

Basic Range

BP1-R (Reverse Power Relay)

Application

Reverse power detection of gen sets in parallel

Function

The unit BP1-R is equipped with a reverse power supervision (PR>) with infinitely adjustable pickup values and trip delays.

The reverse power measured is constantly compared with the set reference values. If the reverse power exceeds the set reference value the relay trips after the time delay has elapsed.

The relay functions will be activated from 70% Un.

Technical data

Rated current In	: 1A, 5A
Rated voltage Un	: 230 V AC
Frequency range	: 45-66 Hz
Tolerance	: $\pm 5\%$ of set value
Power consumption	: 3 VA
Thermal load carrying capacity	: continuously 1.5 x In continuously 1.5 x Un
Returning time	: 300 ms
Minimum operating time	: 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 (16ms)	: 20 A

System data

Regulations	: VDE 0435 part 303
Temperature range at storage and operation	: -25°C to +70°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	: IP 40 at closed front cover
Weight	: approx. 0.5 kg
Mounting position	: any

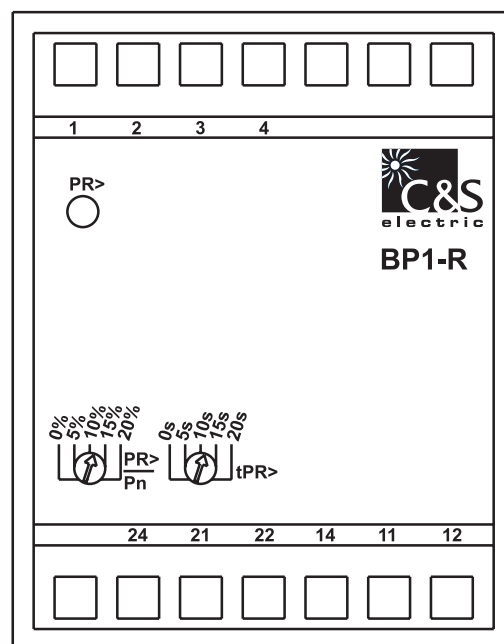


Fig. 1 : Front plate

The unit BP1-R 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 with a screw driver to adjust the relay.

LEDs

LED PR> is used to indicate operation without fault with steady light. This LED indicates pickup of the relay by flashing. At tripping the LED PR> extinguishes.

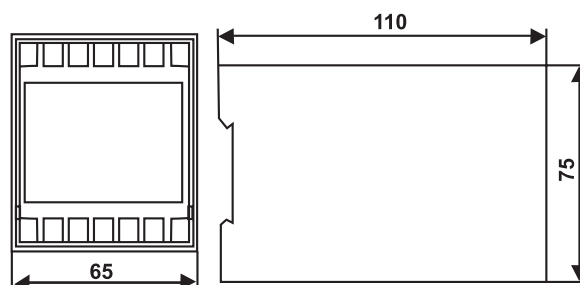
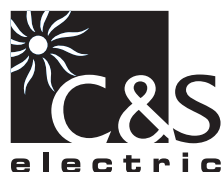


Fig. 2 : Dimensional drawing BP1-R



Auxiliary voltage supply

Unit *BP1-R* needs no separate auxiliary voltage supply. The supply voltage can be formed directly from the measuring quantity.

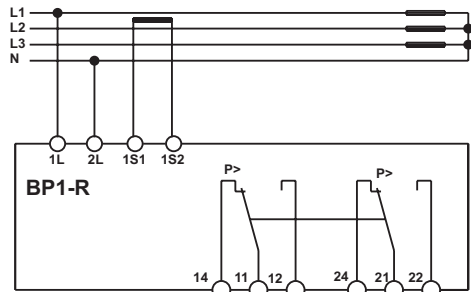
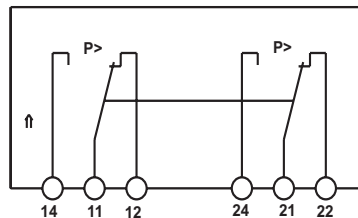
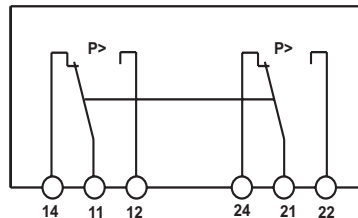


Fig. 3. Connection diagram



Operation without fault



Unit dead or reverse power

Fig. 4: Contact positions

Connecting terminals

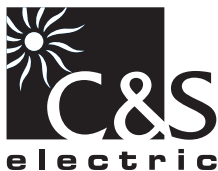
The connection up to a maximum of $2 \times 2.5 \text{ mm}^2$ cross-section conductors is possible. For this procedure the transparent cover of the unit has to be removed.

Setting ranges

PR>/Pn : 0-20% Pn
tPR> : 0-20 s

Model Selection

quantity	<i>BP1-R</i> -	230	-	
Phase voltage (phase-to neutral)	230 V AC			
Rated current	1 A			1
	5 A			5



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