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POWER SUPPLY 1-PHASE, 36 V DC DIMENSION C SERIES

CPS20.361
PSU 100-240V ac I/P 36V dc 13.3A 480W O/P

- Output current of 13.3 A
- Up to 94.2% accuracy
- Active PFC
- High short-circuit currents
- Hiccup Plus

PRODUCT DESCRIPTION

Puls Dimension C-series stands for cost optimization without compromising quality, reliability or performance. CPS20.361 high efficiency over a wide load range, which results in reduced power consumption and longer life regardless of load current. An average efficiency is 93.2% with a peak value of 94.3%. In addition, power losses very low at idle, only 2.8 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 20 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 interference prone electrical environment makes the unit suitable for virtually all installations.

For good ventilation, we recommend a clearance of 40 mm over 20 mm below and 5 mm on the sides. (15 mm on the sides of adjacent product is a heat source, such as another power supply.)

Stripping sec. fuses				
	0.75 mm^2	1.0 mm^2	1.5 mm^2	2.5 mm^2
C-2A	51 m	69 m	100 m	153 m
C-3A	43 m	57 m	83 m	128 m
C-4A	32 m	44 m	64 m	99 m
C-6A	8 m	13 m	19 m	31 m
C-8A	3 m	5 m	7 m	10 m
C-10A	2 m	4 m	6 m	8 m
C-13A	-	1 m	2 m	5 m
B-6A	29 m	39 m	54 m	79 m
B-10A	8 m	11 m	19 m	24 m
B-13A	7 m	9 m	14 m	23 m
B-16A	1 m	1 m	2 m	4 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	36 V DC
Output voltage min	36 V DC
Output voltage max	42 V DC
Output current	13.3 A
Power	480 W

EFFICIENCY / LIFETIME / MTBF

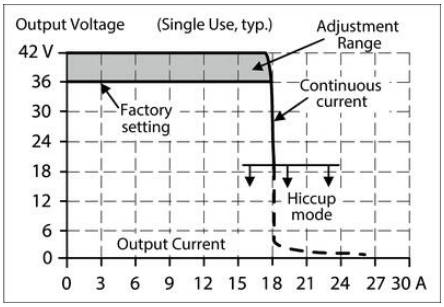
Efficiency at 120 V ac, full load, typical	93 %
Efficiency at 230 V ac, typical	93.2 %
Efficiency at 230 V ac, full load, typical	94.3 %
Lifetime at 120 V ac, full load and +40 ° C	85000 h
Lifetime at 230 V ac, full load and +40 ° C	101000 h
MTBF (IEC 61709) 230 V ac, max load, 40 ° C	537000 h

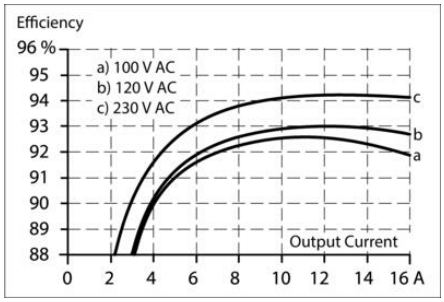
DIMENSIONS

Width	65 mm
Height	124 mm
Depth	127 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 on
Material protection	Aluminium
Supply frequency	50-60 ±6 %
Ripple max	100 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





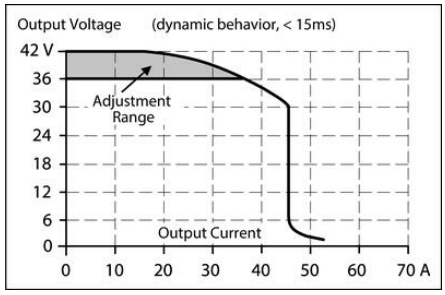


Fig. 15-1 **Output current vs. ambient temp.**

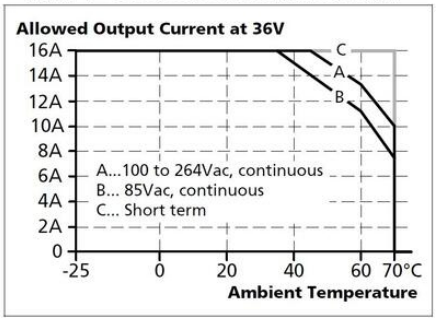
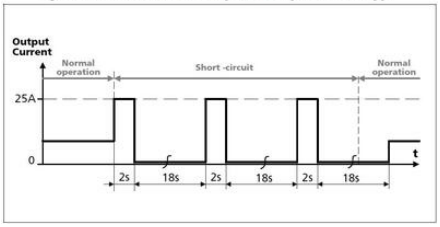


Fig. 6-3 **Short-circuit on output, Hiccup^{PLUS} mode, typ.**



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

	0.75mm²	1.0mm²	1.5mm²	2.5mm²
C-2A	51m	69m	100m	153m
C-3A	43m	57m	83m	128m
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Fig. 9-2 **Losses vs. output current at 36V, typ.**

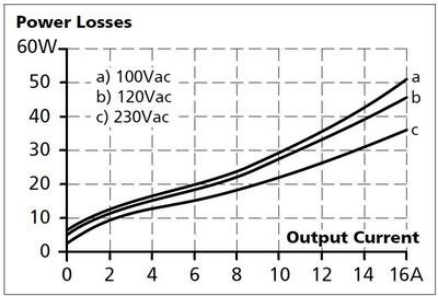


Fig. 13-1 **Front side**

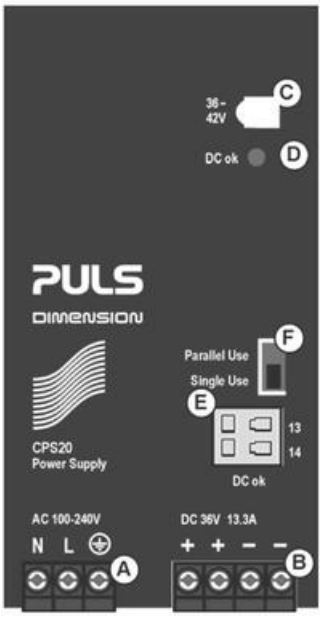
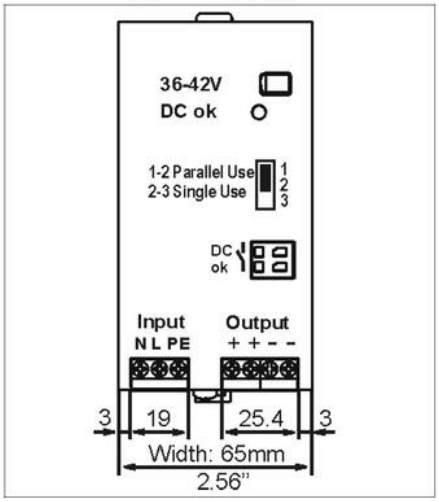
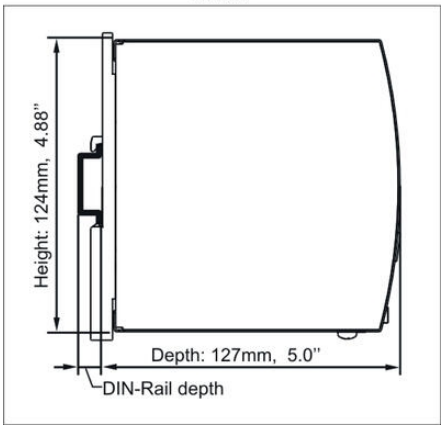
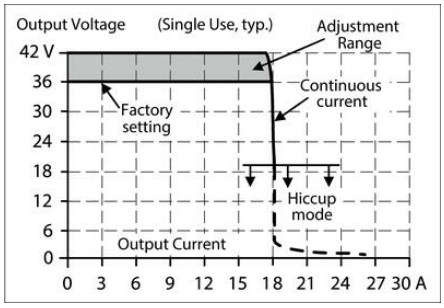


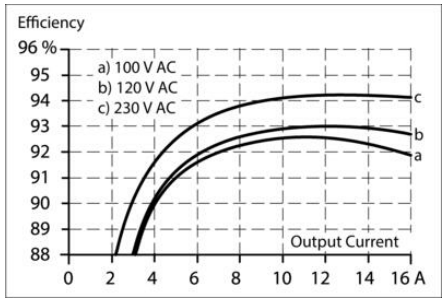
Fig. 20-1 **Front view**



Side view







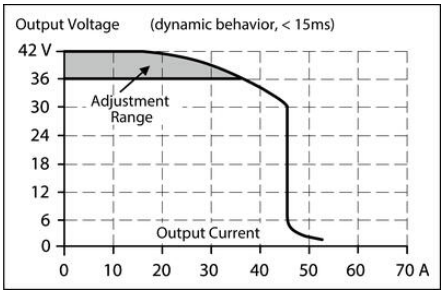


Fig. 15-1 **Output current vs. ambient temp.**

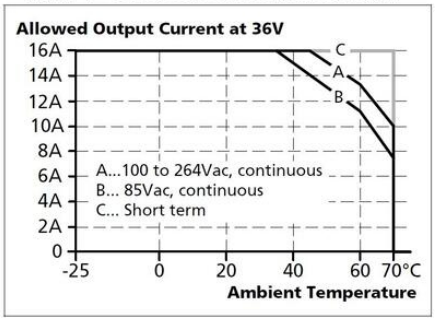


Fig. 6-3 **Short-circuit on output, Hiccup^{PLUS} mode, typ.**

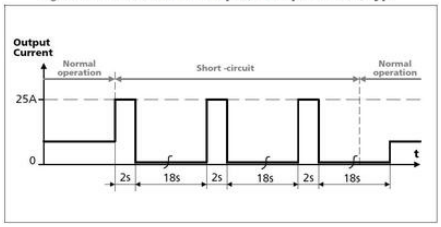


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Fig. 9-2 **Losses vs. output current at 36V, typ.**

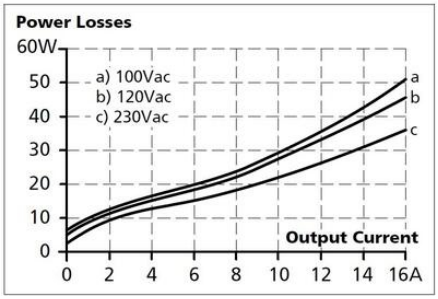
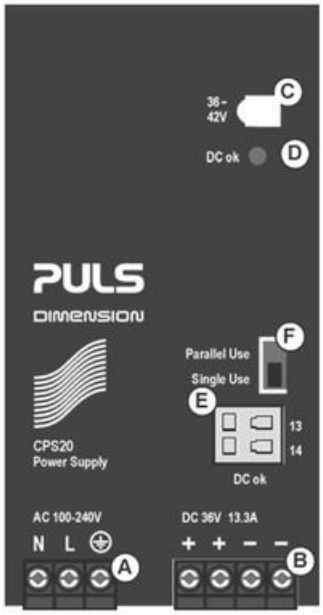


Fig. 13-1 **Front side**



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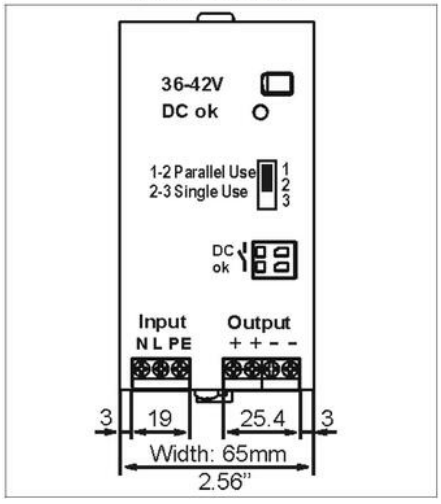

Side view