

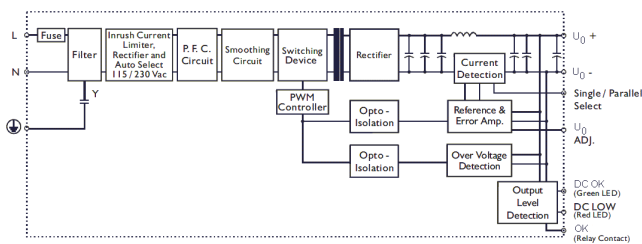
wipos P1 24-5



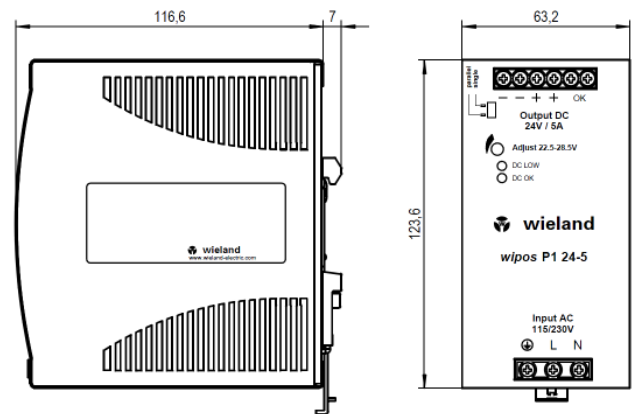
wipos P1 24-5

Switching power supply
24 V DC / 5 A
81.000.6130.0

- Switching power supply, single phase
- Output: 24 V DC / 5 A (adjustable 22.5 - 28.5 V DC)
- Short circuit proof
- Input: 115/230 V AC auto select; 210 - 375 V DC
- Full load up to 60 °C
- PFC technology
- Vertical mount
- Parallel operation (3 devices max.)
- 100 % burn-in



Block diagram



Dimensional diagram

Technical data

wipos P1 24-5		Part number: 81.000.6130.0
Rated output power	[P _O]	120 W
Rated output voltage	[U _O]	24 V DC
Rated output current	[I _{ON}]	5 A DC
Efficiency typ. / min.		86 % / 84 %
Minimum load		none
Output voltage trim range (U _O , I _{ON})		22.5 V . . . 28.5 V
Output voltage accuracy (I _{ON})		-0 % / +1 %
Line regulation		±0.5 %
Load regulation (U _O) at	single operation: parallel operation:	±1 % ±5 %
Temperature coefficient (U _O , I _{ON})		± 0.03 % / K
Rated overload protection		110 % - 145 %
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 for	Display range	
	Output voltage OK (U _I , I _{ON})	"DC OK", LED green (U _O 17.6 ... 19.4 V)
	Output voltage too low (U _I , I _{ON})	"DC LOW", LED red (U _O < 17.6 ... 19.4 V)
Parallel operation (0.9 I _{ON})		yes, max. 3 devices
Derating (61 °C . . . 71 °C)		2.5 % / K (see Fig. 1 Derating)
Overvoltage protection (U _O , I _{ON})		125 % . . . 145 %
Relay contact ("OK") closes above		U _O > 19.4 V DC (U _O 17.6 ... 19.4 V)
Contact rating maximum (60 V DC) max.		0.3 A
Relay contact isolation voltage		500 V DC

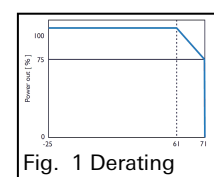


Fig. 1 Derating

wipos P1 24-5

Technical data

wipos P1 24-5		Part number: 81.000.6130.0	
Rated input voltage AC	[U _{IN,AC}]	115 V AC (90 ... 132 V) auto select 230 V AC (180 ... 264 V) auto select	
Line frequency AC		47 – 63 Hz	
Power factor correction filter (PFC)		yes (0.7)	
Rated input voltage DC	[U _{IN,DC}]	210 – 375 V DC	
Rated input current 115 V / 230 V		2.8 A / 1.4 A	
Inrush current 115 V AC / 230 V AC		24 A / 48 A max.	
Input fuse		T3.15 A / 250 V (internal)	
Hold up time (at I _{ON})	U _{I,AC} = 115 V	> 25 ms	
	U _{I,AC} = 230 V	> 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]	-35 °C . . . +71 °C (UL: max. 50 °C)	
Humidity in operation		20 – 95 % RH	
Storage temperature	[T _U]	-35 °C . . . +85 °C	
Mounting on		DIN rail 35 mm (EN 60715)	
Degree of protection		IP 20	
MTBF (Bellcore issue 6 @ 40 °C, GB)		450,000 h	
Dimensions (W x H x D)		63.2 x 123.6 x 123 mm	
Weight		ca. 920 g	
Housing material		Metal	
Connector cross section (min.)	solid	0.5 mm ²	(AWG24)
	stranded wire	0.5 mm ²	(AWG24)
Connector cross section (max.)	solid	6 mm ²	(AWG10)
	stranded wire	6 mm ²	(AWG10)
Strip length		8 mm	
Torque	input terminals	1.0 Nm max.	
	output terminals	0.6 Nm max.	
Approvals and standards			
UL / cULus		UL 508 Listed, UL60950-1 Recognized	
TUV / Safety		EN60950-1, EN61558-1, EN61558-2-17 (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		2 x relay (normally closed)	
L		AC: phase conductor, DC: no polarity	
N		AC: neutral conductor, DC: no polarity	
⊕ (PE)		PE (Ground), always connect	