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POWER SUPPLY 1-PHASE, 24 V DC DIMENSION C SERIES, MEDICAL APPLICATION

CP10.241-M1
PSU 100-240V ac I/P 24V dc 10A 240W O/P Medical Use



- 2MOPP Safety approved IEC 60601-1, 3rd edition
- EMC tested, IEC 60601-1-2, 4th edition
- Output current of 10 A
- Efficiency up to 95.2%

PRODUCT DESCRIPTION

The CP10.241-M1 is a DIN-rail mountable single-phaseinput power supply for industrial use and for use in medical equipment. It provides a stabilized and galvanically separated SELV/PELV output voltage.
The specialty of this power supply is the 2MOPP (two means of patient protection) safety approval for medical use and the fulfillment of the required EMC tests for professional healthcare facility and home healthcare environments.
The CP-Series is part of the DIMENSION power supply family. The most outstanding features of CP10.241-M1 are the high efficiency, advanced inrush current limitation, active PFC and the wide operational temperature range.
High immunity to transients and power surges as well as low electromagnetic emission, a DC-OK relay contact and a large international approval package for a variety of applications makes this unit suitable for nearly every situation.

TECHNICAL DATA

INPUT DATA

Input voltage ac	100-240 V
Input voltage ac min	85 V AC
Input voltage ac max	264 V AC
Input voltage dc	110-150 V
Input voltage dc min	88 V DC
Input voltage dc max	180 V DC
Inrush current at 120 V ac typical	6 A
Inrush current at 230 V ac typical	9 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	0.97
Number of phases	1

OUTPUT DATA

Output voltage	24 V DC
Output voltage min	24 V DC
Output voltage max	28 V DC
Output current	10 A
Power	240 W

EFFICIENCY / LIFETIME / MTBF

Efficiency at 120 V ac, full load, typical	93.6 %
Efficiency at 230 V ac, typical	94.3 %
Efficiency at 230 V ac, full load, typical	95.2 %
Lifetime at 120 V ac, full load and +40 ° C	75000 h
Lifetime at 230 V ac, full load and +40 ° C	120000 h
MTBF (IEC 61709) 230 V ac, max load, 40 ° C	661000 h

DIMENSIONS

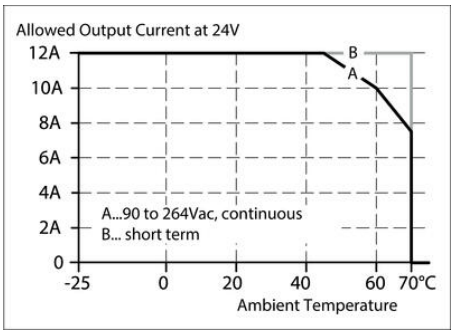
Width	39 mm
Height	124 mm
Depth	117 mm
Weight	0.62 kg

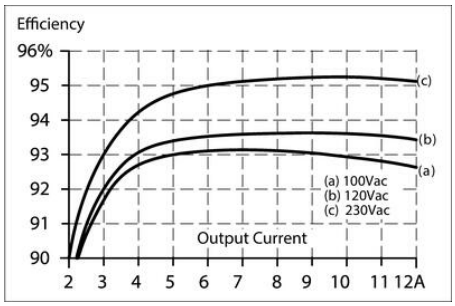
OTHER

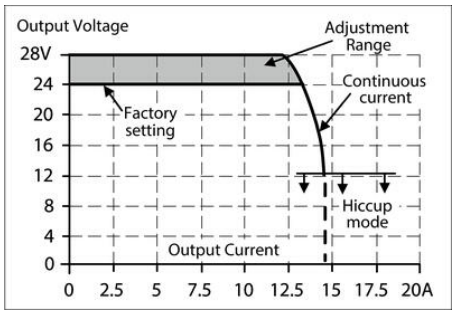
Approvals	CE, cULus
Hold time at 120 V ac, typical full load	37 ms
Hold time at 230 V ac, typical full load	37 ms
IP class	IP20
Clamp type	Spring-clamp
Material protection	Aluminium
Supply frequency	50-60 ±6 %
Ripple max	50 mV pp
Series	Dimension C
Power consumption 120 V ac	2.15 A
Power consumption 230 V ac	1.13 A
Power drop from +60 °C to + 70 °C	6 W/°C

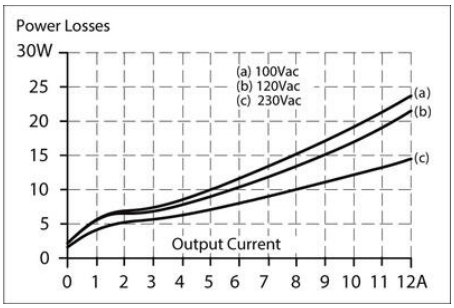
Temperature min without derating	-25 °C
Temperature max without derating	60 °C

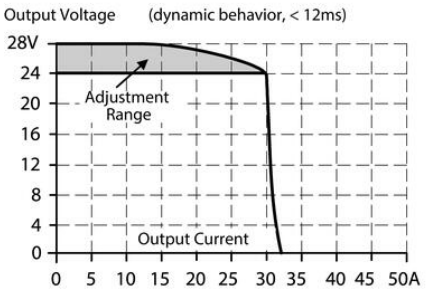
Type Power Supply	AC-DC
Active Transient	Yes
DC relay output	Yes







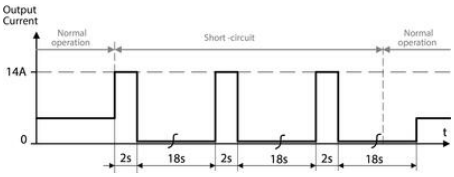




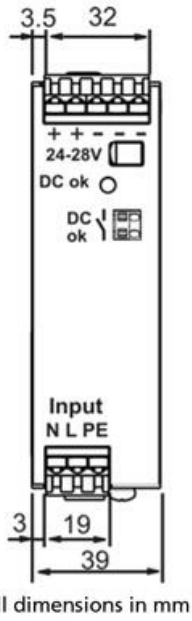
Maximal wire length*) for a fast (magnetic) tripping:

	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

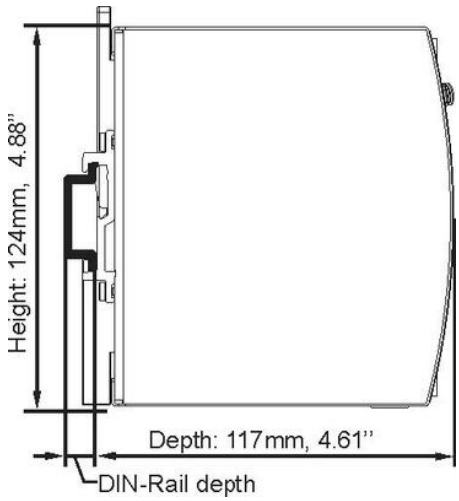
*) Don't forget to consider twice the distance to the load (or cable length) when calculating the total wire length (+ and – wire).







All dimensions in mm


Height: 124mm, 4.88''
Depth: 117mm, 4.61''
DIN-Rail depth