

### DIMENSION C-Series

# CPS20.241, CPS20.241-C1

24V, 20A, SINGLE PHASE INPUT



#### **POWER SUPPLY**

- AC 100-240V Wide-range Input
- Width only 65mm
- Efficiency up to 94.0%
- ATEX and IECEx Approved
- -C1 Version with Conformal Coated PC-Board
- Excellent Partial Load Efficiency
- 20% Output Power Reserves
- Safe Hiccup<sup>PLUS</sup> Overload Mode
- Easy Fuse Breaking due to High Overload Current
- Active Power Factor Correction (PFC)
- Minimal Inrush Current Surge
- Full Power Between -25°C and +60°C
- DC-OK Relay Contact
- Current Sharing Feature for Parallel Use
- 3 Year Warranty

## **GENERAL DESCRIPTION**

The Dimension C-Series are cost optimized power supplies without compromising quality, reliability and performance. The C-Series is part of the DIMENSION power supply family. The most outstanding features of CPS20.241 are the high efficiency, electronic inrush current limitation, active PFC, wide operational temperature range. The small size is achieved by a synchronous rectification and further technological design details.

The C-Series includes all the essential basic functions. The devices have a power reserve of 20% included, which may even be used continuously at temperatures up to +45°C. Additionally, the CPS20.241 can deliver about 4 times the nominal output current for 15ms which helps to trip fuses on faulty output branches.

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.

## **SHORT-FORM DATA**

Output voltage	DC 24V	
Adjustment range	24 - 28V	
Output current	20A	at 24V, amb <60°C
	24A	at 24V, amb <45°C
	17.1A	at 28V, amb <60°C
	20.6A	at 28V, amb <45°C
Output power	480W	ambient <60°C
	576W	ambient <45°C
Output ripple	< 50mVpp	20Hz to 20MHz
AC Input voltage	AC 100-240V	-15%/+10%
Mains frequency	50-60Hz	±6%
AC Input current	4.36 / 2.33A	at 120 / 230Vac
Power factor	0.99 / 0.95	at 120 / 230Vac
AC Inrush current	typ. 9 / 7A peak	at 120 / 230Vac
Efficiency	92.7 / 94.0%	at 120 / 230Vac
Losses	37.8 / 30.6W	at 120 / 230Vac
Temperature range	-25°C to +70°C	operational
Derating *)	12W/°C	+60 to +70°C
Hold-up time	typ. 26 / 26ms	at 120 / 230Vac
Dimensions	65x124x127mm	WxHxD
Weight	1000g / 2.2lb	

<sup>\*)</sup> between 100-85Vac see chapter 15

# ORDER NUMBERS

Power Supply

CPS20.241
CPS20.241-C1

Conformal coated unit

Accessory

ZM2.WALL
ZM13.SIDE
YR40.242

Redundancy module

# **M**ARKINGS













EMC, LVD, RoHS

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YR40.245

All parameters are specified at 24V, 20A, 230Vac, 25°C ambient and after a 5 minutes run-in time unless otherwise noted.

Redundancy module