

Power supply unit AN410

for DC 24 V power supply



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AN410

Product description

The primary-pulsed power supply unit AN410 is suitable for the supply of Bender devices with a supply voltage of DC 24 V and a total power consumption of 10 VA. A maximum of three MK2430 or two MK800 alarm and test combinations can be supplied, for example.

Description of function

The supply voltage U_{IN} is to be connected to the terminals L/N. The output voltage DC 24 V is available across the terminals +/- . The secondary circuit has an electronic overload protection.

An uninterruptible redundant power supply can be realised by using two AN410 and one redundancy unit AN420-R.

To achieve this, the input voltages 1 and 2 are to be taken from different power supply sources.

Device features

- Primary-pulsed power supply unit for the power supply of Bender devices with a supply voltage of DC 24 V and a power consumption of max. 10 VA
- Power supply for max. 3 MK2430/max. 2 MK800 alarm indicator and test combinations
- Protected against idle running, overload and continuous short-circuits

Details about the cable length

The maximum number of devices that can be connected depends on the loss of voltage in the line between the AN410 and the device. Use wires with a sufficiently large cross section and note in each case the supply voltage ranges for the devices. If several devices are to be supplied, the wiring should be routed in a star-shaped design.

In case of long cables, check the value of the supply voltage across the terminals of the connected device.

Approvals



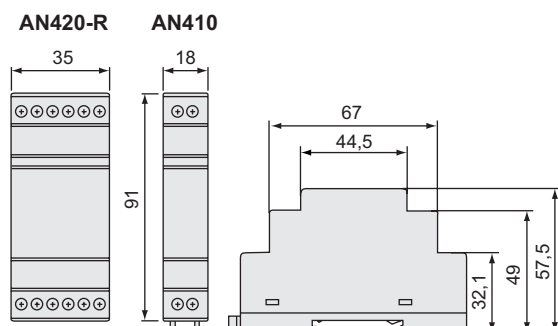
^{*)} Approval relating to the rated input voltage U_{IN}

Ordering information

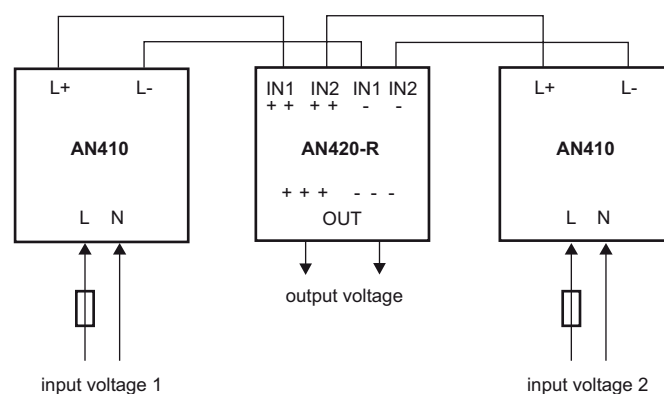
Rated input voltage U_{IN}		Rated output voltage	ABB type	Type	Art. No.
AC	DC	DC			
90...264V, 47...63 Hz	120...370V	24V	CP-D 24/0.42/Art. No. 1SVR 427 041 R0000	AN410	B 924 209
–	9...35V	9...35V	CP-D RU/Art. No. 1SVR 427 049 R0000	AN420-R	B 9510 0250

Dimension diagram

Dimensions in mm



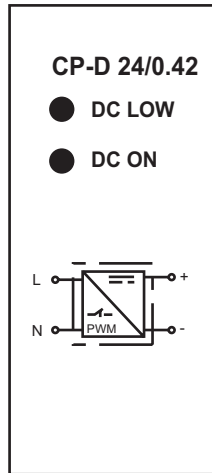
Alternative to the redundant power supply



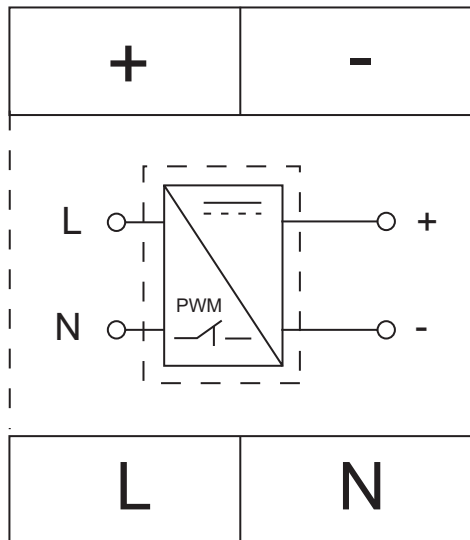
Operating elements

Power On LED "DC ON" lights up green signalling that voltage is available at the output of the power supply unit.

LED "DC LOW" lights red signalling that the output voltage is too low.



Wiring diagram



L, N: input voltage
+, -: output voltage

Technical data

Insulation coordination acc. to IEC 60664-1

Rated impulse voltage/pollution degree	3 kV/2
Rated insulation voltage U_i input circuit/output circuit	3 kV

Input circuits

Rated input voltage U_{IN}	see ordering information
Power consumption	≤ 3 W
Inrush current	≤ 30 A, ≤ 3 ms
Stored energy time in the event of power system failure	≥ 30 ms
Typical current/power consumption	at AC 110 V 184 mA/11.62 W at AC 230 V 120.6 mA/12 W
Primary fuse (internal device protection, not accessible)	1 A time-lag/AC 250 V

Output circuit

Rated output voltage	DC 24 V (± 1 %)
Rated output current	420 mA
Derating of the output current $60^\circ\text{C} < T_U \leq 70^\circ\text{C}$	2.5 %/K
Parallel connection option	with redundancy unit AN420-R
Protection against short-circuits/no-load	continuous protection against short-circuits/no-load

Environment/EMC

EMC immunity	acc. to EN 61000-6-2
EMC emission	acc. to EN 61000-6-3
Ambient temperature (during operation/during storage)	$-25 \dots +70^\circ\text{C} / -25 \dots +85^\circ\text{C}$
Classification of mechanical conditions acc. to	IEC/EN 60068-2

Connection

Connection	screw-type terminals
Connection	
rigid, flexible (with or without ferrule)/conductor sizes	0.2...2 mm ² (AWG 24...14)
Stripping length	6 mm (0.24 inches)
Tightening torque	0.36...0.56 Nm

Standards, approvals and certifications

	UL 508, CAN/CSA C22.2 No. 14 ^{*)}
	UL 1310, CAN/CSA C22.2 No. 223 (Class 2 Power Supply) ^{*)}
	UL 6090, CAN/CSA C22.2 No. 60950 ^{*)}
	CCC ^{*)}

Mark

	CE
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Other

Status indicators	2 LEDs: output voltage present, output voltage low
Operating mode	continuous operation
Mounting	vertically (terminals +/- at the top)
Degree of protection, internal components DIN EN 60529 (VDE 0470-1)	IP30
Degree of protection, terminals (DIN EN 60529 (VDE 0470-1))	IP20
Protection class	II
Minimum distance to adjacent devices vertically/horizontally	25/25 mm
Enclosure dimensions (W x H x D)	18 x 91 x 57.5 mm (0.71 x 3.58 x 2.26 inches)
DIN rail mounting acc. to	IEC 60715
Protective extra low voltage	SELV (EN 60950-1)
Documentation number	D00099
Weight	≤ 70 g

^{*)} Approval relating to the rated input voltage U_{IN}



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