

**Technical data  
(cont'd)****Operational possibilities**

Selection of measuring units		
No.	Unit $U_{E1}$	Unit $U_{E2}$
1	$U_1 >$	$U_1 >$
2	$U_1 >$	$U_1 <$
3	$U_1 <$	$U_1 <$
4	$U_1 >$	$U_2 >$
5	$U_1 <$	$U_2 >$
6	$U >$	$U >$
7	$U >$	$U <$
8	$U <$	$U <$

Frequency dependence of the pick-up value  
 $< \pm 2\%/Hz$  within  $f_N \pm 5 Hz$

Operating time/change in voltage  
 from 0 to  $1.2 \times U_N$   
 $\leq 60 ms$  for  $t_1 = t_2 = 0$

Reset time for a step function  
 from  $1.5 \times U_N$  to 0  
 $\leq 60 ms$  for  $t_1 = t_2 = 0$

**Time delay****Setting range**

0.0 ... 9.9 s in steps of 0.1 s  
 $t_1 = 0 ms, 50 ms, 100 ms, 150 ms$   
 $t_2 = 0$  to 99.9 s in steps of 0.1 s

Operating modes selected with plug-in link S6  
 $t_a$  = delayed pick-up  
 $t_r$  = delayed reset

Permissible variation under reference conditions

Temperature dependence  
 $\pm 3\%$  at  $20^\circ C \pm 2K$   
 $< 0.05\%/K$  ( $-10$  to  $+55^\circ$ )  
 $\pm (1\% + 1 ms)$

**Auxiliary supply**

Input voltages ranges 36–312 V dc and 80–242 V ac, 50/60 Hz or 18–36 V dc  
 Consumption  $\leq 10 W$  max. (tripped), 6 W quiescent (110 V dc) typical

**Contact data and signals**

– rated voltage  
 – making current (0.5 s)  
 – continuous rating  
 – making capacity at 110 V dc  
 – breaking capacity,  $L/R=40 ms$   
 2 contacts in series

**Trip. contacts**

300 V dc or ac  
 30 A  
 10 A  
 3300 W  
 1 A,  $U \leq 120 V$  dc  
 0.3 A,  $U \leq 250 V$  dc

**Sign. contacts**

250 V dc or ac  
 5 A  
 1.5 A  
 550 W

**Front plate signals**

– availability green LED  
 – pick-up yellow LED  
 – step 1 tripping red LED ( $U >$ )  
 – step 2 tripping red LED ( $U >>$ )

**General data**

Temperature range  
 $-10^\circ C$  to  $+55^\circ C$  within spec.  
 $-25^\circ C$  to  $+70^\circ C$  operational

Seismic test, operational<sup>7</sup>  
 5 g, 30 s, 0.5 to 35 Hz (1 octave/min)

Insulation test<sup>1</sup>  
 2 kV, 50 Hz, 1 min  
 or 1 kV across open contacts

Surge test<sup>1</sup>  
 5 kV, 1.2/50  $\mu s$

Interference test  
 2.5 kV, 1 MHz