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-D1
PSU 110-300V dc 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 dc	110-300 V
Input voltage dc min	88 V DC
Input voltage dc max	360 V DC
Inrush current	Typ. 6/4 A @ 110/300 V DC
Max entrance tripple	50 V pp

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	94.6 %
MTBF (IEC 61709)	537000 h @ 10 A, 40 °C

DIMENSIONS

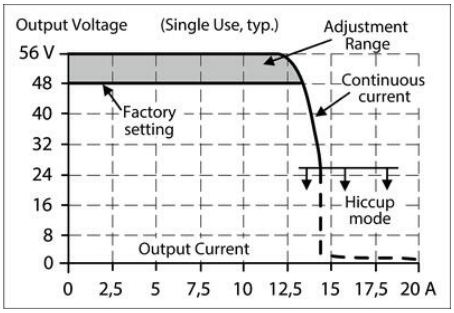
Width	65 mm

Height	124 mm
Depth	117 mm
Weight	0.94 kg

OTHER

Approvals	ATEX, CB, CE, CSA US, cRUus, cULus, IECEx
Keep time	Typ. 26/26 ms @ 110/300 V DC
IP class	IP20
Clamp type	Screw
Material protection	Aluminium
Ripple max	50 mV pp
Series	Dimension C
Power drop from +60 °C to + 70 °C	12 W/°C
Temperature min without derating	-25 °C
Temperature max without derating	60 °C
Startup delay	1100 ms

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



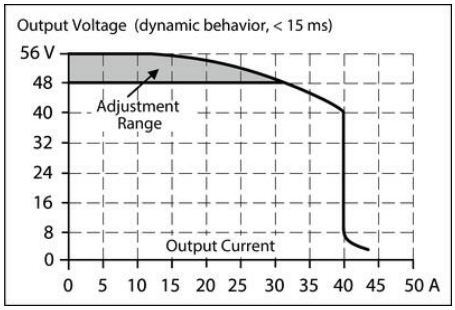


Fig. 15-1 **Output current vs. ambient temp.**

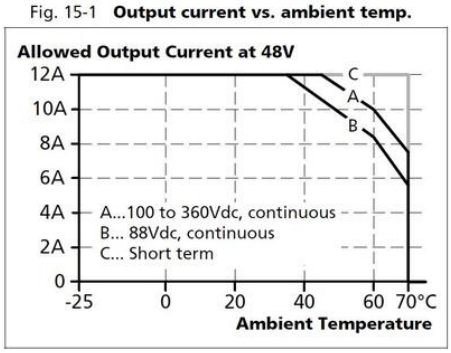


Fig. 9-1 **Efficiency vs. output current at 48V, typ**

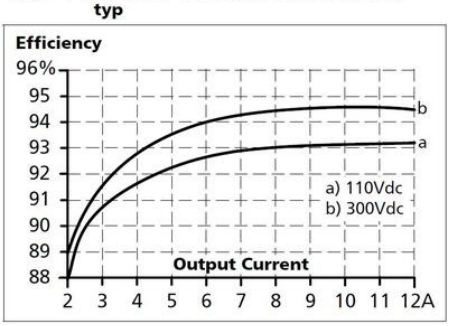


Fig. 9-2 **Losses vs. output current at 48V, typ.**

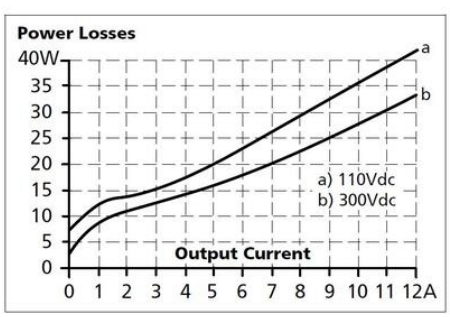
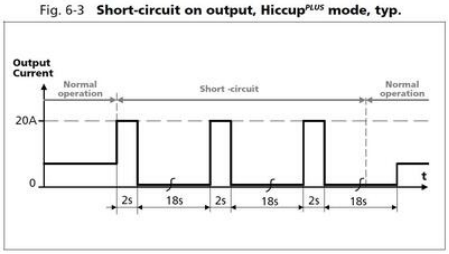


Fig. 6-3 **Short-circuit on output, Hiccup^{PLUS} mode, typ.**



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**

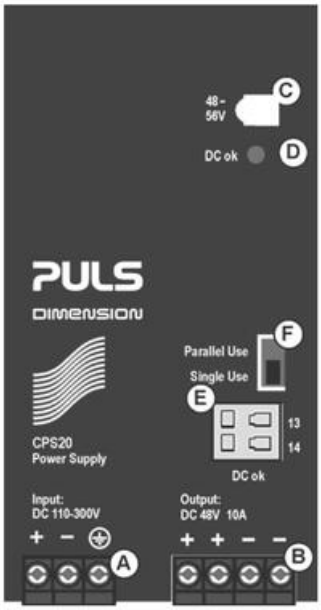


Fig. 20-1 **Front view**

