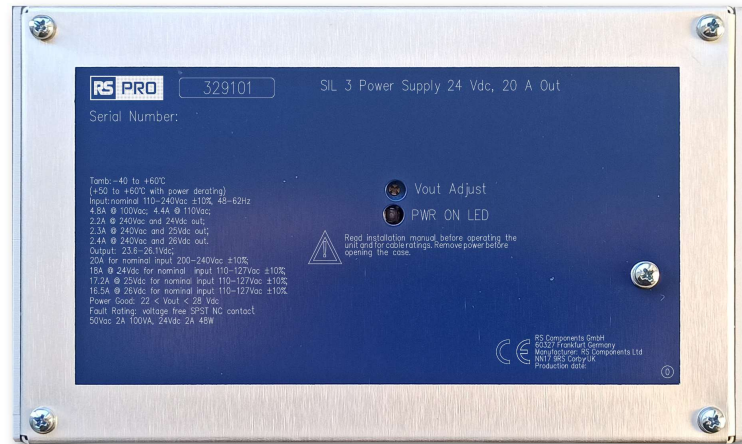


## Features

- SIL 3 for NE loads with single module
- SIL 2/SIL 3 for ND loads with two or more modules in redundant configuration
- Systematic capability SIL 3
- Power factor correction
- EMC compatibility to EN61000-6-2, EN61000-6-4
- Highly regulated output of 24 Vdc, 20 A
- Under and over voltage alarm monitoring
- 3 over voltage redundant protections
- Redundant parallel connections with load sharing
- Reduces power dissipation
- High load fuse breaking capability without interrupting operations

## SIL3 Power Supply, 24 Vdc, 20 A

RS Stock No.: 329101



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

## Product Description

*The Power Supply module is an anodized aluminum unit.*

*The Power Supply module provides 24Vdc, 20 A output. The unit can be paralleled, with load sharing circuits, which distribute current load equally to each power supply to increase reliability and reduce internal power dissipation. The Power Supply module accepts AC power input sources with nominal voltage range 110 to 240 Vrms ( $\pm 10\%$ ).*

## General Specifications

|   |   |
|---|---|
| <b>AC Input voltage</b>                                     | nominal 110 to 240 Vrms ( $\pm 10\%$ ), with frequency range 48 to 62 Hz  |
| <b>Power Factor Correction (AC input, full load)</b>        | 0.97 typ.@230Vac, 0.995 typ.@115Vac   |
| <b>Efficiency (full load, full Vout range)</b>              | better than 93% @230Vac and 91% @115Vac   |
| <b>Max. internal power dissipation (full load, 24 Vout)</b> | 35W @230Vac, 43W @115Vac  |
| <b>Max. AC input current (sinusoidal at full load)</b>      | 4.8A @ 100Vac & full Vout range; 4.4A @ 110Vac & full Vout range; 2.2A (24Vout), 2.3A (25Vout), 2.4A (26Vout) @ 240Vac.   |
| <b>Inrush current</b>                                       | 15.7 A peak @ 264Vac, 13 A peak @ 230Vac, 5.2 A peak @ 115Vac   |
| <b>Output voltage</b>                                       | 24 Vdc factory setting (adjustable range 23.6÷26.1 Vdc by front panel trimmer)  |
| <b>Output regulation</b>                                    | 0.4% for a 100 % load change  |
| <b>Output stability</b>                                     | 0.03 % for a 20 % input line voltage change   |
| <b>Output max. ripple</b>                                   | $\leq 300$ mVpp   |
| <b>Output current</b>                                       | 20 A (on full output voltage range and 230 Vac input). Parallel connection for redundancy with load sharing capability within $\pm 2.5\%$ of output voltage setting |

|   |  |
|---|--|
| <b>Output current limitation</b>                        | 22A @ 24Vout, 21A @ 25 & 26 Vout. Protected to short circuit   |
| <b>Output power</b>                                     | up to 520 W @ 26 Vdc output and 230 Vac input  |
| <b>Max. output rise time (after AC input supplying)</b> | ≤ 2.4 s  |
| <b>Dynamic response</b>                                 | 1.5 ms for 10-90% load change (overshoot ±2% of Vout setting)  |
| <b>Hold-up time</b>                                     | 20 ms (AC input)   |
| <b>Overheat protection</b>                              | double overheat protection on the 1st and 2nd internal stages  |
| <b>Over voltage protection</b>                          | output limited to 28.5 Vdc plus two redundant crowbars for over voltage protection at 29 Vdc                             |
| <b>Output good</b>                                      | 22 V ≤ Vout ≤ 28 V   |
| <b>Signalling</b>                                       | voltage free SPST normally energized relay (contact closed), de-energize in over/under voltage conditions (contact open) |
| <b>Contact rating</b>                                   | A 50 Vac 100 VA, 2 A 24 Vdc 48 W (resistive load)  |

## Mechanical Specifications

|                   |  |
|-------------------|--|
| <b>Weight</b>     | about 1.8 kg   |
| <b>Connection</b> | push-in spring connection terminal block suitable for 6mm <sup>2</sup> wires |
| <b>Dimensions</b> | Width 183 mm, Depth 111 mm, Height 131.5 mm                                  |
| <b>Mounting</b>   | DIN-Rail 35 mm   |

## Electrical Specifications

|                  |  |
|------------------|--|
| <b>Isolation</b> | Input/Output 2.5 kVrms; Input/Ground 1.5 kVrms; Ground/Output 500 Vrms; Output or Ground to Fault contact 500 Vrms |
|------------------|--|

## Operation Environment Specifications

|                                       |  |
|---------------------------------------|--|
| <b>Operating temperature</b>          | temperature limits -40 to +60 °C de-rated linearly 75-80% load above 50 °C |
| <b>Transport, storage temperature</b> | temperature limits -45 to +85 °C   |

## Approvals

|                          |                              |
|--------------------------|------------------------------|
| <b>Declarations</b>      | EU Declaration of Conformity |
| <b>Functional Safety</b> | SIL Manufacturer Declaration |

