

Data Sheet for MSE875



The MSE875 is a power supply unit designed for Eurorack mounting. It has three unregulated DC outputs; one of which is the LOGIC rail (+24V nominal) for powering control electronics and two are MOTOR (+74V and +40V nominal) rails for supplying motor drives. The LOGIC and MOTOR outputs are independent of each other (the 0V lines not internally connected). The MOTOR 2 output is in series with the MOTOR 1 output, they therefore share common 0V rails.

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 three green LEDs to show that the supply rails are on. They are marked +74V for the MOTOR 2 supply, +40V for the MOTOR 1 supply and +24V for the LOGIC supply.

There are two PCBs, one for the mains input that has the input voltage selector links and the surge suppressers, and one for the other power supply components including the fuseholders for the +74V, +40V and +24V fuses. The connections to the MSE875 are made via plug-in screw terminals (described below).

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	506PSU00875
Motor supply 2 voltage	83V off load 66V at full load
Motor supply 2 current	6A max.
Motor supply 1 voltage	45V off load 36V at full load
Motor supply 1+2 current	8A max.
Logic supply voltage	28V off load 22V 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**

Data Sheet for MSE875

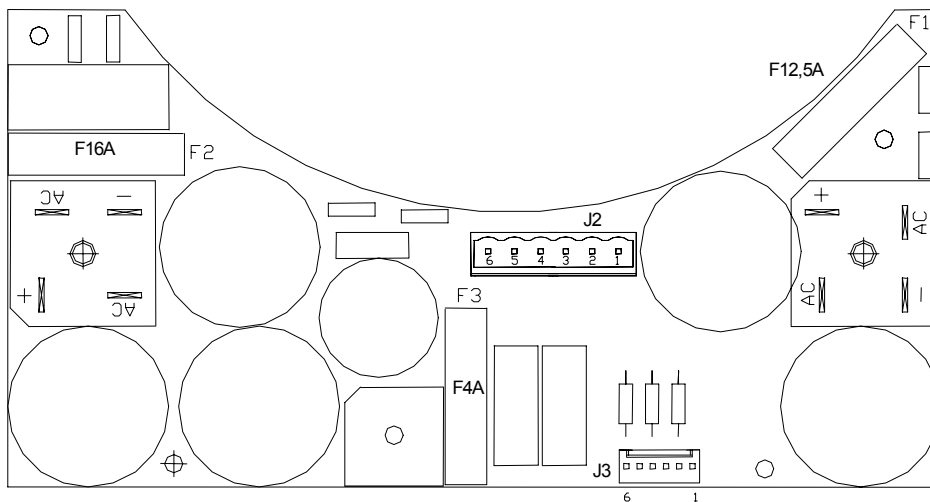
Dimensions

Front Panel Height:	3 U
Front Panel Width:	42 E
Height:	100 mm
Width:	205 mm
Length:	229 mm
Weight:	7.4 Kg

Connections

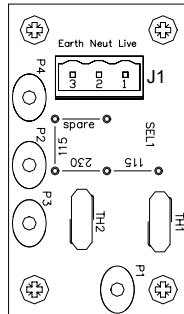
Connection		Pin	Connector Type	Comment
Mains Supply	Live	J1-1	3 way plug-in screw terminals	THIS UNIT MUST BE EARTHED!
	Neutral	J1-2		
	Earth	J1-3		
VMM2 Motor Supply 2 (+74V)		J2-1	6 way plug-in screw terminals	Common with 0VMM1
0VMM2 Motor 2 - 0 volts		J2-2		
VMM1 Motor Supply 1 (+40V)		J2-3		Common with 0VMM2
0VMM1 Motor 1 - 0 volts		J2-4		
+VLL Logic Supply (+24V)		J2-5		
0VLL Logic 0 volts		J2-6		
+74V LED	Cathode	J3-1	6 way 'Molex' header	Wire - White/Yellow
	Anode	J3-2		Wire - White/Green
+40V LED	Cathode	J3-3		Wire - White/Violet
	Anode	J3-4		Wire - White/Orange
+24V LED	Cathode	J3-5		Wire - White/Black
	Anode	J3-6		Wire - White/Red

Supply PCB Layout



Data Sheet for MSE875

Mains PCB

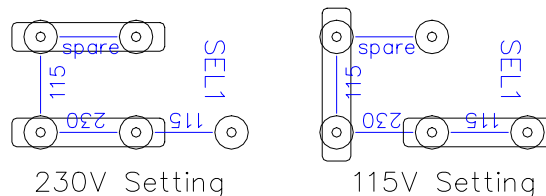


Fuses

Mains fuse (external) @ 230 Vac	5A	anti-surge (T)
Mains fuse (external) @ 115 Vac	10A	anti-surge (T)
Motor 2 fuse (F1)	12.5A	quick-blow (F) 32mm x 6.35mm
Motor 1 fuse (F2)	16A	quick-blow (F) 32mm x 6.35mm
Logic fuse (F3)	4A	quick-blow (F) 32mm x 6.35mm

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 MSE875 can be run at 110Vac by selecting 115V. The output voltages will be reduced by about 5%

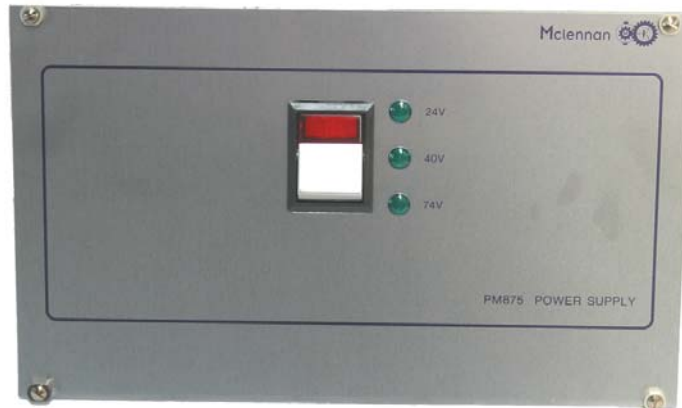
Surge Suppressors

Surge suppressors 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 suppressors to cool before reapplying power.

CAUTION surge suppressors run HOT.

Data Sheet for MSE875

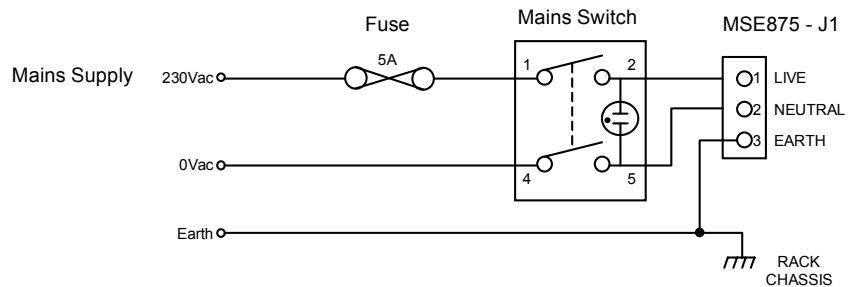
Front Panel



An optional front panel is available for the MSE875, part number 205PAN93044. 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.



Mains Switch Rear View



Mains Wiring

Indicators

The connector for the three green indicators that show the status of the supply rails should be plugged into the J3 connector on the supply PCB. The indicators are marked +74V for the MOTOR 2 supply, +40V for the MOTOR 1 supply and +24V for the LOGIC supply.

Mounting

The MSE875 is designed to be mounted in a 19" rack chassis. The placement of the guide rails is shown below. Locate guide rails at 198.12mm (40 holes) centres. Guides must be handed inwards

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.

