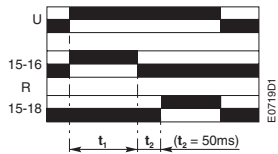


Electronic timer for star-delta starters

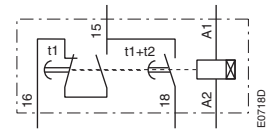


TE5S...

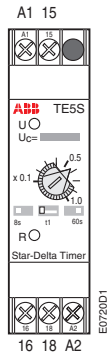
5



Chart



Equivalent diagram



Front face

Description

When used in star-delta starters, the TE5S lags the star connection and provides a lapse of 50 ms before the switch over to delta connection.

According to the type of device chosen, the electronic circuit has a 24 V AC / DC, 110 to 120 V AC, 220 to 240 V AC or 380 to 440 V AC supply. An output relay with reversing contact ensures high current switching. A two-position switch allows selection of one of the two time delay ranges: 0.8 to 8 s or 6 to 60 s. The 0.1 to 1.0 graduated button allows an initial setting without steps within the previously selected range which can then be adjusted using a chronometer.

Note: We recommend that you allow for temperature drift for the final adjustment of the time delay setting. Drift: -0.2 % per °C.

For example, a setting made at 20 °C will yield a time delay shorter by 7 % at 55 °C in a cubicle (-0.2 % per °C i.e. $-0.2 \times 35 = -7 \%$).

Regardless of these settings the TE5S provides a fixed "lapse" of 50 ms between the opening of contact 15-16 and the closing of contact 15-18. This time delay prevents from arc short-circuit during star to delta switching.

Operation

On energization, the green U indicator light (voltage applied) comes on. Contact 15-16 then immediately moves to the closed position.

Count-down of the programmed time immediately commences. When the time delay has elapsed, contact 15-16 opens and at the same time the 50 ms lapse, t_2 , begins after which contact 15-18 moves to the closed position. The yellow R indicator light comes on.

On de-energization, the U and R indicator lights go out and, after the 250 ms resetting time, the device is ready for a new cycle.

Mounting

On 35 x 7.5 mm or 35 x 15 mm mounting rail according to IEC/EN 60715.

Ordering details

For contactors	Rated control circuit voltage		Type	Order code	Pkg qty	Weight (1 pce)
	V 50/60 Hz	V DC				
A40 ... A300	24	24	TE5S-24	1SBN020010R1001	1	0.080
	110...120	–	TE5S-120	1SBN020010R1002	1	0.080
	220...240	–	TE5S-240	1SBN020010R1003	1	0.080
	380...440	–	TE5S-440	1SBN020010R1004	1	0.080

Main dimensions mm, inches

