



LEDPowerPlant® Universal LED Power Supply

Product order codes for standard 0-10V LED PowerPlant.

Low Voltage Signal version (LVS): LEDPP240/24/LVS LEDPP240/12/LVS
 Switching isolated Signal Version (SIS) LEDPP240/24/SIS LEDPP240/12/SIS
 DALI versions also available: add suffix /DALI



Specification

LEDPowerPlant® – Universal Constant Voltage LED power supply.

Multiload Technology have developed the LEDPowerPlant® based on their world renowned VoltMaster® Intelligent Transformer and using extensive feedback from numerous high profile LED lighting manufacturers. The latest developments in LED lighting require high power with voltage and current stabilisation. LEDPowerPlant® has excellent reliability and will exceed the life expectancy of high quality LED lighting, often quoted at 50,000 hours. LEDPowerPlant® is targeted at today's lighting consultants, designers, specifiers, M&E consultants and OEMs for operation with LED downlighters, linear lighting strips, LED panels and RGB colour wash systems in both interior and exterior applications.

One of the advantages of this innovative product is considerably simplified wiring, eliminating mains and signal runs around the LEDs. LEDPowerPlant® can be remote-mounted more than 50m from the LED lighting, simplifying its positioning in the lighting installation and making inspection and testing so much easier. Using LEDPowerPlant® can significantly reduce installation time for LED lighting by up to 70%, especially when dimming is required.

SELV Status

LEDPowerPlant® output and wiring to the LEDs are fully compatible with SELV standards provided they are routed correctly and not connected to another circuit.

Dimming

LEDPowerPlant® accepts a 1-10V signal which dims the total LED load (DALI versions available).

Low Voltage Signal (LVS) version

The 0-10V signal uses the same voltage reference as the output voltage and as such provides safe SELV signal wiring to a potentiometer rotary control or to a properly connected SELV signalling system (NB: if the signal from a control system is not SELV, this signal can corrupt the SELV wiring to the LEDs).

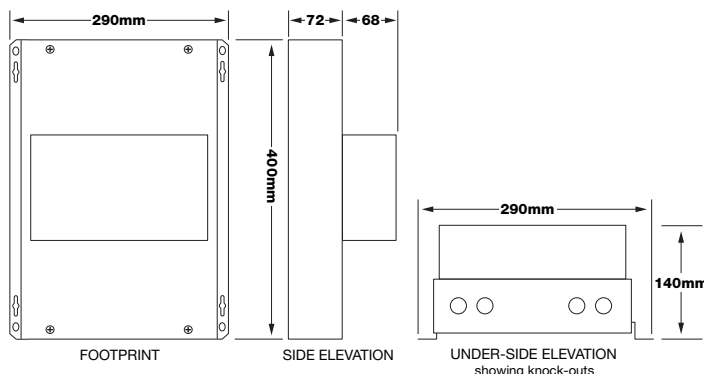
Switching Isolated Signal (SIS) version

The 0-10V signal is isolated from the output voltage and may be connected to any signalling system without corrupting the SELV output wiring to the LEDs.

The SIS version has an internal relay which, when the signal goes below 1V, switches OFF the mains power to the part of the unit producing the output voltage – substantially reducing stand-by power.

Product Dimensions

weight: 12kg finish: stove enamel



Features

Loading: 35W up to 240W.

Voltage: 12V or 24V D.C – stabilised voltage at the LEDs.

Current: Stabilises LED current against changing load and mains voltage variations.

Installation

Cable Volt drop: LEDPowerPlant® compensates for up to 6V cable volt drop for the 24V version and 3V for the 12V version, achieving for the 24V version runs up to 50m for the full 240W load using 4mm² cable. Cable volt drop is compensated for by connecting the sensor cable from the voltage sensing terminal within the LEDPowerPlant® to the designated voltage sensing point at the LED(s).

Sensor cable:

Recommended min thickness 1mm². Terminal max 2.5mm²

Output Wiring:

The unit has 4 individual 4mm² output terminals, individually fused at 10A. Max total load of LEDPowerPlant® for 24V is 10A and for 12V version is 20A.

Standards

Conforms to the following standards for EMC: BSEN55130-1, BSEN55022 Class B, BSEN55103-2, BSEN61000-4-2, BSEN6100-4-3, BSEN61000-4-4, BSEN61000-4-5, BSEN610000-4-6, BSEN61000-4-11, following the provisions of EU EMC Directive/s 89-336-EEC and 92-31-EEC.

The applicable safety standard is BSEN61558-2-6, following the principal safety standard BSEN61558-2-6, and following the principal Elements of the Safety Objectives of the Low Voltage Directive 72-23-EEC.

Specification

Condition/feature	Requirement (R)/Capability (C)	Parameter	Value/units	Note	Type / comment
Electrical supply (mains input)	R Regular sine wave	Voltage	207-253V		Mandatory Earth must be connected.
	Frequency	50-60	Hz		
Ambient conditions	R Non-condensing	Temperature	0-40°C	1	Derate for higher temperatures
	C IP rating		IP20		
Output	C Isolated SELV compatible	Nominal voltage	24V		LEDPP240/24
			12V		LEDPP120/12
		Max. load	240W 24V		10A maximum
			240W 12V		20A maximum
Min. load	35W				
Dimming	R Dimming signal	Overall dimming	1-10V dc		To min recommended level
Short circuit protection	R Fused				
Mains supply termination	R L, N, E. ⏚ Mandatory Earth	Cable Size acceptance	2x2.5mm ² (CSA) each		3 – Way terminal block
Outlet termination	4 individual terminal pairs	Cable Size acceptance	max:4mm ² (CSA)		Maximum 10A
Sensor termination	Terminal Pair	Cable Size acceptance	Max: 2.5mm ²		Min recommended 1mm ²
Mains safety fusing	R Customer-replaceable	Rating	5A		Fast acting (F) 5 x 20mm
Fixing	C Keyhole slots	4 in total			For initial fixing
	C Fixing holes	4 in total	5mm ø		For secure fixing
Cable entry	C Knockouts	8 Knockouts	20mm ø		Easy to remove with a twist of a screwdriver blade

Notes:

1 Provide adequate ventilation if installed within an enclosed space i.e. cupboard.