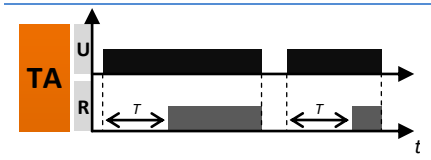
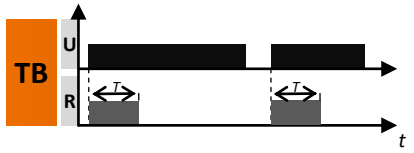
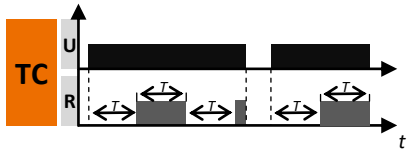
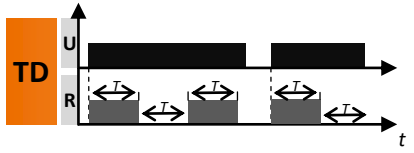
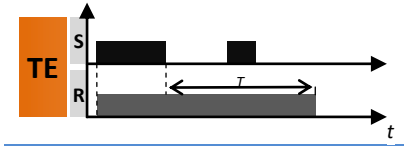
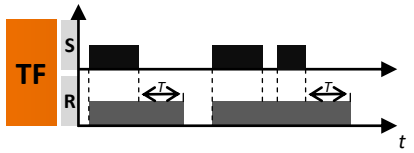
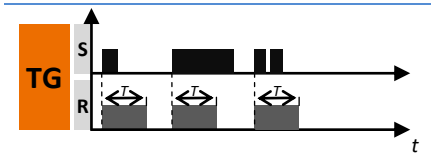
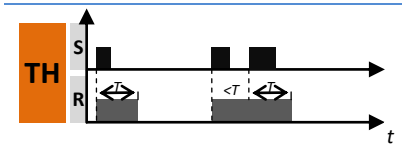
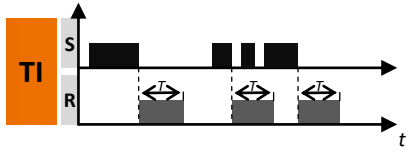
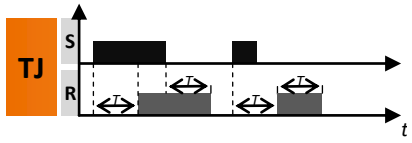
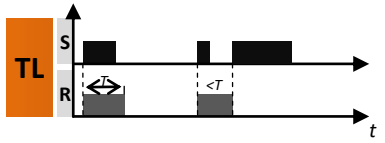
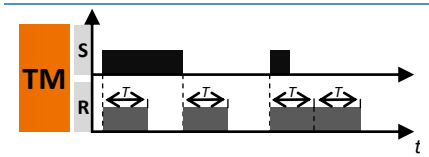
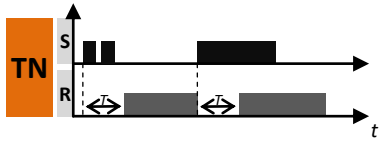
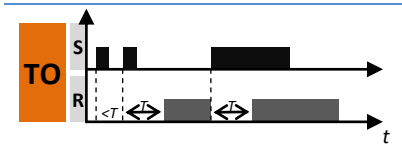
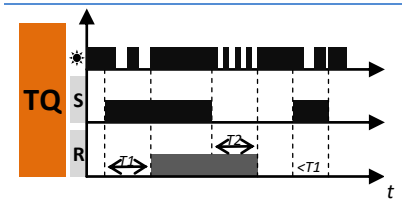
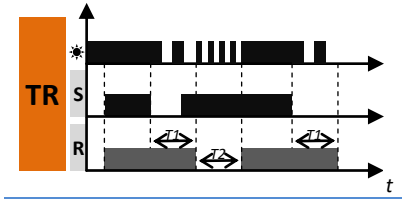
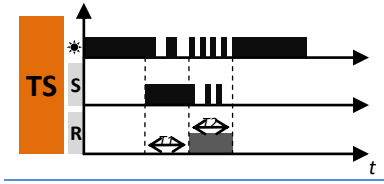
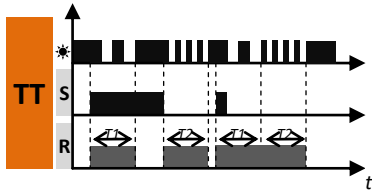
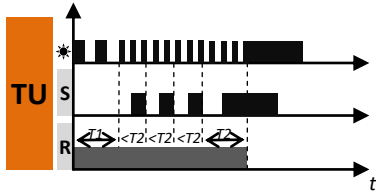
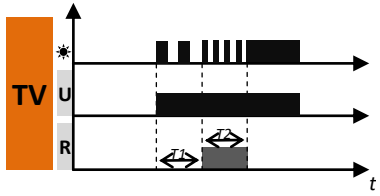
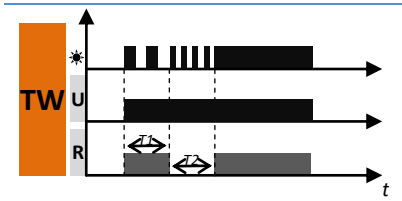
Type	MTR17-A07-U240-...	MTR17-B07-U240-...	MTR17-TTQ-U240-...	MTR17-TTR-U240-...	MTR17-TTS-U240-...	MTR17-TTT-U240-...	MTR17-TTU-U240-...	MTR17-TVW-U240-...	MTR17-TXY-U240-...	MTR17-TTZ-U240-216	MTR17-TAB-U240-116	MTR17-TCD-U240-116	MTR17-BA-U240-116	MTR17-TTP-U240-...	MTR17-C07-U240-...
Supply Voltage	12...240V AC/DC														
TA – ON delay	•										•				
TB – ON for the set interval	•										•				
TC – Symmetrical cyclical operation pause first	•											•			
TD – Symmetrical cyclical operation pulse first	•											•			
TE – OFF delay with the control contact S, without extension of the interval T		•													
TF – OFF delay with the control contact S	•														
TG Single shot for the set interval triggered by closing of the control contact S	•														
TH – ON for the set interval by closing the control contact S, with extension of the interval T - extension of the time of switching on the output relay R		•													
TI – ON for the set interval triggered with the control contact S	•														
TJ – ON and OFF delay with the control contact	•														
TL – ON for the set interval controlled by closing of the control contact S, with the function of switching off the output relay R prior to the lapse of the interval T		•													
TM – Single shot leading and single shot trailing edge with control input		•													
TN – ON delay with the control contact S without the interval T extension		•													
TO – ON delay with closing of the control contact, with the interval T extended		•													
TQ – ON delay and OFF delay with control contact S. Independent T1 and T2 settings			•												
TR – OFF delay and breaking time delay with opening of the control contact S; independent settings of T1 and T2 intervals				•											
TS – ON delay and ON for the set time with closing of the control contact S; independent settings of T1 and T2 intervals. (TS)					•										
TT – ON for the set intervals T1 and T2 with the control contact S; independent settings of T1 and T2 intervals						•									
TU – Monitoring of the sequence of pulses. Switching on is extended with consecutive pulses / closings of the contact S; independent settings of T1 and T2 intervals							•								

TV + TW – ON delay for the set interval or switching ON for the set interval - switching OFF for the set interval - continuous ON with the control contact S								•								
TX + TY – ON delay for the set interval or switching ON for the set interval - switching OFF for the set interval - continuous ON with the control contact S									•							
TZ – Star-delta start-up										•						
BA – OFF delay with the control contact S		•												•		
TAS – ON delay with STOP																•
TBS – ON for the set interval with STOP																•
TCS – Symmetrical cyclical operation pause first with STOP																•
TDS – Symmetrical cyclical operation pulse first with STOP																•
TAR – ON delay with RESET																•
TBR – ON for the set interval with RESET																•
TCR – Symmetrical cyclical operation pause first with RESET																•
Mounting DIN 35 mm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Time ranges	7	7	7	7	7	7	7	7	7	7	7	7	-	7	7	
Time functions	8	7	1	1	1	1	1	2	2	1	2	2	1	1	7	

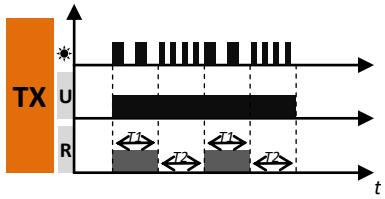
	**ON delay (TA)** - On applying the supply voltage U the set interval T begins - off-delay of the output relay R. After the interval T has lapsed, the output relay R switches on and remains on until supply voltage U is interrupted.
	**ON for the set interval (TB)** - Applying the supply voltage U immediately switches the output relay R on for the set interval T. After the interval T has lapsed, the output relay R switches off.
	**Symmetrical cyclical operation pause first (TC)** - Applying the supply voltage U starts the cyclical operation from the T interval - switching the output relay R off followed by switching on the output relay R for the interval T. The cyclical operation lasts until the supply voltage U is interrupted.
	**Symmetrical cyclical operation pulse first (TD)** - Applying the supply voltage U starts the cyclical operation from switching on the output relay R for the set interval T. After the interval T has lapsed, the output relay R switches off for the interval T. The cyclical operation lasts until the supply voltage U is interrupted.
	**OFF delay with the control contact S, without extension of the interval T (TE)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S immediately switches on the output relay R. Opening of the control contact S starts the set time of the delayed switching off of the output relay R. After the interval T has lapsed, the output relay R switches off. Opening or closing of the control contact S within the interval T does not affect the function to be performed.
	**OFF delay with the control contact S (TF)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S immediately switches on the output relay R. Opening of the control contact S starts the set time of the delayed switching off of the output relay R. After the interval T has lapsed, the output relay R switches off. If the control contact S is closed during the interval T, the already measured time is reset, and the output relay R is switched on again. The OFF delay of the output relay R will start when the control contact S is opened again.
	**Single shot for the set interval triggered by closing of the control contact (TG)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S immediately switches the output relay R on for the set interval T. After the interval T has lapsed, the output relay R is switched off. In the course of the interval T, any opening of the control contact S does not affect the function to be performed. The output relay R may be switched on again for the set interval, after the interval T has lapsed, by closing the control contact S again.

	**ON for the set interval by closing the control contact S, with extension of the interval T - extension of the time of switching on the output relay R (TH)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S immediately switches the output relay R on for the set interval T. After the interval T has lapsed, the output relay R is switched off. The next closing of the control contact S immediately switches on the output relay R for the interval T. In case the control contact S is closed within the interval T, the measured time is cancelled, and the interval T starts again..
	**ON for the set interval triggered with the control contact S (TI)**- The input of the time relay is supplied with voltage U continuously. Closing of the control contact S does not start the interval T, and it does not change the position of the output relay R. Opening of the control contact S immediately switches on the output relay R for the set time. After the interval T has lapsed, the output relay R switches off. Opening and closing of the control contact S in the course of the interval T does not affect the function to be performed. The output relay R may be switched on again for the set interval with another closing and opening of the control contact S.
	**ON and OFF delay with the control contact (TJ)** – The input of the time relay is supplied with voltage U continuously. Closing of the control contact S starts the interval T - on-delay of the output relay R. After the interval T has lapsed, the output relay R switches on. Opening of the control contact S begins further measurement of the interval T - off-delay of the output relay R, and after the interval has lapsed, the output relay switches off. In case the time for which the control contact S is closed in the course of measurement of the on-delay of the output relay R is shorter than the set interval T, the output relay R will switch on after the set interval T, and the output relay R will remain in on position for the interval T. When the output relay R is in on position, closing of the control contact S does not affect the function to be performed.
	**ON for the set interval controlled by closing of the control contact S, with the function of switching off the output relay R prior to the lapse of the interval T (TL) -** The input of the time relay is supplied with voltage U continuously. Closing of the control contact S immediately switches the output relay R on for the set interval T. After the interval T has lapsed, the output relay R is switched off. Any next closing of the control contact S switches on the output relay R again. In case the control contact S is closed again during the interval T, the output relay is immediately switched off, and the measured interval is cancelled. In the course of the interval T, any opening of the control contact S does not affect the function to be performed.
	**Single shot leading and single shot trailing edge with control input (TM)** - The supply voltage U must be constantly applied to the device. When the control contact S is closed, the output relay R switches into on-position and the set interval t begins. After the interval t has expired, the output relay R switches into off-position. If the control contact S is opened, the output relay R switches into on-position again and the set interval t begins. After the interval t has expired the output relay R switches into off-position. During the interval, the control contact S can be operated any number of times.
	**ON delay with the control contact S without the interval T extension (TN)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S starts the interval T - on-delay of the output relay R. After the interval T has lapsed, the output relay R switches on and remains in this position until the control contact S is closed again, which instantly switches the output relay off for the time T, and after the interval T has lapsed, the output relay R switches on again. In the course of measurement of the interval T, opening or closing of the control contact S does not affect the status of the output relay R. The output relay R may be switched on again after the current cycle has been completed.
	**ON delay with closing of the control contact, with the interval T extended (TO)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S starts the interval T, and after the interval T has lapsed, the output relay R switches on and remains in this position until the control contact S is closed again or until the supply voltage U is interrupted. Closing of the control contact S resets the thus far measured time and starts the new interval T.

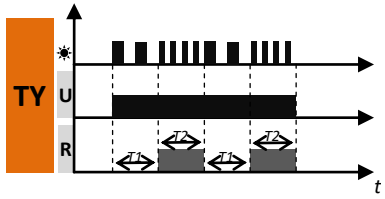
	**ON delay and OFF delay with control contact S. Independent T1 and T2 settings (TQ)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S starts the interval T1, and after it has lapsed, the output relay R switches on. Opening of the control contact S starts the interval T2, and after it has lapsed, the output relay R switches off. In case the control contact S is closed in the course of the interval T2, the measured time is reset and the output relay R remains switched on. In case the control contact S is closed for time shorter than T1, the unit will not switch the output relay R on
	**OFF delay and breaking time delay with opening of the control contact S. Independent settings of T1 and T2 intervals (TR)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S switches on the output relay R. Opening of the control contact S starts the interval T1, and after the interval has lapsed, the output relay R switches off for the interval T2. Following the interval T2, the output relay R will be switched on again when the control contact S is closed on the lapse of the interval. In the course of the intervals T1 and T2 the position of the control contact S is of no importance.
	**ON delay and ON for the set time with closing of the control contact S. Independent settings of T1 and T2 intervals (TS)** - The input of the time relay is supplied with voltage U continuously. Closing of the control contact S starts the interval T1, and after the interval has lapsed, the output relay R switches on for the interval T2. Following the interval T2, the output relay switches off, and the circuits awaits for the control contact S to be closed again. In the course of the intervals T1 and T2 the position of the control contact S is of no importance.
	**ON for the set intervals T1 and T2 with the control contact S. Independent settings of T1 and T2 intervals (TT) -** The input of the time relay is supplied with voltage U continuously. Closing of the control contact S switches the output relay R for the interval T1, and after the interval has lapsed, the relay R is switched off. Opening of the control contact S switches on the output relay R for the interval T2. If the control contact S is open when the interval T1 lapses, the output relay R will remain on for the interval T2. If the control contact S is closed when the interval T2 lapses, the output relay R will remain on for the interval T1..
	**Monitoring of the sequence of pulses. Switching on is extended with consecutive pulses / closings of the contact S; independent settings of T1 and T2 intervals (TU)** - On applying the supply voltage U the output relay R is switched on for the set interval t1. After the interval T1 has lapsed, the interval T2 start switch the output relay R still switched on. For the output relay to switch on, the control contact S must be closed and then opened (single pulse) during the interval T2, which cancels the time already measured an starts the interval T2 again. In case of absence of a single pulse prior to lapse of the interval T2, the output relay R will switch off, and it may be switched on after the supply voltage has been interrupted and applied again.
	**ON delay for the set interval or switching ON for the set interval - switching OFF for the set interval - continuous ON with the control contact S; independent settings of T1 and T2 intervals. (TV+TW)** - When the control contact S is open, application of the supply voltage U starts operation in the TV function - the interval T1, and after the interval T1 has lapsed, the output relay switches on for the interval T2



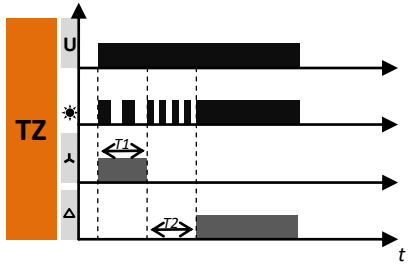
ON delay for the set interval or switching ON for the set interval - switching OFF for the set interval - continuous ON with the control contact S; independent settings of T1 and T2 intervals. (TV+TW) - When the control contact S is closed, application of the supply voltage U starts operation in the TW function - from switching on the output relay R for the interval T1, and after the interval T1 has lapsed, the output relay switches off for the interval T2, and following the interval T2, the output relay R switches on for continuous time.
In the course of the relay operation, closing of the control contact S at any time will cause reset and the operation in the TW function will start whereas opening of the control contact S at any time will cause reset and the operation in the TV function will start.



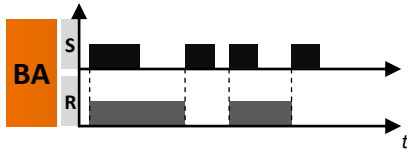
Function TX - When the control contact S is closed, application of the supply voltage U starts operation in the li function - from switching on the output relay R for the interval T1, and after the interval T1 has lapsed, the output relay switches off for the interval T2. The cyclical operation continues until the supply voltage U is interrupted.
In the course of the relay operation, closing of the control contact S at any time will cause reset and the operation in the TX function will start whereas opening of the control contact S at any time will cause reset and the operation in the TY function will start.



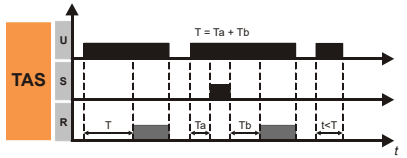
Function TY - Application of the supply voltage U when the control contact S is open start the cyclical operation in the TY function - from the interval T1 (time of switching off the output relay R), following which the output relay R is switched on for the interval T2. The cyclical operation continues until the supply voltage U is interrupted.



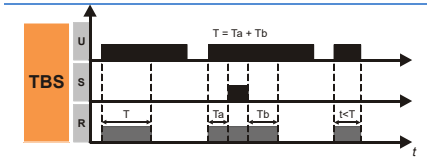
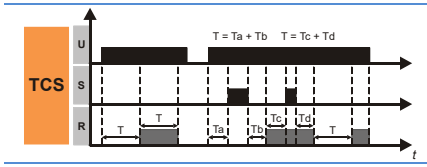
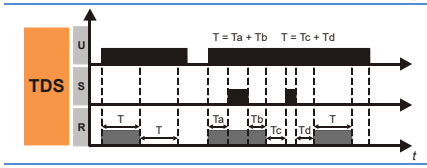
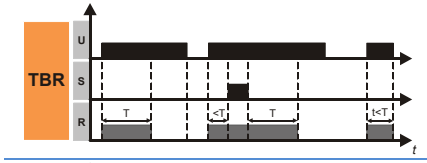
Star-Delta start-up (TZ) - when the supply voltage U is applied, the output relay for the star contactor switches into on-position (yellow LED illuminated) and the set star interval T1 begins (green LED flashes slowly). After the star interval T1 has expired (green LED flashes rapidly), the output relay for the star contactor switches into off position (yellow LED not illuminated) and the set transit interval T2 begins. After the transit interval has expired, the output relay for the delta contactor switches into on-position (green LED illuminated). To restart the function, the supply voltage must be interrupted and reapplied.



OFF delay with the control contact S (BA) - The input of the time relay is supplied with U voltage continuously. Closing of the control contact S immediately switches on the output relay R. Each next closing of the control contact S results in a change of the status of the output relay R to an opposite one (the feature of a bistable relay.



ON delay with STOP (TAS) - on applying the supply voltage U the R relay is in OFF position and the set interval T begins. After the interval T has lapsed, the output relay R switches ON and remains ON until supply voltage U is interrupted. If the S contact is closed during the interval T, the timer is suspended until the contact is open again.

	**ON for the set interval with STOP (TBS)** - on applying the supply voltage U the R relay is in ON position and the set interval T begins. After the interval T has lapsed, the output relay R switches OFF and remains OFF until supply voltage U is interrupted. If the S contact is closed during the interval T, the timer is suspended until the contact is open again.
	**Symmetrical cyclical operation pause first with STOP (TCS)** - applying the supply voltage U starts the cyclical operation - switching the output relay R OFF followed by switching ON for the interval T. The cyclical operation lasts until the supply voltage U is interrupted. If the S contact is closed during the interval T, the timer is suspended until the contact is open again.
	**Symmetrical cyclical operation pulse first with STOP (TDS)** - applying the supply voltage U starts the cyclical operation - switching the output relay R ON followed by switching OFF for the interval T. The cyclical operation lasts until the supply voltage U is interrupted. If the S contact is closed during the interval T, the timer is suspended until the contact is open again.
	**ON delay with RESET (TAR)** - on applying the supply voltage U the R relay is in OFF position and the set interval T begins. After the interval T has lapsed, the output relay R switches ON and remains ON until supply voltage U is interrupted. If the S contact is closed during the interval T, the timer is stopped without the relay state change. Once the S contact is opened again the relay restarts.
	**ON for the set interval with RESET (TBR)** - on applying the supply voltage U the R relay is in ON position and the set interval T begins. After the interval T has lapsed, the output relay R switches OFF and remains OFF until supply voltage U is interrupted. If the S contact is closed during the interval T, the timer is stopped without the relay state change. Once the S contact is opened again the relay restarts.
	**Symmetrical cyclical operation pause first with RESET (TCR)** - applying the supply voltage U starts the cyclical operation - switching the output relay R OFF followed by switching ON for the interval T. The cyclical operation lasts until the supply voltage U is interrupted. If the S contact is closed during the interval T, the timer is stopped without the relay state change. Once the S contact is opened again the relay restarts.

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