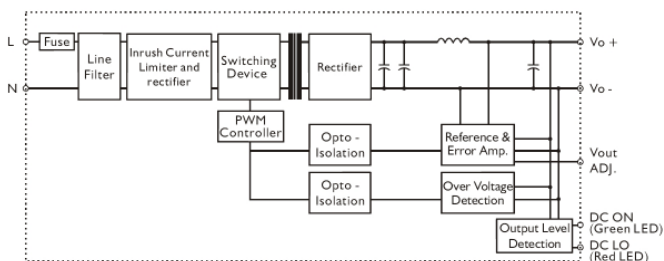


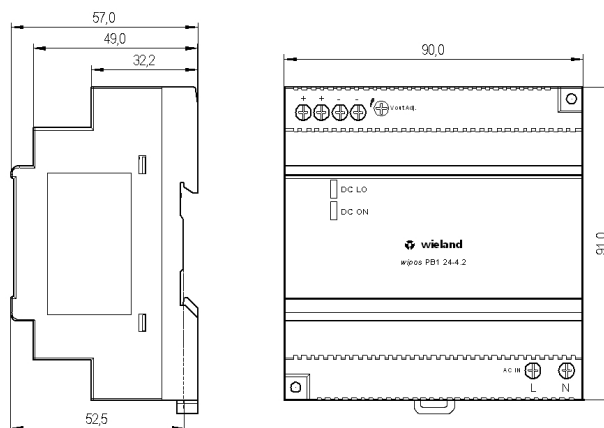


wipos PB1 24-4.2
Switching power supply
24 V DC/4.2 A
81.000.6340.0

- Primary switching power supply, single phase
- Output: 24 V DC/4.2 A (adjustable 24 V - 28 V DC)
- Short circuit proof
- Input: 100 - 240 V AC; 120 - 375 V DC
- Full load up to 60°C
- DIN rail mounted device



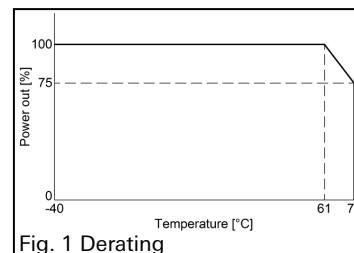
Block diagram



Dimensional diagram

Technical Data

| wipos PB1 24-4.2 | | Part number: 81.000.6340.0 |
|---|--------------------|--|
| Rated output power | [P _O] | 100 W |
| Rated output voltage | [U _O] | 24 V DC |
| Rated output current | [I _{ON}] | 4.2 A DC |
| Efficiency typ./min. | | 89 %/86 % |
| Minimum load | | none |
| Output voltage trim range (U _{IN AC} , 0.8 x I _{ON}) | | 24 ... 28 V |
| Output voltage accuracy (U _{IN AC} , I _{ON}) | | - 0 %/+1 % |
| Line regulation | | ±1 % |
| Load regulation (U _{IN AC}) | | ±1 % |
| Temperature coefficient (U _{IN AC} , I _{Omin}) | | ± 0.03 %/K |
| Rated overload protection | | 110 % - 150 % |
| Output short circuit (U _O , I _{ON}) | | Current limited (fold forward) |
| Ripple & noise (U _{IN AC} , I _{ON} , BW = 20 MHz) | | <50 mV _{ss} |
| Operation indicator | Display range | Output voltage OK (U _I , I _{ON}) "DC OK", LED green (U _O 19.2 ... 21.6 V) Output voltage too low (U _I , I _{ON}) "DC LOW", LED red (U _O < 19.2 ... 21.6 V) |
| Parallel operation | | no |
| Derating (61 °C ... 71 °C) | | 2.5 %/K (see Fig. 1 Derating) |
| Oversvoltage protection (U _{IN AC} , I _{ON}) | | 30 ... 33 V |
| | | |
| | | |
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Technical Data

| wipos PB1 24-4.2 | | Part number: 81.000.6340.0 | |
|---|-----------------------|--|---------|
| Rated input voltage AC | [U _{IN,AC}] | 100 - 240 V AC | |
| Line frequency AC | | 47 - 63 Hz | |
| Power factor correction filter (PFC) | | not necessary | |
| Input voltage range AC | [U _{I,AC}] | 90 ... 264 V AC | |
| Input voltage range DC | [U _{I,DC}] | 120 ... 375 V DC | |
| Rated input current (U _{I,AC} = 115 V, I _{ON}) | | 1.8 A typ./2.2 A max. | |
| Inrush current (U _I = 115/230 V AC, I _{ON}) | | max. 30 A/max. 60 A | |
| Input fuse | | T 3.15A/250 V AC (internal) | |
| Hold up time (U _I = 115/230 V AC, I _{ON}) | | > 10 ms/> 60 ms | |
| Input surge voltage protection | | Varistor | |
| Isolation voltage (input/output) | | 3000 V AC/4242 V DC | |
| Isolation resistance (input/output) | | 100 MOhm | |
| Switching frequency min./max. | | 35 kHz/45 kHz | |
| Ventilation/Cooling | | Free air convection | |
| Mounting conditions (free space) | | 25 mm in all directions | |
| Pollution degree | | 2 | |
| Operating ambient temperature | [T _U] | -40 °C ... +71 °C | |
| Humidity in operation | | 20 - 95 % RH | |
| Storage temperature | [T _U] | -40 °C ... +85 °C | |
| Mounting on | | DIN rail 35 mm (EN 60715) | |
| Degree of protection | | IP 20 | |
| MTBF | | 525,000 h | |
| Dimensions (W x H x D) | | 90 x 91 x 57 mm | |
| Weight | | ca. 0.38 kg | |
| Housing material | | Plastic | |
| Connector cross section | | | |
| cross section min. | solid/stranded | 0.5 mm ² | (AWG26) |
| cross section max. | solid/stranded | 2.5 mm ² | (AWG12) |
| Strip length | | 7 mm | |
| Torque | | 0.6 Nm max. | |
| Approvals and standards | | | |
| UL/cULus | | UL 508 Listed, UL60950-1 Recognized | |
| CE | | EN61000-6-3, EN 55022 Class B, EN61000-3-2, EN61000-3-3, EN61000-6-2, EN55024, EN61000-4-2, Level 4, EN61000-4-3 Level 3, EN61000-4-4 Level 4, EN61000-4-5 L-N Level 3, EN61000-4-6 Level 3, EN61000-4-8 Level 4, EN61000-4-11, ENV50204 Level 2, EN60204-1, EN61204-3 | |
| Control elements | | | |
| Vout Adjust | | Trim potentiometer for U _{out} adjustment | |
| Terminal connections | | | |
| - | | 2 x output voltage 24 V DC, negative output (internally connected) | |
| + | | 2 x output voltage 24 V DC, positive output (internally connected) | |
| L | | AC: phase conductor, DC: no polarity | |
| N | | AC: neutral conductor, DC: no polarity | |