

Basic Range



BU1-AC-U- Voltage Relay

Application

Under voltage supervision of 1 and 3 phase systems.

Function

Unit **BU1-AC-U** is equipped with an undervoltage supervision ($U<$) with adjustable pickup values, trip delay (t) and hysteresis ($DIFF$). The voltages are compared with the set reference values.

For three-phase undervoltage supervision the lowest in each phase is considered.

Pickup of supervision circuit $U<$ is indicated by flashing of the corresponding LED.

At tripping LED $U<$ extinguishes

At voltages $< 60\% U_n$ no trip delay takes place.

Technical data

Rated voltage U_n	: 110 V, 230 V, 400 V AC
Rated frequency range	: 45-66 Hz
Accuracy	: $\pm 5\%$ of set value
power consumption in voltage circuit	: 3.5 VA
Thermal load carrying capacity of the voltage circuit	: constant $1.3 \times U_n$
Dropout to pickup ratio	: dependent on the set hysteresis
Dropout time	: 300 ms
Minimum operating delay	: 300 ms

Output relay

Maximum breaking capacity ohmic	: 1250 VA AC/120 W DC
Inductive	: 500 VA AC/75 W DC
Rated current	: 5 A
Making current	: 20 A

System data

Regulations	: VDE 0435 part 303
Temperature range at storage and operation	: -25°C to $+70^\circ\text{C}$

Mechanical stress

Shock	: class 1 acc. to DIN IEC 255-21-2
Vibration	: class 1 acc. to DIN IEC 255-21-1
Degree of protection unit front	: IP 40 at closed front cover
Weight	: approx. 0.5 kg
Mounting position	: any

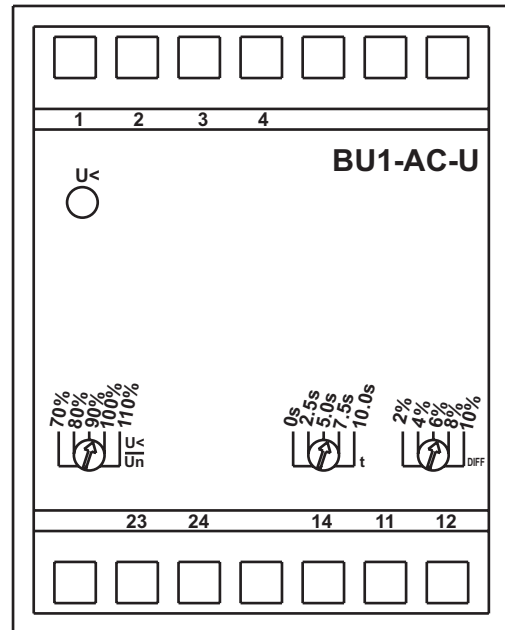


Fig. 1 : Front plate

The unit **BU1-AC-U** is designed to be fastened onto a DIN rail acc. to DIN EN 50022 same as all units of the BASIC RANGE.

The front plate of the unit is protected with a sealable transparent cover (IP40).

Please remove the transparent cover at the appropriate openings with a screw drive to adjust the relay.

LEDs

LED $U<$ is used to indicate trouble free operation with steady light. LED $U<$ indicate pickup of the relay by flashing. At undervoltage tripping LED $U<$ extinguishes.

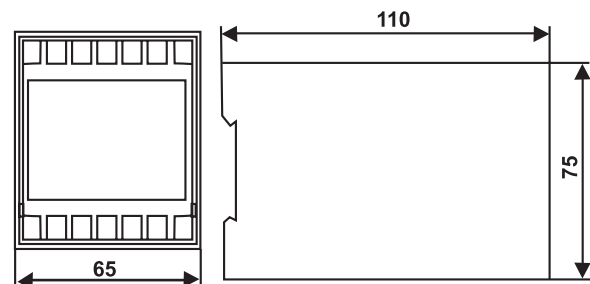


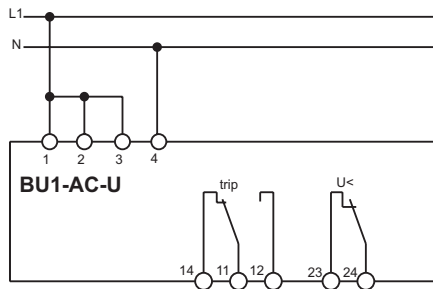
Fig. 2 : Dimensional drawing BU1-AC-U



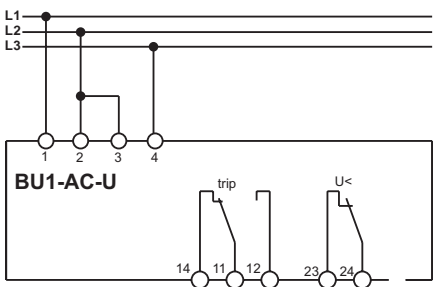
Auxiliary voltage supply

Unit **BU1-AC-U** needs no separate auxiliary voltage supply. The supply voltage can be formed directly from the measuring quantity.

A) Two-wire system



B) Three-wire system



C) Four-wire system

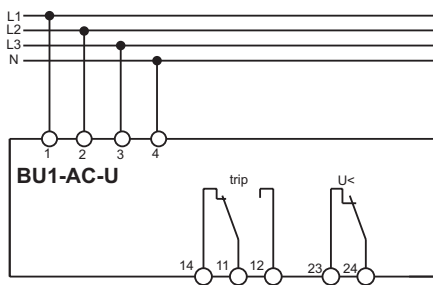


Fig. 3. Connection diagram

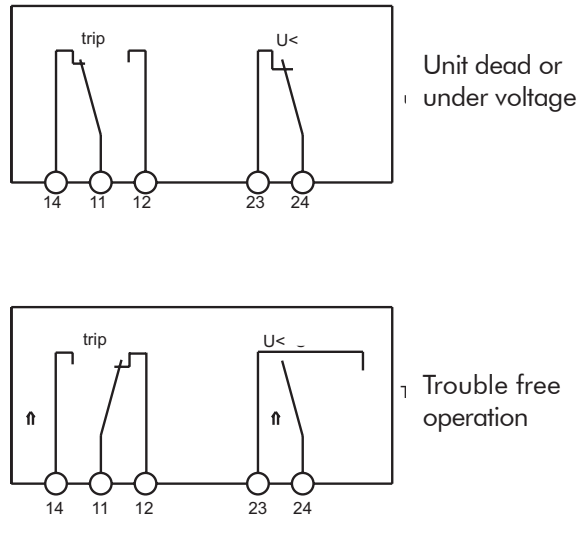


Fig. 4: Contact positions

Connecting terminals

The connection up to a maximum of $2 \times 2.5 \text{ mm}^2$ cross-section conductors is possible. For this procedure the transparent cover of the unit has to be removed.

Setting ranges

U< : 0.7-1.1 Un
 t : 0 - 10 s
 DIFF : 2-10%

Order key

BU1-AC-U	
Rated voltage 110 V AC	110
Rated voltage 230 V AC	230
Rated voltage 400 V AC	400

The rated voltage of the units the voltage between terminals 1 and 4

System	Relay type	Connection diagram
3 Phase 110 V	BU1-AC-U-110	B
3 Phase 400 V	BU1-AC-U-400	B
3 Phase 400/230 V with N	BU1-AC-U-230	C or A (A for single-phase measuring)

For further information, please contact :



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