POWER SUPPLY 1-PHASE WITH BUILT IN REDUNDANCY, 24 V DC DIMENSION C SERIES, GENERATION 2

CP10.241-R1
PSU 24VDC 240W 10A REDUNDANCY

- Output current of 10 or 20 A
- Efficiency up to 95.2%
- 20% power reserves
- Built-in decoupling mosfet for 1+1 and n+1 redundancy
- Hot-Swap

PRODUCT DESCRIPTION

Click below link to download the white paper
Efficient redundancy for power supplies

Also visit our page for Redundancy Modules

The Dimension CP-Series are cost optimized power supplies without compromising quality, reliability and performance. The most outstanding features of the CP20.241–R1/-R2/-R3 units are the high efficiency, electronic inrush current limitation, active PFC, wide operational temperature range and the extraordinary small size. The units include a decoupling MOSFET for building 1+1 or n+1 redundant power supply systems.
These redundancy power supplies come with three connection terminal options; screw terminals, spring-clamp terminals or plug connector terminals which allows replacement on an active application.
CP20.242-R2 version feature an enhanced DC input voltage range and the CP20.241-R2-C1 is additionally equipped with conformal coated pc-boards.
CP10.242-R2 version feature an enhanced DC input voltage range.
With high immunity to transients and power surges, low electromagnetic emission, a DC-OK signal contact for remote monitoring, and a large international approval package, makes this unit suitable for nearly every application.

- AC 100-240V Wide-range Input
- Width only 39 or 48 mm
- Built-in Decoupling Mosfet for 1+1 and n+1 Redundancy
- Efficiency up to 94.7%
- 20% Output Power Reserves
- Safe HiccupPLUS Overload Mode
- Easy Fuse Breaking – 3 times nominal current for 12ms
- Active Power Factor Correction (PFC)
- Minimal Inrush Current Surge
- DC-OK Relay Contact
- Current Sharing Feature Included
- 3 Year Warranty

SPECIFICATIONS

Input voltage range	Wide-range
Power Consumption At 120 V AC	2,17 A
Input voltage AC	100-240 V

Input voltage ac min	85 V AC
Input voltage dc max	180 V DC
Input voltage DC	110-150 V
Input voltage ac max	264 V AC
Input current at 230 V ac typical	9 A
Number of phases	1
Power Consumption At 230 V AC	1,14 A
Supply Frequency	50-60 ±6 %
Inrush current at 120 V ac typical	6 A
Power Factor at 120 V AC, full load. Typical	0,99
Power Factor at 230 V AC, full load. Typical	0,97
Input voltage dc min	88 V DC

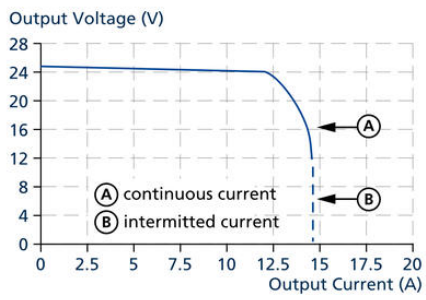
Ripple. max	50 mV pp
Output voltage min	24 V DC
Power Reduction Of 60 To 70 ° C	6 W/°C
Temperature Range Without Derating From	-25 °C
Output voltage	24 V DC
Output voltage max	28 V DC
Effect	240 W
Output Current	10 A
Temperature Range Without Derating To	60 °C

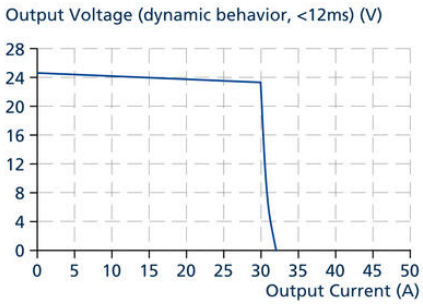
Lifetime at 120 V ac, full load and +40 ° C	78000 h
MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C	641000 h
Efficiency At 230 V AC, full load. Typical	94,7 %
Efficiency At 230 V AC. Typical	93,9 %
Lifetime at 230 V ac, full load and +40 ° C	109000 h
Efficiency At 120 V AC, full load. Typical	93 %

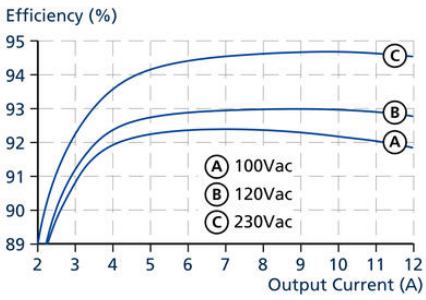
Weight	0,6 kg
Depth	117 mm
Width	39 mm
Height	124 mm

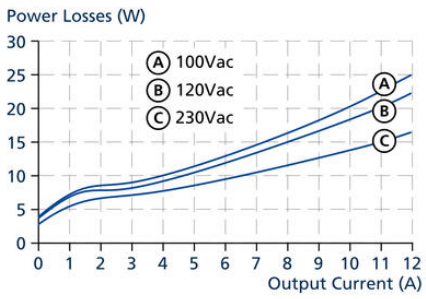
Clamp type	Spring-clamp

IP Class	IP20
DC relay output	Yes
Hold-up time at 120 V AC, full load. Typical.	37 ms
Series	Dimension C
Hold-up time at 230 V AC, full load. Typical.	37 ms
Approvals	ATEX, CE, CSA US, cULus, IECEx
Material Protection	Aluminium
Active Transient	Yes





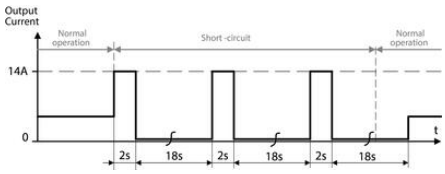


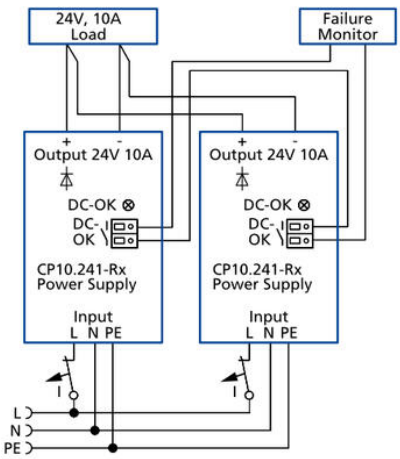


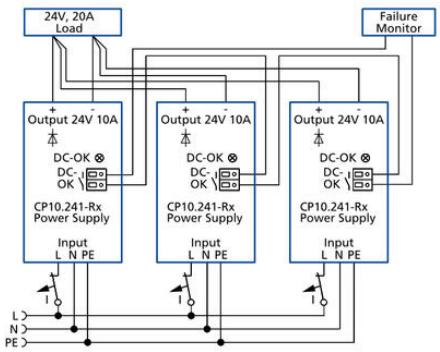
Maximal wire length*) for a fast (magnetic) tripping:

	0.75mm²	1.0mm²	1.5mm²	2.5mm²
C-2A	30 m	37 m	54 m	84 m
C-3A	25 m	30 m	46 m	69 m
C-4A	9 m	15 m	25 m	34 m
C-6A	3 m	3 m	4 m	7 m
C-8A				
B-6A	12 m	15 m	21 m	34 m
B-10A	3 m	3 m	4 m	9 m
B-13A	2 m	2 m	3 m	6 m

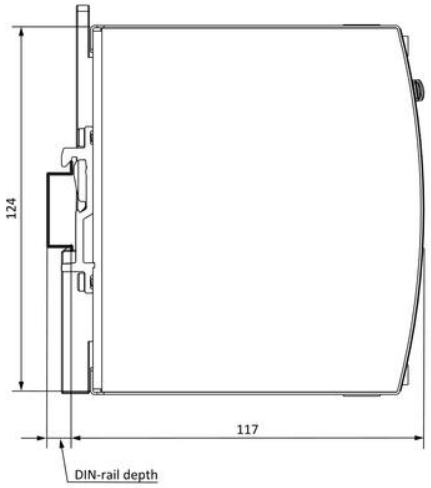
*) Don't forget to consider twice the distance to the load (or cable length) when calculating the total wire length (+ and – wire).








3.5
32
+ + - - -
DC ok
DC
ok
Input
N L PE
3
19
39


124
117
DIN-rail depth