

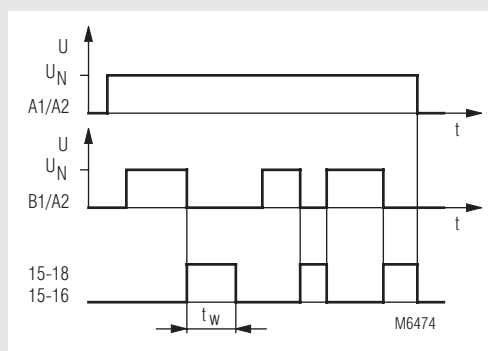
MINITIMER

Fleeting Action Relay, Fleeting On Brake IK 7820, SK 7820

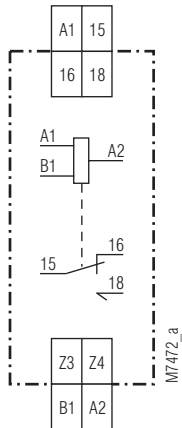


- According to IEC/EN 61 812-1
- With 4 time ranges from 0.25 ... 640 s
- Adjustable
- With auxiliary voltage
- For wide voltage range AC 50/60 Hz 110 ... 240 V
- Control input operated with nominal voltage;
no voltage free contact necessary
- LED indicator for status of contact
- 1 changeover contact
- Devices available in 2 enclosure versions:
IK 7820: depth 59 mm, with terminals at the bottom for installation
systems and industrial distribution systems according to
DIN 43 880
SK 7820: depth 98 mm, with terminals at the top for cabinets with
mounting plate and cable duct
- Width: 17.5 mm

Function Diagram



Circuit Diagram



IK 7820.73, SK 7820.73

Approvals and Marking



Applications

Time-dependent controllers

Indicators

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

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:
	time range bridge
0.25 ... 2.5 s	Z4----- A2
1 ... 10 s	Z3----- A2
8 ... 80 s	Z3---- Z4---- A2
64 ... 640 s	(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 (Control input B1):	≤ 40 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 (fleeting on brake)
IK 7820.73, SK 7820.73:	10 A up to 45°C
Thermal current I_{th}:	(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	
to AC 15 at 3 A, AC 230 V:	$\geq 5 \times 10^5$ switch. cycl. IEC/EN 60 947-5-1
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 frequency 10 ... 55 Hz, IEC/EN 60 068-2-6
Climate resistance:	20 / 060 / 04 IEC/EN 60 068-1
Terminal designation:	EN 50 005
Wire connection:	2 x 2.5 mm ² solid or 2 x 1.5 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 DIN rail IEC/EN 60 715
Mounting:	
Weight	
IK 7820:	70 g
SK 7820:	89 g

Dimensions

Width x height x depth	
IK 7820:	17.5 x 90 x 59 mm
SK 7820:	17.5 x 90 x 98 mm

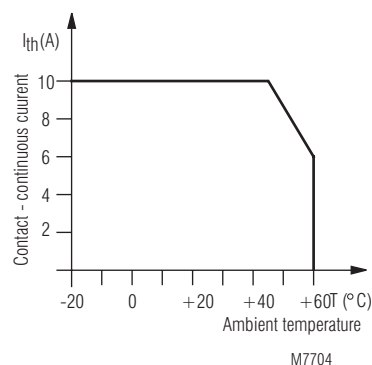
Standard Type

IK 7820.73 AC 110 ... 240 V	0,25 ... 640 s
Article number:	0047159
• Nominal voltage U_N :	AC 110 ... 240 V
• Time range:	0.25 ... 640 s adjustable
• Width:	17.5 mm
SK 7820.73 AC 110 ... 240 V	0,25 ... 640 s
Article number:	0054754
• Nominal voltage U_N :	AC 110 ... 240 V
• Time range:	0.25 ... 640 s adjustable
• Width:	17.5 mm

Ordering Example

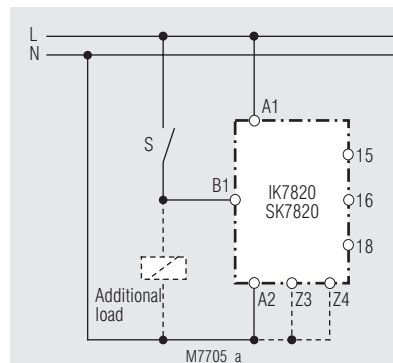
IK 7820	.73	AC 110 ... 240 V	50 / 60 Hz	0,25 ... 640 s
				Time range
				Nominal frequency
				Nominal voltage
				Contacts
				Type

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 the main load