

# YSDN480-24020000 YSDN480-48010000

## DIN rail industrial power supplies

### FEATURES:

- robust metal enclosure
- DC OK LED
- high energy efficiency
- low ripples and excellent voltage regulation
- wide temperature range
- double output connector
- high power
- Active PFC

**A series 24 V and 48 V DIN rail power supplies** in a robust metal housing with features such as DC voltage trimming with a potentiometer, and a DC OK LED signaling. These power supplies are designed for wide use in industrial automation and telecommunication systems. The series consists of single-phase power supplies with high efficiency and operating in a wide range of temperatures. The power supplies have a built-in a set of protection circuits against short circuit and overload. They provide high MTBF and a high degree of safety. They comply with international standards.



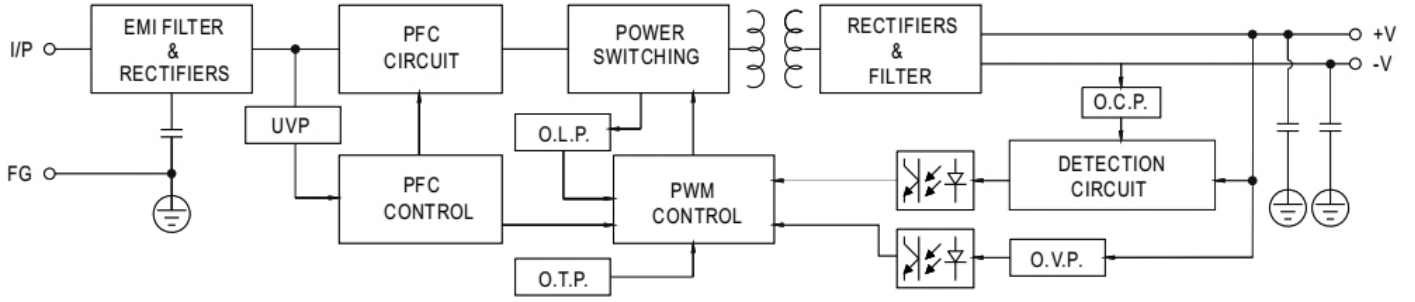
### TECHNICAL SPECIFICATION

| Group                     | Parameter                          | YSDN480-24020000  | YSDN480-48010000         | Notes                    |
|---------------------------|------------------------------------|---|--------------------------|--------------------------|
| Input                     | Input voltage range                | 100-264VAC/120-370VDC   |                          |                          |
|                           | Mains frequency range              | 50/60Hz   |                          |                          |
|                           | AC current (max.)                  | 5.3 A at 100 VAC  |                          |                          |
|                           | Inrush current (max.)              | 40 A  |                          |                          |
|                           | No load power consumption          | 5 W   |                          |                          |
|                           | Input leakage current (max.)       | Max. 1.5 mA   |                          | At 240 VAC               |
|                           | Power factor correction            | 0.92  |                          | Active PFC               |
| Output                    | Rated output voltage               | 24 V (23-28 V)  | 48 V (47-55 V)           |                          |
|                           | Rated output power                 | 480 W   |                          |                          |
|                           | Rated output current               | 20.0 A  | 10.0 A                   |                          |
|                           | Energy efficiency                  | 91%   | 92%                      |                          |
|                           | DC "OK" LED                        | Yes   |                          |                          |
|                           | DC "OK" output signal              | No  |                          |                          |
|                           | Line regulation                    | ±1%   |                          |                          |
|                           | Load regulation                    | ±1%   |                          |                          |
|                           | Ripple and noise                   | 120 mVp-p   | 150 mVp-p                |                          |
|                           | Minimal load                       | 0 A   |                          |                          |
|                           | Hold up time (max.)                | Over 16 ms  |                          | At 100 VAC and full load |
|                           | DC voltage rise time (max.)        | Up to 100 ms  |                          | At 100 VAC and full load |
| Turn on delay time (max.) | Up to 1.5 s                        |   | At 100 VAC and full load |                          |
| Environmental             | Working temperature                | -20 to +70°C  |                          | See deration curve       |
|                           | Working humidity                   | 20% to 85% RH   |                          | Non-condensing           |
|                           | Storage temperature                | -40°C to +85°C  |                          |                          |
|                           | Cooling method                     | Free air circulation  |                          |                          |
|                           | MTBF                               | 200,000 h   |                          | 25°C                     |
| Protection safety and EMC | Short circuit                      | Yes   |                          |                          |
|                           | Over temperature                   | Yes   |                          |                          |
|                           | Over current                       | 110-140% of rated lout  |                          |                          |
|                           | Automatic recovery on fault remove | Protection type: Hiccup Mode- recovers automatically after fault condition is removed |                          |                          |
|                           | Output overvoltage                 | At 29-33 V  | At 56-65 V               |                          |
|                           | Withstand isolation voltage        | 3 kVAC (I-O), 2 kVAC (I/O-FG)<br>Operating altitude up to 2000 m                      |                          | 5 mA, 1 min              |
|                           | Isolation resistance (min)         | 100 MΩ  |                          | 500 VDC                  |
|                           | Insulation class                   | 1   |                          |                          |
|                           | Safety compliance                  | EN62368-1   |                          |                          |
|                           | EMC compliance                     | EN55032, EN61000- 3-2, -3, EN61000-4-2, 3,4,5,6,8,11, EN61000-6-2 EN55024, EN61204-3  |                          |                          |
| Marking                   | RoHS, CE, UKCA                     |   |                          |                          |
| Mechanical and features   | Enclosure                          | Metal housing, DIN TS35 mount   |                          |                          |
|                           | Dimension                          | 86 × 125 × 129 mm   |                          | L × W × H                |
|                           | Weight                             | 1400 g  |                          |                          |
|                           | Output connector                   | Terminal block, double connector  |                          |                          |
|                           | Input connector                    | Terminal block  |                          |                          |
|                           | Single package                     | 165 × 117 × 150 mm  |                          |                          |
|                           | Packing                            | 490 × 345 × 165 mm  |                          | 8 items                  |
|                           | Warranty                           | 3 years   |                          |                          |

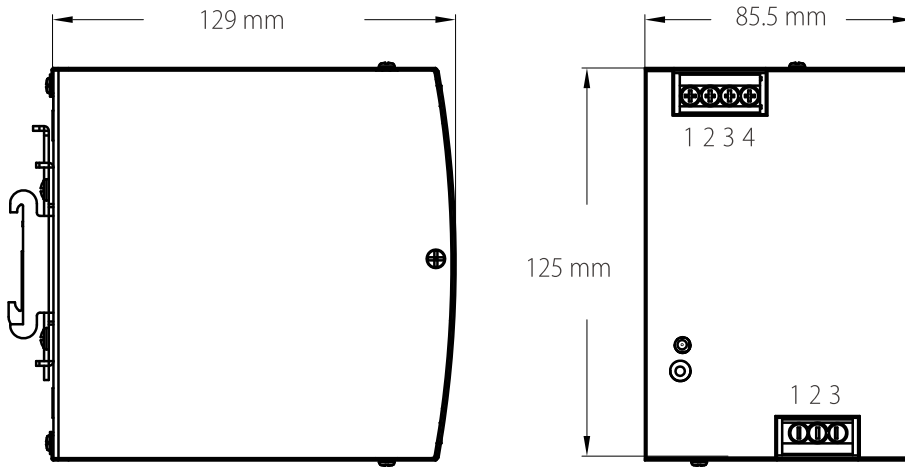
### Notes:

Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25°C and relative humidity 70% for rated load output. The values of parameters related to the output voltage regulation is measured from low to high line or for load changes from 0 to 100%, respectively. The power supply is considered as an independent unit, but the final equipment still need to reconfirm that the whole system complies with the EMC directives. If the PSU is installed in the final device as a subassembly, the tests should be repeated to verify that the system has been met compliance. Detailed technical data are available on request.

## BLOCK DIAGRAM



## MECHANICAL SPECIFICATION



## DERATING CURVES

