



Accumulator disconnectors OB series



Used to protect an accumulator against deep discharge

Mounted on a DIN rail

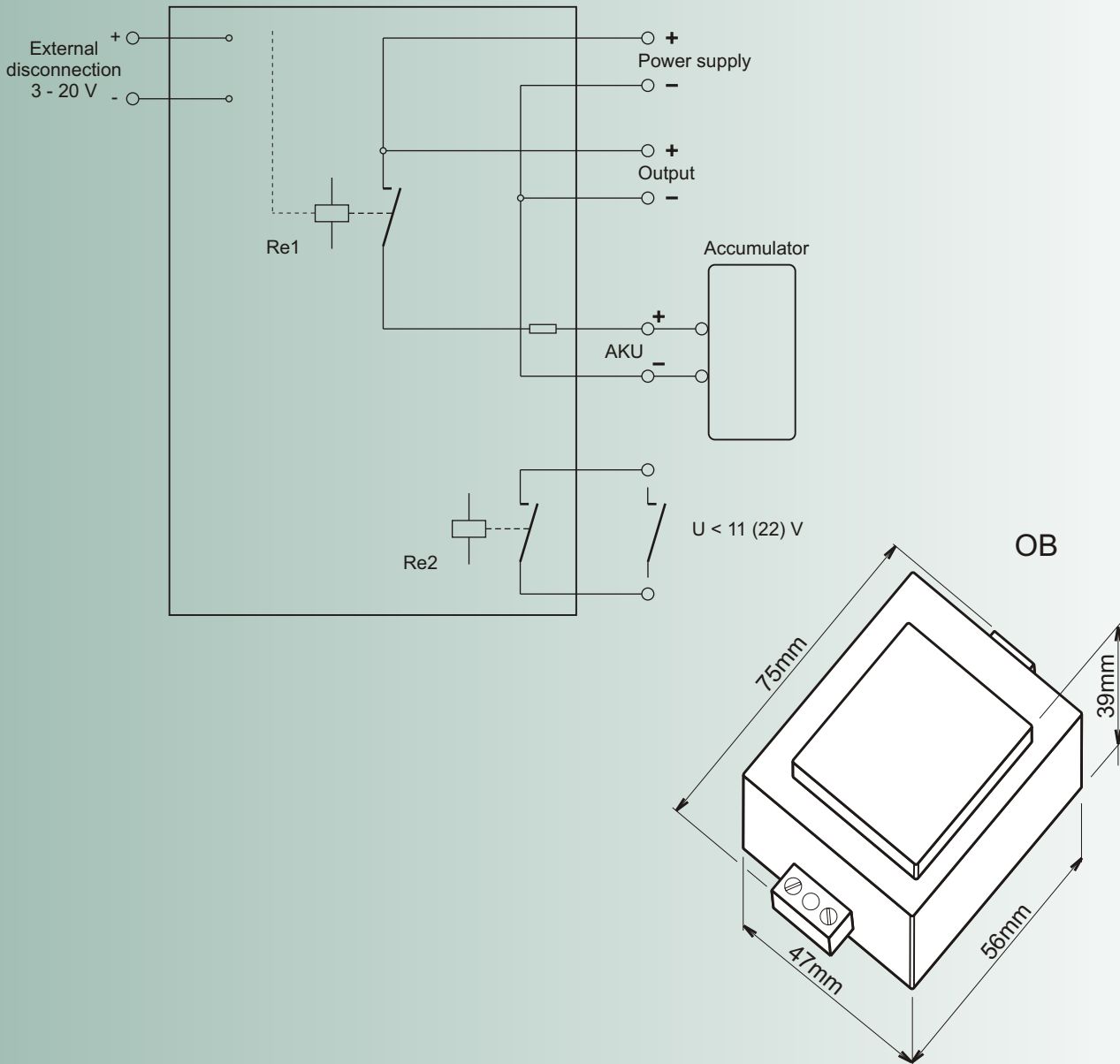
	Voltage of the accumulator used	U_{ref1}	U_{ref2}	Signalization before an accumulator is disconnected	External control of the disconnection
OB12/10A.0	12 V	10,5 V	-	no	no
OB12/10A.1	12 V	10,5 V	11,0 V	yes	no
OB12/10A.11	12 V	10,0 V	11,0 V	yes	yes
OB24/10A.0	24 V	21,0 V	-	no	no
OB24/10A.1	24 V	21,0 V	22,0 V	yes	no
OB24/10A.11	24 V	20,0 V	22,0 V	yes	yes
OB48/2A5.0	48 V	42,0 V	-	no	no
OB48/2A5.1	48 V	42,0 V	44,0 V	yes	no
OB48/2A5.11	48 V	40,0 V	44,0 V	yes	yes

The lead-acid accumulator disconnecter is intended to protect an accumulator against deep discharge and its subsequent damage. This can happen during long-time power network outage, when a device is powered from the accumulator. The voltage on the accumulator is sampled and compared with reference voltages U_{ref1} , U_{ref2} . In case that the accumulator's voltage drops below value U_{ref1} the disconnecter disconnects positive pole from the device.

The accumulator disconnecter is protected against reversal of poles and also against a short-circuit by 10 A current fuse which is accessible to the user. Disconnectors are constructed to withstand a maximum current of 10 A. The value $U_{ref1} = 10,5$ V is valid for accumulators with nominal voltage 12 V. For other sets of accumulators (24 V, 48 V) the value $U_{ref1} = 21,0$ V, 42,0 V. The value U_{ref2} changes also accordingly.



Block scheme of an accumulator disconnector, model .11



Disconnector models .0 only have relay Re1. They do not have relay Re2 and clamps „External disconnection 3 - 20 V“. When the voltage drops below value U_{ref1} , the accumulator is disconnected. If the power network voltage turns on, the accumulator is automatically connected.

Disconnector models .1 have also relay Re2. During operation on battery power, the voltage of the accumulator gradually drops. When it reaches the value U_{ref2} ($U_{ref2} > U_{ref1}$), the relay Re2 switches to on-state and via a contact signals that the accumulator voltage has reached value U_{ref2} . It is an information that if the voltage on the accumulator continues to drop it will be disconnected from the device in certain time. This time depends on a discharging current, capacity and immediate quality of the accumulator.

Disconnector models .11 have the ability to disconnect and connect the accumulator back via a signal over the clamps „External disconnection 3 - 20 V“ as opposed to models .1.