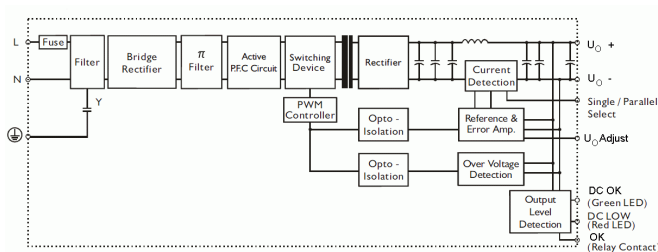


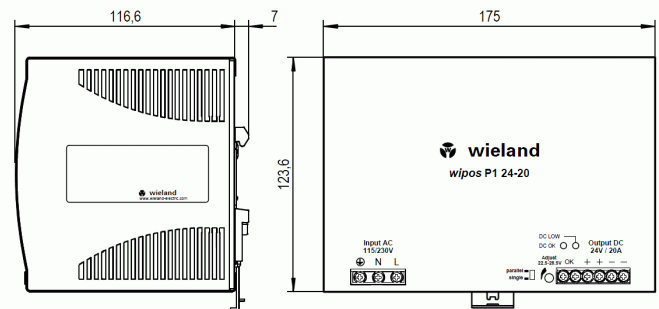
**wipos P1 24-20**

**wipos P1 24-20**  
 Switching power supply  
 24 V DC / 20 A  
 81.000.6150.0

- Primary switching power supply, single phase
- Output: 24 V DC / 20 A (adjustable 22.5 - 28.5 V DC)
- Short circuit proof
- Input: 115/230 V AC; 120 - 370 V DC
- Full load up to 55 °C
- PFC technology
- Parallel operation (3 dev. max.)
- 100 % burn-in



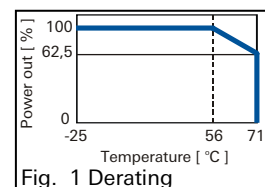
Block diagram



Dimensional diagram

**Technical data**

<b>wipos P1 24-20</b>		<b>Part number: 81.000.6150.0</b>
Rated output power	[P <sub>O</sub> ]	480 W
Rated output voltage	[U <sub>O</sub> ]	24 V DC
Rated output current	[I <sub>ON</sub> ]	20 A DC
Efficiency typ. / min.		89 % / 86 %
Minimum load		none
Output voltage trim range (U <sub>O</sub> , I <sub>ON</sub> )		22.5 V ... 28.5 V
Output voltage accuracy (I <sub>ON</sub> )		-0 % / +1 %
Line regulation		±0.5 %
Load regulation (U <sub>O</sub> ) at	single operation: parallel operation:	±1 % ±5 %
Temperature coefficient (U <sub>O</sub> , I <sub>ON</sub> )		± 0.03 % / K
Rated overload protection		110 % - 140 %
Output short circuit (U <sub>O</sub> , I <sub>ON</sub> )		Current limited (fold forward)
Ripple & noise (U <sub>O</sub> , I <sub>ON</sub> , BW = 20 MHz)		<100 mV <sub>ss</sub>
Operation indicator for	Display range	
	Output voltage OK (U <sub>I</sub> , I <sub>ON</sub> )	"DC OK", LED green (U <sub>O</sub> 17.6 ... 19.4 V)
	Output voltage too low (U <sub>I</sub> , I <sub>ON</sub> )	"DC LOW", LED red (U <sub>O</sub> < 17.6 ... 19.4 V)
Parallel operation (0.9 I <sub>ON</sub> )		yes, max. 3 devices
Derating (56 °C ... 71 °C)		2.5 % / K (see Fig. 1 Derating)
Overvoltage protection (U <sub>O</sub> , I <sub>ON</sub> )		125 % ... 137.5 %
Relay contact ("OK") closes above		U <sub>O</sub> > 19.4 V DC (U <sub>O</sub> 17.6 ... 19.4 V)
Contact rating maximum (60 V DC) max.		0.3 A
Relay contact isolation voltage		500 V DC



## wipos P1 24-20

### Technical data

wipos P1 24-20		Part number: 81.000.6150.0
Rated input voltage AC	[U <sub>IN AC</sub> ]	115/230 V AC (90 ... 264 V AC)
Line frequency AC		47 – 63 Hz
Power factor correction filter (PFC)		yes (0.99 at U <sub>L AC</sub> = 230 V AC)
Rated input voltage DC	[U <sub>IN DC</sub> ]	120 - 370 V DC
Rated input current 115 V / 230 V		7 A / 3.5 A
Inrush current 115 V AC / 230 V AC		25 A / 50 A max.
Input fuse		10 A / 250 V (internal)
Hold up time (at I <sub>ON</sub> )	U <sub>I</sub> = 230 V AC	> 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 <sub>U</sub> ]	-40 °C ... +71 °C (UL: max. 50 °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 (Bellcore issue 6 @ 40 °C, GB)		403,000 h
Dimensions (W x H x D)		123.6 x 175 x 123.6 mm
Weight		ca. 1.9 kg
Housing material		Metal
Connector cross section (min.)	solid stranded wire	0.5 mm <sup>2</sup> (AWG24) 0.5 mm <sup>2</sup> (AWG24)
Connector cross section (max.)	solid stranded wire	6 mm <sup>2</sup> (AWG10) 6 mm <sup>2</sup> (AWG10)
Strip length		8 mm
Torque	input terminals output terminals	1.0 Nm max. 0.6 Nm max.
Approvals and standards		
UL / cULus		UL 508 Listed, UL60950-1 Recognized
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		
OK		2 x relay (normally closed)
+		2 x output voltage 24 V, positive output terminal (internally connected)
-		2 x output voltage 24 V, negative output terminal (internally connected)
L		AC: phase conductor, DC: no polarity
N		AC: neutral conductor, DC: no polarity
⊕ (PE)		PE (Ground), always connect