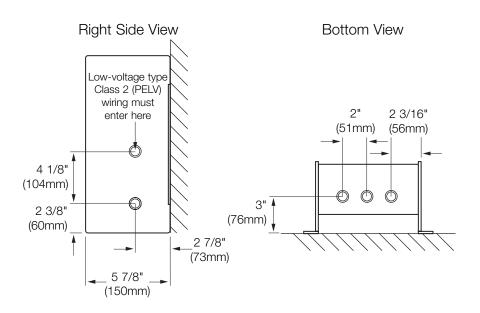
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# **Dimensions**



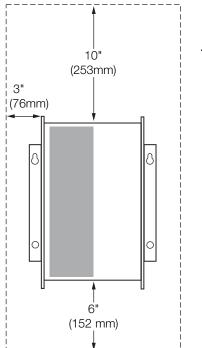


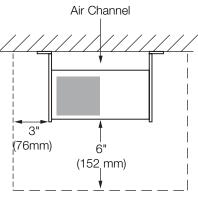
# Mounting

- Surface mount indoors.
- Dimming Module generates heat; mount only where ambient temperature is 32-104°F (0-40°C).
- Provide proper space for cooling or the warranty will be void. Leave 6" (152mm) of clearance in front of the Module. Do not block the air channel between the back of the Module and the wall. The space between panels may be reduced to 4.5" (114mm) when mounting several Modules in a vertical layout.
- Mount Modules where audible noise is acceptable. (Modules hum slightly and relays click.)
- Mount Modules so line (mains) voltage wiring is at least 6 feet (1.8m) from sound or electronic equipment and wiring.
- Mount Modules within 7° of true vertical.

Module	Maximum BTUs/Hour	Weight (Without Packaging)
HP-2	200	11 lbs. (5.0kg)
HP-4	400	13 lbs. (5.9kg)
HP-6	600	15 lbs. (6.8kg)

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# **Prewiring Overview**

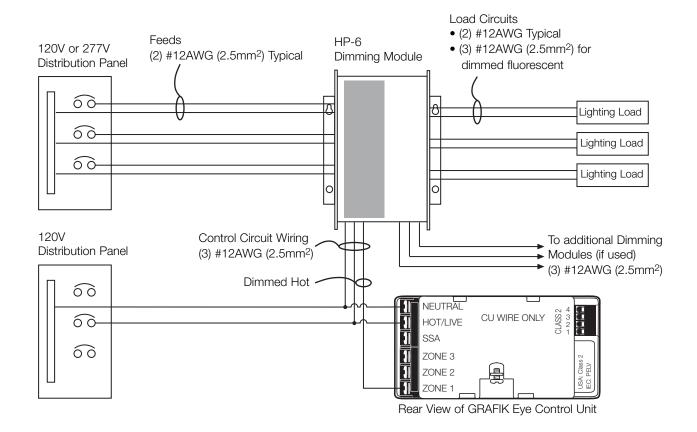
- Each terminal accepts two #12 AWG (2.5mm<sup>2</sup>) wires.
- Each load circuit on HP-4 and HP-6 Dimming Modules can have different sources. Do not mix sources on the same load circuit.
- Do not use with generator-supplied power.

# Feed Wiring

- Pull dedicated feeds from distribution panel to Dimming Module(s): one feed for HP-2, two feeds for HP-4, three feeds for HP-6.
- Run separate neutrals for each feed no common neutrals.



Load circuit terminals have factory-installed bypass jumper(s) between the H (Hot), SH (Switched Hot), and DH (Dimmed Hot) terminals of each load circuit. Do not remove jumpers until installation is complete and load circuit is cleared of miswires/overloads.



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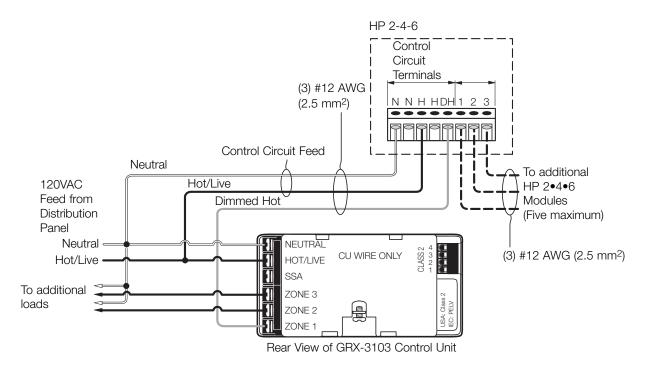
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# **GRAFIK Eye Control Unit Wiring**

- Connect the GRAFIK Eye Control Unit to the first Dimming Module used in the zone.
- Use two #12AWG (2.5mm<sup>2</sup>) wires to connect the Control Unit's feed to the Dimming Module's control circuit. This allows Dimming Modules to draw 40W/VA power for internal operations.
- Use one #12AWG (2.5mm<sup>2</sup>) wire to carry the zone's dimmed (or switched) hot signal from the Control Unit to the Dimming Module. This allows the Control Unit to control the lighting loads.
- Make sure the power for the control circuit is 120V and on the same phase as the GRAFIK Eye Control Unit.
- Make sure the Control Unit's feed can support all the Dimming Modules drawing off it. Each HP 2-4-6 Dimming Module draws approximately 0.1A of current.
- Use a separate raceway. Do not mix control circuit wiring with feed or load wiring.



## Module-to-Module Wiring

- Pull three #12AWG (2.5mm<sup>2</sup>) wires between the Dimming Modules to be used on a zone.
- Modules must be daisy-chained.

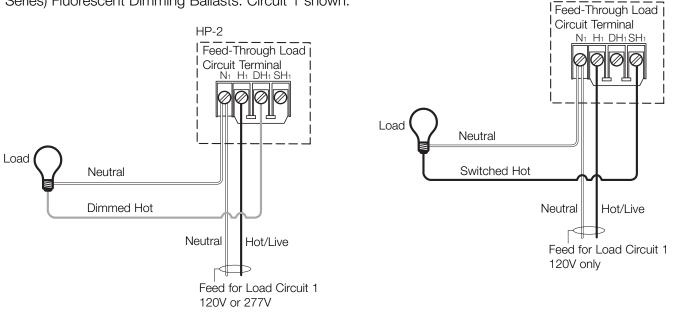
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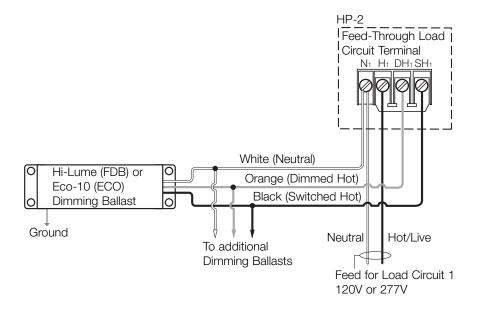
# **Typical Load Circuits**

## 120V or 277V Dimmed Load Circuits

All load types except Lutron Hi-lume<sub>®</sub> or Eco-10™ (Eco Series) Fluorescent Dimming Ballasts. Circuit 1 shown.



Hi-lume<sub>®</sub> and Eco-10<sup>™</sup> (Eco Series) Fluorescent Dimming Ballasts



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## **120V Switched Load Circuits**

HP-2