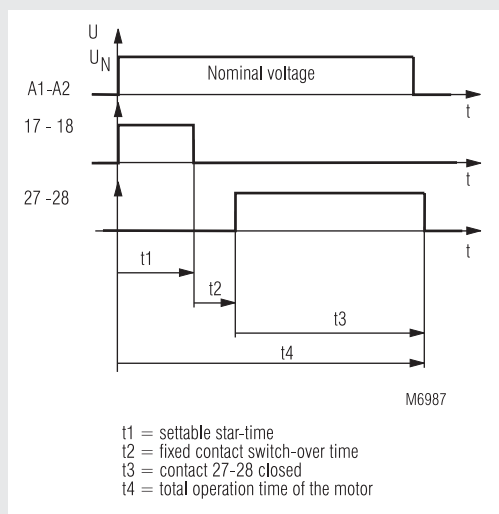


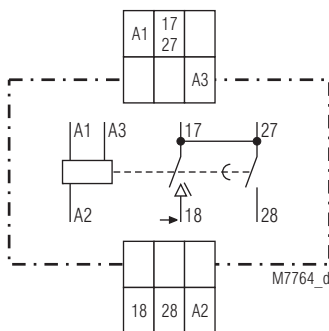


- According to IEC/EN 61 812-1
- Time delay up to 100 s
- Repeat accuracy $\lt; \pm 0,5 \%$
- Dual-voltage version
- Available with UL- or CSA approval
- Width 22,5 mm

Function diagram



Circuit diagram



MK 7853/024

Approvals and marking



* see variants

Applications

Star-delta-starting circuit for squirrel cage motors

Function

The MK 7853/024 is a static star-delta-timer with 2 separate output relays. As soon as the operating voltage is applied, relay 1 will be energized and falls back after time delay. After elapse of the contact changeover time, the second relay switches on and remains in active position, as long as the star-delta-timer is energised.

Technical data

Time circuit

Time ranges: 0,5 ... 10 s 1,5 ... 30 s
3,0 ... 60 s 5,0 ... 100 s

Contact changeover time: approx. 100 ms
approx. 35 ms
please state when ordering
stepless on absolute scale

Time setting:

Recovery time: tw 50 / 100: 40 ms
Repeat accuracy: $\leq \pm 0,5 \%$ of the max. scale value
Voltage influence: $\leq 1 \%$
Temperature influence: 0,1 % / K

Input

Nominal voltage U_N : AC/DC 24 V¹⁾ + AC/DC 42 V²⁾
AC/DC 24 V¹⁾ + AC 110 ... 127 V²⁾
AC/DC 24 V¹⁾ + AC 220 ... 240 V²⁾
AC/DC 24 V¹⁾ + AC 400 V²⁾

¹⁾ at terminals A3-A2

²⁾ at terminals A1-A2

Voltage range: 0,8 ... 1,1 U_N
Nominal consumption: AC 230 V AC/DC 24 V
7 VA 0,6 W

Nominal frequency: 50 / 60 Hz

Frequency range: $\pm 5 \% f_N$

Output

Contacts: 1 fleeting on make
1 NO contact delay on

Release time: 40 ms

Thermal current I_{th} : 5 A

Switching capacity

to AC 15:

NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1

NC contact: 2 A / AC 230 V IEC/EN 60 947-5-1

Technical data

Electrical life to AC 15 at 3 A, AC 230 V:	5 x 10 ⁵ switching cycles	IEC/EN 60 947-5-1
Permissible switching frequency:	6 000 switching cycles / h	
Short-circuit strength max. fuse rating:	4 A gL	IEC/EN 60 947-5-1
Mechanical life:	20 x 10 ⁶ switching cycles	

General data

Operating mode	Continuous operation	
Temperature range:	- 20 ... + 60 °C	
Clearance and creepage distances		
overvoltage category / contamination level:	4 kV / 2	IEC 60 664-1
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
HF irradiation:	10 V/m	IEC/EN 61 000-4-3
Fast transients:	2 kV	IEC/EN 61 000-4-4
Surge voltages between		
wires for power supply:	1 kV	IEC/EN 61 000-4-5
between wire and ground:	2 kV	IEC/EN 61 000-4-5
HF-wire guided:	10 V	IEC/EN 61 000-4-6
Interference suppression:	Limit value class B	EN 55 011
Degree of protection:	Housing: IP 40	IEC/EN 60 529
	Terminals: IP 20	IEC/EN 60 529
Housing:	Thermoplastic with V0 behaviour according with UL Subj. 94	
Vibration resistance:	Amplitude 0,35 mm frequency 10 ... 55 Hz IEC/EN 60 068-2-6 20 / 060 / 04 IEC/EN 60 068-1	
Climate resistance:	EN 50 005	
Terminal designation:		
Wire connection:	2 x 1,5 mm ² solid or 2 x 1,0 mm ² stranded wire with sleeve DIN 46 228-1/-2/-3/-4	
Wire fixing:	Flat terminals with self-lifting clamping piece IEC/EN 60 999-1	
Mounting:	DIN rail IEC/EN 60 715	
Weight:	130 g	

Dimensions

Width x height x depth: 22,5 x 82 x 99 mm

Standard type

MK 7853/024	AC/DC 24 V + AC 220 ... 240 V	30 s / 35 ms
Article number:	0030847	stock item
• Output:	1 fleeting on make 1 NO contact delay on	
• Nominal voltage U _N :	AC/DC 24 V + AC 220 ... 240 V	
• Time range / changeover time:	1,5 ... 30 s / 35 ms	
• Width:	22,5 mm	

Variants

MK 7853/60:	with CSA-approval
MK 7853/61:	with UL-approval

Ordering example for variants

MK 7853/024	/	AC/DC 24 V + AC 220 ... 240 V	100 s / 35 ms
			Changeover time
			Time range
			Nominal voltage
			Variant, if required
			Type

Accessories

ET 4752-143:	marking plate
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Connecting example

