POWER SUPPLY 1-PHASE, 12 V DC DIMENSION C SERIES

CPS20.121
POWER SUPPLY 12VDC 360W 30A

- Output current 30 A
- Up to 92.5% efficiency
- 65 mm wide
- Active PFC
- Hiccup Plus

PRODUCT DESCRIPTION

Puls Dimension C-series stands for cost optimization without compromising quality, reliability or performance. CPS20.121 high efficiency over a wide load range, which results in reduced power consumption and longer life regardless of load current. An average efficiency is 91.6% with a peak value of 92.6%. In addition, power losses very low at idle, only 3 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 falls below 6 V dc is 2x the rated power is left 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 actively current 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 a good cooling, 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-3A	9 m	12 m	18 m	26 m
C-4A	7 m	10 m	14 m	22 m
C-6A	4 m	6 m	10 m	14 m
C-8A	3 m	5 m	8 m	12 m
C-10A	3 m	4 m	7 m	10 m
B-6A	8 m	11 m	14 m	24 m
B-10A	5 m	7 m	10 m	17 m
B-13A	4 m	6 m	9 m	14 m
B-16A	3 m	5 m	7 m	11 m

SPECIFICATIONS

Type Power Supply	AC-DC
Input voltage range	Wide-range
Power Consumption At 120 V AC	3,3 A
Input voltage AC	100-240 V
Input voltage ac min	85 V AC
Input voltage ac max	264 V AC
Input current at 230 V ac typical	7 A
Number of phases	1
Power Consumption At 230 V AC	1,8 A
Supply Frequency	50-60 ±6 %
Inrush current at 120 V ac typical	9 A
Power Factor at 120 V AC, full load. Typical	0,99
Power Factor at 230 V AC, full load. Typical	0,95

Ripple. max	100 mV pp
Output voltage min	12 V DC
Power Reduction Of 60 To 70 ° C	0,75 W/°C
Temperature Range Without Derating From	-25 °C

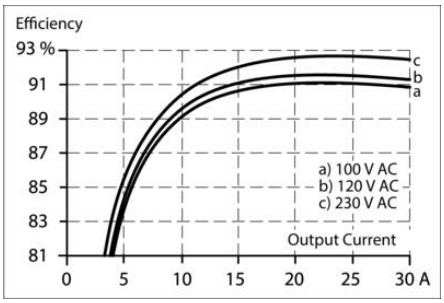
Output voltage	12 V DC
Output voltage max	15 V DC
Effect	360 W
Output Current	30 A
Temperature Range Without Derating To	60 °C

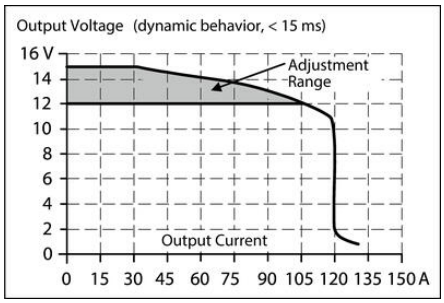
Lifetime at 120 V ac, full load and +40 ° C	50000 h
MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C	554000 h
Efficiency At 230 V AC, full load. Typical	92,6 %
Efficiency At 230 V AC. Typical	91,6 %
Lifetime at 230 V ac, full load and +40 ° C	54000 h
Efficiency At 120 V AC, full load. Typical	91,4 %

Weight	1 kg
Depth	127 mm
Width	65 mm
Height	124 mm

Clamp type	Screw

IP Class	IP20
DC relay output	Yes
Hold-up time at 120 V AC, full load. Typical.	35 ms
Series	Dimension C
Hold-up time at 230 V AC, full load. Typical.	35 ms
Approvals	ABS, ATEX, CB, CE, CSA US, cRUus, cULus, GL, IECEx
Material Protection	Aluminium
Active Transient	Yes





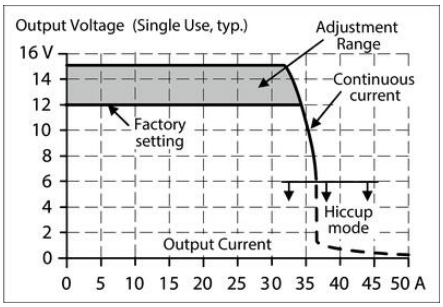


Fig. 15-1 Output current vs. ambient temp.

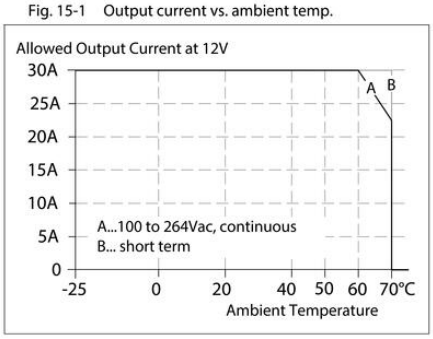
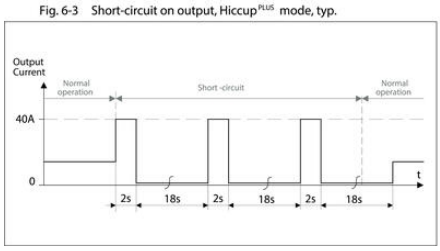


Fig. 6-3 Short-circuit on output, Hiccup^{PLUS} mode, typ.



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

	0.75mm²	1.0mm²	1.5mm²	2.5mm²
C-3A	9m	12m	18m	26m
C-4A	7m	10m	14m	22m
C-6A	4m	6m	10m	14m
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*) Don't forget to consider twice the distance to the load (or cable length) when calculating the total wire length (+ and – wire).

Fig. 9-2 Losses vs. output current at 12V, typ.

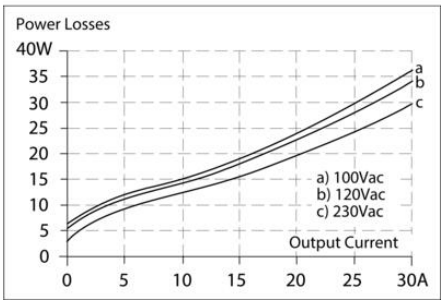


Fig. 13-1 Front side

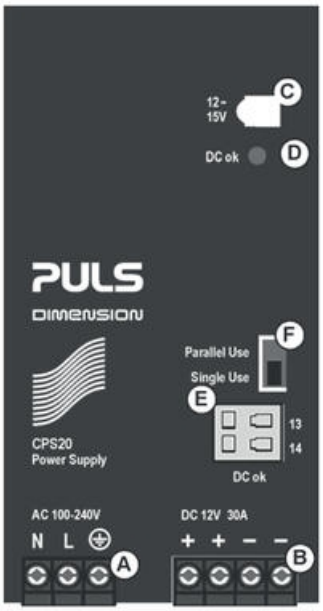


Fig. 20-1 **Front view**

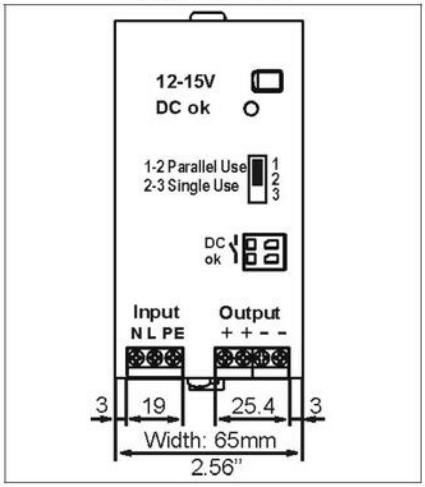
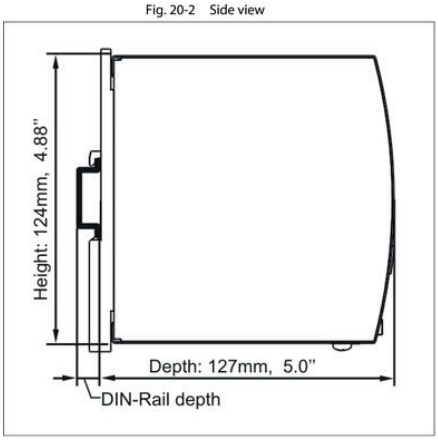
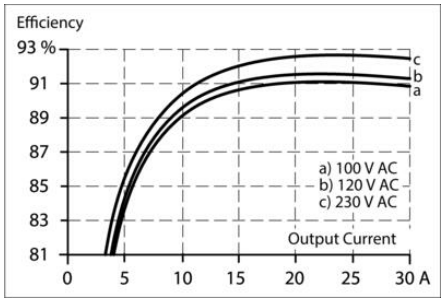
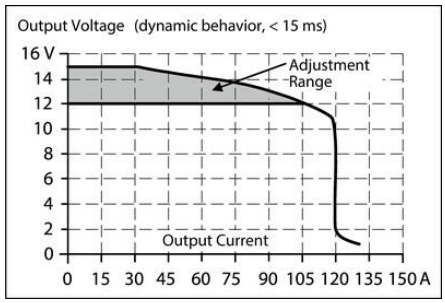


Fig. 20-2 Side view







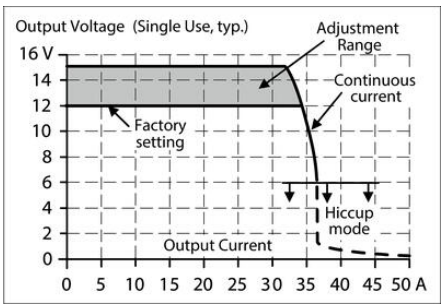
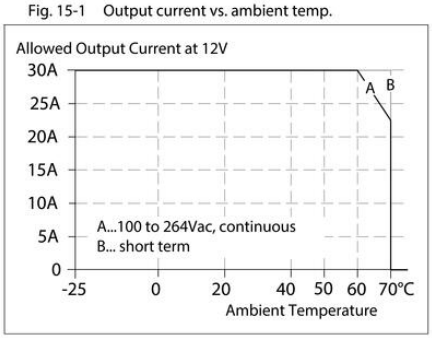


Fig. 15-1 Output current vs. ambient temp.



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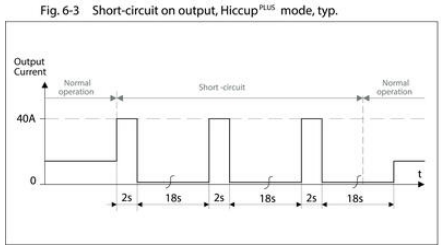

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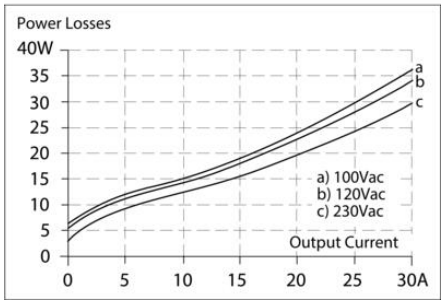
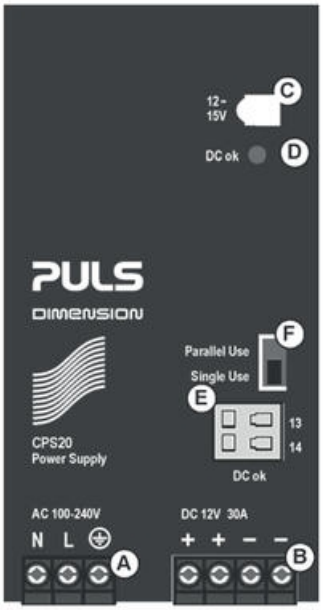


Fig. 13-1 Front side



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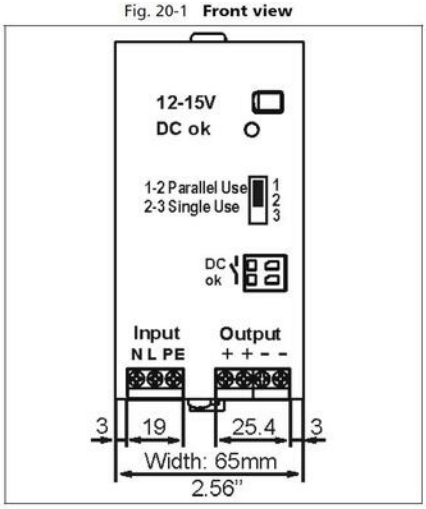

Fig. 20-2 Side view