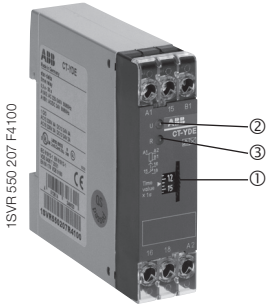


# Electronic timer CT-YDE

## Star-delta change-over with 1 c/o contact

### Data sheet



CT-YDE

- ① Thumbwheel for the fine adjustment of the starting time
- ② U: green LED - Supply voltage
- ③ R: red LED - Output relay energized

#### Characteristics

- 3 versions with different single time ranges are available:  
0.1-10 s / 0.3-30 s / 3-300 s
- 2 versions with different supply voltage ranges are available: 24 V AC/DC, 220-240 V AC and 110-130 V AC
- Single-function timer with star-delta change-over, ON-delayed, OFF-delayed without auxiliary voltage
- Transition time 50 ms fixed
- 1 c/o contact
- 2 LEDs for status indication
- Width 22.5 mm

#### Approvals

- UL cULus
- GL
- GOST
- CCC

#### Marks

- CE CE
- C-Tick

#### Order data

Type	Supply voltage	Time range	Order code
CT-YDE	24 V AC/DC, 220-240 V AC	0.1-10 s	1SVR 550 207 R1100
CT-YDE	24 V AC/DC, 220-240 V AC	0.3-30 s	1SVR 550 207 R4100
CT-YDE	24 V AC/DC, 220-240 V AC	3-300 s	1SVR 550 207 R2100
CT-YDE	110-130 V AC	0.3-30 s	1SVR 550 200 R1100
CT-YDE	110-130 V AC	0.3-30 s	1SVR 550 200 R4100
CT-YDE	110-130 V AC	3-300 s	1SVR 550 200 R2100

#### Application

Their conception makes the CT-E range timers ideal for serial applications.

#### Operating mode

The fine adjustment of the time delay is made via the front-face thumbwheel.

# Electronic timer CT-YDE

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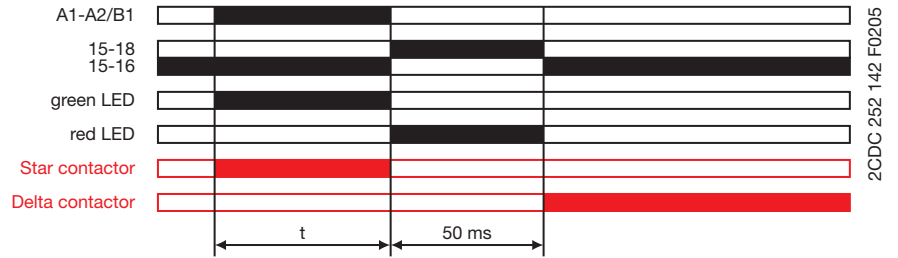
#### Function diagram

##### ⚠️ Star-delta change-over (Star-delta starting)

Applying supply voltage to terminals A1-A2/B1, energizes the star contactor (K1) and the line contactor (K2) and begins the set starting time.

When the starting time is complete, contact 15-16 de-energizes the star contactor (K1). Now, the fix transition time starts.

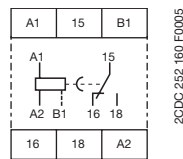
When the transition time is complete, contact 15-16 energizes the delta contactor (K3).



t = adjustable starting time

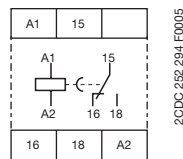
#### Connection diagrams

##### ⚠️ CT-YDE



Version: 1SVR 550 207 R1100, 1SVR 550 207 R4100, 1SVR 550 207 R2100  
 A1-A2 Supply: 220-240 V AC  
 15-16/18 c/o contact

##### ⚠️ CT-YDE



Version: 1SVR 550 200 R1100, 1SVR 550 200 R4100, 1SVR 550 200 R2100  
 A1-A2 Supply: 110-130 V AC  
 15-16/18 c/o contact

# Electronic timer CT-YDE

## Star-delta change-over with 1 c/o contact

### Data sheet

#### Technical Data

Input circuits		
Supply voltage	A1-A2	220-240 V AC
	A1-A2	110-130 V AC
	A1-B1	24 V AC/DC
Power consumption	110-130 V AC	approx. 2.0 VA
	220-240 V AC	approx. 2.0 VA
	24 V AC/DC	approx. 1.0 VA/W
Supply voltage tolerance		-15...+10 %
Supply voltage frequency	AC/DC Version	DC or 50/60 Hz
	AC Version	50/60 Hz
Duty time		100 %
Timing circuit		
Time range	for each device 1 time range	0.1-10 s
		0.3-30 s
		3-300 s
Star-delta transit time		50 ms
Recovery time		< 500 ms
Repeat accuracy (constant parameters)		< 1 %
Timing error within the supply voltage tolerance range		< 0.5 % / % Δ U
Timing error within operating temperature range		< 0.1 % / °C
Indication of operational states		
Supply voltage / timer		green LED
Output relay energized		red LED
Output circuits	15-16/18	
Number of contacts		relay, 1 c/o contact
Contact material		AgCdO
Related voltage	acc. to VDE 0110, IEC 60947-1	250 V
Maximum switching voltage		250 V AC, 250 V DC
Rated switching current acc. to IEC 60947-5-1	AC-12 (resistive) 230 V	4 A
	AC-15 (inductive) 230 V	3 A
	DC-12 (resistive) 24 V	4 A
	DC-15 (inductive) 24 V	2 A
Maximum lifetime	mechanical	30 x 10 <sup>6</sup> switching cycles
	electrical (AC-12, 230 V, 4 A)	0.1 x 10 <sup>6</sup> switching cycles
Short circuit proof, max. fuse rating	n/c	10 A fast, operating class gL
	n/o	10 A fast, operating class gL
General data		
Enclosure	width	22.5 mm
	length	78.0 mm
	depth	78.5 mm
Wire size	fine-strand with wire end ferrule	2 x 1.5 mm <sup>2</sup>
	fine-strand without wire end ferrule	
	rigid	
Weight		approx. 80 g (2.8 oz)
Mounting position		any
Degree of protection	enclosure / terminals	IP50 / IP20
Temperature	operating	-20...+60 °C
	storage	-40...+85 °C
Mounting		DIN rail (EN 50022)
Standards		
Product standard		IEC 61812-1, EN 61812-1
EMC Directive		89/336/EEC
Electromagnetic compatibility		IEC 61000-6-2, EN 61000-6-4
ESD	acc. to IEC 61000-4-2, EN 61000-4-2	level 3 6 kV / 8 kV
HF radiation resistance	acc. to IEC 61000-4-3, EN 61000-4-3	level 3 10 V/m
Burst	acc. to IEC 61000-4-4, EN 61000-4-4	level 3 2 kV / 5 kHz
Surge	acc. to IEC 1000-4-5, EN 61000-4-5	level 4 2 kV L-L
HF line emission	acc. to IEC 1000-4-6, EN 61000-4-6	level 3 10 V
Low Voltage Directive		73/23/EEC
Operational reliability	acc. to IEC 68-2-6	6 g
Mechanical resistance	acc. to IEC 68-2-6	10 g

# Electronic timer CT-YDE

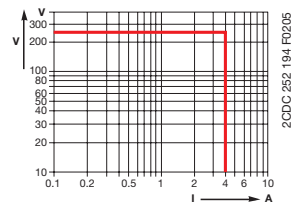
## Star-delta change-over with 1 c/o contact

### Data sheet

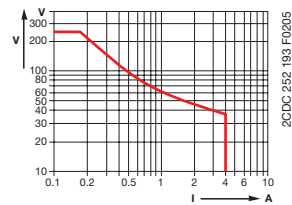
Approvals / marks		
Approvals		cULus, GL, GOST and CCC
Marks		CE and C-Tick
Isolation data		
Rated insulation voltage between supply circuit, control circuit and output circuit	acc. to VDE 0110, IEC 60947-1	supply up to 240 V: 300 V supply up to 440 V: 500 V
Rated impulse withstand voltage between all isolated circuits	acc. to VDE 0110, IEC 664	4 kV / 1.2-50 $\mu$ s
Test voltage between all isolated circuits		2.5 kV, 50 Hz, 1 min.
Pollution category	acc. to VDE 0110, IEC 664, IEC 255-5	III/C
Overtoltage category	acc. to VDE 0110, IEC 664, IEC 255-5	III/C
Environmental testing	acc. to IEC 68-2-30	24 h cycle time, 55 °C, 93 % rel., 96 h

### Load limit curves

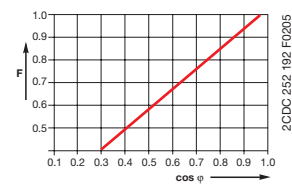
#### AC load (resistive)



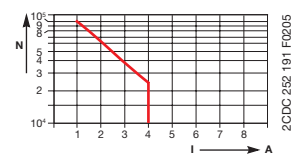
#### DC load (resistive)



#### Derating factor F for inductive AC load



#### Contact lifetime /switching cycles N



220 V 50 Hz 1 AC 360 cycles/h

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# Electronic timer CT-YDE

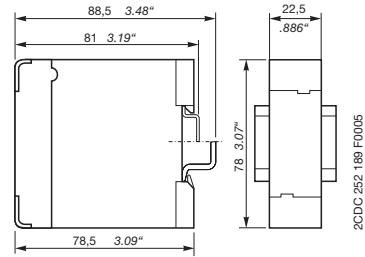
## Star-delta change-over with 1 c/o contact

### Data sheet

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#### Dimensional drawings

Dimensions in mm





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