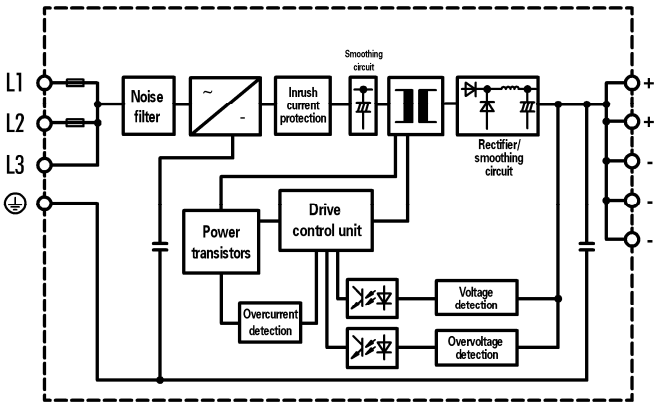


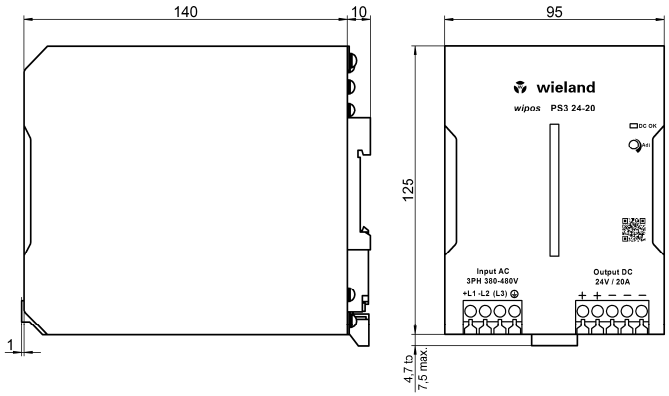
wipos PS3 24-20

Switching power supply
24 V DC/20 A
81.000.6580.0

- Primary switching power supply, three phases
- Output: 24 V DC/20 A (adjustable 24.0 - 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**
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
Input voltage range DC	450 … 810 V DC
Rated input current 3~400 V AC typ.	0.80 A typ.
Inrush current 3~400 V AC max.	4 A typ. (5ms)
Output (+, -)	
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 < 19.4 V)
Output voltage trim range	24.0 V ... 29.5 V
Overload protection	> 121 % (see Fig. 1 Overload protection)
Power boost function	120 %, max. 10 s
Efficiency typ.	93 % typ.
Line regulation	±0.5 % max.
Load regulation	1.5 % max.
Temperature coefficient	±0.05 %/C max.
Ripple & noise	< 30 mV_{ss} (at 20 MHz of bandwidth)
Hold up time 3~400 V AC	> 20 ms

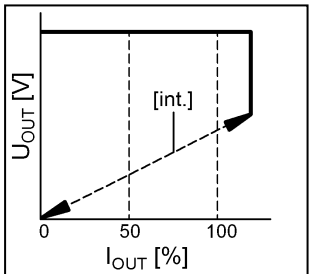


Fig. 1 Overload protection, basic principle; [int.] = intermittent operation

Technical Data

wipos PS3 24-20		**Part number: 81.000.6580.0**
General data		
Isolation voltage (input/output)		3000 V AC
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		180.000 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		1.400 g max.
Housing material		Metal, PC
Connections		
Connector cross section input	solid/stranded	0.5 - 6 mm²/0.5 - 4 mm² (AWG20 - 10/AWG20 - 12)
Connector cross section output	solid/stranded	4 - 6 mm²/4 mm² (AWG12 - 10/AWG12)
Connector cross section PE	solid/stranded	min. 2.5 mm² (AWG14)
Strip length		8 - 10 mm
Torque		4.43 … 5.31 lb-in max.
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)

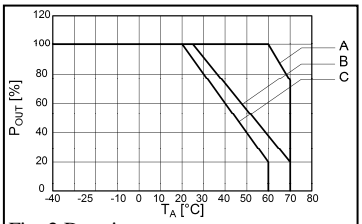


Fig. 2 Derating
A. Standard mounting
B. Face-up mounting,
max. 480 V AC/678 V DC
C. Face-up mounting,
max. 576 V AC/810 V DC