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

CP10.241-R1
Redundant PSU 100-240 V AC/24 V DC, 10 A

- 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.

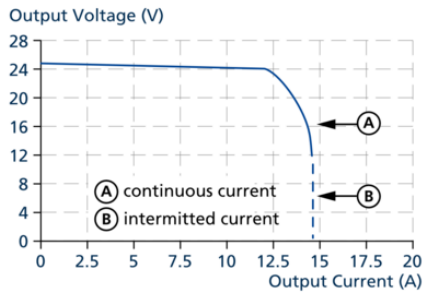
- AC 100-240V Wide-range Input
- Width only 39 or 48 mm
- Built-in Decoupling Mosfet for 1+1 and n+1 Redundancy
- Efficiency up to 94.7%
- 20% Output Power Reserves
- Safe HiccupPLUS Overload Mode
- Easy Fuse Breaking – 3 times nominal current for 12ms
- Active Power Factor Correction (PFC)
- Minimal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

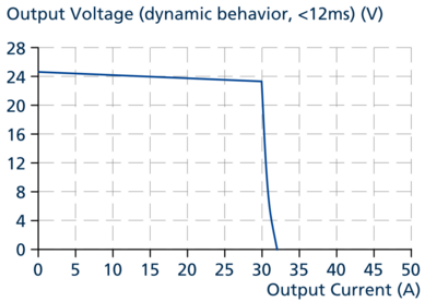
Specifications

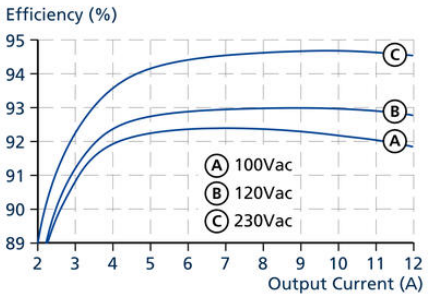
Active Transient	Yes
Approvals	ATEX, CE, CSA US, cULus, IECEx
DC relay output	Yes

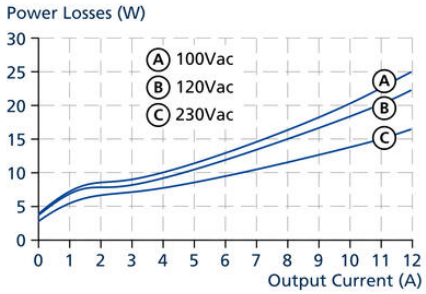
Depth	117
Effect	240
Efficiency At 120 V AC, full load. Typical	93
Efficiency At 230 V AC, full load. Typical	94.7
Efficiency At 230 V AC. Typical	93.9
Height	124
Hold-up time at 120 V AC, full load. Typical.	37
Hold-up time at 230 V AC, full load. Typical.	37
Input current at 230 V ac typical	9
Input voltage AC	100-240 V
Input voltage ac max	264
Input voltage ac min	85
Input voltage DC	110-150 V
Input voltage dc max	180
Input voltage dc min	88
Input voltage range	Wide-range
Inrush current at 120 V ac typical	6
IP Class	IP20
Lifetime at 120 V ac, full load and +40 ° C	78000
Lifetime at 230 V ac, full load and +40 ° C	109000
MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C	641000
Number of phases	1
Output Current	10
Output voltage	24
Output voltage max	28
Output voltage min	24
Power Consumption At 120 V AC	2.17
Power Consumption At 230 V AC	1.14
Power Factor at 120 V AC, full load. Typical	0.99
Power Factor at 230 V AC, full load. Typical	0.97
Power Reduction Of 60 To 70 ° C	6
Ripple. max	50
Series	Dimension C

Supply Frequency	50-60 ±6 %
Temperature Range Without Derating From	-25
Temperature Range Without Derating To	60
Weight	0.6
Width	39





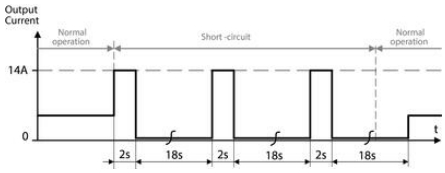


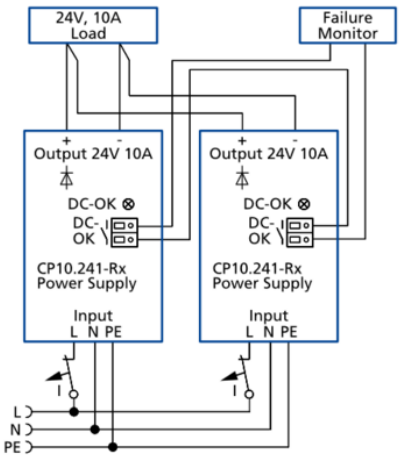


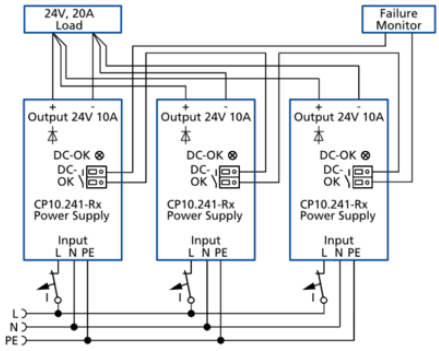
Maximal wire length*) for a fast (magnetic) tripping:

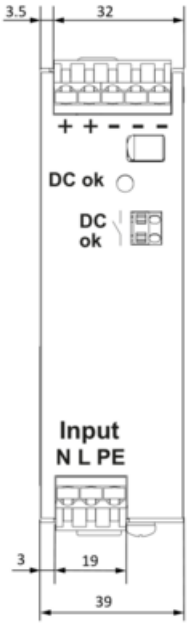
	0.75mm²	1.0mm²	1.5mm²	2.5mm²
C-2A	30 m	37 m	54 m	84 m
C-3A	25 m	30 m	46 m	69 m
C-4A	9 m	15 m	25 m	34 m
C-6A	3 m	3 m	4 m	7 m
C-8A				
B-6A	12 m	15 m	21 m	34 m
B-10A	3 m	3 m	4 m	9 m
B-13A	2 m	2 m	3 m	6 m

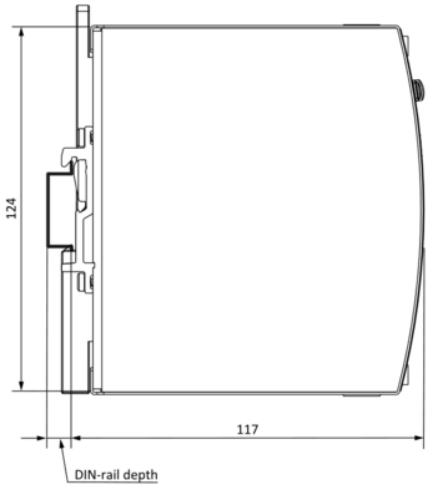
*) Don't forget to consider twice the distance to the load (or cable length) when calculating the total wire length (+ and – wire).










124
117
DIN-rail depth