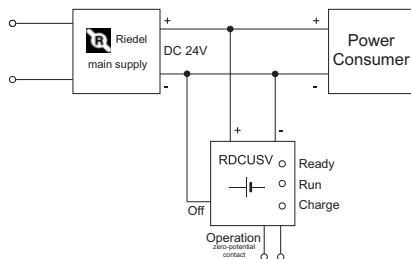


DC UPS modules



Fig. RDCUSV 10D



General information:

We have to live with problems in today's electricity networks. They can last as long as 10% of total operating time. Voltage fluctuations and dips occur; in rarer cases even total failures occur, e.g. due to lightning strikes or errors in maintenance work. The corresponding UPS system provides protection from such problems.

In accordance with EN 61131-2 / part 2 (limits for nominal DC voltage at 24VDC) the operating voltage for electronic controls is currently 24VDC (20.4VDC - 28.8VDC eff.). Power supplies must be designed accordingly.

In combination with our DC voltage power supplies we offer DC UPS modules for this. They can be easily connected in parallel on the secondary side and ensure safe protection of your controls and easy handling.

The patented technology of our DC UPS modules eliminates the necessity for switching controllers such as boost converters. EMC problems hence do not arise.

All Riedel DC-USV modules have a compact construction with rechargeable battery inside the enclosure and are easy to install.

The DC UPS modules can be snapped on to DIN EN 60715 support rails. The module is available in versions 24VDC 3A 30sec, 24VDC 10A 30sec, 24VDC 20A 30sec and 24VDC 40A 30sec. Additional versions are available upon request.

They are connected in parallel to the DC voltage output of a 24VDC power supply unit (see block circuit diagram) and the terminal 'OFF' connected to the minus terminal for use.

The 'OFF' connection must be opened during switch-off of the system via the NO auxiliary contact of the main switch for deactivating the UPS module!

Option

Switch-off of back-up time limit, enabling longer UPS times

Back-up times

	RDCUSV 10D / 16D	RDCUSV 20D	RDCUSV 40D
6min	8.0A	16.0A	25.0A
10min	5.9A	11.0A	16.0A
30min	2.3A	5.0A	7.5A
60min	1.8A	3.0A	4.2A
120min	0.75A	2.0A	2.2A
240min	0.4A	1.0A	1.3A

Type	RDCUSV 10D		RDCUSV 16D		RDCUSV 20D	RDCUSV 40D	
Maximum current consumption	DC 10A		DC 16A		DC 20A		DC 40A
Back-up time at max. current	factory-set to 30s (other back-up times adjustable via DIP switch)						
Maximum current consumption after deep discharge	1 A				2 A		3 A
Back-up ready for 1 cycle after deep discharge	after 5 min.						
Loading method	IV characteristic curve						
Operating voltage threshold	22VDC or 20.6VDC						
Deep discharge protection	Switch-off threshold: 17VDC						
Battery type	lead acid						
Signal output	potential-free loading up to 24VDC / 50mA						
Ambient temperature	0 - 40°C						
Installation position	any installation position						
Connection type	print terminals						
Connection data	fine-strand max. 2.5mm²					fine-strand max. 4mm²	
Installation	support rail mounting (DIN EN 60715), can be mounted in rows with separation distance > 8mm						
Protection class	IP 20						
Protection class	SELV						
Weight in kg	approx. 3.5				approx. 4.4		approx. 6.5
Item number	22.0 V	0250-0000010D	0250-0000016D		0250-0000020D		0250-0000040D
	20.6 V	0251-0000010D	0251-0000016D		0251-0000020D		0251-0000040D
Dimensions in mm (L / W / D)	125 / 134 / 153				175 / 155 / 192		200 / 180 / 185