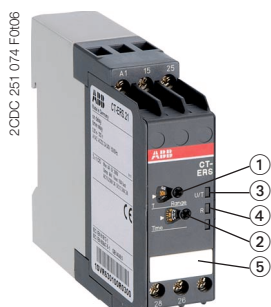


Electronic timer CT-ERS.22

ON-delayed with 2 c/o contacts

Data sheet



- ① Rotary switch for the preselection of the time range
- ② Potentiometer with direct reading scale for the fine adjustment of the time delay
- ③ U/T: green LED -
 control supply voltage applied
 timing
- ④ R: yellow LED -
 output relays energized
- ⑤ Marker label

Features

- Rated control supply voltage 24-48 V DC, 24-240 V AC
- Single-function ON-delay timer
- One device includes 10 time ranges (0.05 s - 300 h)
- 2 c/o contacts
- 2 LEDs for status indication
- Width of 22.5 mm
- Sealable transparent cover (optional accessory) for protection against unauthorized changes of time values
- Integrated marker label

Approvals

- cULus
- GL
- GOST
- CB scheme
- CCC pending
- RMRS pending

Marks

- CE
- C-Tick pending

Order data

Type	Rated control supply voltage	Time range	Output	Order code
CT-ERS.22	24-48 V DC, 24-240 V AC	0.05 s - 300 h	2 c/o contacts	1SVR 630 100 R3300

Order data - Accessories

Adapter for screw mounting on panel

Type	Width in mm	Order code
ADP.01	22.5	1SVR 430 029 R0100

Sealable transparent cover

Type	Width in mm	Order code
COV.01	22.5	1SVR 430 005 R0100

Marker label

Type	Width in mm	Order code
MAR.01	22.5	1SVR 366 017 R0100

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Application

The CT-S range timers are designed for use in industrial applications. They operate over an universal range of supply voltages and a large time delay range, within compact dimensions. The easy-to-set front-face potentiometers, with direct reading scales, provide accurate time delay adjustment.

Operating mode

The CT-ERS.22 with 2 c/o contacts offers 10 time ranges, from 0.05 s - 300 h, for the adjustment of the time delay. The time delay range is rotary switch selectable. The fine adjustment of the time delay is made via an internal potentiometer, with a direct reading scale, on the front of the unit.

Timing is displayed by a flashing green LED labelled U/T.

Function diagram(s)

Remarks

Legend:

□ Control supply voltage not applied / Output contact open

■ Control supply voltage applied / Output contact closed

Terminal designations on the device and in the diagrams:

The 1st c/o contact is designated 15-16/18. The 2nd c/o contact is designated 25-26/28. Control supply voltage is applied to terminals A1-A2.

Function of the yellow LED:

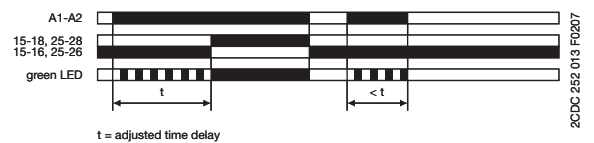
The yellow LED R glows as soon as the output relays energize and turns off when the output relays de-energize.

☒ ON-delay

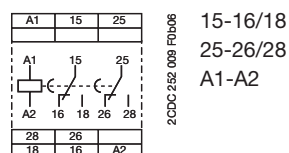
This function requires continuous control supply voltage for timing.

Timing begins when control supply voltage is applied. The green LED flashes during timing. When the selected time delay is complete, the output relay energizes and the flashing green LED turns steady.

If control supply voltage is interrupted, the output relay de-energizes and the time delay is reset.



Connection diagram(s)



- 1. c/o contact
- 2. c/o contact
- Rated control supply voltage U_s
- 24-48 V DC or 24-240 V AC




Electronic timer CT-ERS.22

ON-delayed with 2 c/o contacts

Data sheet

Technical data

Data at $T_a = 25\text{ °C}$ and rated values, if noting else indicated

Input circuits - Supply circuit		1SVR 630 100 R3300		
Rated control supply voltage U_s	A1-A2	24-48 V DC		
	A1-A2	24-240 V AC		
Rated control supply voltage tolerance	24-48 V DC	-15...+10 %		
	24-240 V AC	-15...+10 %		
Typical current / power consumption		24 V DC	230 V AC	115 V AC
	24-48 V DC	16 mA / on request	- / -	- / -
	24-240 V AC	- / -	60 mA / on request	36 mA / on request
Rated frequency	DC; 50/60 Hz			
Frequency range AC	47-63 Hz			
Power failure buffering time	min. 20 ms			
Timing circuit		1SVR 630 100 R3300		
Kind of timer	Single-function timer	ON-delay		
Time ranges 0.05 s - 300 h	0.05-1 s, 0.15-3 s, 0.5-10 s, 1.5-30 s, 5-100 s, 15-300 s, 1.5-30 min, 15-300 min, 1.5-30 h, 15-300 h			
Recovery time	< 80 ms			
Accuracy within the rated control supply voltage tolerance	$\Delta t < 0.004\ %/\Delta U$			
Accuracy within the temperature range	$\Delta t < 0.03\ %/^{\circ}\text{C}$			
Indication of operational states		1SVR 630 100 R3300		
Control supply voltage / timing	U/T: green LED	 : control supply voltage applied		
Control supply voltage / timing	U/T: green LED	 : timing		
Relay status	R: yellow LED	 : output relay energized		
Output circuits		1SVR 630 100 R3300		
Kind of output	15-16/18	Relay, 1. c/o contact		
	25-26/28	Relay, 2. c/o contact		
Contact material	Cd-free			
Rated operational voltage U_e	250 V			
Minimum switching voltage / Minimum switching current	12 V / 10 mA			
Maximum switching voltage / Minimum switching current	see load limit curves / see load limit curves			
Rated operational current I_e (IEC/EN 60947-5-1)	AC12 (resistive) at 230 V	4 A		
	AC15 (inductive) at 230 V	3 A		
	DC12 (resistive) at 24 V	4 A		
	DC13 (inductive) at 24 V	2 A		
Mechanical lifetime	30 x 10 ⁶ switching cycles			
Electrical lifetime	0.1 x 10 ⁶ switching cycles (AC12, 230 V, 4 A)			
Short-circuit resistance, maximum fuse rating (IEC/EN 60947-5-1)	n/c contact	6 A fast-acting		
	n/o contact	10 A fast-acting		

Electronic timer CT-ERS.22

ON-delayed with 2 c/o contacts

Data sheet

General data		1SVR 630 100 R3300	
Duty time		100 %	
Repeat accuracy (constant parameters)		$\Delta t < \pm 0.2 \%$	
Dimensions (W x H x D)		22.5 x 78 x 100 mm (0.89 x 3.07 x 3.94 inches)	
Electrical connection - all circuits		Screw connection	
Wire size	fine-strand with wire end ferrule	2 x 0.75-2.5 mm ² (2 x 18-14 AWG)	
	fine-strand without wire end ferrule	2 x 0.75-2.5 mm ² (2 x 18-14 AWG)	
	rigid	2 x 0.5-4 mm ² (2 x 20-12 AWG)	
Stripping length		7 mm (0.28 inches)	
Tightening torque		0.6-0.8 Nm	
Weight		0.113 kg (0.25 lb)	
Mounting position		any	
Minimum distance to other units	normal operation mode	horizontal	none
		vertical	none
Mounting		DIN rail (EN 60715) snap-on mounting without any tool	
Degree of protection	enclosure / terminals	IP50 / IP20	
Environmental data		1SVR 630 100 R3300	
Ambient temperature range	operation	-25...+60 °C	
	storage	-40...+85 °C	
Damp heat, cyclic (IEC/EN 60068-2-30)		6 x 24 h cycle, 55 °C, 95 % RH	
Vibration, sinusoidal (IEC/EN 60068-2-6)		40 m/s ² , 20 cycles, 10...58/60...150 Hz	
Shock, half-sine (IEC/EN 60068-2-27)		100 m/s ² , 11 ms, 3 shocks, all directions	
Standards / Directives		1SVR 630 100 R3300	
Product standard		IEC 61812-1, EN 61812-1 + A11, DIN VDE 0435 part 2021	
EMC Directive		89/336/EEC	
Low Voltage Directive		73/23/EEC	
RoHS Directive		2002/95/EEC	

Electronic timer CT-ERS.22

ON-delayed with 2 c/o contacts

Data sheet

Electromagnetic compatibility		1SVR 630 100 R3300
Interference immunity		IEC/EN 61000-6-1 IEC/EN 61000-6-2
electrostatic discharge (ESD)	IEC/EN 61000-4-2	Level 3 (6 kV / 8 kV)
electromagnetic field (HF radiation resistance)	IEC/EN 61000-4-3	Level 3 (10 V/m)
fast transients (Burst)	IEC/EN 61000-4-4	Level 3 (2 kV / 5 kHz)
powerful impulses (Surge)	IEC/EN 61000-4-5	Level 4 (2 kV A1-A2)
HF line emission	IEC/EN 61000-4-6	Level 3 (10 V)
Interference emission		IEC/EN 61000-6-3 IEC/EN 61000-6-4
electromagnetic field (HF radiation resistance)	IEC/CISPR 22, EN 55022	Class B
HF line emission	IEC/CISPR 22, EN 55022	Class B
Isolation data		1SVR 630 100 R3300
Rated insulation voltage U_i	output circuit 1 / output circuit 2	300 V
	input circuit / output circuit	500 V
Rated impulse withstand voltage U_{imp} (type test) (IEC 60664-1, VDE 0110)	between all isolated circuits	4 kV; 1.2/50 μ s
Power-frequency withstand voltage test (Test voltage, routine test)	between all isolated circuits	2.0 kV; 50 Hz, 1 s
Basic insulation (IEC/EN 61140)	input circuit / output circuit	500 V
Protective separation (IEC/EN 61140; VDE 0106 part 101 and part 101/A1)	input circuit / output circuit	250 V
Pollution degree	(IEC/EN 60664, VDE 0110, UL 508)	2
Overvoltage category	(IEC/EN 60664, VDE 0110, UL 508)	III

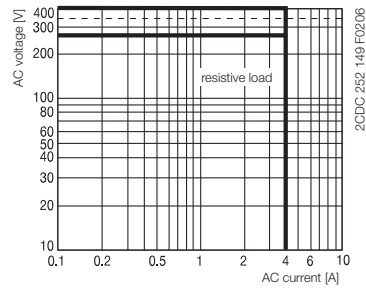
Electronic timer CT-ERS.22

ON-delayed with 2 c/o contacts

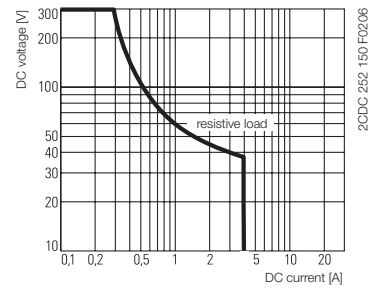
Data sheet

Technical diagrams

Load limit curve

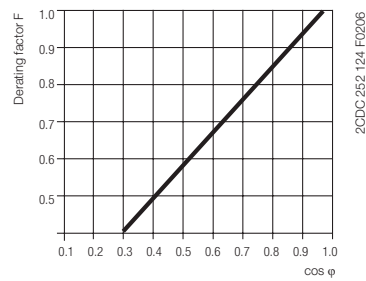


AC load (resistive)



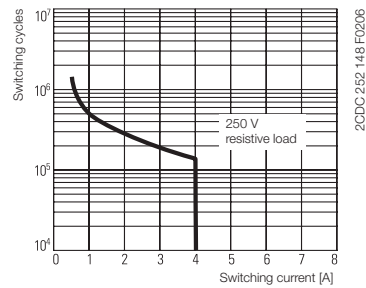
DC load (resistive)

Derating factor F



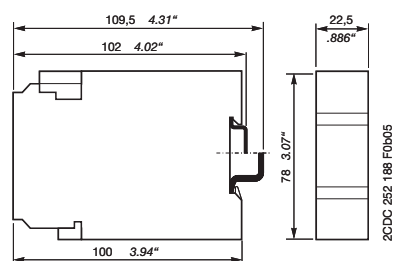
for inductive AC load

Contact lifetime



Dimensions

in mm



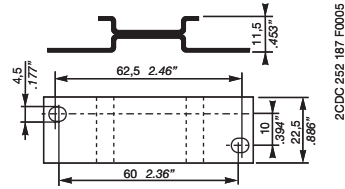
Electronic timer CT-ERS.22

ON-delayed with 2 c/o contacts

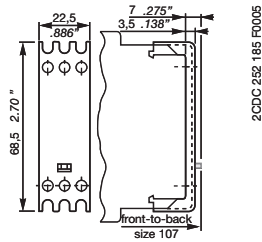
Data sheet

Dimensions accessories

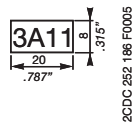
in mm



ADP.01 - Adapter for screw mounting on panel



COV.01 - Sealable transparent cover



MAR.01 - Marker label

Synonyms

Used expression

2 c/o contacts

Alternative expression(s)

1 DPDT / 2 SPDT



As part of the on-going product improvement, ABB reserves the right to modify the characteristics of the products described in this document. The information given is non-contractual.

For further details please contact the ABB company marketing these products in your country.

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