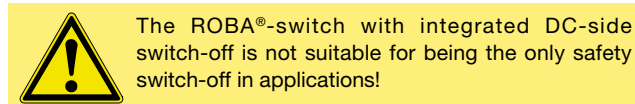


Application

ROBA®-switch fast acting rectifiers are used to connect DC consumers to alternating voltage supplies, for example electromagnetic brakes and clutches (ROBA-stop®, ROBA®-quick, ROBATIC®), ectromagnets, electrovalves, etc.

Fast acting rectifier ROBA®-switch 017.110.2

- Integrated DC-side disconnection (shorter connection time t_1)
- Consumer operation with overexcitation or power reduction
- Input voltage: 100 – 500 VAC
- Max. output current I_{RMS} : 1,5 A
- UL-approved



Function

The ROBA®-switch units are used for operation at an input voltage of between 100 and 500 VAC, depending on the size. They can switch internally from bridge rectification output voltage to half-wave rectification output voltage. The bridge rectification time can be modified from 0,05 to 2 seconds by exchanging the external resistor (R_{ext}).

The ROBA®-switch units also have an integrated DC-side disconnection. In contrast to the conventional DC-side disconnection, no further protective measures or external components are necessary. The DC-side disconnection is standard-activated (terminals 3 and 4 are not wired), resulting in short electromagnetic consumer switching times.

The integrated DC-side disconnection is deactivated by fitting a bridge between the terminals 3 and 4. The coil is deenergised via the free wheeling diode. This has the advantages of softer braking and a lower switching noise. However, the switching times increase substantially (taking approx. 6 - 10 times longer).

Electrical Connection (Terminals)

- 1 + 2 Input voltage (fitted protective varistor)
- 3 + 4 Switching between DC- and AC-side disconnection
- 5 + 6 Output voltage (fitted protective varistor)
- 7 + 8 R_{ext} for bridge rectification time adjustment

Technical Data

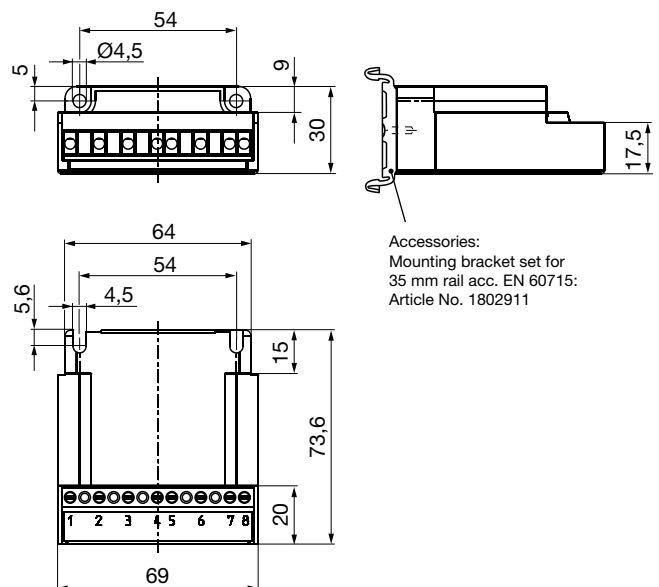
Input voltage	see Table 1
Output voltage	see Table 1
Protection	IP65 components, IP20 terminals, IP10 R_{ext}
Terminal nom. cross-section	1,5 mm ² , (AWG 22-14)
Ambient temperature	-25 °C up to +70 °C
Storage temperature	-40 °C up to +105 °C

Order Number

—	/	0	1	7	.	1	1	0	.	2
Size										
10										
20										



Dimensions (mm)



ROBA®-switch Sizes, Table 1

				Size	
				10	20
Input voltage $\pm 10 \%$	U_{AC}	[VAC]		100 – 250	200 – 500
Output voltage	U_{bridge}	[VDC]		90 – 225	180 – 450
	$U_{half-wave}$	[VDC]		45 – 113	90 – 225
Output current	at $\leq 45 \text{ °C}$	I_{RMS}	[A]	1,5	1,5
	at max. 70 °C	I_{RMS}	[A]	0,75	0,75
Conformity markings				 	