

MINITIMER Timer, Off-delay IK 7823, SK 7823

Translation
of the original instructions



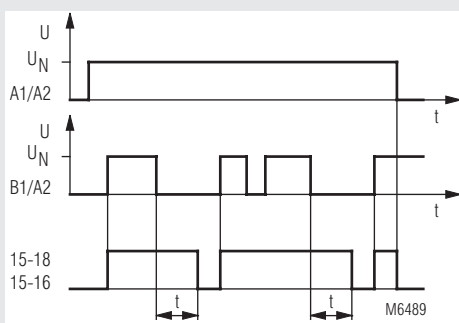
Your Advantages

- Up to 4 time ranges of 0.25 ... 640 s or 0.25 ... 640 min
- Easy operation

Features

- OFF-delay relay with control signal according to EN 61812-1
- With wide voltage range AC 50/60 Hz 110 ... 240 V
- 1 changeover contact
- LED indicator for status of contact
- Devices available in 2 enclosure versions:
 - IK 7823: Depth 59 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43880
 - SK 7823: Depth 98 mm, with terminals at the top for cabinets with mounting plate and cable duct
- Width 17.5 mm

Function Diagram



Approvals and Markings



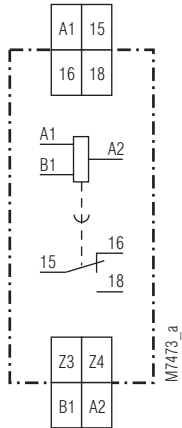
Applications

Time-dependent controllers

Indicators

LED: On, when output relay activated (contact 15 - 18 closed)

Circuit Diagrams



IK 7823.81, SK 7823.81

Connection Terminals

Terminal designation	Signal description
A1, A2	Operating voltage
B1, A2	Control input
Z3, Z4	Programming time ranges
15, 16, 18	Changeover contact delayed

Notes

The control input B1 relative to A2 has the same voltage range as A1-A2. In a 3-phase system B1 can also be connected to a different phase than A1 if the neutral is connected to A2. As the control input is operated with voltage, the control contact can also switch additional loads, e.g. contactors with the same A2 reference. This allows to use less contacts (see connection Diagram).

Technical Data

Time circuit

Time ranges:	4 different time ranges programmable via terminals:	
s - time range	Min - time range	Bridge
0.25 ... 2.5 s	0.25 ... 2.5 min	Z4-----A2
1 ... 10 s	1 ... 10 min	Z3-----A2
8 ... 80 s	8 ... 80 min	Z3-----Z4-----A2
64 ... 640 s	64 ... 640 min	(without)

Tolerance of the max. scale value:

- 5 ... + 25 %

Time setting:

Infinitely variable 1:10 on relative scale

Min. closing time

(Control input B1):

≥ 20 ms

Repeat accuracy:

≤ 0.5 % + 20 ms

Voltage influence:

≤ 1 %

Temperature influence:

≤ 0.25 % / K

Technical Data

Input

Nominal voltage U_N:	AC 110 ... 240 V, AC/DC 24 V
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption (A1-A2):	AC 230 V: Approx. 8 VA AC 24 V: Approx. 1.5 VA DC 24 V: Approx. 0.7 W
Nominal frequency:	50 / 60 Hz
Reset voltage:	15 % U_N
Input current B1:	Approx. 0.3 mA

Output

Contacts:	1 changeover contact
IK 7823.81:	1 changeover contact
Contact material:	AgSnO ₂ + 0,2 µm Au
Measured nominal voltage:	AC 250 V
Thermal current I_{th}:	10 A up to 45°C (See continuous current limit curve)
Switching capacity	
To AC 15	
NO contact:	10 A / AC 230 V IEC/EN 60947-5-1
NC contact:	5 A / AC 230 V IEC/EN 60947-5-1
Electrical life	IEC/EN 60947-5-1
To AC 15 at 3 A, AC 230 V:	≥ 5 x 10 ⁵ switching cycles
Permissible switching frequency:	72000 switching cycles / h
Short circuit strength	
Max. fuse rating:	10 A gG / gL IEC/EN 60947-5-1
Mechanical life:	≥ 30 x 10 ⁶ switching cycles

General Data

Operating mode:	Continuous operation
Temperature range:	
Operation:	- 20 ... + 60 °C
Storage:	- 20 ... + 60 °C
Relative air humidity:	93 % at 40 °C
Altitude:	≤ 2000 m
Clearance and creepage distances	
Rated impulse voltage / pollution degree:	4 kV / 2 IEC 60664-1
Overvoltage category:	III
Insulation test voltage, type test:	2.5 kV; 1 min
EMC	
Electrostatic discharge:	6 kV (air) IEC/EN 61000-4-2
HF-irradiation:	10 V/m IEC/EN 61000-4-3
Fast transients:	4 kV IEC/EN 61000-4-4
Surge voltages	
Between wires for power supply:	1 kV IEC/EN 61000-4-5 (0.5 kV at AC/DC 24 V)
Between wire and ground:	2 kV IEC/EN 61000-4-5
HF-wire guided:	10 V IEC/EN 61000-4-6
Interference suppression:	Limit value class B EN 55011
Degree of protection	
Housing:	IP 40 IEC/EN 60529
Terminals:	IP 20 IEC/EN 60529
Housing:	Thermoplastic with Vo behaviour according to UL subject 94
Vibration resistance:	Amplitude 0.35 mm IEC/EN 60068-2-6 frequency 10 ... 55 Hz
Climate resistance:	20 / 60 / 04 IEC/EN 60068-1
Terminal designation:	EN 50005
Wire connection:	2 x 2.5 mm ² solid or 2 x 1.5 mm ² stranded wire with sleeve DIN 46228-1/-2/-3/-4
Wire fixing:	Flat terminals with self-lifting clamping piece IEC/EN 60999-1
Fixing torque:	0.8 Nm
Mounting:	DIN rail IEC/EN 60715
Weight	
IK 7823:	70 g
SK 7823:	88 g

Dimensions

Width x height x depth	
IK 7823:	17.5 x 90 x 59 mm
SK 7823:	17.5 x 90 x 98 mm

Standard Type

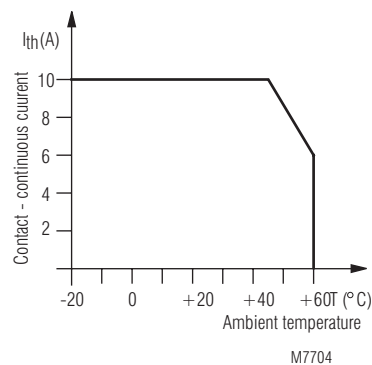
IK 7823.81 AC 110 ... 240 V	0.25 ... 640 s
Article number:	0047161
• Nominal voltage U_N :	AC 110 ... 240 V
• Time range:	0.25 ... 640 s adjustable
• Width:	17.5 mm
SK 7823.81 AC 110 ... 240 V	0.25 ... 640 s
Article number:	0057837
• Nominal voltage U_N :	AC 110 ... 240 V
• Time range:	0.25 ... 640 s adjustable
• Width:	17.5 mm

Ordering Example

IK 7823	.81	AC 110 ... 240 V	50 / 60 Hz	0.25 ... 640 s
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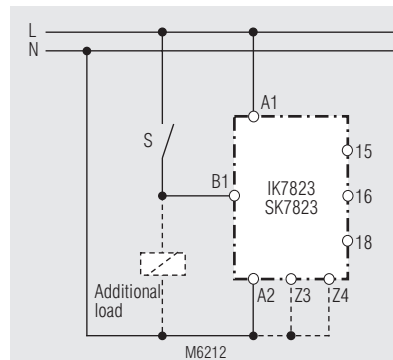
Time range
Nominal frequency
Nominal voltage
Contacts
Type

Characteristic



Continuous current limit curve

Connection Examples



Remarks:

Z3, Z4... Programming of time range
S... Control contact for function
Contact S can also switch additional load connected in parallel to our relay.