

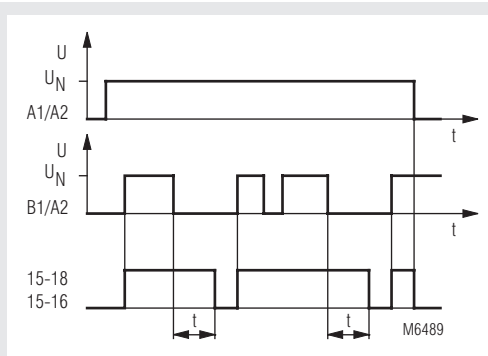
MINITIMER

Time Delay Relay, Release Delay Type
IK 7823, SK 7823



- According to IEC/EN 61 812-1
- With 4 time ranges of 0.25 ... 640 s or 0.25 ... 640 min
- Adjustable
- With auxiliary voltage
- For wide voltage range AC 50/60 Hz 110 ... 240 V
- Control input operated with nominal voltage; no voltage free contact necessary
- LED indicator for status of contact
- 1 changeover 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 43 880
 - **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 Marking



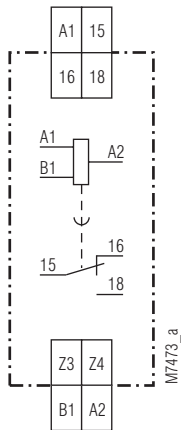
Applications

Time-dependent controllers

Indicators

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

Circuit Diagram



IK 7823.81, SK 7823.81

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

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

Technical Data

Output

Contacts:

IK 7823.81: 1 changeover contact
 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 60 947-5-1
 NC contact: 5 A / AC 230 V IEC/EN 60 947-5-1
 Electrical life IEC/EN 60 947-5-1

Electrical life

to AC 15 at 3 A, AC 230 V: $\geq 5 \times 10^5$ switching cycles

Short circuit strength

max. fuse rating: 10 A gL IEC/EN 60 947-5-1

Mechanical life:

$\geq 30 \times 10^6$ switching cycles

General Data

Operating mode:

Continuous operation

Temperature range:

- 20 ... + 60°C

Clearance and creepage distances

rated impuls voltage / pollution degree: 4 kV / 2 IEC 60 664-1

EMC

Electrostatic discharge: 6 kV (air) IEC/EN 61 000-4-2

HF-irradiation: 10 V/m IEC/EN 61 000-4-3

Fast transients: 4 kV IEC/EN 61 000-4-4

Surge voltages

between

wires for power supply: 1 kV IEC/EN 61 000-4-5
 (0.5 kV at AC/DC 24 V)

between wire and ground: 2 kV IEC/EN 61 000-4-5

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 Vo behaviour according to UL subject 94

Vibration resistance:

Amplitude 0.35 mm IEC/EN 60 068-2-6
 frequency 10 ... 55 Hz

Climate resistance:

20 / 60 / 04 IEC/EN 60 068-1

Terminal designation:

EN 50 005

Wire connection:

2 x 2.5 mm² solid or
 2 x 1.5 mm² 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
 DIN rail IEC/EN 60 715

Mounting:

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 stock item

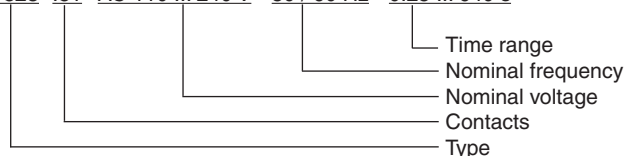
- Nominal voltage U_N : AC 110 ... 240 V
- Time range: 0.25 ... 640 s adjustable
- Width: 17.5 mm

SK 7823.81 AC 110 ... 240 V 0.25 ... 640 s

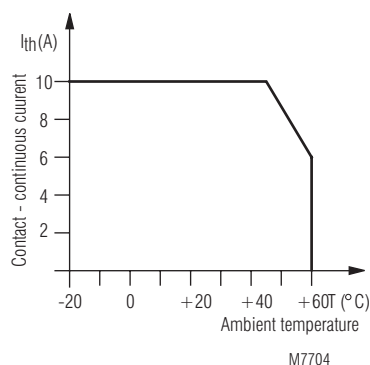
- Article number: 0052258
- Nominal voltage U_N : AC 110 ... 240 V
- Time range: 0.25 ... 640 s adjustable
- Width: 17.5 mm

Ordering Example

IK 7823 .81 AC 110 ... 240 V 50 / 60 Hz 0.25 ... 640 s

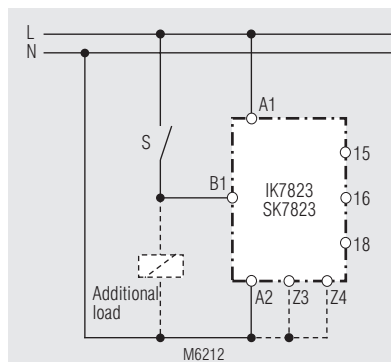


Characteristics



Continuous current limit curve

Connection Example



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.