

## Technical data sheet

Power supply · LEPOS Wide Range, 1-/2-phases, regulated, 480 W

Switchmode power supply, 1-/2-phase

Input: wide-range input AC 180–550 V, DC 254-780 V

Output: DC 24 V / 20 A, adjustable



### Identification

Type LEPOS-WR-480-24  
Part No. [722722](#)

### Product version

Datasheet version 00

### Input

Number of phases 2  
Rated voltage  $U_N$  One-, two-phase  
AC 200 / 500 V  
Operation voltage range AC 180-550 V  
DC 254-780 V  
Frequency range 47 Hz – 63 Hz  
Rated current  $I_N$  4 A @ AC 230 V  
1.6 A @ AC 400 V  
Inrush current 50 A @ AC 230 V  
50 A @ AC 400 V  
Internal fuse T6,3 A / AC 500 V  
External protection Mini-circuit breaker: C 16 A  
Power factor correction P.F.C. >0.84 @ AC 230 V / >0.84 @ AC 400 V

### Output

Output voltage/current DC 24 V/20 A  
Rated voltage  $U_N$  DC 24 V  
Rated current  $I_N$  20 A  
Max. output current 26 A, 3s  
Power Dissipation 36 W @ AC 230 V  
Setting range  $U_{out\ min.}/U_{out\ max.}$  24-28 V  
Accuracy  $\pm 2\%$

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Part No. [722722](#) • Datasheet version: 00

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|                            |                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------|
| Load regulation            | ±1 %                                                                                  |
| Line regulation            | ±0.5 %                                                                                |
| Rise time                  | 2000 ms @ 230 V / 800 ms @ 400 V                                                      |
| Temperature coefficient    | ±0.03 % / °C                                                                          |
| Ripple and noise           | 100 mV                                                                                |
| Hold up time               | 16 ms @ AC 230 V<br>18 ms @ 400 V                                                     |
| Parallel / redundant mode  | Yes/via external decoupling diode e.g. 722999                                         |
| Efficiency                 | 91 %                                                                                  |
| Overtemperature protection | 95 °C +/- 5 °C, switch-off with auto reset                                            |
| Over voltage protection    | 29-33 V, switch-off in case of overvoltage, switch-on again after input voltage reset |
| Rated over load protection | 130 % for 3 s, then shutdown with auto-reset                                          |
| Short circuit              | Current limit                                                                         |

#### Status indication

Status indication DC ON LED green    DC 22-28 V

#### Monitoring

|                     |              |
|---------------------|--------------|
| DC ON Control (Rdy) | N/O contact  |
| Switching voltage   | AC/DC 30 V   |
| Switching current   | AC/DC 1 A    |
| Switching capacity  | 30 VA / 30 W |
| Isolation voltage   | AC 500 V     |

#### General

|                                    |                                                                                 |
|------------------------------------|---------------------------------------------------------------------------------|
| Insulation voltage input / output  | AC 3.0 kV <sub>eff</sub>                                                        |
| Insulation voltage input / ground  | AC 2.0 kV <sub>eff</sub>                                                        |
| Insulation voltage output / ground | AC 500 V / DC 500 V                                                             |
| Insulation resistance at DC 500 V  | 100 MΩ                                                                          |
| Derating                           | >50 °C: -12 W/°C                                                                |
| Cooling                            | Air convection, 15 mm distance right/left, 40 mm top, 20 mm bottom              |
| Housing material                   | Metal                                                                           |
| Mounting                           | DIN rail mountable TS35 (EN 60715)                                              |
| Max. altitude operation            | 2000 m                                                                          |
| Installation position              | Vertical                                                                        |
| MTBF                               | >112,800 h: MIL HDBK 217F                                                       |
| Degree of protection               | IP20                                                                            |
| Protection class                   | I                                                                               |
| Weight/unit                        | 1.7 kg                                                                          |
| Connection type                    | Screw terminal<br>0.20 mm <sup>2</sup> – 2.5 mm <sup>2</sup><br>AWG 24 – AWG 12 |
| Dimensions (w × h × d)             | 85.5 mm × 125.0 mm × 129.0 mm                                                   |
| PU (units)                         | 1                                                                               |

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|                             |                              |
|-----------------------------|------------------------------|
| Operation temperature range | -30 °C ... +70 °C (Derating) |
| Storage temperature range   | -40 °C ... +85 °C            |
| Over voltage category       | III                          |
| Degree of pollution         | 2                            |
| Relative air humidity       | 20 – 95 % RH, not condensing |

|           |                                                                                |
|-----------|--------------------------------------------------------------------------------|
| Standards | The current version of the standards for this product is available on request. |
|-----------|--------------------------------------------------------------------------------|

Technical drawings of the LUTZE LEPOS-WR-480-24 722722 power supply unit.

**Dimensions:**

- Width: 63 mm (2.48 in)
- Height: 125 mm (4.92 in)
- Depth: 113.5 mm (4.47 in)

**Output Table:**

| No. | Description   |
|-----|---------------|
| 1,2 | DC OUTPUT +V  |
| 3,4 | DC OUTPUT -V  |
| 5,6 | Relay Contact |

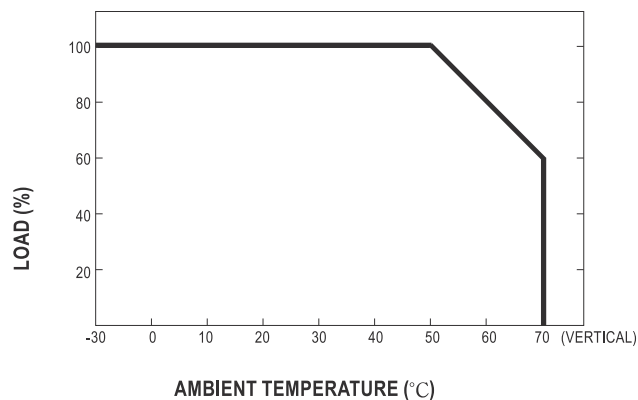
**Input Table:**

| No. | Description |
|-----|-------------|
| 1   | AC/L1       |
| 2   | AC/L2       |
| 3   | FG $\oplus$ |

DC OK Relay Contact

|                        |                          |
|------------------------|--------------------------|
| Contact Close          | PSU turns ON / DC OK.    |
| Contact Open           | PSU turns OFF / DC Fail. |
| Contact Ratings (max.) | 30V/1A resistive load.   |

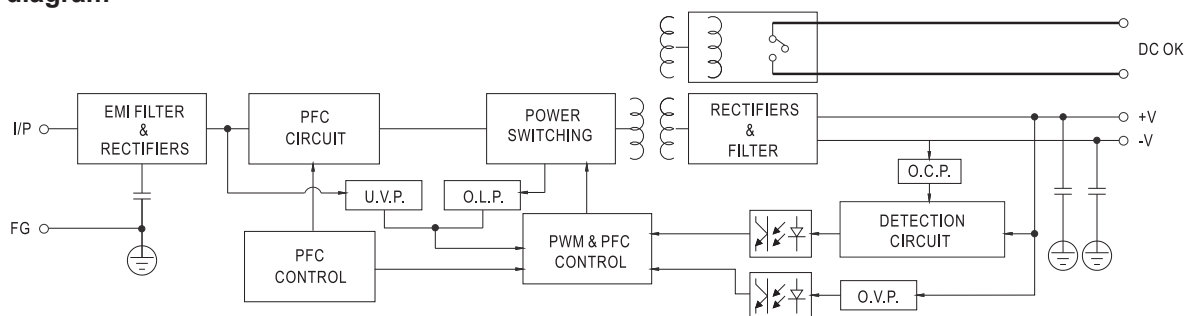
### Deduction curve and temperature



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### Circuit diagram



### Characteristic

Minus output and input voltage curves

