

wipos P1 24-5

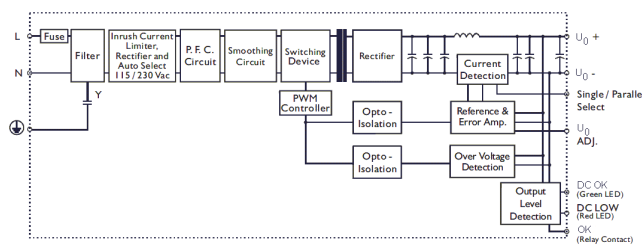


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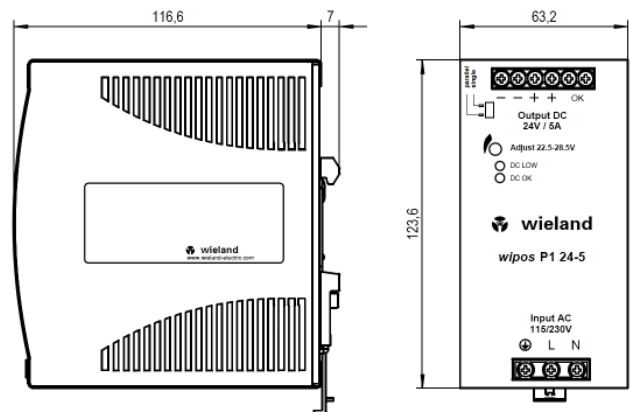
Switching power supply 24V DC / 5A

81.000.6130.0

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



Block diagram



Dimensional diagram

Technical data

wipos P1 24-5		Part number: 81.000.6130.0
Rated output power	[P ₀]	120W
Rated output voltage	[U ₀]	24V DC
Rated output current	[I _{0N}]	5A DC
Efficiency typ. / min.		86% / 84%
Minimum load		none
Output voltage trim range (U ₀ , I _{0N})		22.5V . . . 28.5V
Output voltage accuracy (I _{0N})		-0% / +1%
Line regulation		±0.5%
Load regulation (U ₀) at	single operation: parallel operation:	±1% ±5%
Temperature coefficient (U ₀ , I _{0N})		± 0.03% / K
Rated overload protection		110% - 145%
Output short circuit (U ₀ , I _{0N})		Current limited (fold forward)
Ripple & noise (U ₀ , I _{0N} , BW=20MHz)		<50mV _{SS}
Operation indicator for	Display range	
	Output voltage OK (U _i , I _{0N})	"DC OK", LED green (U ₀ ≥ 17.6...19.4V)
	Output voltage too low (U _i , I _{0N})	"DC LOW", LED red (U ₀ < 17.6...19.4V)
Parallel operation (0.9 I _{0N})		yes, max. 3 devices
Derating (61°C . . . 71 °C)		2.5% / K (see Fig. 1 Derating)
Overvoltage protection (U ₀ , I _{0N})		125% . . . 145%
Relay contact ("OK") closes above		U ₀ > 19.4V DC (U ₀ ≥ 17.6...19.4V)
Contact rating maximum (60V DC) max.		0.3A
Relay contact isolation voltage		500V DC

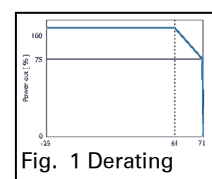


Fig. 1 Derating

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Technical data

wipos P1 24-5		Part number: 81.000.6130.0
Rated input voltage AC	[U _{IN_AC}]	115V AC (90...132V) auto select 230V AC (180...264V) auto select
Line frequency AC		47 – 63 Hz
Power factor correction filter (PFC)		yes (0.7)
Rated input voltage DC	[U _{IN_DC}]	210 – 375V DC
Rated input current 115V / 230V		2.8A / 1.4A
Inrush current 115V AC / 230V AC		24A / 48A max.
Input fuse		T3.15A/250V (internal)
Hold up time (at I _{ON})	U _I = 115V AC U _I = 230V AC	> 25 ms > 30 ms
Isolation voltage (input / output)		3000V AC / 4242V DC
Isolation resistance (input / output)		100 MOhm
Ventilation / Cooling		Free convection
Mounting conditions (free space)		25mm free space on all sides recommended for cooling
Operating ambient temperature	[T _U]	-25°C . . . +71°C
Humidity in operation		20 – 95 % RH
Storage temperature	[T _U]	-25°C . . . +85°C
Mounting on		DIN rail (EN 60715)
Degree of protection		IP 20
Dimensions (W x H x D)		63.2 x 123.6 x 123 mm
Weight		ca. 920g
Housing material		Metal
Connector cross section (min.)	solid stranded wire	0.5 mm ² (AWG24) 0.5 mm ² (AWG24)
Connector cross section (max.)	solid stranded wire	6 mm ² (AWG10) 6 mm ² (AWG10)
Strip length		8 mm
Torque	input terminals output terminals	1.0Nm max. 0.6Nm max.
Approvals and standards		
UL / cULus		UL 508 Listed, UL60950-1 Recognized
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, EN61204-3
Terminal connections		
-		2 x output voltage 24V, negative output terminal (internally connected)
+		2 x output voltage 24V, 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