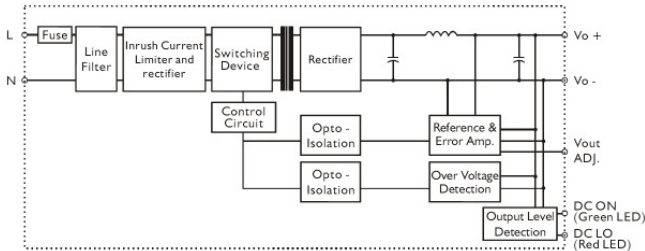


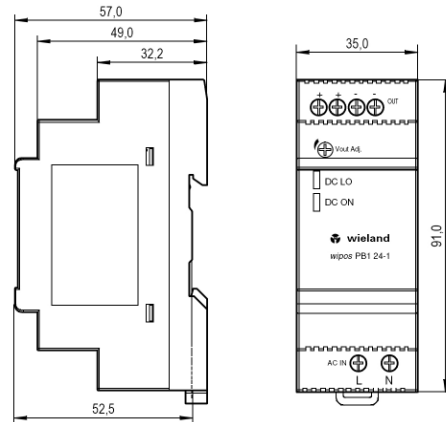


**wipos PB1 24-1**  
Switching power supply  
24 V DC/1 A  
81.000.6310.0

- Primary switching power supply, single phase
- Output: 24 V DC/1 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 24-1	Part number: 81.000.6310.0
Rated output power [P <sub>O</sub> ]	24 W
Rated output voltage [U <sub>O</sub> ]	24 V DC
Rated output current [I <sub>ON</sub> ]	1 A DC
Efficiency typ./min.	85 %/83 %
Minimum load	none
Output voltage trim range (U <sub>IN AC</sub> , 0.8 x I <sub>ON</sub> )	24 ... 28 V
Output voltage accuracy (U <sub>IN AC</sub> , I <sub>ON</sub> )	-0 %/+ 1 %
Line regulation	±1 %
Load regulation (U <sub>IN AC</sub> )	±1 %
Temperature coefficient (U <sub>IN AC</sub> , I <sub>Omin</sub> )	± 0.03 %/K
Rated overload protection	110 % - 165 %
Output short circuit (U <sub>O</sub> , I <sub>ON</sub> )	Current limited (hiccup mode)
Ripple & noise (U <sub>IN AC</sub> , I <sub>ON</sub> , BW = 20 MHz)	< 50 mV <sub>ss</sub>
Operation indicator	Display range Output voltage OK (U <sub>I</sub> , I <sub>ON</sub> ) "DC OK", LED green (U <sub>O</sub> 19.2 ... 21.6 V) Output voltage too low (U <sub>I</sub> , I <sub>ON</sub> ) "DC LOW", LED red (U <sub>O</sub> < 19.2 ... 21.6 V)
Parallel operation	no
Derating (61°C ... 71 °C)	2.5 %/K (see Fig. 1 Derating)
Overvoltage protection (U <sub>IN AC</sub> , I <sub>ON</sub> )	30 ... 33 V

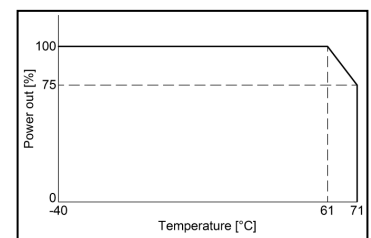


Fig. 1 Derating

## Technical Data

wipos PB1 24-1		Part number: 81.000.6310.0	
Rated input voltage AC	[U <sub>IN,AC</sub> ]	100 - 240 V AC	
Line frequency AC		47 - 63 Hz	
Power factor correction filter (PFC)		not necessary	
Input voltage range AC	[U <sub>I,AC</sub> ]	90 ... 264 V AC	
Input voltage range DC	[U <sub>I,DC</sub> ]	120 ... 375 V DC	
Rated input current (U <sub>I,AC</sub> = 115 V, I <sub>ON</sub> )		0.68 A typ./0.9 A max.	
Inrush current (U <sub>I</sub> = 115/230 V AC, I <sub>ON</sub> )		max. 25 A/max. 50 A	
Input fuse		T 2A/250 V AC (internal)	
Hold up time (U <sub>I</sub> = 115/230 V AC, I <sub>ON</sub> )		> 20 ms/> 100 ms	
Input surge voltage protection		Varistor	
Isolation voltage (input/output)		3000 V AC/4242 V DC	
Isolation resistance (input/output)		100 MOhm	
Switching frequency typ.		65 kHz	
Ventilation/Cooling		Free air convection	
Mounting conditions (free space)		25 mm in all directions	
Pollution degree		2	
Operating ambient temperature	[T <sub>U</sub> ]	-40 °C ... +71 °C	
Humidity in operation		20 - 95 % RH	
Storage temperature	[T <sub>U</sub> ]	-40 °C ... +85 °C	
Mounting on		DIN rail 35 mm (EN 60715)	
Degree of protection		IP 20	
MTBF		832,000 h	
Dimensions (W x H x D)		35 x 91 x 57 mm	
Weight		ca. 0.13 kg	
Housing material		Plastic	
Connector cross section			
cross section min.	solid/stranded	0.2 mm <sup>2</sup>	(AWG26)
cross section max.	solid/stranded	2.5 mm <sup>2</sup>	(AWG12)
Strip length		4 - 5 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 3, 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 <sub>Out</sub> 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	