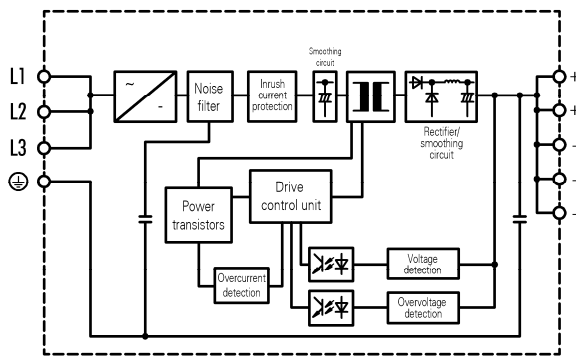


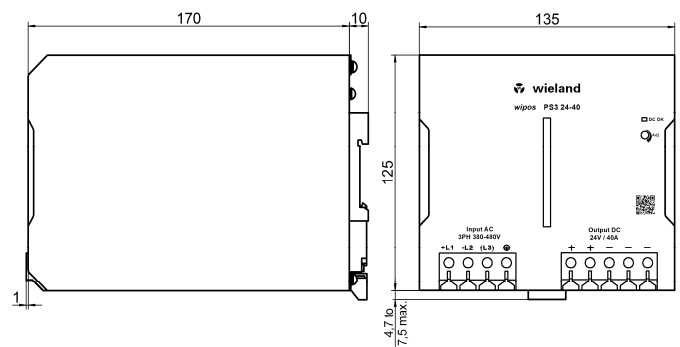


wipos PS3 24-40
Switching power supply
24 V DC/40 A
81.000.6590.0

- Primary switching power supply, three phases
- Output: 24 V DC/40 A (adjustable 22.5 - 29.5 V DC)
- Input: 320 - 576 V AC
- Full load up to 60 °C
- Vertical mount



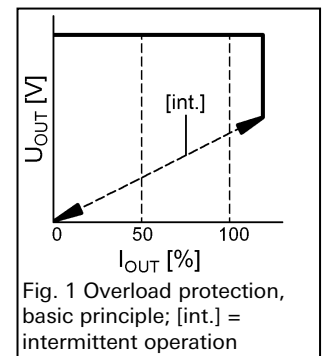
Block diagram



Dimensional diagram

Technical Data

| wipos PS3 24-40 | Part number: 81.000.6590.0 |
|-------------------------------------|---|
| Input (+L1, -L2, L3) | |
| Rated voltage AC | 3PH 380 ... 480 V AC |
| Voltage range AC | 3PH 320 ... 576 V AC |
| Line frequency AC | 47 ... 63 Hz |
| Rated input current 3~400 V AC typ. | 2.1 A |
| Inrush current 3~400 V AC max. | 28 A |
| Output (+, -) | |
| Rated output power | 960 W |
| Rated output voltage | 24 V DC |
| Rated output current | 40 A DC |
| Operation indicator Output voltage | "DC OK", LED green Display range ($U_o \geq 19.4$) |
| Output voltage trim range | 22.5 V ... 29.5 V |
| Overload protection | > 130 % (see Fig. 1 Overload protection) |
| Power boost function | 120 %, max. 10 s |
| Efficiency typ. | 92 % |
| Line regulation | ± 0.5 % |
| Load regulation | ± 1.5 % |
| Temperature coefficient | ± 0.05 %/K |
| Ripple & noise | < 90 mV _{ss} |
| Hold up time 3~400 V AC | > 20 ms |
| | |
| | |
| | |



Technical Data

| wipos PS3 24-40 | | Part number: 81.000.6590.0 |
|-------------------------------------|--|---|
| General data | | |
| Isolation voltage (input/output) | 3000 V AC/4242 V DC | |
| Isolation resistance (input/output) | 100 MOhm | |
| Operating ambient temperature | -40 °C ... +70 °C (UL: max. 40 °C) | |
| Storage temperature | -40 °C ... +85 °C | |
| Derating | Standard mounting: A. 3PH 340 ... 576 V AC below 340 V AC: U _O max. 28.5 V, max. 60 % load B. 2PH 380 ... 576 V AC U _O max. 26.4 V C. 2PH 360 ... 380 V AC: U _O max. 26.4 V, load max. 60 % or diagram curve C (see Fig. 2 Derating - Standard mounting) Face-up mounting: D. 3PH 340 ... 576 V AC below 340 V AC: U _O max. 28.5 V, load max. 60 % E. 2PH 380 ... 480 V AC: U _O max. 26.4 V F. 2PH 480 ... 576 V AC: at 2PH 340 ... 380 V AC: U _O max. 26.4 V, load max. 60 % or diagram curve F (see Fig. 3 Derating - Face-up mounting) | |
| Humidity in operation | 0 - 95 % RH, non-condensing | |
| Ventilation/Cooling | free air convection | |
| MTBF | 260,000 h | |
| Pollution degree | 2 | |
| Degree of protection | IP 20 | |
| Safety class | 1 | |
| Mounting | DIN rail 35 mm (EN 60715) | |
| Mounting conditions (free space) | 20 mm horizontal, 75 mm vertical | |
| Dimensions (W x H x D) | 135 x 125 x 180 mm | |
| Weight | 2,700 g | |
| Housing material | Metal | |
| Connections | | |
| Connector cross section input | solid/stranded | 0.5 - 6 mm ² /0.5 - 4 mm ² (AWG20 - 10/AWG20 - 12) |
| Connector cross section output | solid/stranded | 4 - 6 mm ² /4 mm ² (AWG12 - 10/AWG12) |
| Connector cross section PE | solid/stranded | min. 2.5 mm ² (AWG14) |
| Strip length | 8 - 10 mm | |
| Torque | 0.5 ... 0.6 Nm | |
| Approvals and Standards | | |
| Standards | SELV: EN50178 PELV: EN50178 / EN60204-1 | |
| Approvals | CE / cULus / LR | |
| Control elements | | |
| ADJ | Trimmer potentiometer for U _O adjustment | |
| Terminal assignment | | |
| +L1, -L2, (L3) | AC: phase conductor, DC: positive terminal at +L1, negative terminal at -L2 | |
| ⊕ (PE) | PE (Ground), always connect | |
| + | 2 x output voltage 24 V, positive output terminal (internally connected) | |
| - | 3 x output voltage 24 V, negative output terminal (internally connected) | |

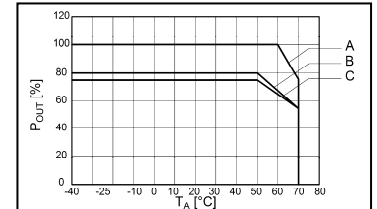


Fig. 2 Derating - Standard mounting
A. 3PH 340 ... 576 V AC
B. 2PH 380 ... 576 V AC
C. 2PH 360 ... 380 V AC

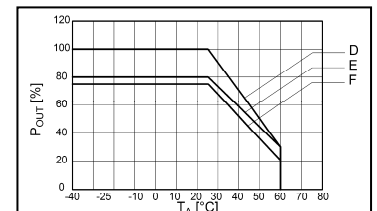


Fig. 3 Derating - Face-up mounting
D. 3PH 340 ... 576 V AC
E. 2PH 380 ... 480 V AC
F. 2PH 480 ... 576 V AC