Timers Star Delta Timer Type DAC51





- Time range (Star): 0.1 to 600 s
- Time range (Star to Delta): 50 to 130 ms
- Knob selection of star time range
- Knob adjustable time setting
- Automatic start
- Repeatability: ≤ 0.2%
- Output: 5 A SPDT relay with neutral centre position
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 17.5 mm Din-rail housing (DIN 43880)
- LED indication for relay status and power supply ON

Product Description

Star-delta control relay with two adjustable time ranges: Star function (0.1 to 600 s) and star to delta function (50 to 130 ms).

Housing 17.5 mm wide suitable for DIN-rail mounting. Fits in M36 cover.

Ordering key	DAC 51 C M24
Housing —	
Function —	
Type ————	
Item number —	
Output —	
Power Supply —	

Type Selection

Mounting	Output	Housing	Supply: 24 to 240 VAC/DC
For DIN-rail	SPDT relay with neutral centre position	Mini-D	DAC 51 C M24

Time Specifications

to 1 s to 10 s to 60 s to 600s
to 130 ms ween star and delta sition
%
2%
.05%
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Output Specifications

Output	SPDT relay with neutral centre position	
Rated insulation voltage	250 VAC (RMS)	
Contact Ratings (AgSnO ₂)	μ	
Resistive loads AC 1	5 A @ 250 VAC	
DC 12	5 A @ 24 VDC	
Small inductive loads AC 15	2.5 A @ 250 VAC	
DC 13	2.5 A @ 24 VDC	
Mechanical life	≥ 30 x 10 ⁶ operations	
Electrical life	≥ 10 ⁵ operations	
	(at 5 A, 250 V, $\cos \varphi = 1$)	
Operating frequency	< 7200 operations/h	
Dielectric strength		
Dielectric voltage	2 kVAC (RMS)	
Rated impulse withstand	,	
voltage	4 kV (1.2/50µs)	

Supply Specifications

Power supply Rated operational voltage through terminals A1 and A2 M24:	Overvoltage cat. III (IEC 60664, IEC 60038) 24 to 240 VAC/DC +10% -15%, 45 to 65 Hz	Rated operational power AC Supply DC Supply	5 VA 1.5 W
Voltage interruption	≤ 10 ms		



General Specifications

Power ON delay	≤ 100 ms
Power OFF delay	≤ 100 ms
Indication for Power supply ON Output relays ON	LED, green LED, yellow (flashing when timing)
Environment Degree of protection Pollution degree Operating temperature Storage temperature	(EN 60529) IP 20 3 (IEC 60664) -20 to 60 °C, R.H. < 95% -30 to 80 °C, R.H. < 95%
Housing Dimensions Material	17.5 x 81 x 67.2 mm PA66
Weight	85 g
Screw terminals Tightening torque	Max 0.5 Nm according to IEC EN 60947
Approval	UL, CSA
CE Marking	Yes
EMC Immunity Emission	Electromagnetic Compatibility According to EN 61000-6-2 According to EN 61000-6-3
Timer Specifications	According to EN 61812-1

Mode of Operation

The output relay is normally in the neutral centre position. When the power supply is applied, the relay switches to star position (pin 16) and the star period starts.

At the end of the set time period, the relay returns to the neutral centre position and the set delay between star and delta position starts.

At the end of the star to delta delay (adjustable from

50 to 130 ms), the relay switches in delta position (pin 18) and does not release until the power supply is interrupted for at least 200 ms.

If the power supply is interrupted for more than 200 ms before the star time period has expired, the relay does not operate and the time circuit is set to zero. The relay is ready for a new time period.

Time Setting

Upper knob:

Setting of star time range

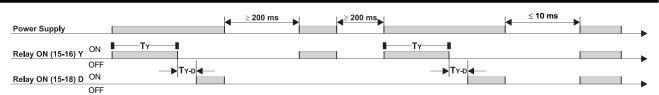
Centre knob:

Star time setting on relative scale: 1 to 10 with respect to the chosen range.

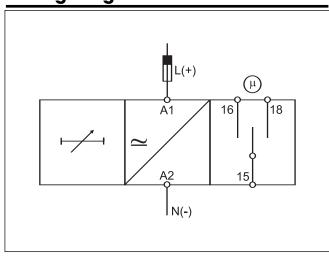
Lower knob:

Star to delta time setting (50 to 130 ms)

Operation Diagram



Wiring Diagram



Dimensions

