

UNDER or OVER VOLTAGE RELAYS

UB1/27 - UB1/59
UB3/27 - UB3/59
UBC/80 - UBC/45


Microelettrica Scientifica

CAT. B1-91

12-01-99

GENERAL CHARACTERISTICS

Six basic versions, all with adjustable definite trip time delay, are available:

- ❑ **UB1/27** function 27 - undervoltage - single phase
- ❑ **UB3/27** function 27 - undervoltage - three phase
- ❑ **UBC/80** function 80 - undervoltage - DC
- ❑ **UB1/59** function 59 - overvoltage - single phase
- ❑ **UB3/59** function 59 - overvoltage - three phase
- ❑ **UBC/45** function 45 - overvoltage - DC

On request, all versions are fitted with time start output.

SETTINGS

Settings are made on front face by means of two 4-poles DIP-SWITCH that allow to obtain a wide and accurate setting range of the trip level as well as of the trip time delay.

SIGNALIZATIONS

- ❑ 1 Green led for signalization of auxiliary power supply presence and relay regular operation.
- ❑ 1 Red led for trip signalization.
- ❑ 1 Yellow led for trip memory.

COMMANDS

- ❑ Test spring lever switch: when operated it simulates a voltage beyond the trip level and allows the complete functional check of the relay. In one position the test function does not operate the output relays; in the other it also operates the output relays.
- ❑ Output relays reset after trip can be:
 - manual by reset push button on front face
 - manual by remote push button connected to the relevant terminals provided on the relay
 - automatic by connecting a bridge on remote reset terminals.

The trip memory LED can be reset only by the front face reset push button.

OUTPUT RELAYS


Two output relays can be provided:

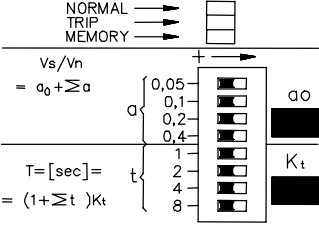
- ❑ R1 relay with two Change-over contacts rating 5A.
- ❑ R2 relay (supplied on request) with one Change-over contact rating 5A.

R1 relay is normally deenergized and is energized on trip.

On request it can be normally energized and deenergized on trip.

R2 relay is always in the normally deenergized version (energised on trip).


MICROELETTRICA SCIENTIFICA
MILANO ITALIA



NORMAL
TRIP
MEMORY

V_s/V_n
 $= \alpha_0 + \sum \alpha$

$T = [\text{sec}] = t$
 $= (1 + \sum t) K_t$


α


K_t

TEST

RESET

RELAY UB3/27



 **ORDERING DATA**

- Relay Type
- Rated Input Voltage
- Auxiliary Power Supply
- Setting Ranges
- Output Relays Configuration
- Execution
- Options on Request

OPTIONS

On request it is provided:

- ☐ Time start output (**TO**) on R2 relay.

OVERALL DIMENSIONS

See Overall Dimensions - 1 Module Relay.

ELECTRICAL CHARACTERISTICS

Rated input voltage : 100 V-380 V Burden on input voltage : 0,03VA @ $V_n 100\sqrt{3}$
1VA @ $V_n=380V$
Burden on power supply : 3W(d.c.); 6VA(a.c.)

Auxiliary power : Type 1 : 24-110 V d.c./a.c. $\pm 20\%$ permanent
supply Type 2 : 90-220 V d.c./a.c. $\pm 20\%$ permanent

STANDARD SETTING RANGES (Different on request)

VOLTAGE SETTINGS	step of	TIME DELAY SETTINGS	step of
<input type="checkbox"/> $V_s = a_0 + (0 \div 0.75) \times V_n$		<input type="checkbox"/> $T = [1 + (0 \div 15)] \times K_t(s)$	
<input type="checkbox"/> $a_0 = 0.15 : V_s = (0.15 \div 0.9) V_n$	0.05 V_n	<input type="checkbox"/> $K_t = 0,1 : T = (0.1 \div 1.6) s$	0.1 s.
<input type="checkbox"/> $a_0 = 0.35 : V_s = (0.35 \div 1.1) V_n$ (1)	0.05 V_n	<input type="checkbox"/> $K_t = 0,5 : T = (0.5 \div 8) s$	0.5 s.
<input type="checkbox"/> $a_0 = 0.55 : V_s = (0.55 \div 1.3) V_n$ (2)	0.05 V_n	<input type="checkbox"/> $K_t = 1 : T = (1 \div 16) s$ (3)	1 s.

(1) Standard on UB/27

(2) Standard on UB/59

(3) Standard version

WIRING DIAGRAM

