

**POWER SUPPLY 1-PHASE, 36 V DC  
DIMENSION C SERIES**CPS20.361  
POWER SUPPLY 36-42VDC 13,3A AC 100-240V

- 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<sup>Plus</sup>.**

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 <sup>2</sup>	1.0 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
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

<b>Input voltage range</b>	Wide-range
<b>Input voltage ac</b>	100-240 V
<b>Input voltage ac min</b>	100 V AC
<b>Input voltage ac max</b>	264 V AC
<b>Inrush current at 230 V ac typical</b>	7 A
<b>Number of phases</b>	1
<b>Inrush current at 120 V ac typical</b>	9 A
<b>Power factor at 120 V ac, full load. Typical</b>	0,99
<b>Power factor at 230 V ac, full load. Typical</b>	0,95

### OUTPUT DATA

<b>Output voltage min</b>	36 V DC
<b>Output voltage</b>	36 V DC
<b>Output voltage max</b>	42 V DC
<b>Power</b>	480 W
<b>Output current</b>	13,3 A

## EFFICIENCY / LIFETIME / MTBF

Lifetime at 120 V ac, full load and +40 ° C	85000 h
MTBF (IEC 61709) 230 V ac, max load, 40 ° C	537000 h
Efficiency at 230 V ac, full load, typical	94,3 %
Efficiency at 230 V ac, typical	93,2 %
Lifetime at 230 V ac, full load and +40 ° C	101000 h
Efficiency at 120 V ac, full load, typical	93 %

## DIMENSIONS

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

## OTHER

IP class	IP20
Power consumption 120 V ac	4,36 A
Ripple max	100 mV pp
Power drop from +60 °C to + 70 °C	12 W/°C
Clamp type	Screw on
Temperature min without derating	-25 °C
Hold time at 120 V ac, typical full load	26 ms
Series	Dimension C
Hold time at 230 V ac, typical full load	26 ms
Power consumption 230 V ac	2,33 A
Supply frequency	50-60 ±6 %
Approvals	ABS, ATEX, CB, CE, CSA US, cRUus, cULus, GL, IECEx
Temperature max without derating	60 °C
Material protection	Aluminium
Type Power Supply	AC-DC
Active Transient	Yes
DC relay output	Yes

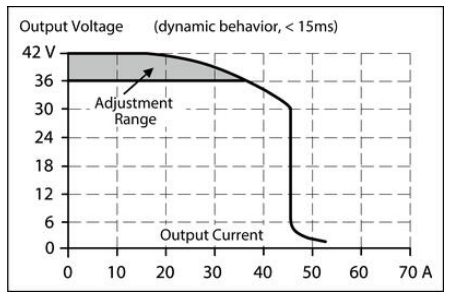
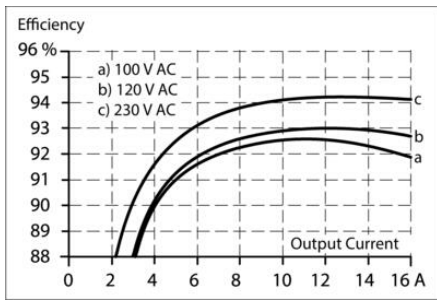
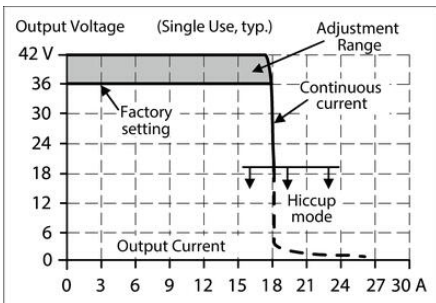


Fig. 15-1 Output current vs. ambient temp.

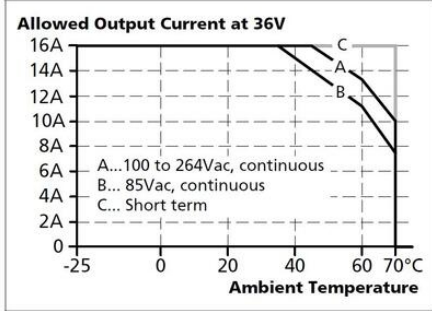
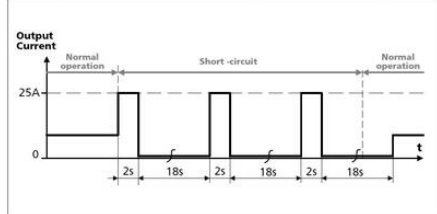


Fig. 6-3 Short-circuit on output, Hiccup<sup>PLUS</sup> mode, typ.



Maximal wire length<sup>1)</sup> for a fast (magnetic) tripping:

	0.75mm <sup>2</sup>	1.0mm <sup>2</sup>	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>
C-2A	51m	69m	100m	153m
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Fig. 9-2 Losses vs. output current at 36V, typ.

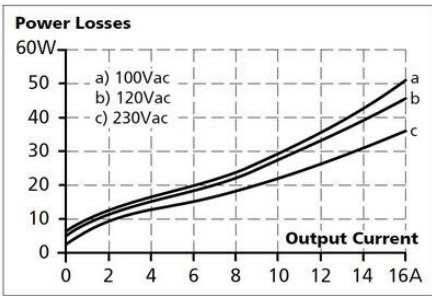
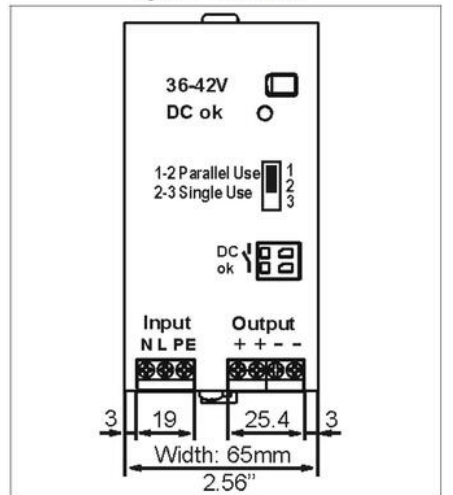


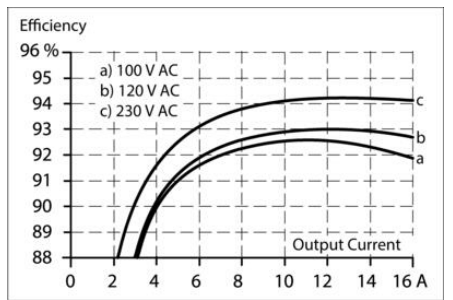
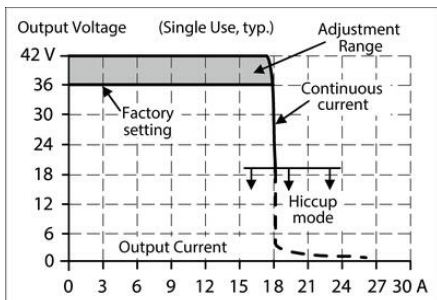
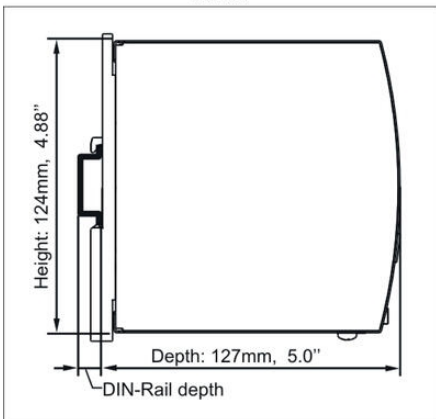
Fig. 13-1 Front side



Fig. 20-1 Front view



Side view



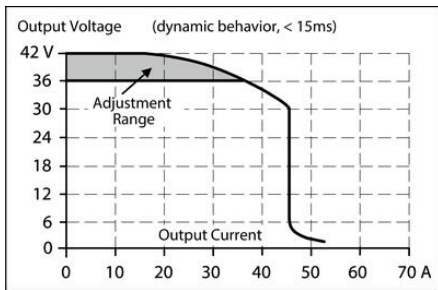


Fig. 15-1 Output current vs. ambient temp.

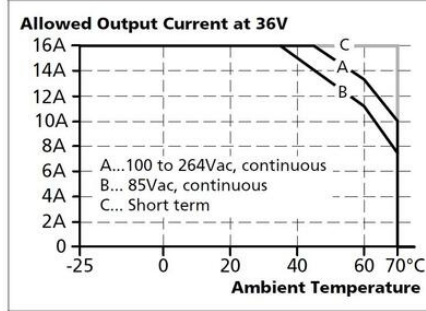
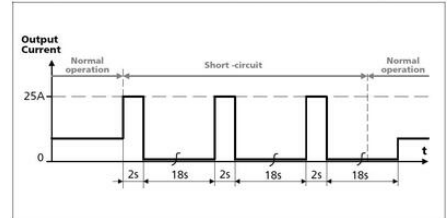


Fig. 6-3 Short-circuit on output, Hiccup<sup>2005</sup> mode, typ.



Maximal wire length<sup>1)</sup> for a fast (magnetic) tripping:

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

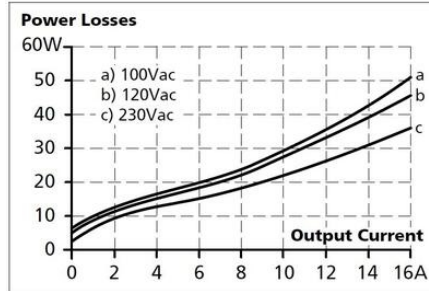
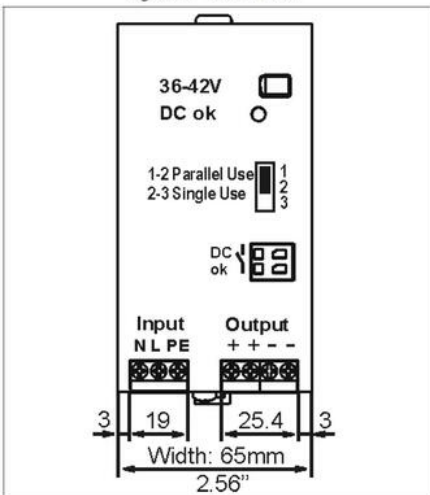


Fig. 13-1 Front side



Fig. 20-1 Front view



Side view

