

Data Sheet for MSE874



The MSE874 is a power supply unit designed for Eurorack mounting. It has two unregulated DC outputs; one of which is the LOGIC rail for powering control electronics and the other is the MOTOR rail for supplying motor drives. The two outputs are independent of each other (the 0V lines not internally connected).

The optional front panel is fitted with a mains switch with its own neon lamp to show when the mains supply is switched on. There are also two green LEDs, one marked +48V to indicate that the MOTOR supply is on and one marked +24V to show that the LOGIC supply is on.

On the PCB are plug-in screw terminals (described below) and fuseholders for the +48V and +24V fuses.

The mains input should be protected by a 5A anti-surge fuse when running on 230Vac supply and a 10A anti-surge fuse when running on a 115Vac supply.

Specification

Part Number	506PSU00874
Motor supply voltage	55V off load 46V at full load
Motor supply current	8A max.
Logic supply voltage	28V off load 21V at full load
Logic supply current	2A max.
Mains input voltage	115 or 230 Vac 50 or 60 Hz

The mains input voltage is selectable by links on the PCB. **INCORRECT SELECTION WILL RESULT IN DAMAGE TO THE UNIT**

Dimensions

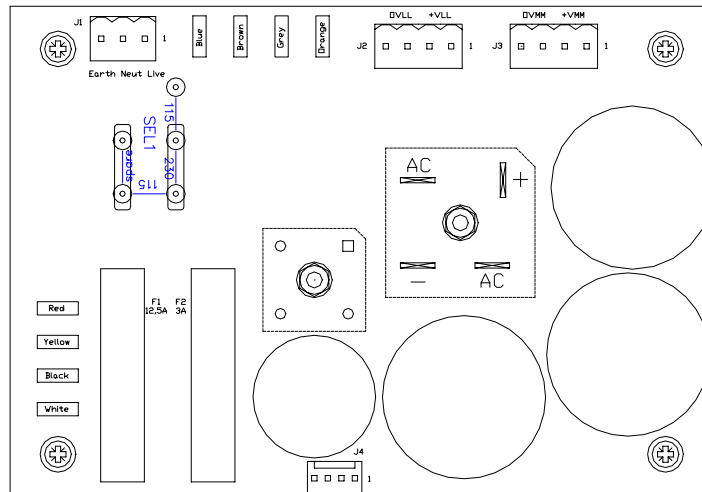
Front Panel Height:	3 U
Front Panel Width:	35 E
Height:	100 mm
Width:	157.4 mm
Length:	229 mm
Weight:	4.4 Kg

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Connections

Connection		Pin	Connector Type	Comment
Mains Supply	Live	J1-1	3 way plug-in screw terminals	THIS UNIT MUST BE EARTHED!
	Neutral	J1-2		
	Earth	J1-3		
+VLL Logic Supply (+24V)		J2-1 & J2-2	4 way plug-in screw terminals	
0VLL Logic 0 volts		J2-3 & J2-4		
+VMM Motor Supply (+48V)		J3-1 & J3-2	4 way plug-in screw terminals	
0VMM Motor 0 volts		J3-3 & J3-4		
+48V LED	Cathode	J4-1	4 way 'Molex' header	Wire - White/Violet
	Anode	J4-2		Wire - White/Orange
+24V LED	Cathode	J4-3		Wire - White/Black
	Anode	J4-4		Wire - White/Red

PCB Layout



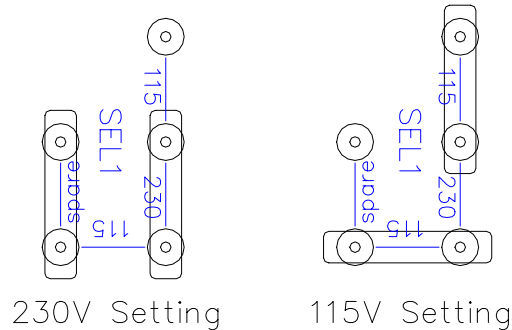
Fuses

Mains fuse (external) @ 230 Vac	5A	anti-surge
Mains fuse (external) @ 115 Vac	10A	anti-surge
Motor fuse (F1)	12.5A	quick-blow 32mm x 6.35mm
Logic fuse (F2)	3A	quick-blow 32mm x 6.35mm

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Voltage selector

An input voltage selector SEL1 is used to select either 230V or 115V mains. It is located on the mains input PCB. The unit is factory set to 230V. Two blue push-in links select the mains input voltage as shown below.



WARNING! Ensure mains supply is OFF before changing links.

The MSE874 can be run at 110Vac by selecting 115V. The output voltages will be reduced by about 5%

Surge Suppressers

Surge suppressers are fitted to reduce the transformer inrush current. These are thermal devices, which are designed to run at elevated temperatures. After turning off the unit, allow at least 30 seconds for the surge suppressers to cool before reapplying power.

CAUTION surge suppressers run HOT.

Front Panel

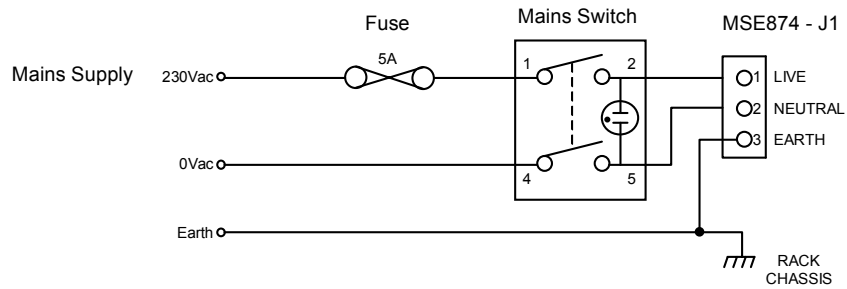


An optional front panel is available for the MSE874, part number 205PAN92963. It is fitted with a double pole illuminated mains switch that should be wired to the fused incoming mains supply as shown below. The wiring should be made using 600V, 18AWG wire.

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Mains Switch Rear View



Mains Wiring

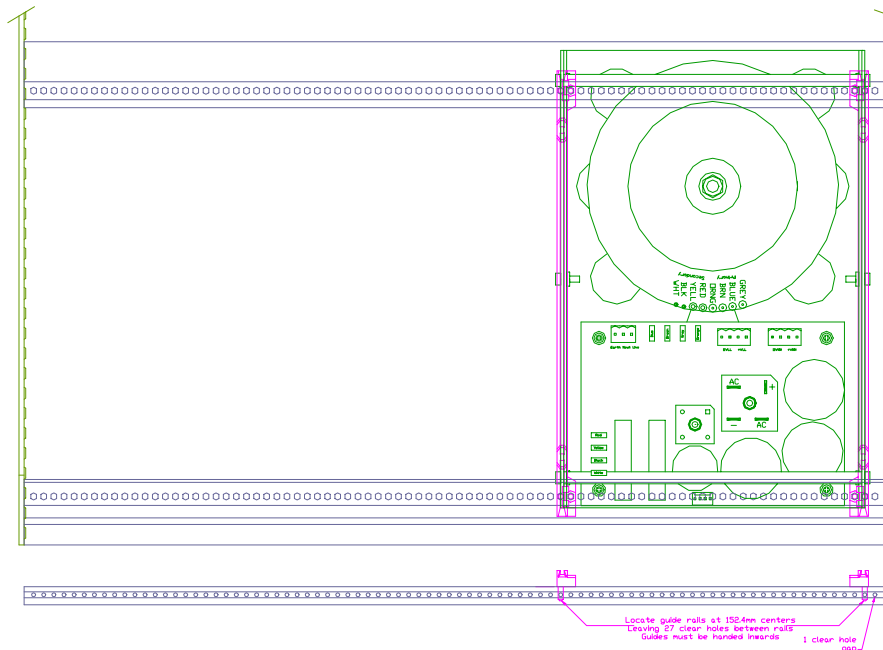
Indicators

The connector for the two green indicators that show the status of the supply rails should be plugged into the J4 connector on the PCB. The indicators are marked +48V for the MOTOR supply and +24V for the LOGIC supply.

Mounting

The MSE874 is designed to be mounted in a 19" rack chassis. The placement of the guide rails is shown below. Locate guide rails at 152.4mm centres, leaving 27 clear holes between rails. Guides must be handed inwards. One clear hole should be left as a gap between the guide rail and the chassis side plate.

Movement of the power supply unit needs to be constrained at the front and the rear. If a front panel is used, then this will limit the movement at the front. A panel or a z-rail can be used to limit the rearward movement.



Mounting in 19" Rack Chassis