OEM Automatic Ltd
Address: Whiteacres, Whetstone Leicester, LE8 6ZG
0116 284 9900 | Orders@oem.co.uk | www.oem.co.uk

POWER SUPPLY 1-PHASE, 48 V DC DIMENSION C SERIES

CPS20.481
PSU 100-240V ac I/P 48V dc 10A 480W O/P



- Output current of 10 A
- Up to 94% efficiency
- Active PFC
- High short-circuit currents
- Hiccup Plus

PRODUCT DESCRIPTION

Puls Dimension C-series stands for cost optimization without compromising quality, reliability or performance. CPS20.481 high efficiency over a wide load range, which results in reduced power consumption and longer life regardless of load current. An average efficiency is 92.8% with a peak value of 93.9%. In addition, power losses very low at idle, only 2.4 W at 230 V ac.

Short-circuit currents. CPS20 can leave short-circuit currents which is 4 times the nominal current for 15 ms, which helps secondary fuses and achieve selectivity.

Hiccup Plus**.**

With new pulse short circuit protection you get optimum protection. The unit leaves a very high short circuit that solves fuses and provides sufficient starting current for example dc motors. If the output voltage drops below 25 V DC will be left 2x rated current for 2 seconds, then close the unit by the end to make a new restart attempts after about 18 seconds. This feature ensures a high short-circuit/overload current while avoiding a constant high current that can lead to heat and component damage.

Technical advantages. CPS20 has active power factor correction (PFC) and active power inrush protection that effectively reduces start currents which are ideal if several units are connected in the same phase or if the supply is current limited through example. AC UPS. The protection is always active, regardless of the temperature. DC-OK output, wide temperature range, a large number of approvals and transient filter which ensures operation in störrik electrical environment makes the unit suitable for virtually all installations.

For approved cooling, we recommend free space of 40 mm above. 20 mm under and 5 mm on the sides. (15 mm if there is another power supply)

Stripping sec. fuses				
	0.75 mm^2	1.0 mm^2	1.5 mm^2	2.5 mm^2
C-2A	74 m	98 m	134 m	198 m
C-3A	57 m	74 m	106 m	168 m
C-4A	43 m	56 m	73 m	114 m
C-6A	11 m	16 m	23 m	33 m
C-8A	1 m	1 m	2 m	3 m
B-6A	19 m	36 m	51 m	82 m
B-10A	9 m	12 m	18 m	27 m
B-13A	7 m	10 m	16 m	24 m

TECHNICAL DATA

INPUT DATA

Input voltage ac	100-240 V
Input voltage ac min	100 V AC
Input voltage ac max	264 V AC
Inrush current at 120 V ac typical	9 A
Inrush current at 230 V ac typical	7 A
Input voltage range	Wide-range
Power factor at 120 V ac, full load. Typical	0.99
Power factor at 230 V ac, full load. Typical	0.95
Number of phases	1

OUTPUT DATA

Output voltage	48 V DC
Output voltage min	48 V DC
Output voltage max	56 V DC
Output current	10 A
Power	480 W

EFFICIENCY / LIFETIME / MTBF

Efficiency at 120 V ac, full load, typical	92.6 %
Efficiency at 230 V ac, typical	92.8 %
Efficiency at 230 V ac, full load, typical	93.9 %
Lifetime at 120 V ac, full load and +40 ° C	70000 h
Lifetime at 230 V ac, full load and +40 ° C	87000 h
MTBF (IEC 61709) 230 V ac, max load, 40 ° C	537000 h

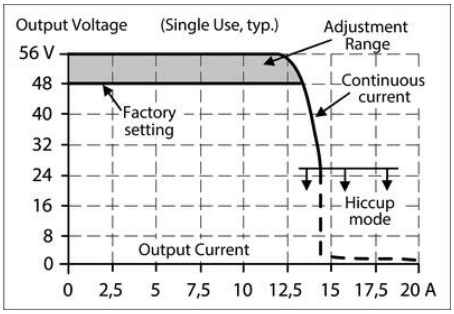
DIMENSIONS

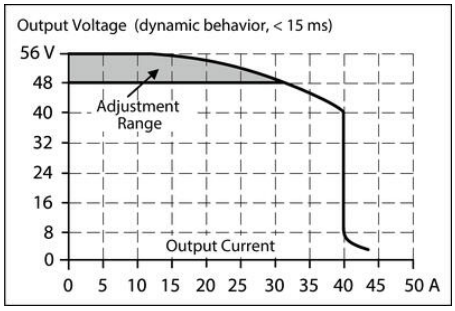
Width	65 mm
Height	124 mm
Depth	117 mm
Weight	1 kg

OTHER

Approvals	ABS, ATEX, CB, CE, CSA US, cRUus, cULus, GL, IECEx
Hold time at 120 V ac, typical full load	26 ms
Hold time at 230 V ac, typical full load	26 ms
IP class	IP20
Clamp type	Screw
Material protection	Aluminium
Supply frequency	50-60 ±6 %
Ripple max	50 mV pp
Series	Dimension C
Power consumption 120 V ac	4.36 A
Power consumption 230 V ac	2.33 A
Power drop from +60 °C to + 70 °C	12 W/°C
Temperature min without derating	-25 °C
Temperature max without derating	60 °C

Type Power Supply	AC-DC
Active Transient	Yes
DC relay output	Yes





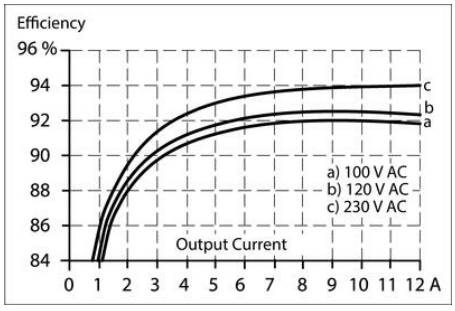


Fig. 15-1 **Output current vs. ambient temp.**

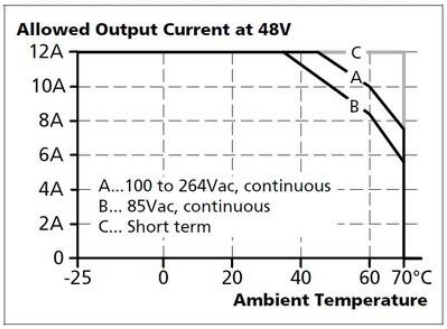


Fig. 9-2 **Losses vs. output current at 48V, typ.**

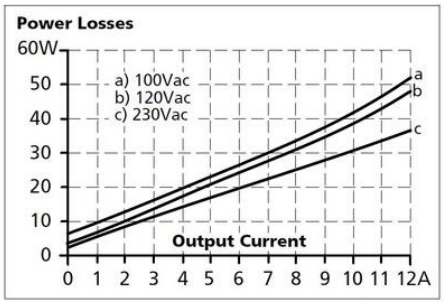
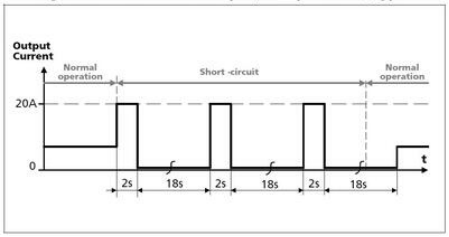


Fig. 6-3 **Short-circuit on output, Hiccup^{PLUS} mode, typ.**



Maximal wire length*) for a fast (magnetic) tripping:

	0.75mm²	1.0mm²	1.5mm²	2.5mm²
C-2A	74m	98m	134m	198m
C-3A	57m	74m	106m	168m
C-4A	43m	56m	73m	114m
C-6A	11m	16m	23m	33m
C-8A	1m	1m	2m	3m
B-6A	19m	36m	51m	82m
B-10A	9m	12m	18m	27m
B-13A	7m	10m	16m	24m

Fig. 13-1 **Front side**

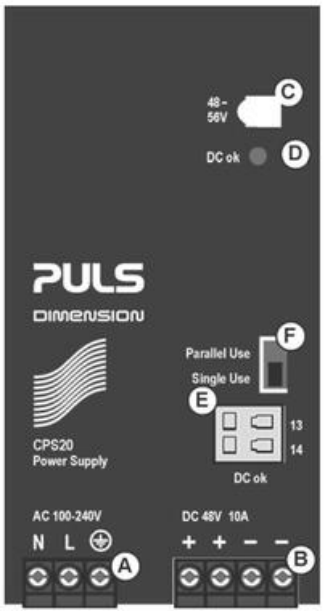
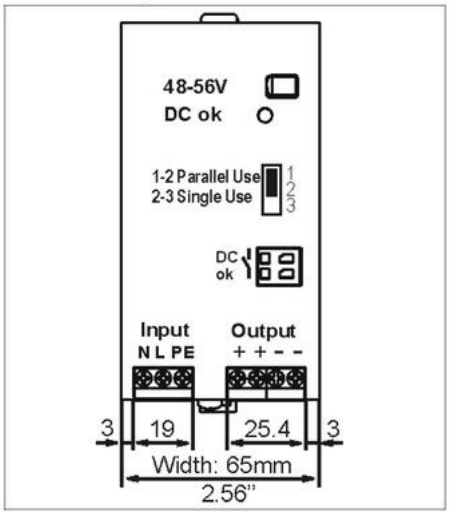


Fig. 20-1 **Front view**



Side view

