

PB35, PB70

Backup power supplies for communication modules



- Backup power supply with detection of mains supply failure
- Suitable for backing up GSM devices or communication radio modules
- Special capacitor for energy storage with an unlimited number of operating cycles and a service life of > 20 years
- The backup power supply does not contain a battery or accumulator - no service and maintenance requirements
- Easy and fast installation between the power supply and the communication module
- Version for DIN rail installation, width 1.5 modules (23 mm)
- We offer 2 sizes of capacity and 3 sizes of backup output voltage
- Low purchase price

Basic description

The backup power supply is used for short-term operation of GSM and radio communication modules powered from the mains power supply immediately after a mains supply voltage failure. If the used communication modules are not supplemented with backup batteries or accumulators, the power supply of the connected communication modules will be interrupted together with the mains power failure and the information about the mains failure will no longer be transmitted.

Energy accumulated in a special capacitor of the PB35 or PB70 module allows up to several minutes of operation of communication devices even after a power failure and human operator, superior system or server can get virtually online information about this emergency (sending a data session to the server or warning SMS operation).

Since the backup power supply does not contain a battery or accumulator, these elements cannot be aged either, and the backup power supply can thus serve without restriction practically for the lifetime of the connected communication module.

Binární výstup

The binary output of the backup power supply is realized by an open collector and serves to activate the input of the connected communication module in the event of a mains power failure.

Using a user-accessible jumper, the active state of the output can be set to both low and high levels. The active level of the binary output is set at the factory (open collector closed) in the presence of the supply voltage.

Involvement and principle of activity

The backup power supply is connected between the network power supply and the used communication module. During normal operation, the voltage of the mains supply at the output of the backup power supply is reduced by 0.3 V, which does not affect the operation of the communication module.

After a failure of the mains supply, the voltage at the output of the backup power supply drops to the level given by the factory-set parameters of this power supply, ie to 3.8 V, 6 V or 12 V DC. The lower output voltage guarantees a longer operating time of the backup power supply and vice versa. The time for which the power backup is performed can be determined from the enclosed graphs on the next page both for individual output voltage sizes and for various current consumption of the connected communication module.

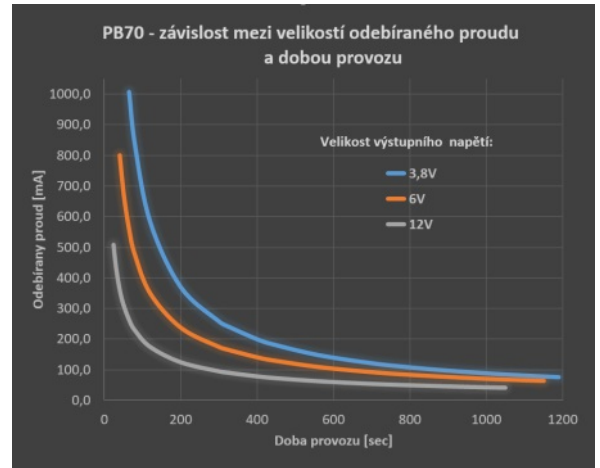
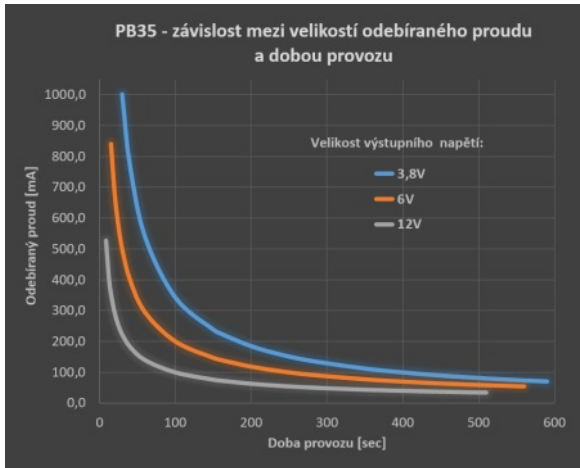
After the mains supply is restored, the output voltage of the backup power supply is immediately restored to the same level as before this outage, and at the same time the energy of the backup power supply is gradually recharged. Full charging of the backup power supply occurs approximately 10 minutes after the mains supply voltage is restored.

Použití

Backup power supply for GSM and radio communication modules in many different applications:

- Remote management technology management
- Monitoring of technological processes
- Measurement and telemetry
- Building security

Characteristic values of backup time



Technical parameters

	PB35	PB70
Accumulated energy source:	35 mWh	70 mWh
Operating time for 6 V / 200 mA output:	100 sec	240 sec
Input supply voltage:	5 to 24 V DC	
Current consumption:	<150 mA	
Maximum accumulation time:	<3 min	<6 min
Output voltage: optional when ordering the power supply:	3.8 V; 6V; 12 V	
Maximum output current for output 3.8 V:	1000 mA	
Maximum output current for 12 V output:	500 mA	
Efficiency:	> 80%	
Binary output:	open collector, U _{max} 25V, I _{max} 50 mA	
Default bin setting. output:	active in the presence of mains supply	
Electrical connection method:	screw terminals	
Lifespan:	20 years (capacity drop <20%)	
Operating and storage temperature:	-30 °C to 60 °C	
Humidity for 25 ° C:	<95%, non-condensing	
Dimensions:	90 mm x 57 mm x 23 mm	
Case material:	plastic	
Mounting method:	on DIN rail, 1.5 module width	
Weight:	60 g	
Protection:	IP20	

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Connection of backup power supply terminals:

