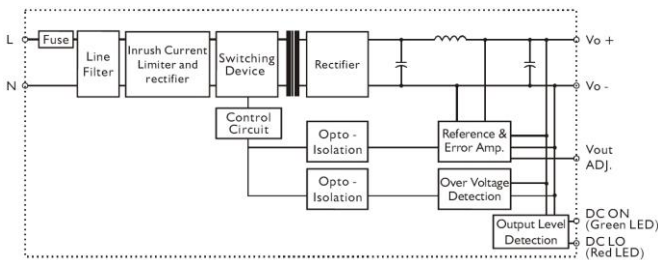




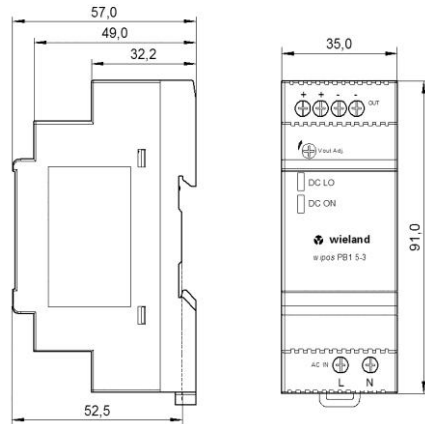
(illustration similar)

wipos PB1 5-3
Switching Power Supply
5 V DC/3 A
81.000.6331.0

- Primary switching power supply, single phase
- Output: 5 V DC/3 A (adjustable 5 – 5,5 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 5-3		Part number 81.000.6331.0
Rated output power	[P _O]	15 W
Rated output voltage	[U _O]	5 V DC
Rated output current	[I _{ON}]	3 A DC
Efficiency typ./min.		82 %/80 %
Minimum load		none
Output voltage trim range (U _{IN AC} , 0.8 x I _{ON})		5.0 ... 5.5 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		120 % - 160 %
Output short circuit (U _O , I _{ON})		current limited (Hiccup mode)
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 ≥ 3.5 ... 5.5 V) output voltage too low (U _I , I _{ON}) "DC LOW", LED red (U _O < 3.5 V)
Parallel operation		no
Derating (61 °C ... 71 °C)		2.5 %/K (see Fig. 1 Derating)
Overvoltage protection (U _{IN AC} , I _{ON})		5.75 ... 6.5 V

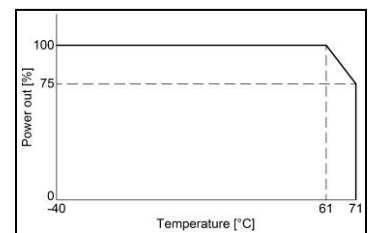


Fig. 1 Derating

Technical Data

wipos PB1 5-3		Part number 81.000.6331.0	
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})		0.3 A typ./0.4 A max.	
Inrush current (U _I = 115/230 V AC, I _{ON})		max. 20 A/max. 40 A	
Input fuse		T 2A/250 V AC (intern)	
Hold up time (U _I = 115/230 V AC, I _{ON})		> 20 ms/> 100 ms	
Internal surge voltage protection		Varistor	
Isolation voltage (input/output)		3000 V AC/4242 V DC	
Isolation resistance (input/output)		100 MOhm	
Switching frequency		65 kHz typ.	
Ventilation/Cooling		free convection	
Mounting conditions (free space)		25 mm free space on all sides recommended for cooling	
Pollution level		2	
Operating ambient temperature range	[T _U]	-40 °C ... +71 °C	
Humidity in operation		20 - 95 % RH	
Storage temperature range	[T _U]	-40 °C ... +85 °C	
Mounting		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 screw terminals			
cross section (min.)	solid/stranded	0.5 mm ²	(AWG24)
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 fine adjustment of U _{out}	
Terminal connections			
-		2 x output voltage 5 V, negative terminal (internally connected)	
+		2 x output voltage 5 V, positive terminal (internally connected)	
L		AC: Phase, DC: no polarity	
N		AC: Neutral, DC: no polarity	