

Installation Manual

Constant Voltage Power Supply IP67



Application

Constant Voltage Power Supply is designed:

- > to power 12VDC/24VDC LED modules
- > to operate lighting systems which have multiple LED modules connected in parallel
- > independent usage

Electrical characteristics

Supply voltage	220-240VAC
Frequency	50/60 Hz
Two model types	PF>0.5 and PF>0.95
Output voltage	12V/24VDC

Protection

Ingress protection	IP67 design for outdoor installations
Safety class	Class I
Overload protection	Yes
Short circuit protection	Yes
Material of the case	Aluminum

Warranty conditions

Lifespan	30 000 h (PF>0.5) 50 000 h (PF>0.9)
Warranty	3 Y (PF>0.5) 5 Y (PF>0.9)
Ambient temperature	-20~45°/50°C
Highest temperature point	80°/85°C

- > A constant voltage (CV) LED Power Supply is an AC-DC converter that provides a fixed output voltage, typically 12 volts or 24 volts.
- > Constant voltage LED Power Supplies (PS for shortly) are designed to operate lighting systems which have multiple LED modules connected in parallel.
- > It does not provide regulated output that a current-sensitive LED or LED modules can operate with. It source with constant voltage designed for CV type loads.
- > LED modules with built-in constant current driver are preferable to use.
- > The PS has galvanic isolation between inputs and outputs. The output DC voltage fulfill SELV requirements for safety.
- > Grounding of its metal case is mandatory.

Important Information

- > DO NOT install the PS in a place where the operating ambient temperature exceeds declared value of each model.
- > Make sure the total power of all LED modules which you want to power by PS is not more than declared in its datasheet and in tables here.
- > Please consider the power of PS, LED modules, surrounding temperature and lifetime for chosen from you Power Supply model.

LED'S START UP THE LIGHT

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CV Power Supply 12V PF 0.5 IP67

Model type PF>0.5	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-12V CV 60W	0.50/230VAC	>0.50	12V	5A	60W	>90%	400	118	54	35
LED-12V CV 100W	0.85/230VAC	>0.50	12V	8,33A	100W	>90%	425	118	54	35
LED-12V CV 150W	1.20/230VAC	>0.50	12V	12,50A	150W	>90%	425	118	54	35
LED-12V CV 200W	1.70/230VAC	>0.50	12V	16,67A	200W	>90%	510	150	54	35
LED-12V CV 300W	2.60/230VAC	>0.50	12V	25,00A	300W	>90%	680	200	54	35

CV Power Supply 12V PF 0.9 IP67

Model type PF>0.9	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-12V CV 60W PF	0.30A/230VAC	>0.95	12V	5.00A	60W	>89%	510	140	48	45
LED-12V CV 100W PF	0.52A/230VAC	>0.95	12V	8.33A	100W	>89%	880	158	72	52
LED-12V CV 150W PF	0.76A/230VAC	>0.95	12V	12.50A	150W	>91%	1000	178	72	52
LED-12V CV 200W PF	1.02A/230VAC	>0.95	12V	16.67A	200W	>91%	1150	215	72	52

CV Power Supply 12V PF 0.9 Slim

Model type PF>0.9	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-12V CV 60W	0.30/230VAC	>0.90	12V	5A	60W	>90%	400	118	54	35
LED-12V CV 100W	0.45/230VAC	>0.90	12V	8,33A	100W	>90%	425	168	54	35
LED-12V CV 150W	0.80/230VAC	>0.90	12V	12,50A	150W	>90%	425	200	54	35
LED-12V CV 200W	1.30/230VAC	>0.90	12V	16,67A	200W	>90%	510	200	54	35
LED-12V CV 300W	2.20/230VAC	>0.90	12V	25,00A	300W	>90%	680	216	68	43

CV Power Supply 24V PF 0.9 Slim

Model type PF>0.9	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-24V CV 60W	0.50/230VAC	>0.90	24V	4,17A	100W	>90%	425	118	54	35
LED-24V CV 100W	0.50/230VAC	>0.90	24V	4,17A	100W	>90%	425	168	54	35
LED-24V CV 150W	0.90/230VAC	>0.90	24V	6,25A	150W	>90%	425	200	54	35
LED-24V CV 200W	1.35/230VAC	>0.90	24V	8,33A	200W	>90%	510	200	54	35
LED-24V CV 300W	2.20/230VAC	>0.90	24V	12,50A	300W	>90%	680	216	68	43

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Operating Temperature and Lifetime

- Operating the Power Supply unit under more severe conditions will shorten its life and reliability.
- Operating the device under lighter conditions will increase its life and reliability.
- Please use the PS according its datasheet and this manual.

Safety instruction

Please read carefully all instructions before attempting installation.

Please keep this manual for future using

To prevent personal injury or product damage only licensed electricians should provide all installation services.

Risk of electric shock.

PS must be installed in accordance with the National Electrical Code (NEC) and all applicable Local electrical codes and safety standards.

Check for damage during shipping prior to install. If the product or cables are damaged, don't use it.

Make sure the supply voltage is same as rated PS input voltage.

Installation of Power Supply should be performed by a professional, qualified electrician familiar with the construction and operation of this product and the hazards involved. If not qualified, do not attempt installation.

Use caution when handling this product:

During or after operation as it may become hot and cause burns.

Disconnect product from main supply and allow cooling prior to servicing.

Turn off the switch and circuit breaker before installing this PS.

To prevent product malfunction and/or electrical shock this product must be properly grounded.

Use approved connectors for all electrical connections.

No user serviceable parts inside of Power Supply gear.

Any alteration or modification of this product is expressly forbidden as it may cause serious personal injury, death, property damage and/or product malfunction.

Installation:

Power Supply mounting

Place the PS on a suitable place.

Don't allowed exposed by sunlight directly. Not allowed nearby heat sources and flame sources.

Choice the mounting surface. Secure the PS to it by 2 to 6 pcs bolts M3 or M4 (not included here).

After completion, please wire in accordance with all local regulations.

Cleaning & maintenance

Basically the device is maintenance-free except when the workplace of the mounted PS is such that a lot of dust has fallen on a top. In this case is allowable to clean PS surface.

Turn power off and wait for PS cooling.

Be sure PS temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

Maintenance must be done by professionals.

Do not clean with harsh solvents.

Clean Aluminum surface with soft cloth and PH neutral detergent. The abrasives are not allowed.

Clean periodically and regularly if need.

Troubleshooting

1. Check that the mains voltage at PS is correct. Refer to wiring directions.
2. Check the connections of input cable.
3. Check the output wires between PS and LED modules for short circuits. If there are must remove them.
4. The connections between LED modules and PS outputs have breakings?
5. Is the device grounded properly?
6. Power off by mains switch the PS for 5 minutes and power on again in cases when PS is stopped work after High Voltage spikes on mains line.

Wiring

Use only connectors approved for safety installation.

First connect the LED modules to outputs of PS.

For connecting LED modules to output cables use cables with enough cross section.

Plus output wire of PS (red color) must be connect with anode (plus) of LED modules.

Minus output wire (black color) must be connect with cathode (minus) of LED modules.

When use a multiple modules is allowable to connect outputs of PS to each end of wires with same polarity of them.

Observe the polarity when connecting!!!

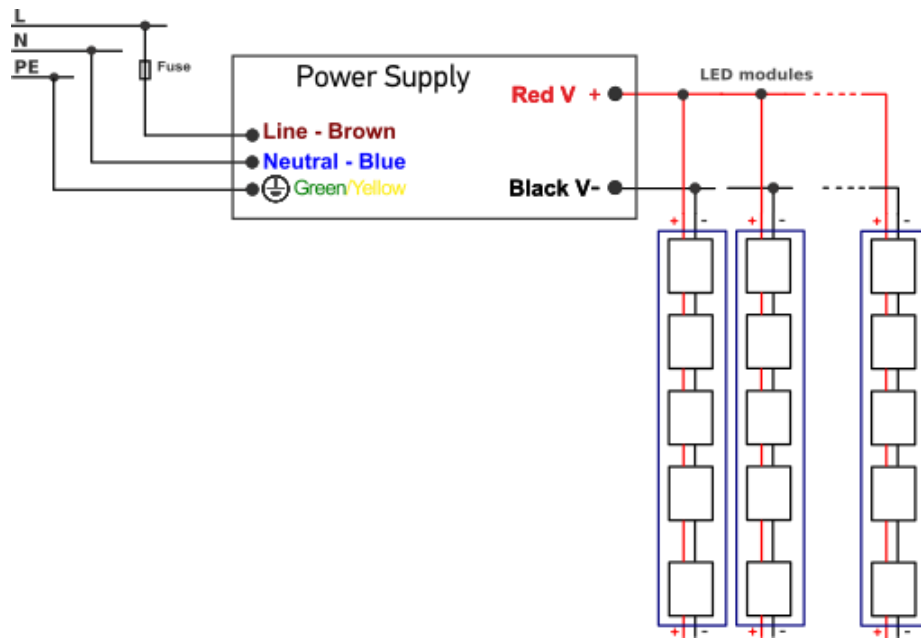
Do not connect together "Plus" with "Minus" ends of wires!!!

Connect the Brown input PS lead to the LINE supply lead.

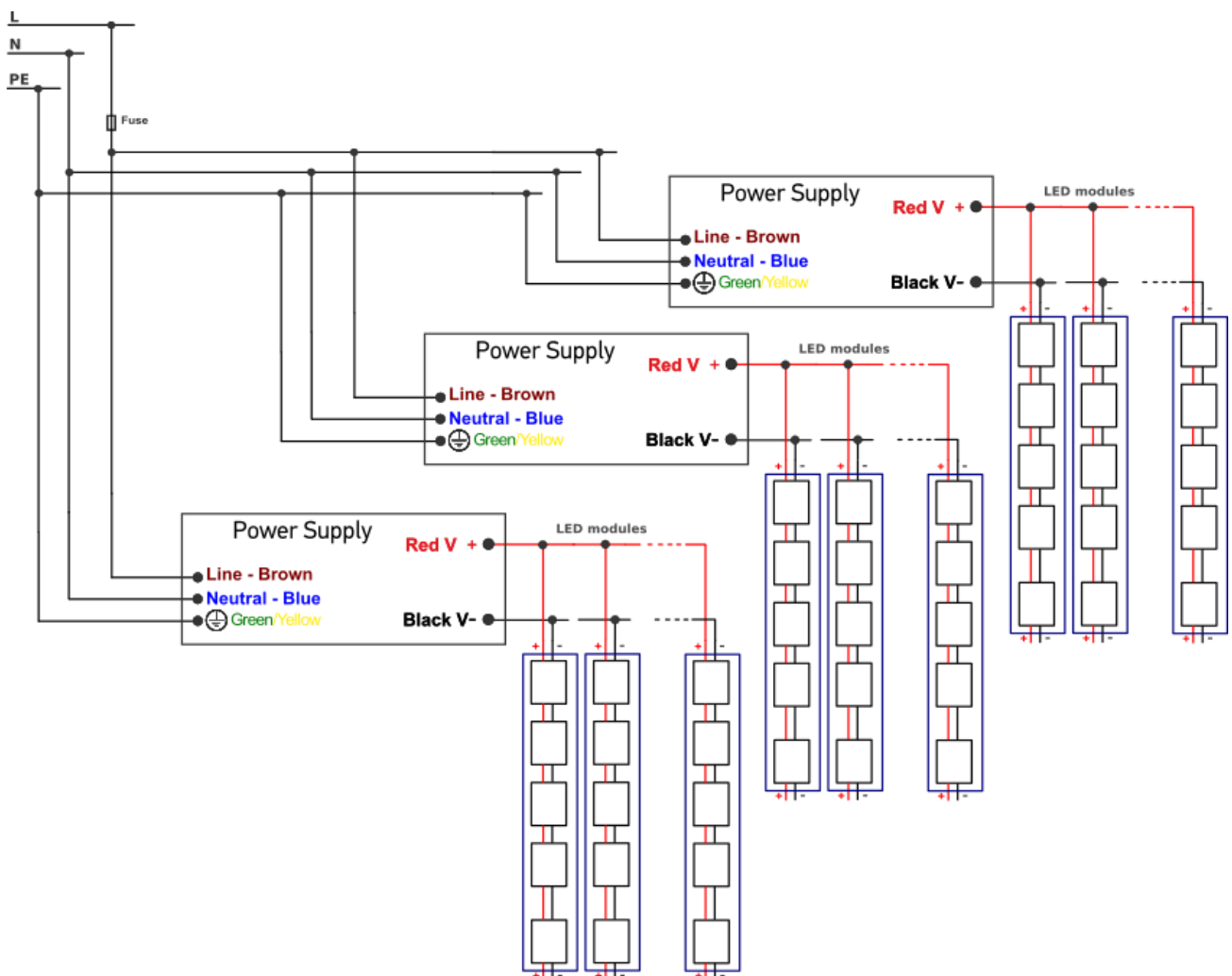
Connect the Blue input PS lead to the NEUTRAL supply lead.

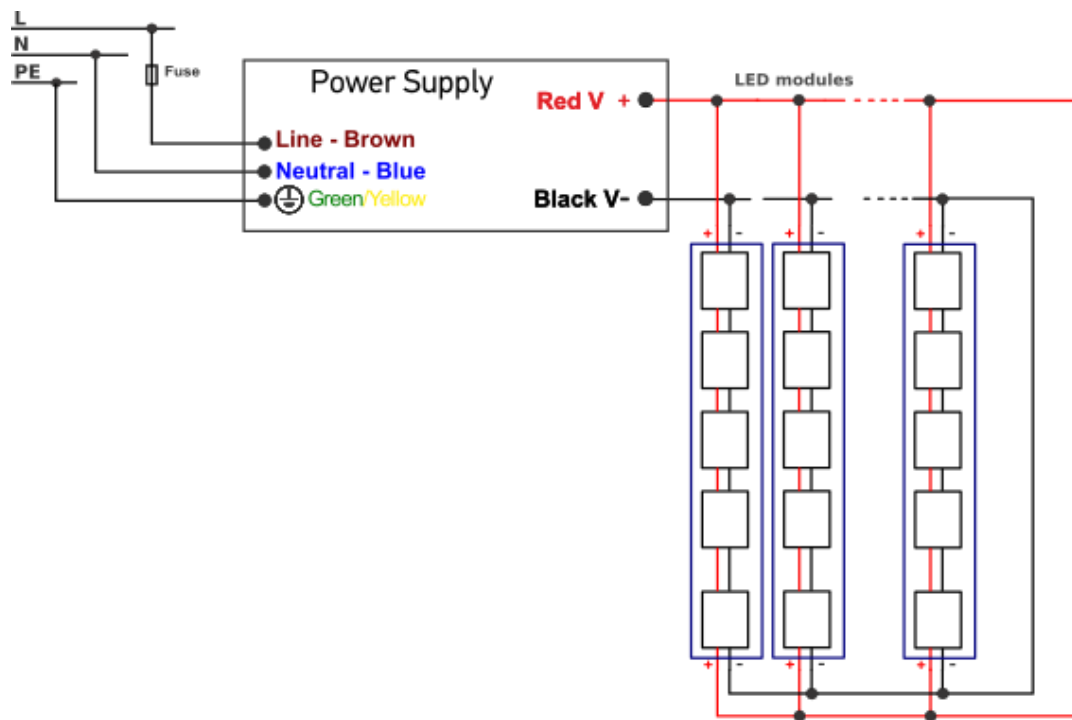
Connect the Green/Yellow (GROUND) input PS lead wire from to supply ground PE wire (green/yellow).

- Basic connections are shown on pictures.
- The outputs of each PS must be connected to appropriate LED modules according this manual and/or its datasheet.



- When there is a need to power more LED modules can use multiple PS powered in parallel by mains.





- When use a multiple modules with long conductors is allowable to connect outputs of PS to each end of their wires with same polarity as shown on picture. In this case it will be increased LED power and/or output current. Please consider this according PS model output performance. Use approved connecting wires and terminals with appropriate cross section to reduce current and voltage losses in connections.
- For PS models with two output cables its preferable to use both for connections with LED loads such as LED loads in the two outputs are evenly distributed.