

## POWER SUPPLY 1-PHASE, 24 V DC DIMENSION C SERIES, GENERATION 2

CP20.241-S1

PSU 100-240 V AC/24-28 V DC, 20 A, spring clamp terminals

- Output current 20 A
- Efficiency up to 95.6%
- Only 48 mm wide
- 20 % output power reserves



### PRODUCT DESCRIPTION

The Dimension CP-Series are cost optimized power supplies without compromising quality, reliability and performance. The most outstanding features of the CP20 series are the high efficiency, electronic inrush current limitation, active PFC, wide operational temperature range and the extraordinary small size.

The CP20.241-C1 is equipped with conformal coated pc-boards preferred for applications in harsh areas.

The CP20.241-S1 is equipped with quick-connect spring-clamp terminals preferred for applications which are exposed to mechanical vibration. The CP20.241-S2 has push-in terminals optimized for easy cabinet wiring.

The CP20.241-V1 is equipped with a remote ON/OFF feature and the CP20.242 features an enhanced DC input voltage range.

The devices have a power reserve of 20% included, which may even be used continuously up to +45°C.

High immunity to transients and power surges as well as low electromagnetic emission, a DC-OK relay contact and a large international approval package makes this unit suitable for nearly every situation.

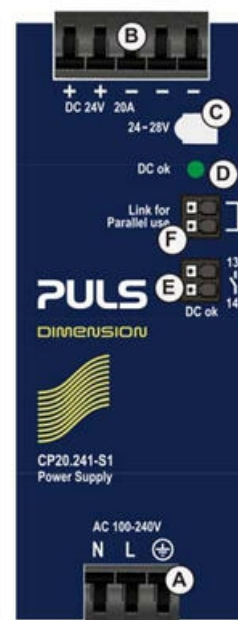
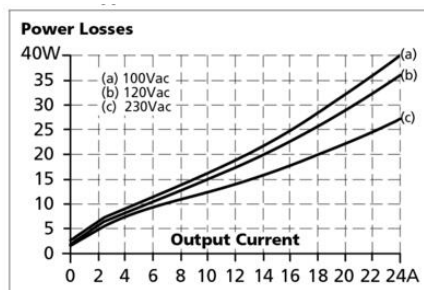
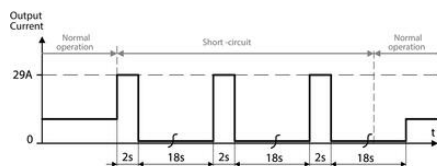
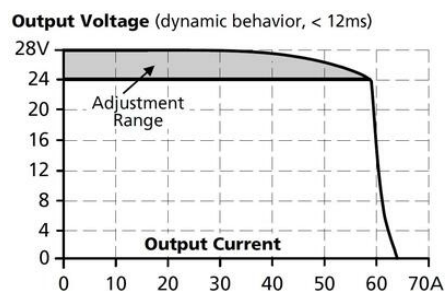
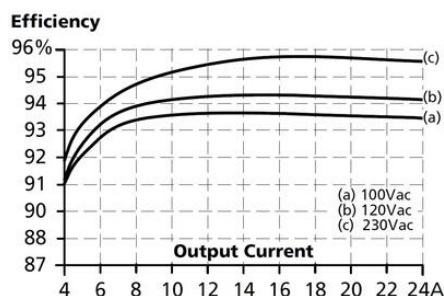
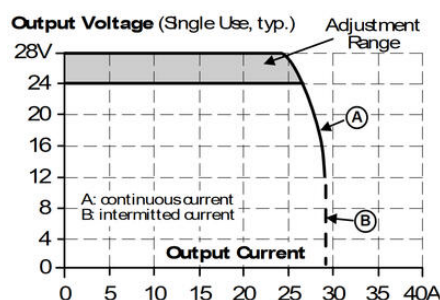
- AC 100-240V Wide-range Input
- Width only 48mm
- Efficiency up to 95.6%
- Excellent Partial Load Efficiency
- 20% Output Power Reserves
- Easy Fuse Breaking – 3 times nominal current for 12ms
- Safe HiccupPLUS Overload Mode
- Active Power Factor Correction (PFC)
- Minimal Inrush Current Surge
- Full Power Between -25°C and +60°C
- DC-OK Relay Contact
- Current Sharing Feature for Parallel Use
- 3 Year Warranty

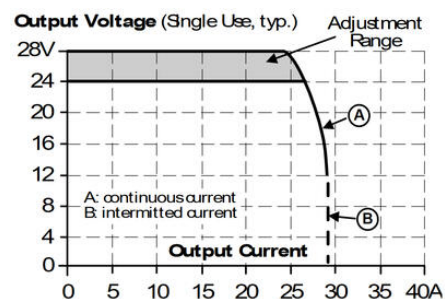
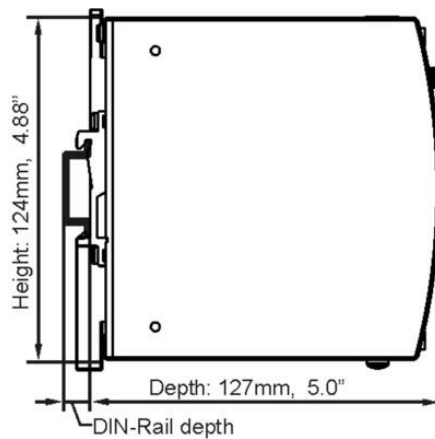
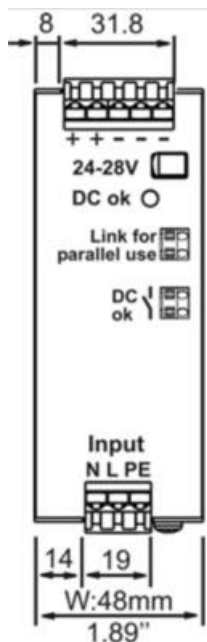
### SPECIFICATIONS

|                      |            |
|----------------------|------------|
| Input voltage range  | Wide-range |
| Number of phases     | 1          |
| Input voltage AC     | 100-240 V  |
| Input voltage ac min | 85 V AC    |

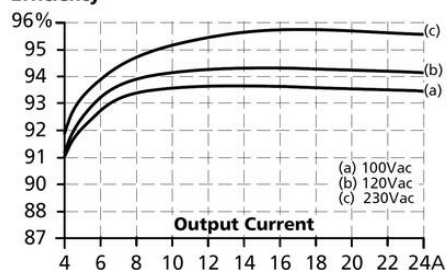
|  |            |
|--|------------|
| <b>Input voltage ac max</b>                            | 264 V AC   |
| <b>Input voltage DC</b>                                | 110-150 V  |
| <b>Input voltage dc min</b>                            | 88 V DC    |
| <b>Input voltage dc max</b>                            | 180 V DC   |
| <b>Inrush current at 120 V ac typical</b>              | 10 A       |
| <b>Input current at 230 V ac typical</b>               | 4.5 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>    | 0.98       |
| <b>Supply Frequency</b>                                | 50-60 ±6 % |
| <b>Power Consumption At 120 V AC</b>                   | 4.26 A     |
| <b>Power Consumption At 230 V AC</b>                   | 2.23 A     |
| <b>Type Power Supply</b>                               | AC-DC      |
|  |            |
| <b>Output voltage</b>                                  | 24 V DC    |
| <b>Output voltage min</b>                              | 24 V DC    |
| <b>Output voltage max</b>                              | 28 V DC    |
| <b>Output Current</b>                                  | 20 A       |
| <b>Effect</b>  | 480 W      |
| <b>Power Reduction Of 60 To 70 ° C</b>                 | 12 W/°C    |
| <b>Ripple. max</b>                                     | 50 mV pp   |
| <b>Temperature Range Without Derating From</b>         | -25 °C     |
| <b>Temperature Range Without Derating To</b>           | 60 °C      |
|  |            |
| <b>Efficiency At 120 V AC, full load. Typical</b>      | 94.2 %     |
| <b>Efficiency At 230 V AC. Typical</b>                 | 95 %       |
| <b>Efficiency At 230 V AC, full load. Typical</b>      | 95.6 %     |
| <b>Lifetime at 120 V ac, full load and +40 ° C</b>     | 60000 h    |
| <b>Lifetime at 230 V ac, full load and +40 ° C</b>     | 94000 h    |
| <b>MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C</b> | 590000 h   |
|  |            |
| <b>Width</b>   | 48 mm      |
| <b>Height</b>  | 124 mm     |
| <b>Depth</b>   | 127 mm     |
| <b>Weight</b>  | 0.83 kg    |
|  |            |
|  |            |

|   |                        |
|---|------------------------|
| Clamp type                                    | Spring-clamp           |
| Series  | Dimension C            |
| Approvals                                     | ATEX, CE, cULus, IECEx |
| DC relay output                               | Yes                    |
| Material Protection                           | Aluminium              |
| Hold-up time at 120 V AC, full load. Typical. | 32 ms                  |
| Hold-up time at 230 V AC, full load. Typical. | 32 ms                  |
| IP Class                                      | IP20                   |
| Active Transient                              | Yes                    |

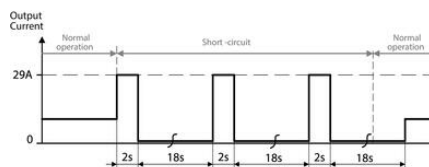
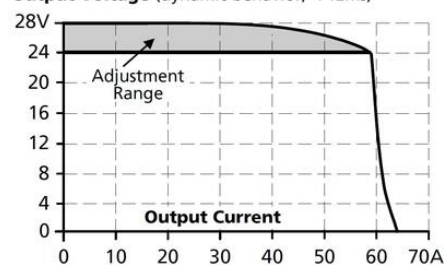




Efficiency



Output Voltage (dynamic behavior, < 12ms)



Power Losses

