

## POWER SUPPLY UNIT

### Short guide



#### CAUTION

Installation at the attachment site should be done only when the power supply to the device and all devices connected to it is turned off.



#### CAUTION

When connecting the load to the output of the device, **observe the polarity!** Incorrect connection may result in equipment failure.



#### NOTICE

For installation, you must use only a special tool for electrical work.

#### Features:

- Protection against output overvoltage and overcurrent.
- Input protection against overvoltage and impulse noise.
- Protection against overload, short circuit and overheating.
- Adjusting the output voltage with a trimmer.
- Possibility of parallel and serial connection of several power supply units without additional external protection devices and equalization of output currents.



#### NOTE

When connecting units in parallel, it is recommended to ensure identical length and cross-section of wires from the power supply terminals to the point of connection of wires.

#### Specification

Characteristic	Value
<b>Output parameters</b>	
Nominal power supply voltage	24 V
Nominal current	2.5 A
Nominal power consumption	60 W
Output voltage adjustment	±8 %
Voltage deviation, including:	max. ±2 %
• output voltage deviation caused by input voltage	max. ±0.5 %
• output voltage deviation caused by output current	max. ±0.25 %
• temperature coefficient	max. ±0.015 %/°C
Output ripple voltage	max. 120 mV

Characteristic	Value
<b>Input parameters</b>	
AC power supply	85...264 V <sub>RMS</sub>
AC frequency	45...65 Hz
DC power supply	110...370 V
Rated current consumption	max. 1.25 A
Inrush current	max. 36 A
Efficiency at rated load	min. 85 %
<b>Protection</b>	
Output current limit	104 ... 116% of rated current
Output voltage limit	150% of rated voltage
<b>Safety and EMC</b>	
Electromagnetic immunity according to EN 61000-4:2010	class A
Electromagnetic emission level by power port according to EN 61000-4:2010	class B
IP Code according to EN 60529:2014	IP20
Appliance class according to EN 61140:2016	II
Insulation according to EN 61010-1:2010	reinforced
Overvoltage category according to EN 61010-1:2010	II
Pollution degree according to IEC 60364-4-443:1995	2
Insulation strength	
• input-output, input-housing	3,000 V
• output-relay	2,000 V
Insulation resistance (input-output-housing) at 500 V	1,000 MΩ
<b>Environmental conditions</b>	
Ambient temperature	-40...+70 °C
Transportation and storage	-40...+50 °C
<b>Other features</b>	
Average service lifetime	10 years
Warranty	2 years
Average error-free running time	50,000 h
Weight	max. 0.5 kg
Serial connectivity	Yes

Characteristic	Value
Parallel connectivity*	Yes
Type of circuit breaker	6 A, type C or 10 A, type B
Digital output characteristics	2 A at 250 V AC and $\cos \phi > 0.4$ 2 A at 24 V DC

\* If two power supply units are connected in parallel to a load of max. 60 W, the "Alarm" LED on one of the units may flash.

#### Indication and signals

Status	LED		Digital output	
	Output	Overload	DO1A	DO1C
Rated load*	Green	OFF	Open	Closed
Output current limiting mode: $U_{OUT} = 12 \dots 24^{**}$ V	Orange	OFF	Closed	Open
Output current limiting mode: $U_{OUT} = 4 \dots 12^{**}$ V	Orange	Flashing red	Closed	Open
Output current limiting mode: $U_{OUT} = 0 \dots 4^{**}$ V	OFF	Flashing red	Closed	Open



#### NOTICE

\* If two power supply units are connected in parallel to a load of max. 60 W, the "Alarm" LED on one of the units may flash.

\*\* The voltage value is approximate and may vary from device to device.

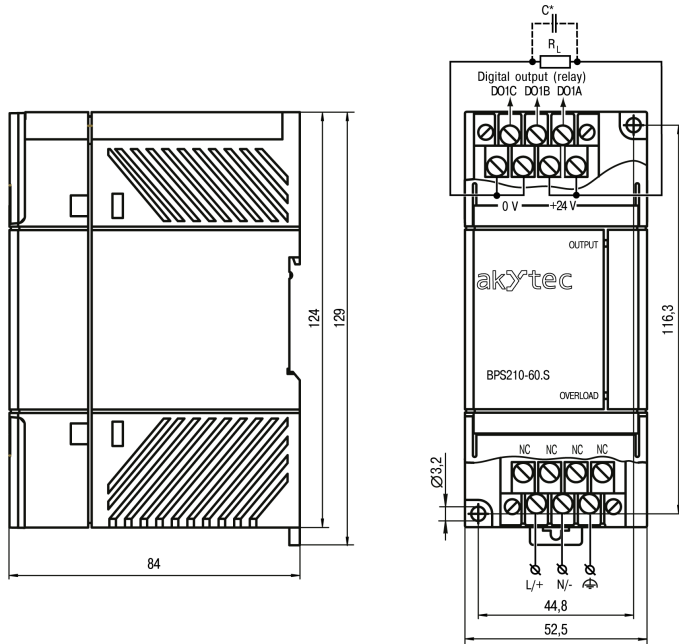


Fig. 1 Dimensions and connectors

: functional grounding contact.

DO1C DO1B DO1A : DO1A – normally open contact; DO1B – changeover contact; DO1C – normally closed contact.



**NOTICE**

\*If the length of the wires between the unit and the load is more than 1 m and there are no input capacitors at the load input, it is recommended to connect a ceramic capacitor with a capacity of at least 0.1  $\mu$ F and 150% of output voltage of the used unit in parallel to the load.

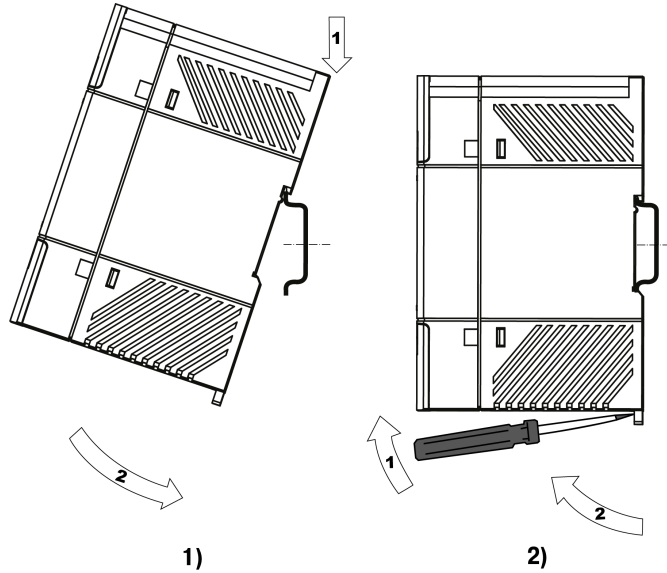


Fig. 2 Montage (1) and de-montage (2)

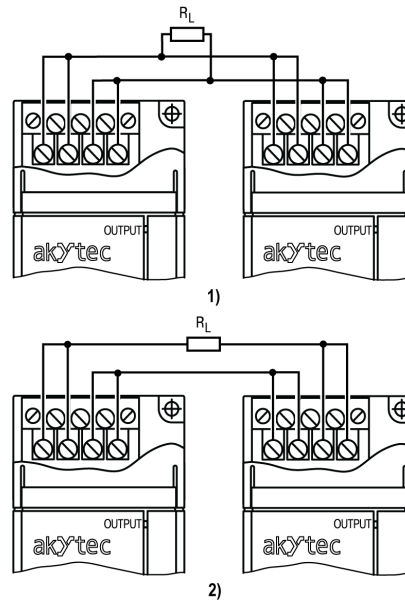


Fig. 3 Parallel (1) and serial (2) connection of several devices

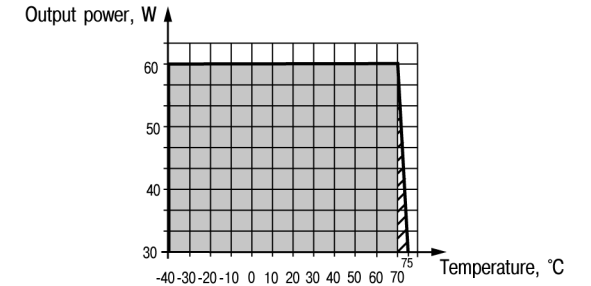


Fig. 4 Output power vs ambient temperature

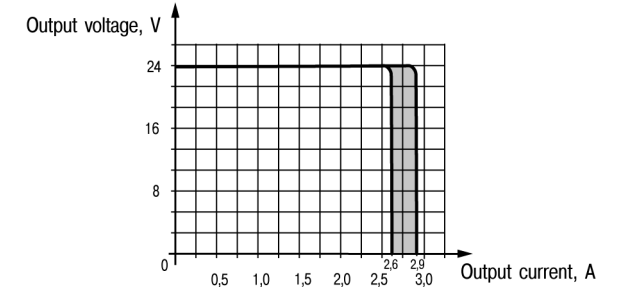


Fig. 5 Output voltage vs output current

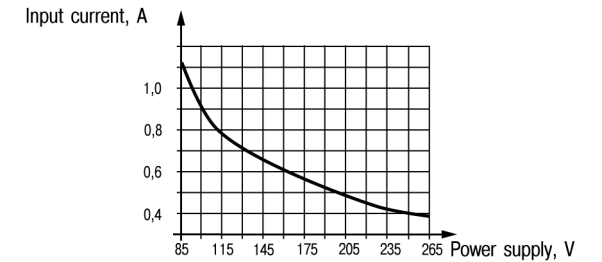


Fig. 6 Input current vs supply voltage

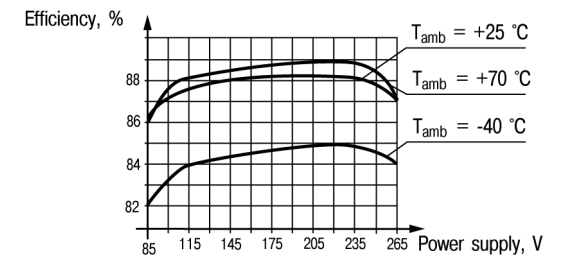


Fig. 7 Efficiency vs supply voltage and ambient temperature