

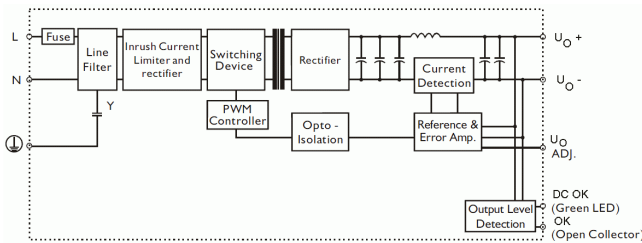
wipos P1 24-2.5



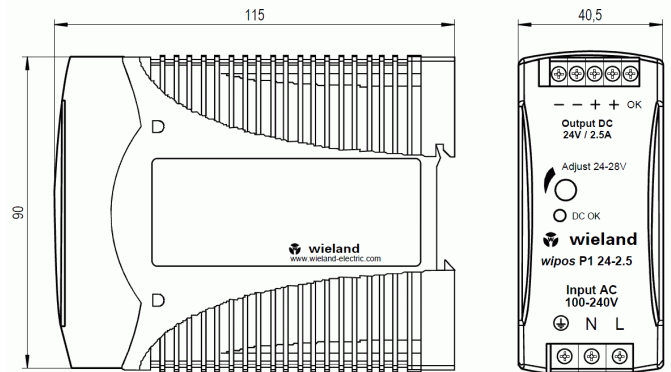
wipos P1 24-2.5

Switching power supply
24 V DC / 2.5 A
81.000.6120.0

- Primary switching power supply, single phase
- Output: 24 V DC / 2.5 A (adjustable 24 - 28 V DC)
- Short circuit proof
- Input: 100 - 240 V AC; 90 - 375 V DC
- Full load up to 60 °C
- Vertical mount
- UL1310 class 2 power supply
- 100 % burn-in



Block diagram



Dimensional diagram

Technical data

wipos P1 24-2.5		Part number: 81.000.6120.0
Rated output power	[P _O]	60 W
Rated output voltage	[U _O]	24 V DC
Rated output current	[I _{ON}]	2.5 A DC
Efficiency typ. / min.		89 % / 86 %
Minimum load		none
Output voltage trim range (U _O , I _{ON})		24 V ... 28 V
Output voltage accuracy (I _{ON})		+1 %
Line regulation		0.5 %
Load regulation (U _O)		0.5 %
Temperature coefficient (U _O , I _{Omin})		± 0.03 % / K
Rated overload protection		110 % - 150 %
Output short circuit (U _O , I _{ON})		Current limited (fold forward)
Ripple & noise (U _O , I _{ON} , BW = 20 MHz)		<50 mV _{ss}
Operation indicator	Display range	"DC OK", LED green (U _O 19.2 V)
Parallel operation		no
Derating (61 °C ... 71 °C)		2.5 % / K (see Fig. 1 Derating)
Oversvoltage protection (U _O , I _{ON})		125 % ... 137.5 %
DC OK indicator ("OK") switches on at		U _O > 19.2 V DC
Supply for OK terminal		from output voltage 24 V DC
Permissible load		700 Ohm min.

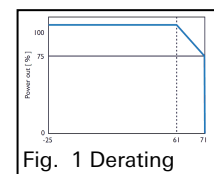


Fig. 1 Derating

wipos P1 24-2.5

Technical data

wipos P1 24-2.5		Part number: 81.000.6120.0
Rated input voltage AC	[U _{IN AC}]	100 - 240 V AC (85 ... 264 V AC)
Line frequency AC		47 – 63 Hz
Power factor correction filter (PFC)		not necessary
Rated input voltage DC	[U _{IN DC}]	90 – 375 V DC
Rated input current		1.5 A
Inrush current 115 V AC / 230 V AC		30 A / 60 A max.
Input fuse		T2 A / 250 V (internal)
Hold up time (at I _{ON})	U _{L AC} = 115 V U _{I AC} = 230 V	> 20 ms > 30 ms
Isolation voltage (input/output)		3000 V AC / 4242 V DC
Isolation resistance (input/output)		100 MOhm
Ventilation / Cooling		free convection
Mounting conditions (free space)		25 mm free space on all sides recommended for cooling / up to 50 °C no horizontal space required
Operating ambient temperature	[T _U]	-40 °C ... +71 °C (UL: max. 50 °C)
Humidity in operation		20 – 95 % RH
Storage temperature	[T _U]	-40 °C ... +85 °C
Mounting on		DIN rail 35 mm (EN 60715)
Degree of protection		IP 20
MTBF (Bellcore issue 6 @ 40 °C, GB)		550,000 h
Dimensions (W x H x D)		40.5 x 88.5 x 115 mm
Weight		ca. 360 g
Housing material		Polycarbonate (PC)
Connector cross section (min.)	solid stranded wire	0.2 mm ² (AWG26) 0.2 mm ² (AWG26)
Connector cross section (max.)	solid stranded wire	2.5 mm ² (AWG12) 2.5 mm ² (AWG12)
Strip length		4 ... 5 mm
Torque		0.6 Nm max.
Approvals and standards		
UL / cULus		UL 508 Listed, UL60950-1 Recognized UL 1310 Class 2 Power supply
TUV / Safety		EN60950-1, EN61558-1, EN61558-2-16 (follow EN60204), IRAM
CE		EN 55022 & EN61000-6-3, EN61000-3-2, EN61000-3-3, EN55024 & EN61000-6-2, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN60204-1, EN61204-3
Terminal connections		
-		2 x output voltage 24 V, negative output terminal (internally connected)
+		2 x output voltage 24 V, positive output terminal (internally connected)
OK		DC OK output (open collector output)
L		AC: phase conductor, DC: no polarity
N		AC: neutral conductor, DC: no polarity
⊕ (PE)		PE (Ground), always connect