

GP Dimming Panels 230 Volt (CE)



GP3/4
Mini
Panels



GP8-24
Standard-Size
Panels

GP Dimming Panels provide power and dimming for up to 24 load circuits and control any light source, including full-conduction non-dim.

Models available with:

- 230 V input power.
- 3 to 24 circuits.
- Different feed types and breakers.

GP Dimming Panels work with:

- GRAFIK Eye® 4000 Control Units.
- GRAFIK 5000™, GRAFIK 6000®, and GRAFIK 7000™ Systems.
- LP Dimming Panels.
- XP Softswitch® Panels.
- DMX512 dimming systems via the 2LINK™ option.

Job Name:	Model Numbers:
Job Number:	

Specifications - 230 Volt (CE)

Standards

- Complies with CE.
- California Energy Commission Listed

Power

- Input power: 230 V, 50/60 Hz, phase-to-neutral.
- Branch Circuit Capacity: 10 A
- Number of Circuits: 3-24
- Branch Circuit Breakers: IEC-rated thermal magnetic.
AIC rating (other ratings available): 6000 A
- Lightning strike protection: Meets ANSI/IEEE standard 62.41-1980. Can withstand voltage surges of up to 6000 V and current surges of up to 3000 A.
- 10-year power failure memory: Automatically restores lighting to scene selected prior to power interruption.

Sources/Load Types

Operates these sources with a smooth continuous Square Law dimming curve or on a full conduction non-dim basis:

- Incandescent (Tungsten)/Halogen
- Magnetic Low Voltage Transformer
- Electronic Low Voltage Transformer¹
- Lutron Electronic Fluorescent Dimming Ballasts
- Magnetic Fluorescent Lamp Ballasts
- Optional modules allow for control of 0-10 V, DSI, and PWM load types.
- Operates HID sources on a full conduction non-dim basis.

Wiring

- Internal: Prewired by Lutron.
- System communications: Low-voltage Class 2 (PELV) wiring connects Dimming Panels to other components.
- Line (mains) voltage: Feed, load, and control circuit wiring only. No other wiring or assembly required.

Filter Chokes

- Load current rise time is measured at a 90 degree conduction angle, with 120 V input power.
- 10-90% of load current waveform:
 - 350µSec rise time at 50% dimmer capacity.
 - 400µSec rise time at 100% dimmer capacity.
- 0-100% of load current waveform:
 - 525µSec rise time at 50% dimmer capacity.
 - 600µSec rise time at 100% dimmer capacity.
- At no point in the waveform can the rate of current change exceed 300 mA per µSec.
- Consult Lutron for higher rise time options.

Dimming Cards

- Panel current ratings are listed for continuous operation.
- RTISS® filter circuit technology compensates for incoming line voltage variations: No visible flicker with +/-2% change in RMS voltage/cycle and +/-2% Hz change in frequency/second.
- Arcless-relay air gap-off switches (one per load circuit) ensure open load circuits when off function selected. Eliminate arcing at mechanical contacts when loads are switched.

Physical Design

- Enclosure: NEMA-Type 1 (Type 2 available upon request), IP-20 protection; #16 U.S. Gauge Steel. Indoors only.
- Weight: 30-175 pounds (14-80 kg).
- Mounting: Surface mount only. Allow space for ventilating.

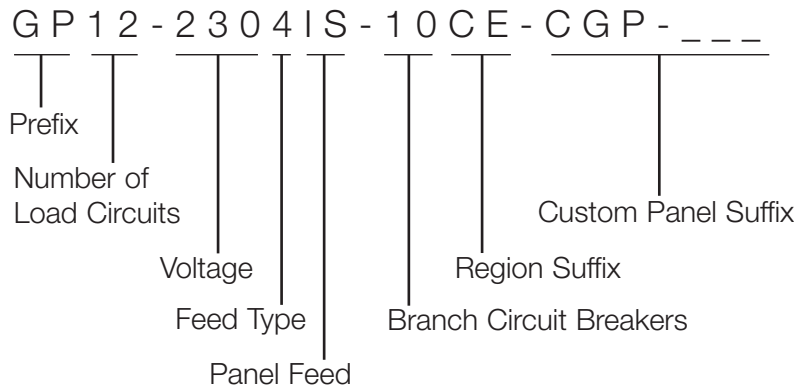
Environment/Heat Dissipation

- Patented, ribbed aluminum heat sink base cools Panel by convection. No fans.
- 32-104 °F (0-40 °C). Relative humidity less than 90% non-condensing.

¹ Reverse-phase control transformers require an ELVI Power Interface. Check phase with transformer manufacturer.

Job Name:	Model Numbers:
Job Number:	

Anatomy of a GP Model Number



Prefix:

GP for GP Dimming Panel

Number of Load Circuits:

Indicates number of load circuits in the panel

Voltage:

230 for CE

Feed Type:

2 for 1 phase 2 wire

4 for 3 phase 4 wire

Panel Feed:

IS for Isolator Switch

Branch Circuit Breakers:

10 for 10 A branch circuit breakers

Region Suffix:

CE for 230 V

Custom Panel Suffix:

Indicates panel with special options

Job Name:	Model Numbers:
Job Number:	

GP3/4 Mini Models

Only standard panels listed. Consult Lutron for further options.

230 V (CE) Power

Number Of Circuits	Feed Type	Maximum Feed	Panel Feed/ Branch Circuit Breakers
GP3	1Ø, 2 W	30 A	10 A
	3Ø, 4 W	10 A	10 A
GP4	Feed Through	10 A	10 A ¹

GP8-24 Standard-Size Models

Only standard panels listed. Consult Lutron for further options.

230 V Power

Number Of Circuits	Feed Type	Panel Feed	Maximum Feed	Branch Circuit Breakers
GP8	1Ø, 2 W	Isolator Switch	125 A	10 A
	3Ø, 4 W	Isolator Switch	125 A	10 A
GP12	3Ø, 4 W	Isolator Switch	125 A	10 A
GP16	3Ø, 4 W	Isolator Switch	125 A	10 A
GP20	3Ø, 4 W	Isolator Switch	125 A	10 A
GP24	3Ø, 4 W	Isolator Switch	125 A	10 A

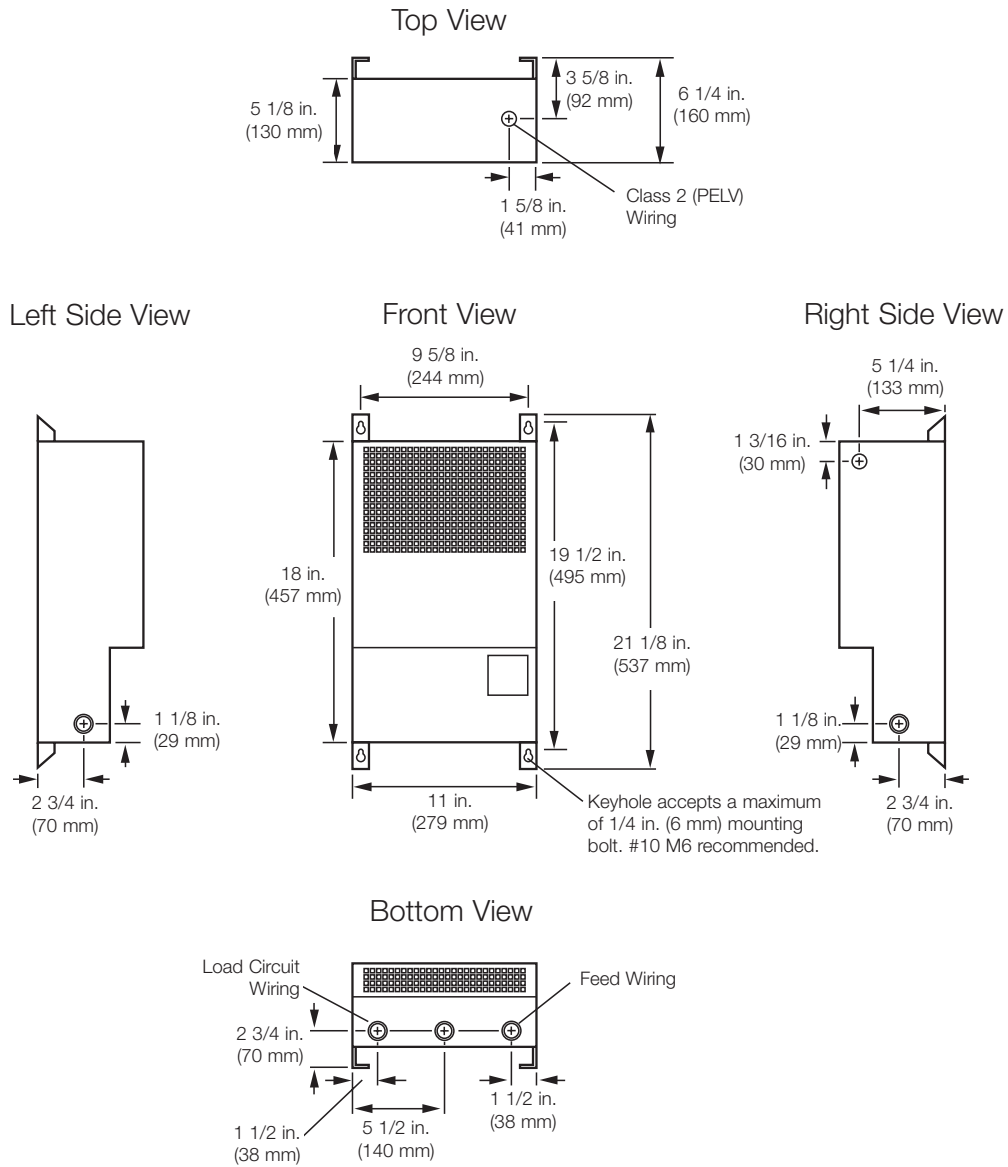
230 V (CE) Mains

CE Panels are listed as appliances. A distribution panel must provide a main circuit breaker that does not exceed the rating of the panel.

¹ Breakers located in distribution panel supplied by others.

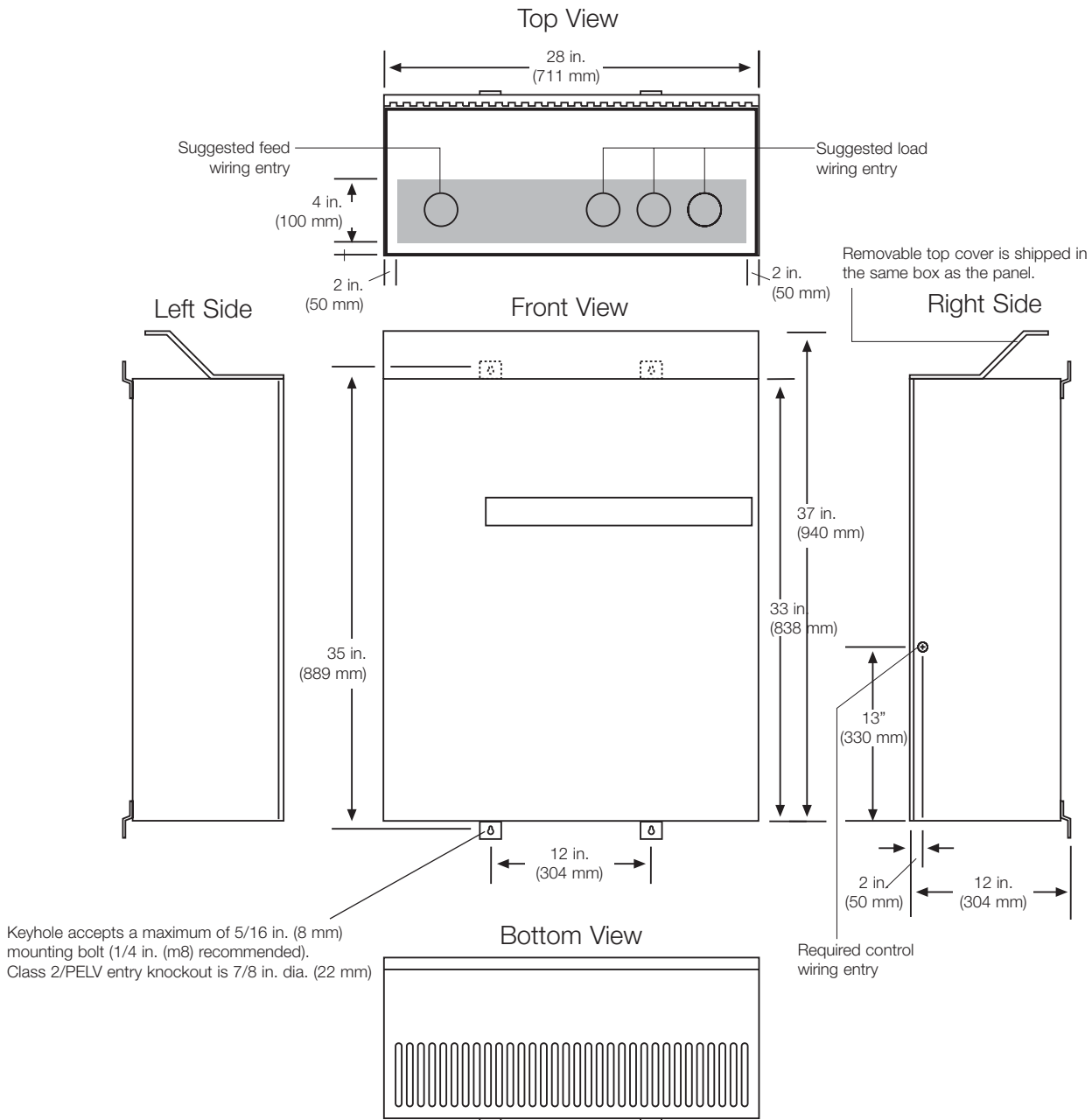
Job Name:	Model Numbers:
Job Number:	

Dimensions for GP3/4 Mini Panels



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

Dimensions for GP8-24 Standard-Size Panels



Keyhole accepts a maximum of 5/16 in. (8 mm) mounting bolt (1/4 in. (m8) recommended).
 Class 2/PELV entry knockout is 7/8 in. dia. (22 mm)

Job Name:	Model Numbers:
Job Number:	

GP3/4 Mini Panel Mounting

- Surface mount indoors.
- Panel generates heat. Mount only where ambient temperature will be 0-40 °C (32-104 °F).
- This equipment is air cooled. Do not block vents or warranty will be void. Leave 12 in. (31cm) clearances above, below, and in front of Panel. No clearance necessary on sides.
- Reinforce wall structure for weight and local codes.

Panel	Maximum BTUs/Hour	Weight (without packaging)
GP3/4	685	30 lbs. (14kg)

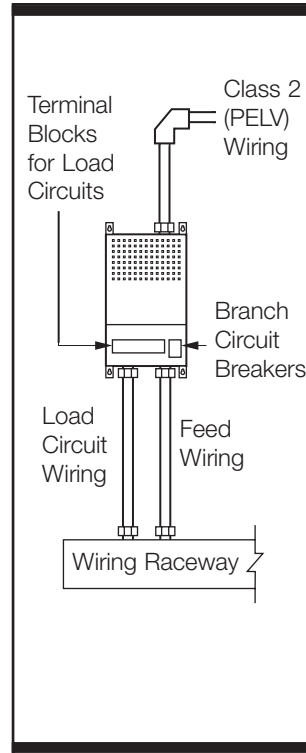
- Dimming Panels will hum slightly and internal relays will click while in operation. Mount where audible noise is acceptable.
- Mount Panels so line (mains) voltage wiring is at least 6 feet (1.8m) from sound or electronic equipment and wiring.
- GP Panels must be mounted within 7° of true vertical.

For maximum Feed and Wire Sizes, consult Wiring Overview page.

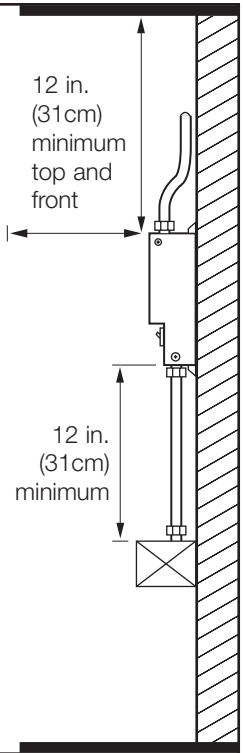


Warning! Water damages Panels. Install where they will not get wet.

GP3/4 Front View



GP3/4 Side View



Job Name:	Model Numbers:
Job Number:	

GP8-24 Standard-Size Panel Mounting

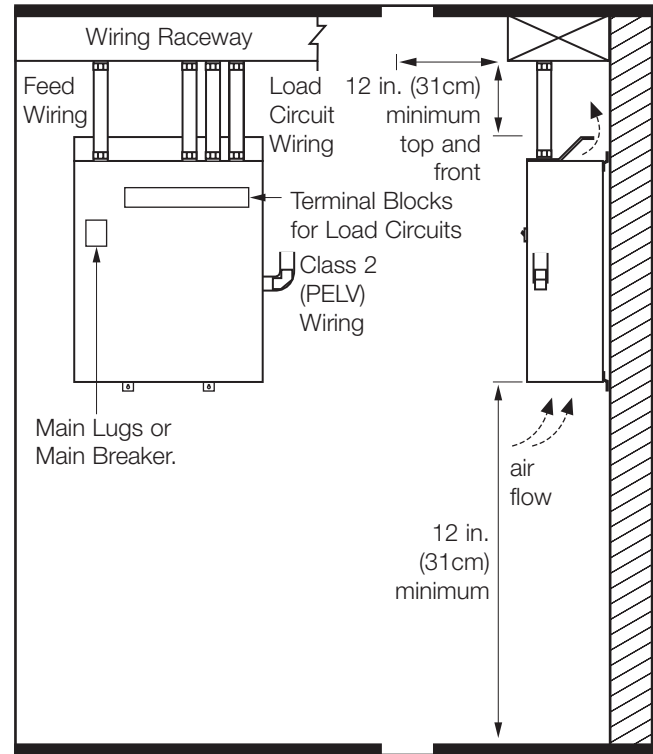
- Surface mount indoors.
- Panel generates heat. Mount only where ambient temperature will be 0-40 °C (32-104 °F).
- This equipment is air cooled. Do not block vents or warranty will be void. Leave 12 in. (31cm) clearances above, below, and in front of Panel. Leave clearance on sides for Class 2 (PELV) wiring.
- Reinforce wall structure for weight and local codes.

Panel	Maximum BTUs/Hour	Weight (without packaging)
GP8	1365	115 lbs. (52 kg)
GP12	2045	130 lbs. (59 kg)
GP16	2725	145 lbs. (66 kg)
GP20	3405	160 lbs. (73 kg)
GP24	4085	175 lbs. (80 kg)

- Dimming Panels will hum slightly and internal relays will click while in operation. Mount where audible noise is acceptable.
- Mount Panels so line (mains) voltage wiring is at least 6 feet (1.8m) from sound or electronic equipment and wiring.
- GP Panels must be mounted within 7° of true vertical.

GP8-24 Front View

GP8-24 Side View



For maximum Feed and Wire Sizes, consult Wiring Overview page.



Warning! Water damages Panels. Install where they will not get wet.

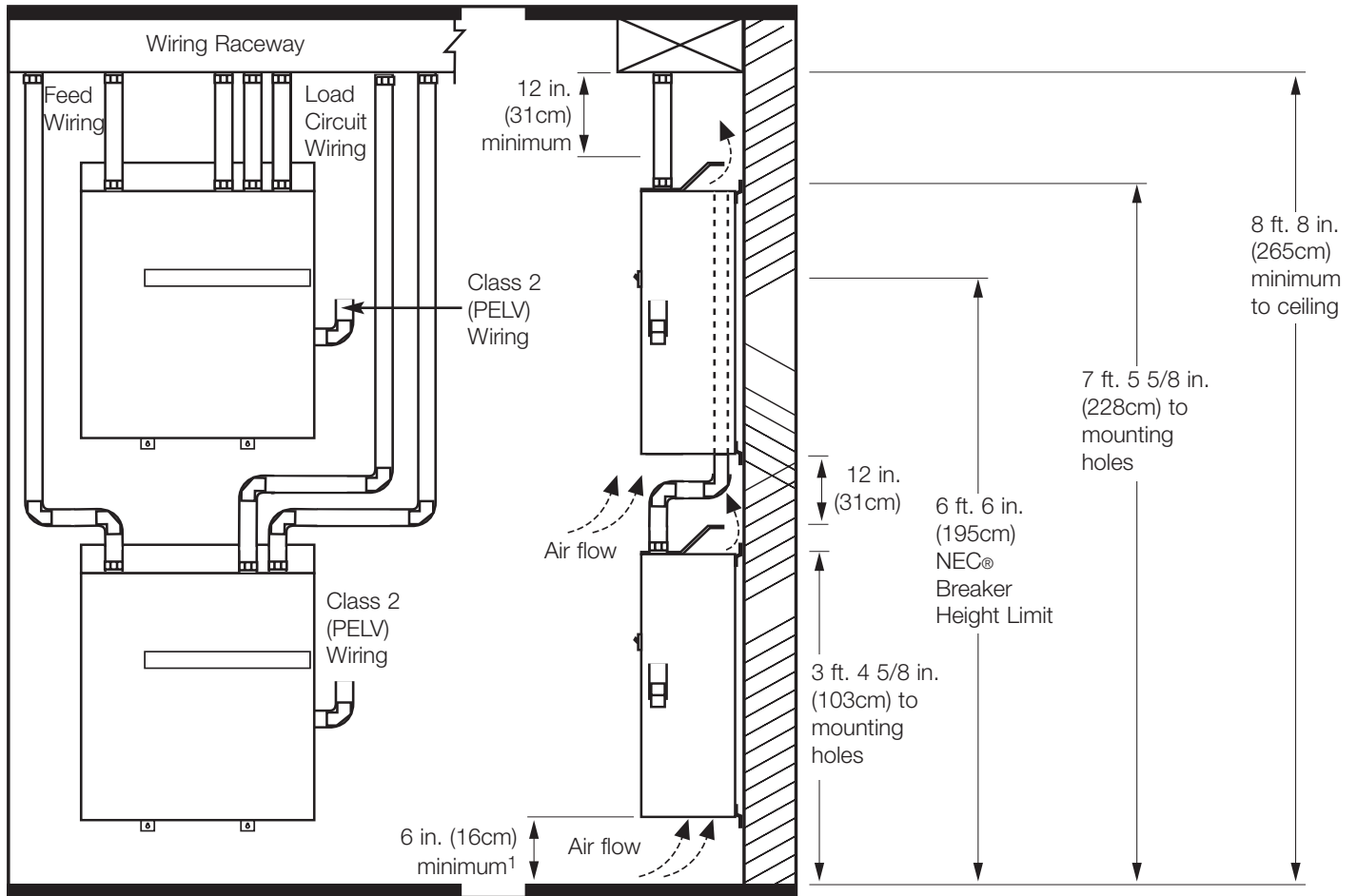
Job Name:	Model Numbers:
Job Number:	

Mounting One Panel Above Another

At least 8 ft. 8 in. (265 cm) between the floor and the suspended ceiling is required for this layout.

GP8-24 Front View

GP8-24 Side View



¹ 6 in. (16 cm) approved for this layout only.



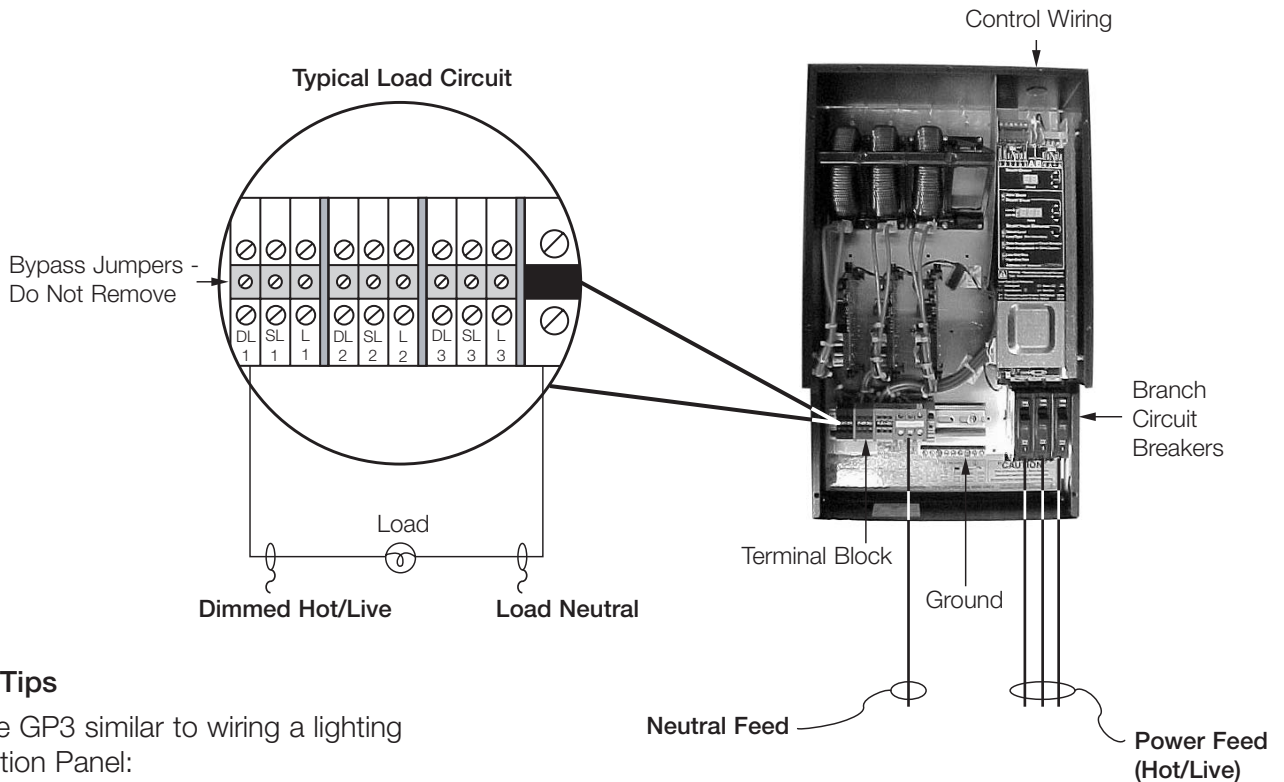
Warning! Water damages Panels. Install where they will not get wet.

Job Name:	Model Numbers:
Job Number:	

GP3 Mini Panel Wiring Overview 230 Volt (CE)

Wire Sizes

- **Power Feed:**
18 AWG (1.0 mm²) to 4 AWG (25.0 mm²)
- **Neutral Feed:**
14 AWG (2.0 mm²) to 6 AWG (10.0 mm²)
- **Dimmed Hot/Live:**
14 AWG (2.0 mm²) to 10 AWG (4.0 mm²)
- **Load Neutral:**
14 AWG (2.0 mm²) to 6 AWG (10.0 mm²)



Wiring Tips

Wire the GP3 similar to wiring a lighting Distribution Panel:

- Run feed and load wiring. No other wiring or assembly required.
- Common Neutrals are not permitted. Run separate Neutrals for each load circuit.

The GP3 can provide temporary lighting:

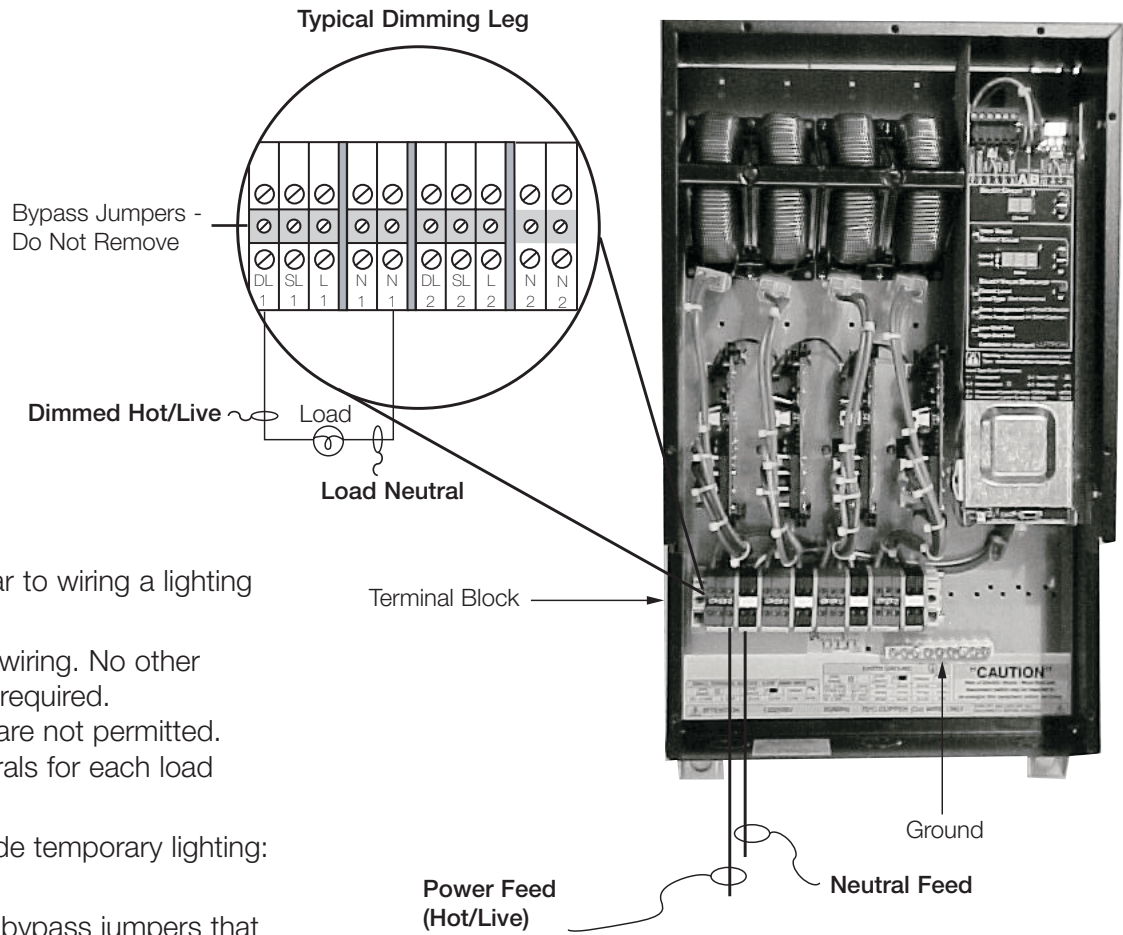
- Wire all loads.
- Do not remove the bypass jumpers that protect the Dimming Modules.
- Use Branch Circuit Breakers to switch lights on and off.

Job Name:	Model Numbers:
Job Number:	

GP4 Mini Panel Wiring Overview 230 Volt (CE)

Wire Sizes

- **Power Feed:**
14 AWG (2.0 mm²) to 10 AWG (4.0 mm²)
- **Neutral Feed:**
14 AWG (2.0 mm²) to 10 AWG (4.0 mm²)
- **Dimmed Hot/Live:**
14 AWG (2.0 mm²) to 10 AWG (4.0 mm²)
- **Load Neutral:**
14 AWG (2.0 mm²) to 10 AWG (4.0 mm²)



Wiring Tips

Wire the GP4 similar to wiring a lighting Distribution Panel:

- Run feed and load wiring. No other wiring or assembly required.
- Common Neutrals are not permitted. Run separate Neutrals for each load circuit.

The GP4 can provide temporary lighting:

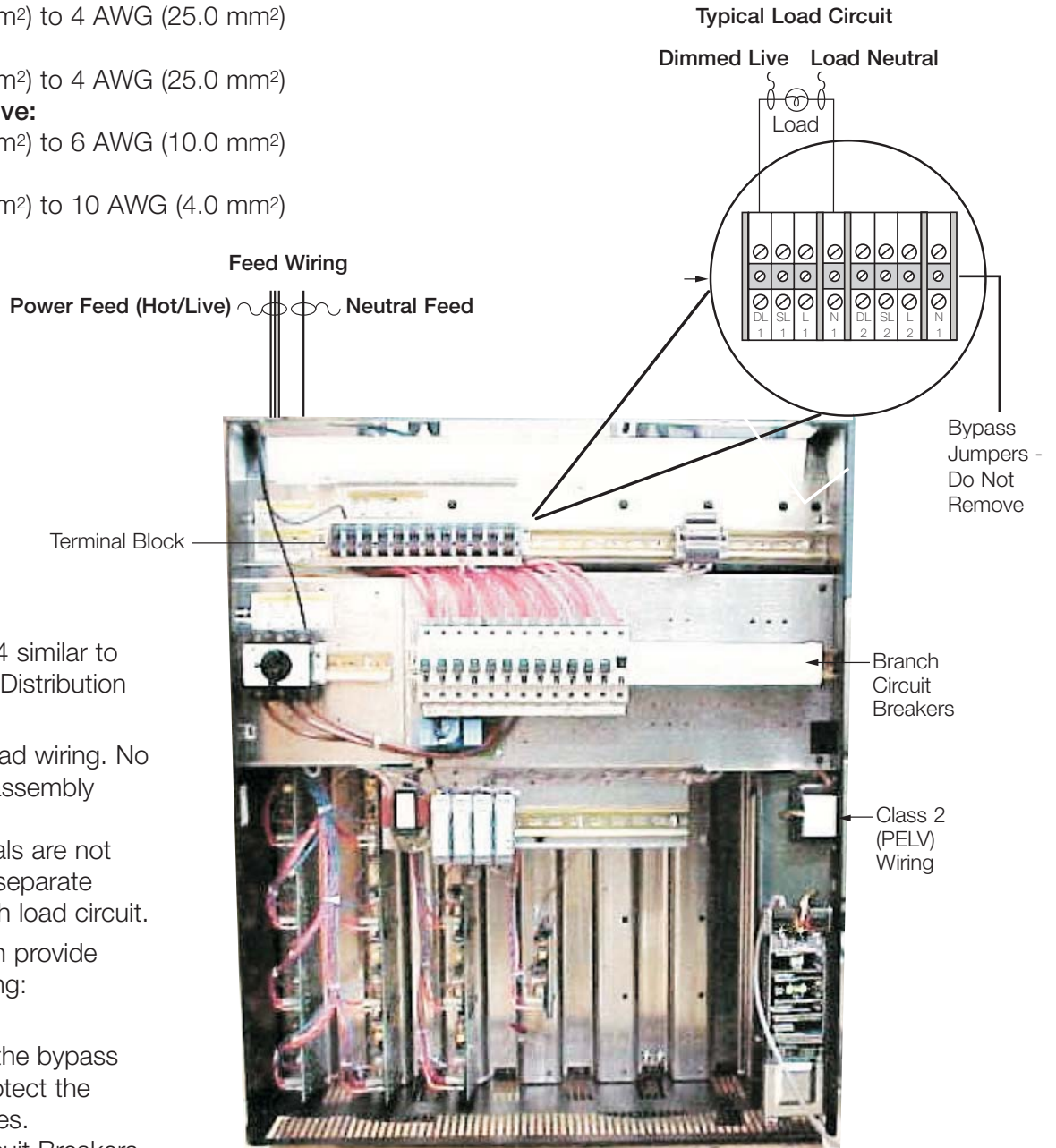
- Wire all loads.
- Do not remove the bypass jumpers that protect the Dimming Modules.

Job Name:	Model Numbers:
Job Number:	

GP8-24 Standard-Size Panel Wiring Overview 230 Volt (CE)

Wire Sizes

- **Power Feed:**
14 AWG (2.0 mm²) to 4 AWG (25.0 mm²)
- **Neutral Feed:**
14 AWG (2.0 mm²) to 4 AWG (25.0 mm²)
- **Dimmed Hot/Live:**
14 AWG (2.0 mm²) to 6 AWG (10.0 mm²)
- **Load Neutral:**
14 AWG (2.0 mm²) to 10 AWG (4.0 mm²)



Wiring Tips

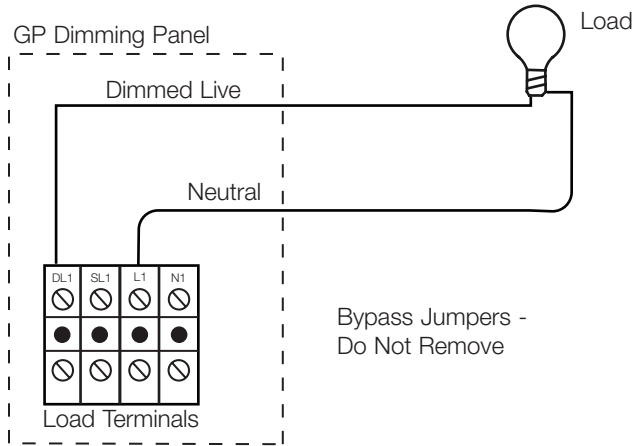
Wire the GP8-24 similar to wiring a lighting Distribution Panel:

- Run feed and load wiring. No other wiring or assembly required.
 - Common Neutrals are not permitted. Run separate Neutrals for each load circuit.
- The GP8-24 can provide temporary lighting:
- Wire all loads.
 - Do not remove the bypass jumpers that protect the Dimming Modules.
 - Use Branch Circuit Breakers to switch lights on and off.

Job Name:	Model Numbers:
Job Number:	

230 V (CE) Load Circuits (GP3-24)

All Load Types except Fluorescent Dimming Ballasts



- Use the Dimmed Live (DL) for all Non-Dim Load Types.

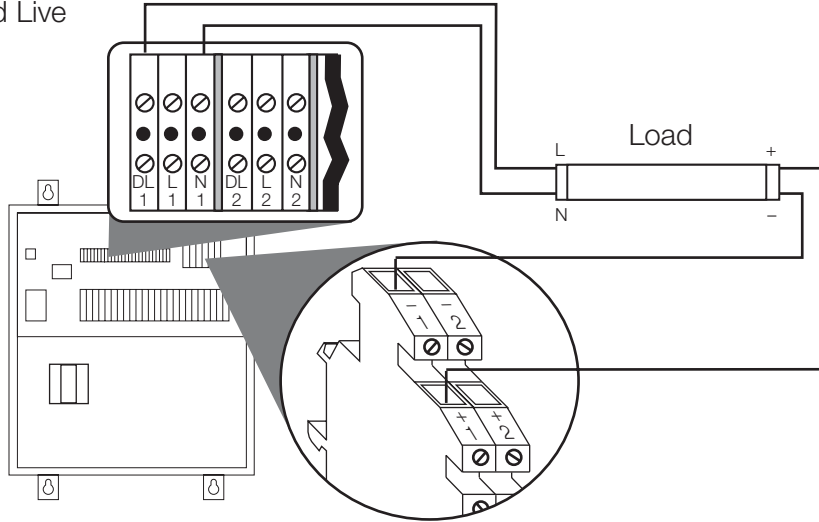
All Load Circuit Wiring
14 AWG (2.0 mm²) to 10 AWG
(4.0 mm²)

Consult Wiring Overview page
for appropriate Neutral location.

Job Name:	Model Numbers:
Job Number:	

GP w/ GRX-TVM2 Wiring Overview for 0-10 V, DSI, and DALI Load Types - 230 Volt (CE) Panels

DL = Dimmed Live
L = Live
N = Neutral



Job Name:	Model Numbers:
Job Number:	

Option	Description	Application
Custom Main Breaker	Panel features a custom main breaker size.	Jobs with special load requirements.
Delta Power	Panel accepts Delta power feed (phase to phase). Available for 240 V only. Limited to 10 A, 2-pole circuits.	Areas with Delta power.
Branch Circuit Protection	Branch Circuit Breakers with higher AIC ratings or special breaker types such as: <ul style="list-style-type: none"> • ELB (Earth Leakage Breaker - 230 V CE/240 V non-CE Only). • RCD (Residual Current Device - 230 V CE/240 V non-CE Only). 	
Lutron Ten Volt Module (TVM)	Allows panel to operate fluorescent ballasts that meet IEC 929 standards for 0-10 V control including: <ul style="list-style-type: none"> • Lutron's TVE ballasts • 0-10 V neon • PWM fluorescent • Tridonic® DSI (Digital Serial Interface). The TVM can sink or source 50 mA (typically 25-50 ballasts) on each circuit.	Jobs with fluorescent ballasts that require 0-10 V, PWM, or DSI control.
Locking Cover	Prevents accidental switching of circuit breakers. Adds an additional 2.25 in. (57.2 mm) to the front of panel. Available for GP8-GP24 only	Service corridors and public areas.
2Link™	<ul style="list-style-type: none"> • Allows a DMX512 theatrical console to operate the load circuits in the dimming panel. • Allows a GRAFIK Eye® 4000 System to handle 128 zones (two links of 64 zones). • Allows two GRAFIK Eye 4000 Systems to share the same dimming panel. 	<ul style="list-style-type: none"> • Control of architectural lighting from a DMX512 theatrical console is required. • A mix of architectural and theatrical lighting exists on the job. • Multiple systems where space for panels is limited.

Tridonic is a registered trademark of Zumtobel AG.

Job Name:	Model Numbers:
Job Number:	