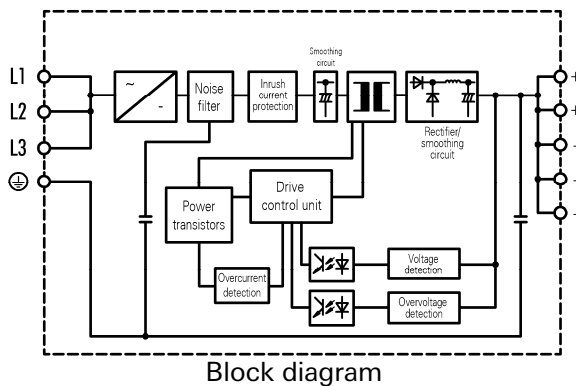


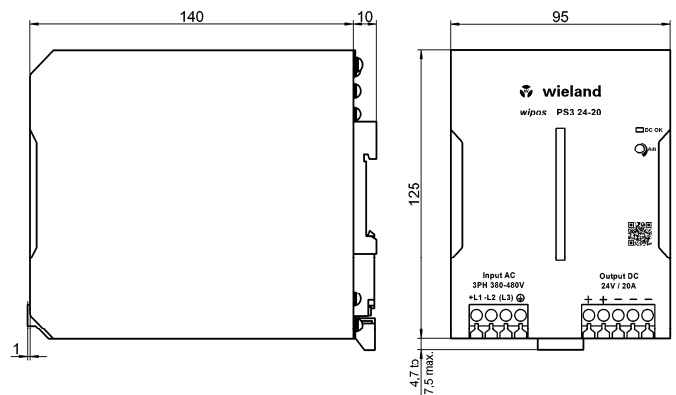


**wipos PS3 24-20**  
Switching power supply  
24 V DC/20 A  
81.000.6580.0

- Primary switching power supply, three phase
- Output: 24 V DC/20 A (adjustable 22.5 – 29.5 V DC)
- Input: 320 - 576 V AC; 450 - 810 V DC
- Full load up to 60 °C
- Vertical mount



Block diagram



Dimensional diagram

**Technical Data**

wipos PS3 24-20	Part number: 81.000.6580.0
<b>Input (+L1, -L2, L3)</b>	
Rated voltage AC	3PH 380 ... 480 V AC
Voltage range AC	3PH 320 ... 576 V AC
Line frequency AC	47 ... 63 Hz
Input voltage range DC	450 ... 810 V DC
Rated input current 3~400 V AC typ.	1.2 A
Inrush current 3~400 V AC max.	28 A
<b>Output (+, -)</b>	
Rated output power	480 W
Rated output voltage	24 V DC
Rated output current	20 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.	91 %
Line regulation	$\pm 0.5$ %
Load regulation	$\pm 1.5$ %
Temperature coefficient	$\pm 0.05$ %/K
Ripple & noise	< 190 mV <sub>ss</sub>
Hold up time 3~400 V AC	> 20 ms

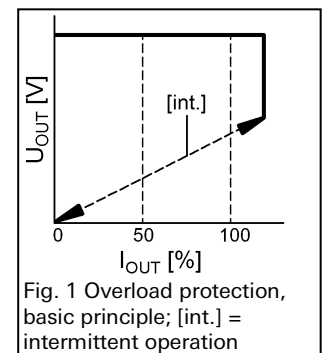


Fig. 1 Overload protection, basic principle; [int.] = intermittent operation

## Technical Data

wipos PS3 24-20		Part number: 81.000.6580.0
<b>General data</b>		
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	A. Standard mounting B. Face-up mounting, max. 480 V AC or max. 678 V DC C. Face-up mounting, max. 576 V AC or max. 810 V DC (see Fig. 2 Derating)	
Humidity in operation	0 - 95 % RH, non-condensing	
Ventilation/Cooling	free air convection	
MTBF	280,000 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)	95 x 125 x 150 mm	
Weight	1,600 g	
Housing material	Metal	
<b>Connections</b>		
Connector cross section input	solid/stranded	0.5 - 6 mm <sup>2</sup> /0.5 - 4 mm <sup>2</sup> (AWG20 - 10/AWG20 - 12)
Connector cross section output	solid/stranded	4 - 6 mm <sup>2</sup> /4 mm <sup>2</sup> (AWG12 - 10/AWG12)
Connector cross section PE	solid/stranded	min. 2.5 mm <sup>2</sup> (AWG14)
Strip length	8 - 10 mm	
Torque	0.5 ... 0.6 Nm	
<b>Approvals and Standards</b>		
Standards	SELV: EN50178 PELV: EN50178 / EN60204-1	
Approvals	CE / cULus / LR	
<b>Control elements</b>		
ADJ	Trimmer potentiometer for U <sub>o</sub> adjustment	
<b>Terminal assignment</b>		
+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)	

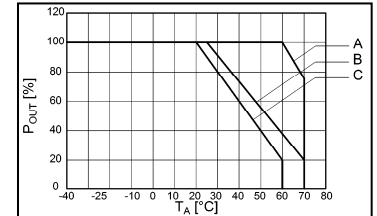


Fig. 2 Derating

- A. Standard mounting
- B. Face-up mounting, max. 480 V AC/678 V DC
- C. Face-up mounting, max. 576 V AC/810 V DC