

# Single phase, primary switched mode power supply **PM-0148-020-0**



Picture shows PM-0124-040-0

## Advantages

|  |
|--|
| Stabilised and adjustable output voltage |
| Low stand-by consumption <1 W            |
| Constant current characteristic          |
| DC OK signalling                         |
| Parallel operation option                |
| Push-in terminals                        |
| Panel installation on mounting rails     |
| Conform to EN 60335-1                    |

## Applications

Efficient, primary switched mode power supply in slim plastic housing. A powerful and flexible option that's still light and compact. Our real all-rounders, these power supply units are suitable for a highly diverse range of applications in solar, measurement and control technology as well as industrial and building automation. The devices cover the lower and average power requirements from 25 W to 100 W. Versions with 12 V, 24 V, and 48 V are available, enabling a whole range of applications. A version with 3.8 A rated current is available for establishing NEC Class 2 circuits. All power supplies also comply with the EN 60335-1 standard for domestic appliances. The output voltage can be easily set using the rotary potentiometer on the front of the housing. The DIN rail fastening method and push-in connection terminals enable fast and secure mounting.

## Standards

Primary switched mode power supply  
to UL 60950, UL 508

Safety:  
EN 61558-2-16, EN 60950-1, EN 60335-1

EMC:  
EN 61204-3

## Approvals



UL/CSA 60950 recognised, UL508 listed, Germanischer Lloyd

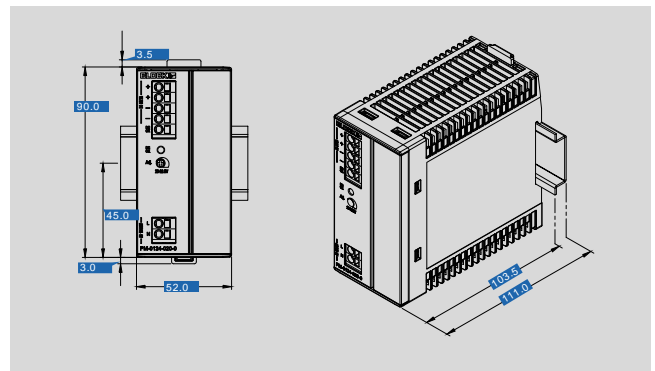


# Single phase, primary switched mode power supply

## PM-0148-020-0

| Type   | PM-0148-020-0  |                                      |
|--|--|--------------------------------------|
| <b>Electrical data</b>                                     | <b>Input</b>   |                                      |
|  | Input rated voltage  | 100 - 240 Vac                        |
|  | Input voltage range  | 85 - 264 Vac (120 - 373 Vdc)         |
|  | Input voltage derating   | -2.5 %/Vac < 95 Vac                  |
|  | Rated frequency range  | 44 Hz - 66 Hz / 0 Hz                 |
|  | Input rated current (rated load)   | 1.79 A (100 Vac) / 0.9 A (240 Vac)   |
|  | Starting current limiter   | < 30 A, NTC                          |
|  | Switch-on time   | 0.5 s (100 Vac) / 0.3 s (230 Vac)    |
|  | Power factor   | 0.5                                  |
|  | Input fuse internal  | 4 A                                  |
|  | Recommended back-up fuse (circuit breaker)   | 6 A, 10 A, 16 A, characteristic B, C |
|  | Mains buffering  | 15 ms (100 Vac) / 80 ms (230 Vac)    |
|  | Transient surge voltage protection   | Varistor                             |
|  | <b>Output</b>  |                                      |
|  | Output rated voltage   | 48 Vdc                               |
|  | Output voltage range   | 40 - 56 Vdc                          |
|  | Output rated current   | 2 A                                  |
| Output limited current                                     | 2.2 ... 2.4 A (constant current)   |                                      |
| Class 2 output (UL Limited Power Source, LPS)              | No   |                                      |
| Parallel connection  | Yes  |                                      |
| Serial operation   | Yes  |                                      |
| Power dissipation, no load/rated load                      | < 1 W / 16.2 W (230 Vac)   |                                      |
| Max. power losses  | 19.8 W (100 Vac / 48 V / 2 A)  |                                      |
| Ripple factor  | typ. 20 mVss   |                                      |
| Resistance to reverse feed max.                            | 63 Vdc   |                                      |
| Over-voltage-protection                                    | max. 60 Vdc  |                                      |
| Efficiency   | 86 %   |                                      |
| <b>Signaling</b>   |  |                                      |
| Typ. switching threshold for LED and signal output (DC OK) | -  |                                      |
| Status indicator   | LED green<br>Uout > typ. 39 Vdc<br>LED lit permanently                               |                                      |
| Signal output  | Active high signal<br>Uout > typ. 39 Vdc<br>max. 10 mA@48 Vdc<br>short circuit proof |                                      |
| <b>Approvals</b>   |  |                                      |
| Approvals  | cURus, cULus, GL   |                                      |
| <b>Environment</b>   |  |                                      |
| Storage temperature  | -25° C ... +85° C  |                                      |
| Ambient temperature  | -25° C ... +70° C  |                                      |
| Derating   | -3 %/K > +50° C  |                                      |
| Mounting position  | horizontal for standard rail DIN TH 35   |                                      |
| Cooling method   | Natural convection   |                                      |
| Required minimum spacing (left/right)                      | 0 mm   |                                      |
| Required minimum spacing (over/under)                      | 50 mm  |                                      |
| <b>Safety and protection</b>                               |  |                                      |
| Protection index   | IP 20  |                                      |
| Safety class   | II, without PE connection  |                                      |
| <b>Order numbers</b>                                       |  |                                      |
| <b>Order Number</b>  | <b>PM-0148-020-0</b>   |                                      |

| Type   | PM-0148-020-0  |                         |
|--|--|-------------------------|
| <b>Mechanical data</b>                                     | <b>Input</b>   |                         |
|  | Connections input (direct plug-in technology Push-In)  | max 2,5 mm <sup>2</sup> |
|  | <b>Output</b>  |                         |
|  | Connections output (direct plug-in technology Push-In) | max 2,5 mm <sup>2</sup> |
| <b>Signaling</b>   |  |                         |
| Connections signalling (direct plug-in technology Push-In) | max 2,5 mm <sup>2</sup>                                |                         |
| <b>Measures and weights</b>                                |  |                         |
| Weight   | 0.39 kg  |                         |
| Dimension (W x H x D)                                      | 52 x 90 x 103.5 mm                                     |                         |



Subjects to change.