

## POWER SUPPLY 1-PHASE, 5 V DC MINILINE SERIES

ML60.122 PULS PSU 60W 12-15VDC LOW TEMP

- Output current 3 A and 5 A
- Up to 80% efficiency
- AC and dc input voltage
- Width of 22.5 mm
- 5 V, 12 V and 24 V DC options





## PRODUCT DESCRIPTION

3 A model included in Pulse series Mini Line 2 is the latest development series of small power supplies with very compact dimensions and low weight. The units have high efficiency, low EMC interference and good protection against mains transients. This makes them useful in almost all electrical environments and are a great addition to the earlier Mini Line series.

Very low quiescent current and high efficiency even at loads down to 60% makes the aggregates at a good energy and environmental choices.

5 A model is included in the earlier series Miniline having a very proven design and spring terminals for the best connection.

For good cooling free space of 40 mm above and 20 mm under the power supply is recommended. The sides 0 mm unless neighbouring products are a heat source, for example, a power supply unit. Leave then a 15 mm air gap

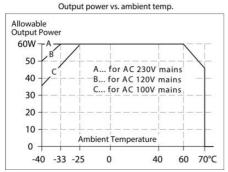


## **SPECIFICATIONS**

Input voltage range	Wide-range
Number of phases	1
Input voltage AC	100-240 V
Input voltage ac min	85 V AC
Input voltage ac max	264 V AC

Input voltage DC	110-300 V
Input voltage dc min	88 V DC
Input voltage dc max	375 V DC
Inrush current at 120 V ac typical	6 A
Inrush current at 230 V ac typical	6 A
Power Factor at 120 V AC, full load. Typical	0.54
Power Factor at 230 V AC, full load. Typical	0.44
Supply Frequency	50-60 ±6 %
Power Consumption At 120 V AC	0.97 A
Power Consumption At 230 V AC	0.61 A
Type Power Supply	AC-DC
Output voltage	12 V DC
Output voltage min	12 V DC
Output voltage max	15 V DC
Output Current	4.5 A
Effect	60 W
Power Reduction Of 60 To 70 ° C	1.4 W/°C
Ripple. max	50 mV pp
Temperature Range Without Derating From	-40 °C
Temperature Range Without Derating To	60 °C
Efficiency At 120 V AC, full load. Typical	85.8 %
Efficiency At 230 V AC, full load. Typical	87.6 %
Lifetime at 120 V ac, full load and +40 ° C	41000 h
Lifetime at 230 V ac, full load and +40 ° C	56000 h
MTBF (IEC 61709) 230 V AC, Maximum Load, 40 $^{\circ}$ C	1571000 h
Width	45 mm
Height	75 mm
Depth	91 mm
Weight	0.25 kg
Clamp time	Carous an
Clamp type	Screw on

Series	Miniline		
Approvals	ABS, CB, CE, CSA, GL, NEC Class 2, UL		
Material Protection	ABS plastic		
Hold-up time at 120 V AC, full load. Typical.	25 ms		
Hold-up time at 230 V AC, full load. Typical.	113 ms		
IP Class	IP20		
Active Transient	Yes		



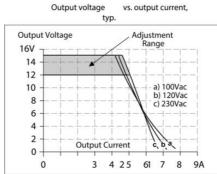


Fig. 8-1 Efficiency vs. output current at 12V, typ.

Efficiency
90%

88 b) 120Vac c) 100Vac
86 84

82 80 Output Current
78 0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 A

Fig. 8-2 Losses vs. output current at 12V, typ.

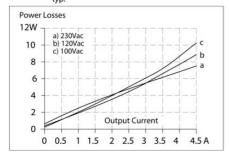


Fig. 10-1 Front side



