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

Characteristic	Value
Input parameters	
AC power supply	85…264 V_{RMS}
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 %
Protection	
Output current limit	104 … 116% of rated current
Output voltage limit	150% of rated voltage
Safety and EMC	
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 • output-relay	 3,000 V 2,000 V
Insulation resistance (input-output-housing) at 500 V	1,000 MΩ
Environmental conditions	
Ambient temperature	-40…+70 °C
Transportation and storage	-40…+50 °C
Other features	
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 φ > 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 ... 24** V	Orange	OFF	Closed	Open
Output current limiting mode: U_{OUT} = 4…12** V	Orange	Flashing red	Closed	Open
Output current limiting mode: U_{OUT} = 0…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.

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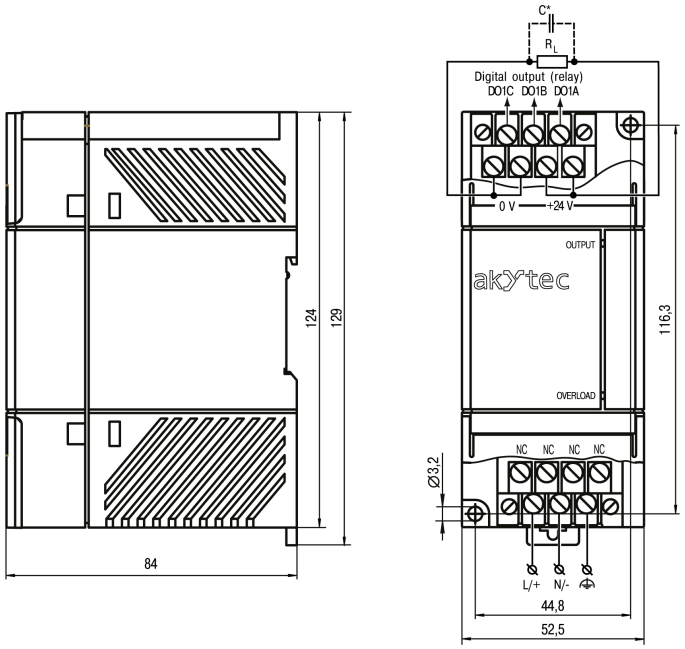

Fig. 1 Dimensions and connectors

: functional grounding contact.

DO1C DO1B DO1A

: DO1A – normally closed contact; DO1B – changeover contact; DO1C – normally open 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 µF and 150% of output voltage of the used unit in parallel to the load.

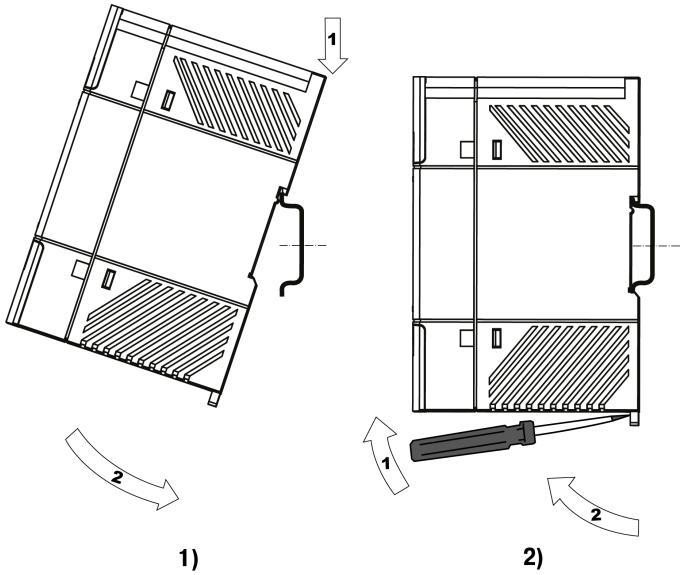

Fig. 2 Montage (1) and de-montage (2)

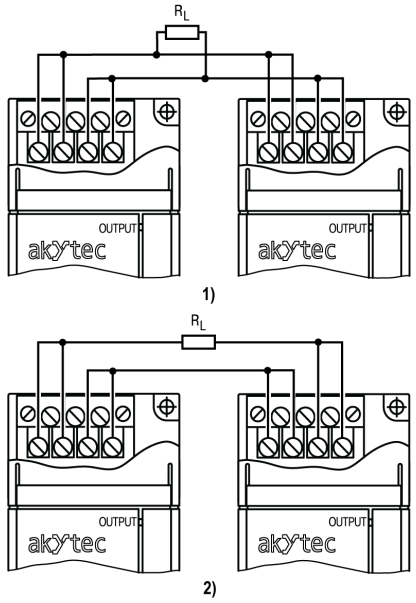

Fig. 3 Parallel (1) and serial (2) connection of several devices

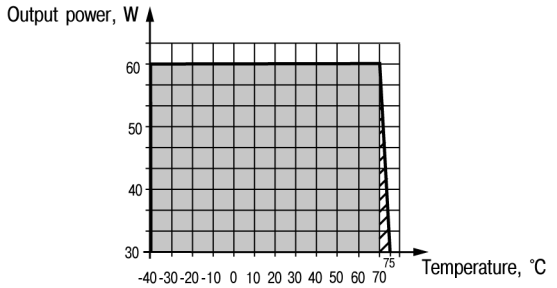

Fig. 4 Output power vs ambient temperature

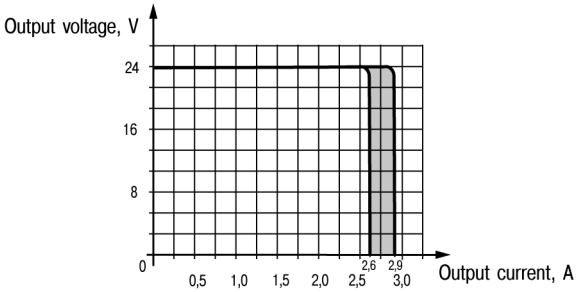

Fig. 5 Output voltage vs output current

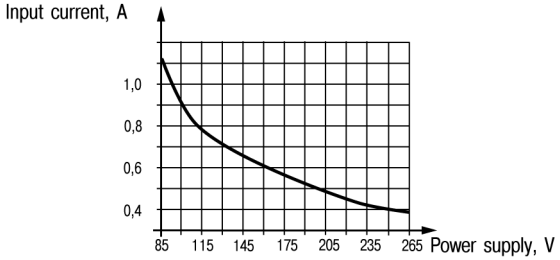

Fig. 6 Input current vs supply voltage

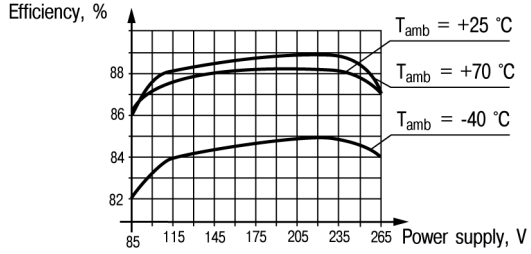

Fig. 7 Efficiency vs supply voltage and ambient temperature

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