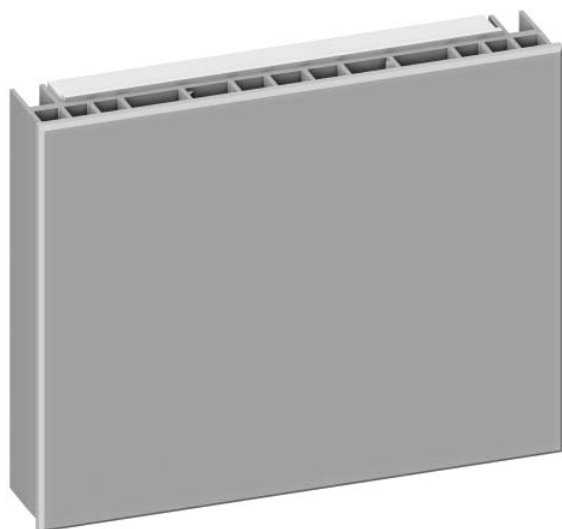


Phase-Adaptive Power Module



Description

- Provides capability for a zone on a *GRAFIK Eye* control unit (or other product) to dim a fully loaded circuit of lighting.
- May be used to control incandescent, electronic low-voltage, magnetic low-voltage, and neon/cold cathode lighting sources, as well as Lutron Tu-Wire® fluorescent dimming ballasts.
- Automatically selects leading-edge or trailing-edge dimming for low-voltage transformers.
- Provides power and dimming for one zone.
- Up to 3 power modules may be wired on a single *GRAFIK Eye* zone.
- Models available for 120 V~ control power.
- Models available for 120 V~ or 120 - 277 V~ load power.
- Not for use with non-dim loads.

Works with:

- *GRAFIK Eye* QS control units
- *GRAFIK Eye* 3000 Series control units
- LP dimming panels
- HomeWorks® remote power panels

Model and Capacities

Control Power	Load Power	Capacity	Model Number
120 V~	120 - 277 V~	16 A	PHPM-PA-DV-WH
120 V~	120 V~	16 A	PHPM-PA-120-WH

Job Name:	Model Numbers:
Job Number:	

Specifications

Power

- Control / load power:
120 V \sim / 120 V \sim
120 V \sim / 120 - 277 V \sim
50 / 60 Hz, phase-to-neutral.
- Load (output) power: Phase independent of control unit.

Sources/Load Types

- Operates these sources with a smooth continuous Square Law dimming curve:
 - Incandescent (tungsten)
 - Halogen
 - Magnetic low-voltage transformer (iron core)
 - Electronic (solid-state) low-voltage transformer (must be manufacturer approved for reverse-phase control dimming).
 - Lutron Tu-Wire® electronic fluorescent dimming ballast
 - Neon/cold-cathode
- Incandescent and electronic low-voltage sources may be controlled on the same zone. Up to 30% of the unit's capacity may be used for incandescent lighting.
- Not for use with non-dim loads. Use switching power module for non-dim loads.
- Minimum load on power module is 10 W.

Key Design Features

- Automatically selects between forward phase/leading edge (e.g., magnetic low-voltage) and reverse phase/trailing edge (e.g., electronic low-voltage) dimming based on load.
- Patented RTISS™ circuitry compensates in real time for incoming line voltage variations: Compensates for +/-2% change in RMS voltage/cycle and +/-2% Hz change in frequency/second.
- Provides air-gap off.
- Module protects itself during temporary over-current and over-voltage conditions.
- Two LEDs on front of unit provide diagnostic information (visible when faceplate is removed).

Terminals

Accept up to two #12 AWG (2.5 mm²).

Environment

- 32 - 104 °F (0 - 40 °C). Relative humidity less than 90% non-condensing.
- Maximum BTU/hour of module: 135

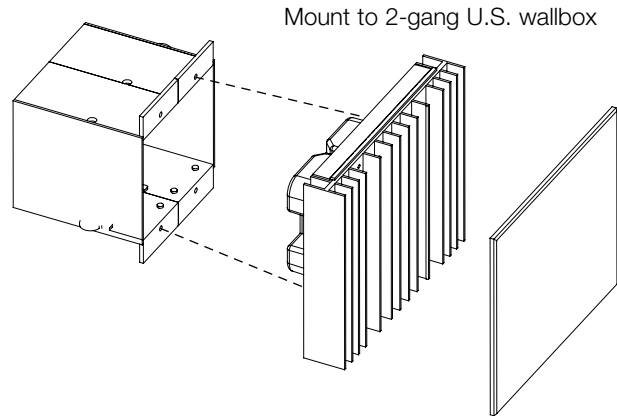
Mounting

- Surface or recess mount indoors only.
- Power module is UL tested and approved for use in air plenums.

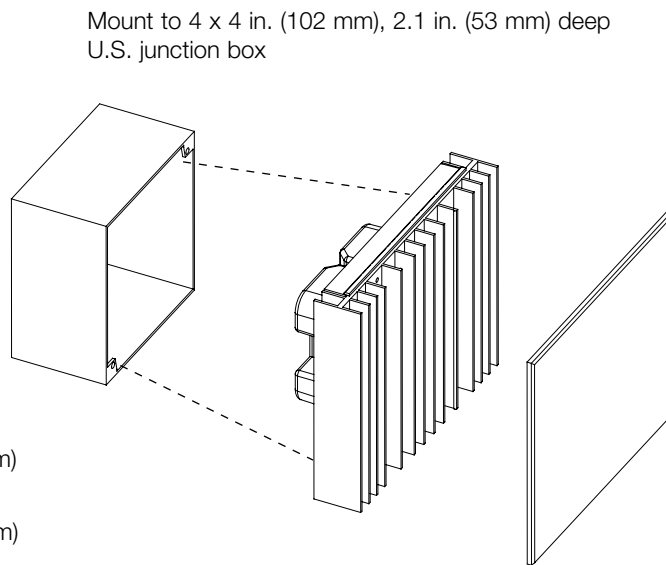
Job Name:	Model Numbers:
Job Number:	

Dimensions and Mounting

- Mount in 2-gang U.S. wallbox 3.5 in. (89 mm) deep or 4 x 4 in. (102 mm) junction box 2.1 in. deep (53 mm). Indoors only.
- This device generates heat; mount only where ambient temperature is 32 - 104 °F (0 - 40 °C).
- Mount with arrows facing up to ensure adequate cooling.
- Allow 4.5 in. (114 mm) above and below unit and between faceplates when mounting several in a vertical layout.
- Mount so line (mains) voltage wiring is at least 6 ft. (1.8 m) from sound or electronic equipment and wiring.
- Mount within 7° of true vertical.

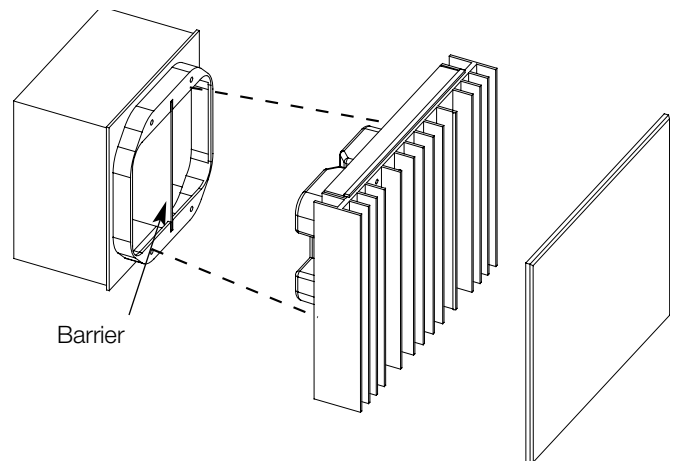


Mount to 2-gang U.S. wallbox

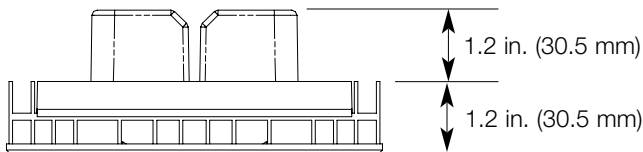


Mount to 4 x 4 in. (102 mm), 2.1 in. (53 mm) deep U.S. junction box

Mount to 4 x 4 in. (102 mm), 2.1 in. (53 mm) deep U.S. junction box with barrier (for 277 V~ loads if required by local electrical code)

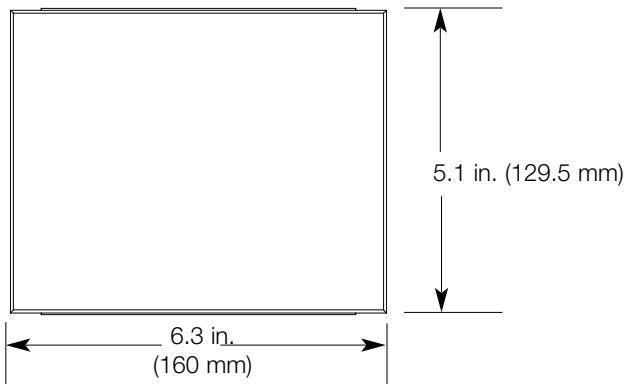


Barrier



1.2 in. (30.5 mm)

1.2 in. (30.5 mm)



5.1 in. (129.5 mm)

6.3 in. (160 mm)

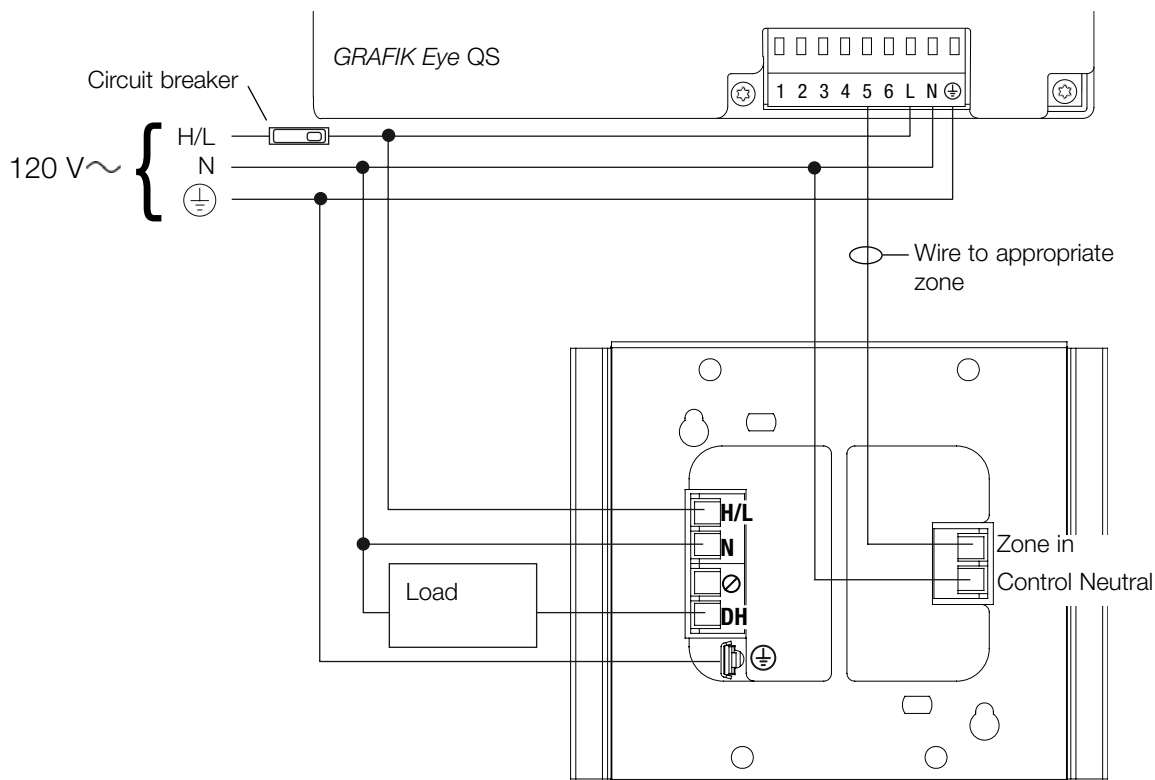
<p>Job Name:</p>	<p>Model Numbers:</p>
<p>Job Number:</p>	

Wiring

- Pull #12 AWG (2.5 mm²) copper (Cu) wires (75 °C minimum) for input power and load circuit.
- Strip 1/2 in. (12 mm) insulation from wires before connecting.
- Run separate neutral for load circuit - no common neutrals.
- May be used with GFI breaker protected loads. Load circuit wiring (from GFI breaker to power module to load) must be run in its own non-metallic conduit, or nuisance tripping may occur. Maximum 100 ft. (30.5 m) between power module and load.
- May be used with AFI breaker protected loads. Maximum load on AFI circuit is 1000 W. Exceeding 1000 W may cause nuisance tripping of AFI breaker.

Single Power Feed

Note: The power module may be on the same circuit as the control unit only if the total load does not exceed the rating of the breaker.



Legend

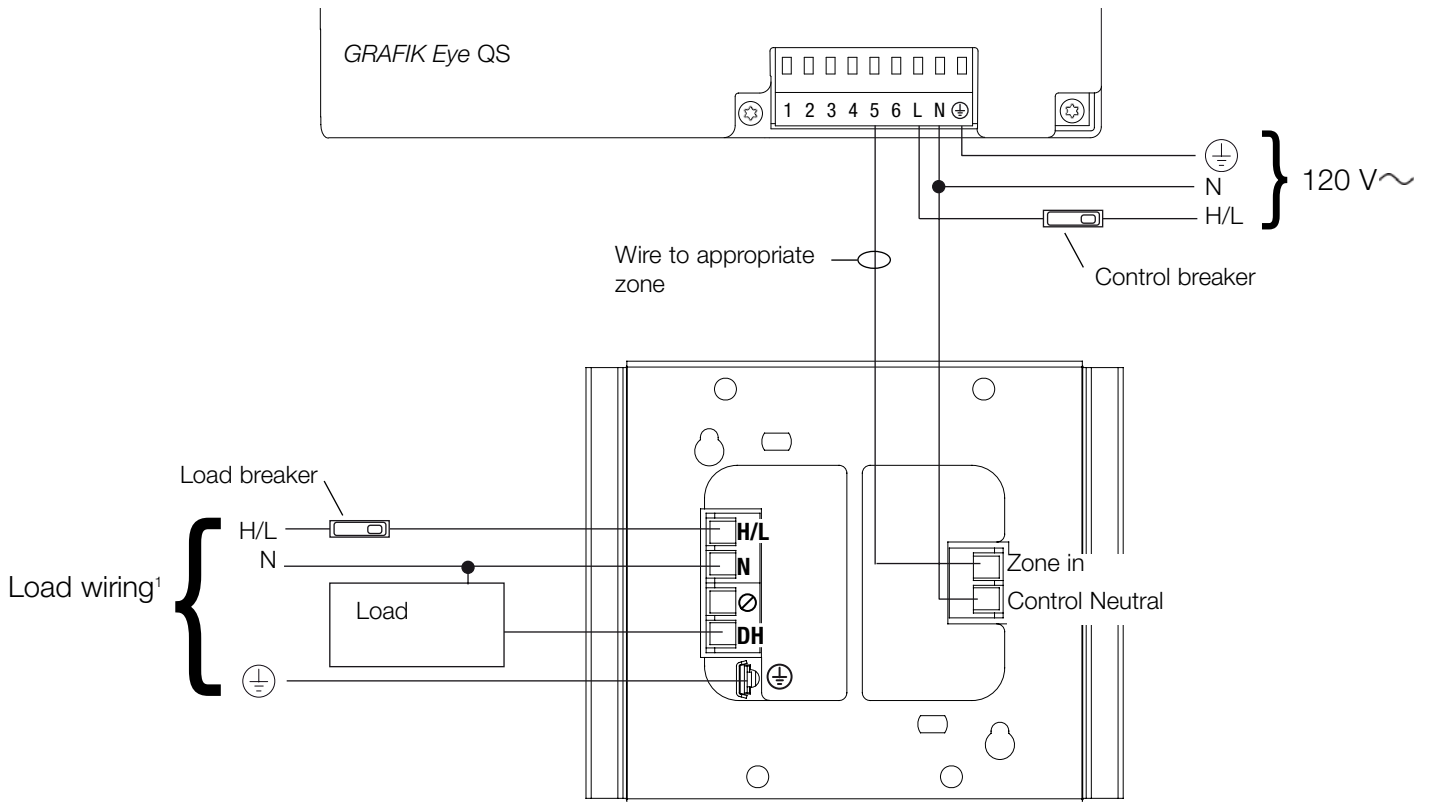
- H/L Hot/Live
- N Neutral
- SH Switched Hot
- DH Dimmed Hot
- ⊕ Ground
- ⊘ Not Used

Job Name:	Model Numbers:
Job Number:	

Wiring

Multiple Power Feeds

The load breaker may be on a different phase than the control breaker.



Legend

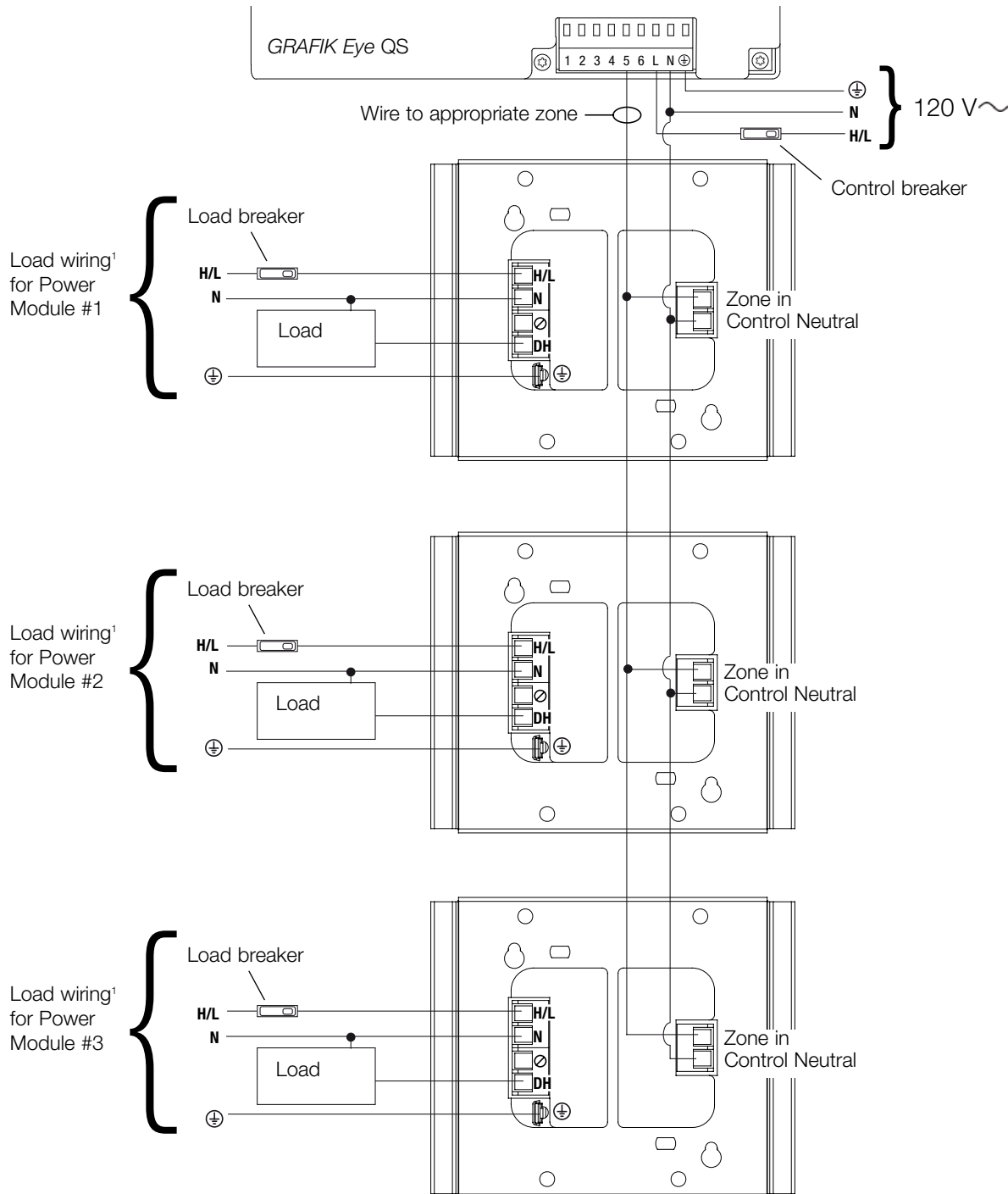
- H/L Hot/Live
- N Neutral
- SH Switched Hot
- DH Dimmed Hot
- ⊕ Ground
- ⊘ Not Used

¹Load feed: 120 V~ for PHPM-PA-120-WH; 120 or 277 V~ for PHPM-PA-DV-WH

Job Name:	Model Numbers:
Job Number:	

Wiring Multiple Power Modules to a Single GRAFIK Eye® Zone

Shown with separate feeds for control and loads. All breakers must be turned off prior to installing or servicing the modules. Up to 3 power modules may be wired to a single zone.

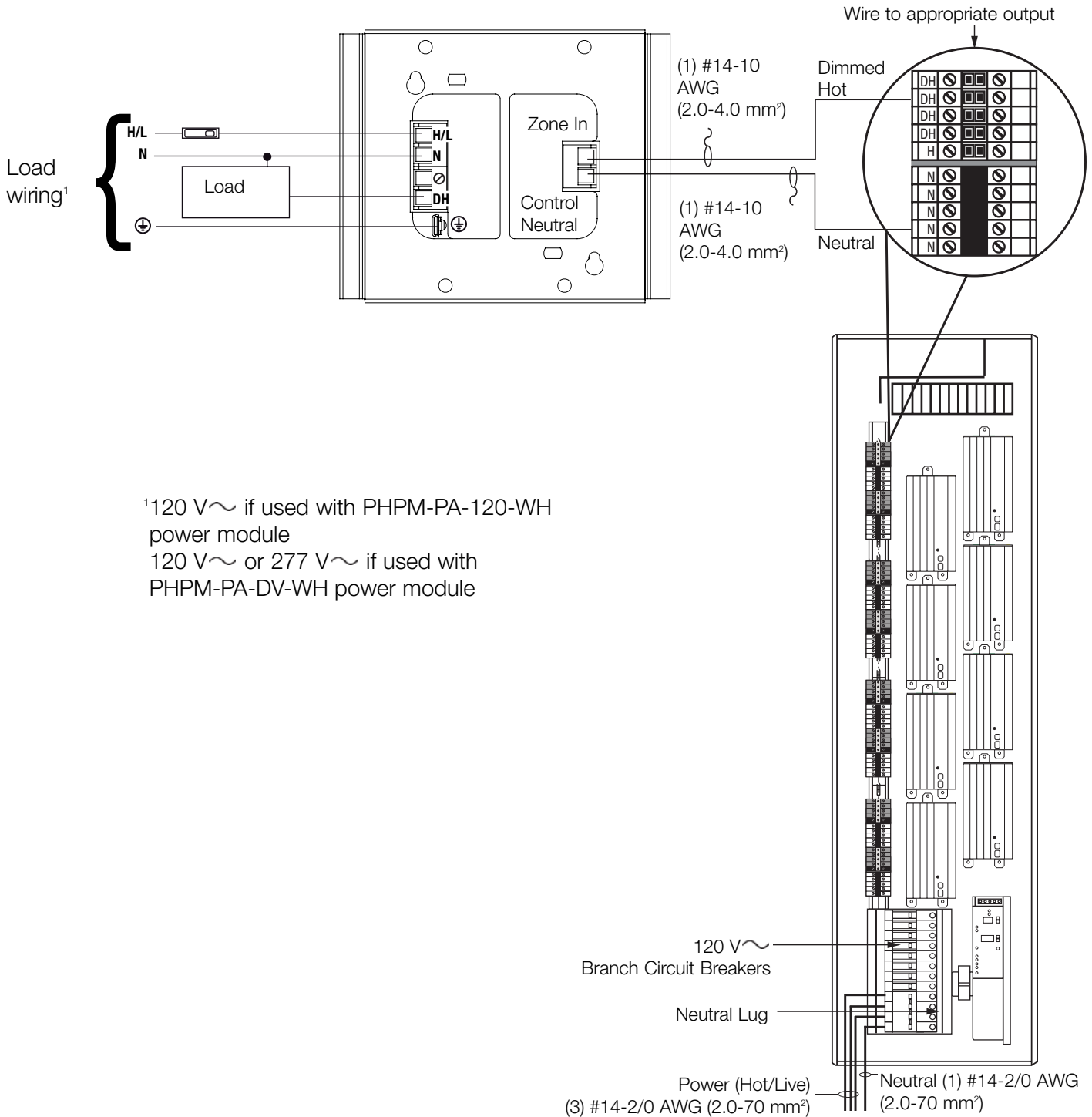


¹Load feed: 120 V~ for PHPM-PA-120-WH; 120 or 277 V~ for PHPM-PA-DV-WH

<p>Job Name:</p>	<p>Model Numbers:</p>
<p>Job Number:</p>	

Wiring a Power Module to an LP or LCP Panel

Up to three phase-adaptive power modules may be wired to an output of a 120 V~ LP or LCP panel. The load type for the output must be set appropriately on the panel's circuit selector (for an LP panel) or controller (for an LCP panel).



¹120 V~ if used with PHPM-PA-120-WH power module
 120 V~ or 277 V~ if used with PHPM-PA-DV-WH power module

Job Name:	Model Numbers:
Job Number:	