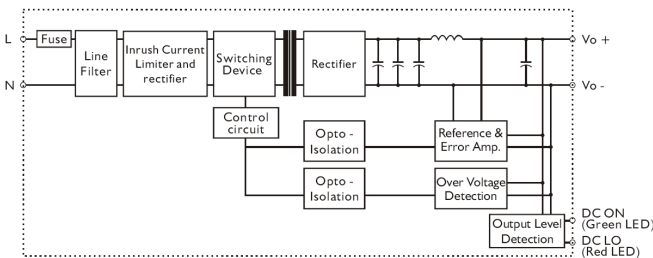


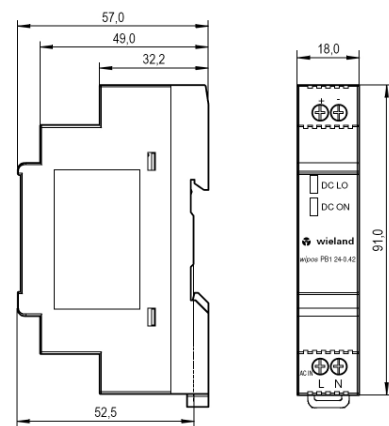
**wipos PB1 24-0.42**

**wipos PB1 24-0.42**  
 Switching power supply  
 24 V DC / 0.42 A  
 81.000.6300.0

- Primary switching power supply, single phase
- Output: 24 V DC / 0.42 A
- 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 24-0.42		Part number: 81.000.6300.0
Rated output power	[ $P_o$ ]	10 W
Rated output voltage	[ $U_o$ ]	24 V DC
Rated output current	[ $I_{oN}$ ]	0.42 A DC
Efficiency typ. / min.		80 % / 78 %
Minimum load		none
Output voltage accuracy ( $U_{IN\_AC}$ , $I_{oN}$ )		$\pm 1$ %
Line regulation		$\pm 1$ %
Load regulation ( $U_{IN\_AC}$ )		$\pm 1$ %
Temperature coefficient ( $U_{IN\_AC}$ , $I_{oMin}$ )		$\pm 0.03$ % / K
Rated overload protection		110 % - 165 %
Output short circuit ( $U_o$ , $I_{oN}$ )		Current limited (fold forward)
Ripple & noise ( $U_{IN\_AC}$ , $I_{oN}$ , BW = 20 MHz)		<50 mV <sub>ss</sub>
Operation indicator		Display range
Output voltage OK ( $U_i$ , $I_{oN}$ )		"DC OK", LED green ( $U_o$ 19.2 ... 21.6 V)
Output voltage too low ( $U_i$ , $I_{oN}$ )		"DC LOW", LED red ( $U_o$ < 19.2 ... 21.6 V)
Parallel operation		no
Derating (61°C . . . 71 °C)		2.5% / K (see Fig. 1 Derating)
Overvoltage protection ( $U_{IN\_AC}$ , $I_{oN}$ )		30 . . . 33 V

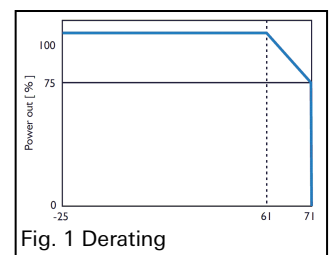


Fig. 1 Derating

## wipos PB1 24-0.42

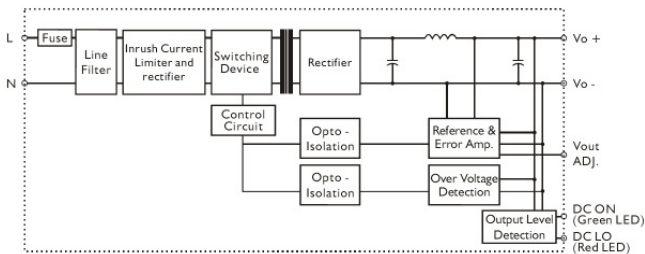
### Technical Data

wipos PB1 24-0.42		Part number: 81.000.6300.0
Rated input voltage AC	[U <sub>IN,AC</sub> ]	100 - 240 V AC
Line frequency AC		47 – 63 Hz
Power factor correction filter (PFC)		not necessary
Input voltage range AC	[U <sub>I,AC</sub> ]	90 ... 264 V AC
Input voltage range DC	[U <sub>I,DC</sub> ]	120 ... 375 V DC
Rated input current (U <sub>I,AC</sub> = 115 V, I <sub>ON</sub> )		0.2 A typ. / 0.3 A max.
Inrush current (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		max. 15 A / max. 30 A
Input fuse		T 1A / 250 V AC (internal)
Hold up time (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		> 20 ms / > 100 ms
Input surge voltage protection		Varistor
Isolation voltage (input / output)		3000 V AC / 4242 V DC
Isolation resistance (input / output)		100 MOhm
Switching frequency min. / max.		80 kHz / 90 kHz
Ventilation / Cooling		Free air convection
Mounting conditions (free space)		25 mm in all directions
Pollution degree		2
Operating ambient temperature	[T <sub>U</sub> ]	-25 °C . . . +71 °C
Humidity in operation		20 – 95 % RH
Storage temperature	[T <sub>U</sub> ]	-25 °C . . . +85 °C
Mounting on		DIN rail 35 mm (EN 60715)
Degree of protection		IP 20
MTBF		868000 h
Dimensions (W x H x D)		18 x 91 x 57 mm
Weight		ca. 0.065 kg
Housing material		Plastic
Connector cross section		
cross section min.	solid/stranded	0.2 mm <sup>2</sup> (AWG26)
cross section max.	solid/stranded	2.5 mm <sup>2</sup> (AWG12)
Strip length		4-5 mm
Torque		0.56 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 3, 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
Terminal connections		
-		Output voltage 24 V DC, negative output
+		Output voltage 24 V DC, positive output
L		AC: phase conductor, DC: no polarity
N		AC: neutral conductor, DC: no polarity

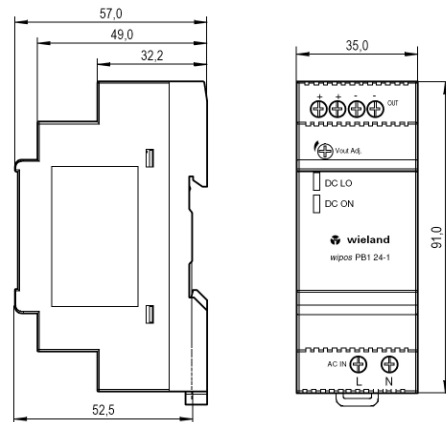
**wipos PB1 24-1**

**wipos PB1 24-1**  
 Switching power supply  
 24 V DC / 1 A  
 81.000.6310.0

- Primary switching power supply, single phase
- Output: 24 V DC / 1 A (adjustable 24 V – 28 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 24-1		Part number: 81.000.6310.0
Rated output power	[P <sub>O</sub> ]	24 W
Rated output voltage	[U <sub>O</sub> ]	24 V DC
Rated output current	[I <sub>ON</sub> ]	1 A DC
Efficiency typ. / min.		85 % / 83 %
Minimum load		none
Output voltage trim range (U <sub>IN,AC</sub> , 0.8 × I <sub>ON</sub> )		24 ... 28 V
Output voltage accuracy (U <sub>IN,AC</sub> , I <sub>ON</sub> )		-0 % / + 1 %
Line regulation		±1 %
Load regulation (U <sub>IN,AC</sub> )		±1 %
Temperature coefficient (U <sub>IN,AC</sub> , I <sub>Omin</sub> )		± 0.03 % / K
Rated overload protection		110 % - 165 %
Output short circuit (U <sub>O</sub> , I <sub>ON</sub> )		Current limited (hiccup mode)
Ripple & noise (U <sub>IN,AC</sub> , I <sub>ON</sub> , BW = 20 MHz)		<50 mV <sub>ss</sub>
Operation indicator		Display range
Output voltage OK (U <sub>I</sub> , I <sub>ON</sub> )		"DC OK", LED green (U <sub>O</sub> 19.2 ... 21.6 V)
Output voltage too low (U <sub>I</sub> , I <sub>ON</sub> )		"DC LOW", LED red (U <sub>O</sub> < 19.2 ... 21.6 V)
Parallel operation		no
Derating (61°C ... 71 °C)		2.5% / K (see Fig. 1 Derating)
Oversvoltage protection (U <sub>IN,AC</sub> , I <sub>ON</sub> )		30 ... 33 V

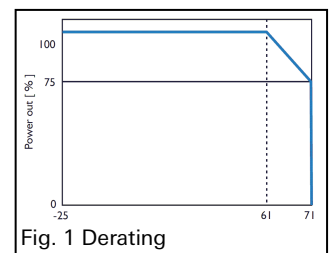


Fig. 1 Derating

## wipos PB1 24-1

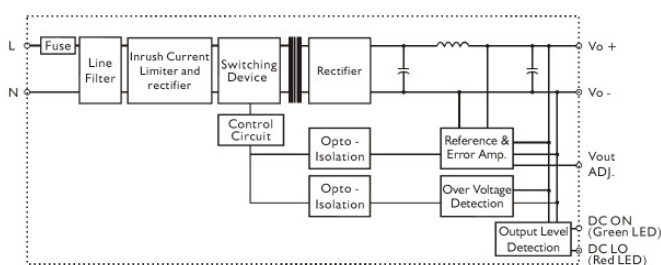
### Technical Data

wipos PB1 24-1		Part number: 81.000.6310.0
Rated input voltage AC	[U <sub>IN,AC</sub> ]	100 - 240 V AC
Line frequency AC		47 – 63 Hz
Power factor correction filter (PFC)		not necessary
Input voltage range AC	[U <sub>I,AC</sub> ]	90 ... 264 V AC
Input voltage range DC	[U <sub>I,DC</sub> ]	120 ... 375 V DC
Rated input current (U <sub>I,AC</sub> = 115 V, I <sub>ON</sub> )		0.68 A typ. / 0.9 A max.
Inrush current (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		max. 25 A / max. 50 A
Input fuse		T 2A / 250 V AC (internal)
Hold up time (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		> 20 ms / > 100 ms
Input surge voltage protection		Varistor
Isolation voltage (input / output)		3000 V AC / 4242 V DC
Isolation resistance (input / output)		100 MOhm
Switching frequency typ.		65 kHz
Ventilation / Cooling		Free air convection
Mounting conditions (free space)		25 mm in all directions
Pollution degree		2
Operating ambient temperature	[T <sub>U</sub> ]	-25 °C . . . +71 °C
Humidity in operation		20 – 95 % RH
Storage temperature	[T <sub>U</sub> ]	-25 °C . . . +85 °C
Mounting on		DIN rail 35 mm (EN 60715)
Degree of protection		IP 20
MTBF		832000 h
Dimensions (W x H x D)		35 x 91 x 57 mm
Weight		ca. 0.13 kg
Housing material		Plastic
Connector cross section		
cross section min.	solid/stranded	0.2 mm <sup>2</sup> (AWG26)
cross section max.	solid/stranded	2.5 mm <sup>2</sup> (AWG12)
Strip length		4-5 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 3, 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 U <sub>out</sub> adjustment
Terminal connections		
-		2 x output voltage 24 V DC, negative output (internally connected)
+		2 x output voltage 24 V DC, positive output (internally connected)
L		AC: phase conductor, DC: no polarity
N		AC: neutral conductor, DC: no polarity

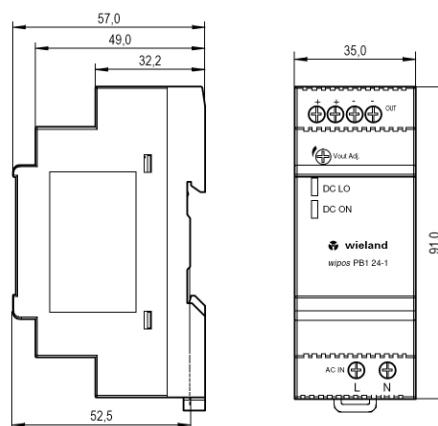
**wipos PB1 24-1.5**

**wipos PB1 24-1.5**
**Switching power supply**
**24 V DC / 1,5 A**
**81.000.6320.0**

- Primary switching power supply, single phase
- Output: 24 V DC / 1.5 A (adjustable 24 V – 28 V DC)
- Short circuit proof
- Input: 100 - 240 V AC; 120 - 375 V DC
- Full load up to 55°C
- DIN rail mounted device



Block diagram



Dimensional diagram

**Technical Data**

wipos PB1 24-1.5		Part number: 81.000.6320.0
Rated output power	[P <sub>O</sub> ]	36 W
Rated output voltage	[U <sub>O</sub> ]	24 V DC
Rated output current	[I <sub>ON</sub> ]	1.5 A DC
Efficiency typ. / min.		84 % / 81 %
Minimum load		none
Output voltage trim range (U <sub>IN AC</sub> , 0.8 × I <sub>ON</sub> )		24 ... 28 V
Output voltage accuracy (U <sub>IN AC</sub> , I <sub>ON</sub> )		- 0 % / +1 %
Line regulation		±1 %
Load regulation (U <sub>IN AC</sub> )		±1 %
Temperature coefficient (U <sub>IN AC</sub> , I <sub>Omin</sub> )		± 0.03 % / K
Rated overload protection		110 % - 150 %
Output short circuit (U <sub>O</sub> , I <sub>ON</sub> )		Current limited (hiccup mode)
Ripple & noise (U <sub>IN AC</sub> , I <sub>ON</sub> , BW = 20 MHz)		<50 mV <sub>ss</sub>
Operation indicator		Display range
	Output voltage OK (U <sub>I</sub> , I <sub>ON</sub> )	"DC OK", LED green (U <sub>O</sub> 19.2 ... 21.6 V)
	Output voltage too low (U <sub>I</sub> , I <sub>ON</sub> )	"DC LOW", LED red (U <sub>O</sub> < 19.2 ... 21.6 V)
Parallel operation		no
Derating (56 °C ... 71 °C)		2.5% / K (see Fig. 1 Derating)
Overvoltage protection (U <sub>IN AC</sub> , I <sub>ON</sub> )		30 ... 33 V

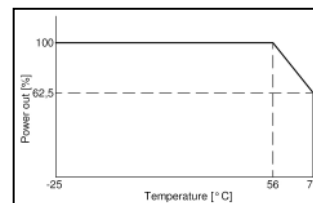


Fig. 1 Derating

## wipos PB1 24-1.5

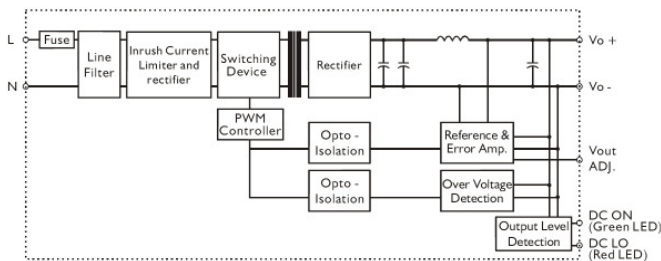
### Technical Data

wipos PB1 24-1.5		Part number: 81.000.6320.0	
Rated input voltage AC	[U <sub>IN AC</sub> ]	100 - 240 V AC	
Line frequency AC		47 – 63 Hz	
Power factor correction filter (PFC)		not necessary	
Input voltage range AC	[U <sub>I AC</sub> ]	90 ... 264 V AC	
Input voltage range DC	[U <sub>I DC</sub> ]	120 ... 375 V DC	
Rated input current (U <sub>I AC</sub> = 115 V, I <sub>ON</sub> )		0.68 A typ. / 0.9 A max.	
Inrush current (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		max. 25 A / max. 50 A	
Input fuse		T 2A / 250 V AC (internal)	
Hold up time (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		> 20 ms / > 100 ms	
Input surge voltage protection		Varistor	
Isolation voltage (input / output)		3000 V AC / 4242 V DC	
Isolation resistance (input / output)		100 MOhm	
Switching frequency min. / max.		45 kHz / 65 kHz	
Ventilation / Cooling		Free air convection	
Mounting conditions (free space)		25 mm in all directions	
Pollution degree		2	
Operating ambient temperature	[T <sub>U</sub> ]	-25 °C . . . +71 °C	
Humidity in operation		20 – 95 % RH	
Storage temperature	[T <sub>U</sub> ]	-25 °C . . . +85 °C	
Mounting on		DIN rail 35 mm (EN 60715)	
Degree of protection		IP 20	
MTBF		732000 h	
Dimensions (W x H x D)		53 x 91 x 57 mm	
Weight		ca. 0.19 kg	
Housing material		Plastic	
Connector cross section			
cross section min.	solid/stranded	0.5 mm <sup>2</sup>	(AWG26)
cross section max.	solid/stranded	2.5 mm <sup>2</sup>	(AWG12)
Strip length		4-5 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 3, 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 U <sub>Out</sub> adjustment	
Terminal connections			
-		2 x output voltage 24 V DC, negative output (internally connected)	
+		2 x output voltage 24 V DC, positive output (internally connected)	
L		AC: phase conductor, DC: no polarity	
N		AC: neutral conductor, DC: no polarity	

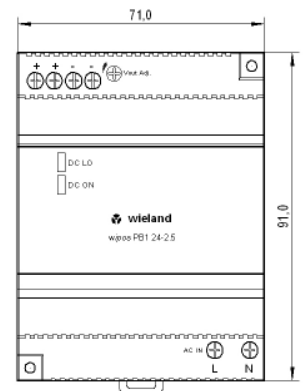
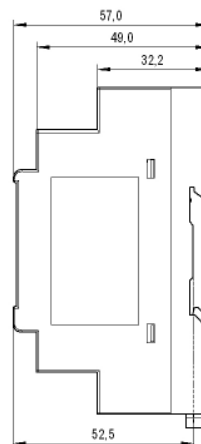
**wipos PB1 24-2.5**

**wipos PB1 24-2.5**  
 Switching power supply  
 24 V DC / 2.5 A  
 81.000.6330.0

- Primary switching power supply, single phase
- Output: 24 V DC / 2.5 A (adjustable 24 V – 28 V DC)
- Short circuit proof
- Input: 100 - 240 V AC; 120 - 375 V DC
- Full load up to 60°C
- DIN rail mounted device



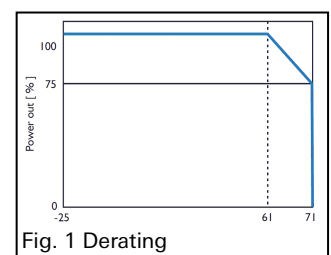
Block diagram



Dimensional diagram

**Technical Data**

wipos PB1 24-2.5		Part number: 81.000.6330.0
Rated output power	[P <sub>O</sub> ]	60 W
Rated output voltage	[U <sub>O</sub> ]	24 V DC
Rated output current	[I <sub>ON</sub> ]	2.5 A DC
Efficiency typ. / min.		86 % / 84 %
Minimum load		none
Output voltage trim range (U <sub>IN AC</sub> , 0.8 x I <sub>ON</sub> )		24 ... 28 V
Output voltage accuracy (U <sub>IN AC</sub> , I <sub>ON</sub> )		- 0 % / + 1 %
Line regulation		± 1 %
Load regulation (U <sub>IN AC</sub> )		± 1 %
Temperature coefficient (U <sub>IN AC</sub> , I <sub>Omin</sub> )		± 0.03 % / K
Rated overload protection		110 % - 150 %
Output short circuit (U <sub>O</sub> , I <sub>ON</sub> )		Current limited (hiccup mode)
Ripple & noise (U <sub>IN AC</sub> , I <sub>ON</sub> , BW = 20 MHz)		< 50 mV <sub>ss</sub>
Operation indicator		Display range
Output voltage OK (U <sub>I</sub> , I <sub>ON</sub> )		"DC OK", LED green (U <sub>O</sub> 19.2 ... 21.6 V)
Output voltage too low (U <sub>I</sub> , I <sub>ON</sub> )		"DC LOW", LED red (U <sub>O</sub> < 19.2 ... 21.6 V)
Parallel operation		no
Derating (61 °C ... 71 °C)		2.5% / K (see Fig. 1 Derating)
Overvoltage protection (U <sub>IN AC</sub> , I <sub>ON</sub> )		30 ... 33 V



## wipos PB1 24-2.5

### Technical Data

wipos PB1 24-2.5		Part number: 81.000.6330.0	
Rated input voltage AC	[U <sub>IN AC</sub> ]	100 - 240 V AC	
Line frequency AC		47 – 63 Hz	
Power factor correction filter (PFC)		not necessary	
Input voltage range AC	[U <sub>I AC</sub> ]	90 ... 264 V AC	
Input voltage range DC	[U <sub>I DC</sub> ]	120 ... 375 V DC	
Rated input current (U <sub>I AC</sub> = 115 V, I <sub>ON</sub> )		1.1 A typ. / 1.5 A max.	
Inrush current (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		max. 30 A / max. 60 A	
Input fuse		T 2A / 250 V AC (internal)	
Hold up time (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		> 12 ms / > 60 ms	
Input surge voltage protection		Varistor	
Isolation voltage (input / output)		3000 V AC / 4242 V DC	
Isolation resistance (input / output)		100 MOhm	
Switching frequency min. / max.		45 kHz / 55 kHz	
Ventilation / Cooling		Free air convection	
Mounting conditions (free space)		25 mm in all directions	
Pollution degree		2	
Operating ambient temperature	[T <sub>U</sub> ]	-25 °C . . . +71 °C	
Humidity in operation		20 – 95 % RH	
Storage temperature	[T <sub>U</sub> ]	-25 °C . . . +85 °C	
Mounting on		DIN rail 35 mm (EN 60715)	
Degree of protection		IP 20	
MTBF		608000 h	
Dimensions (W x H x D)		71 x 91 x 57 mm	
Weight		ca. 0.25 kg	
Housing material		Plastic	
Connector cross section			
cross section min.	solid/stranded	0.5 mm <sup>2</sup>	(AWG26)
cross section max.	solid/stranded	2.5 mm <sup>2</sup>	(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 3, 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 U <sub>Out</sub> adjustment	
Terminal connections			
-		2 x output voltage 24 V DC, negative output (internally connected)	
+		2 x output voltage 24 V DC, positive output (internally connected)	
L		AC: phase conductor, DC: no polarity	
N		AC: neutral conductor, DC: no polarity	





## wipos PB1 24-4.2

### Technical Data

wipos PB1 24-4.2		Part number: 81.000.6340.0	
Rated input voltage AC	[U <sub>IN AC</sub> ]	100 - 240 V AC	
Line frequency AC		47 – 63 Hz	
Power factor correction filter (PFC)		not necessary	
Input voltage range AC	[U <sub>I AC</sub> ]	90 ... 264 V AC	
Input voltage range DC	[U <sub>I DC</sub> ]	120 ... 375 V DC	
Rated input current (U <sub>I AC</sub> = 115 V, I <sub>ON</sub> )		1.8 A typ. / 2.2 A max.	
Inrush current (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		max. 30 A / max. 60 A	
Input fuse		T 3.15A / 250 V AC (internal)	
Hold up time (U <sub>I</sub> = 115 V / 230 V AC, I <sub>ON</sub> )		> 10 ms / > 60 ms	
Input surge voltage protection		Varistor	
Isolation voltage (input / output)		3000 V AC / 4242 V DC	
Isolation resistance (input / output)		100 MOhm	
Switching frequency min. / max.		35 kHz / 45 kHz	
Ventilation / Cooling		Free air convection	
Mounting conditions (free space)		25 mm in all directions	
Pollution degree		2	
Operating ambient temperature	[T <sub>U</sub> ]	-25 °C . . . +71 °C	
Humidity in operation		20 – 95 % RH	
Storage temperature	[T <sub>U</sub> ]	-25 °C . . . +85 °C	
Mounting on		DIN rail 35 mm (EN 60715)	
Degree of protection		IP 20	
MTBF		525000 h	
Dimensions (W x H x D)		90 x 91 x 57 mm	
Weight		ca. 0.38 kg	
Housing material		Plastic	
Connector cross section			
cross section min.	solid/stranded	0.5 mm <sup>2</sup>	(AWG26)
cross section max.	solid/stranded	2.5 mm <sup>2</sup>	(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 U <sub>Out</sub> adjustment	
Terminal connections			
-		2 x output voltage 24 V DC, negative output (internally connected)	
+		2 x output voltage 24 V DC, positive output (internally connected)	
L		AC: phase conductor, DC: no polarity	
N		AC: neutral conductor, DC: no polarity	