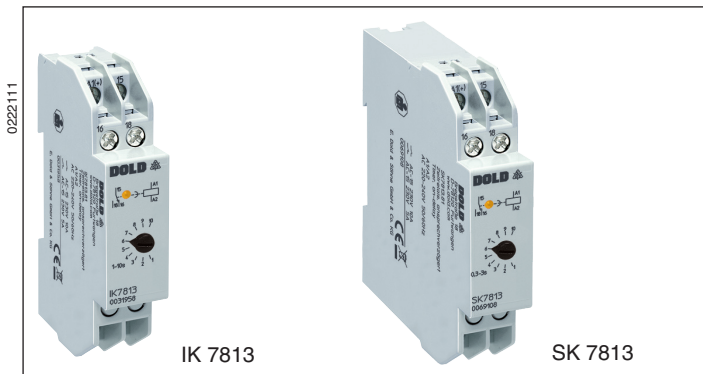


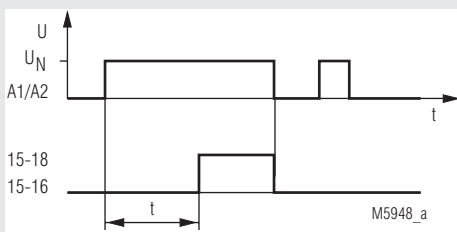
MINITIMER Timer, On-delay IK 7813, SK 7813

Translation
of the original instructions



- Power ON-delay relay according to EN 61812-1
- 1 changeover contact
- Delay up to 60 min.
- Repeat accuracy $\leq 1\%$
- LED indicator for contact position
- Devices available in 2 enclosure versions:
 - IK 7813: Depth 58 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43880
 - SK 7813: Depth 98 mm, with terminals at the top for cabinets with mounting plate and cable ducts
- Width 17.5 mm

Function Diagram



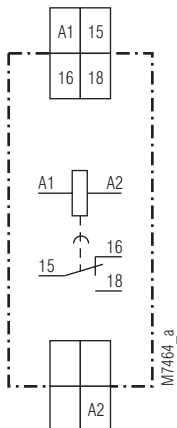
Approvals and Markings



Application

Time-based control equipment

Circuit Diagram



Indicator

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

Notes

A change of the time setting is directly valid. If a time is changed during time elaps, the output relay may energise unintended.

Connection Terminals

Terminal designation	Signal description
A1	L / +
A2	N / -
15, 16, 18	Changeover contact

Technical Data

Time circuit

Time ranges:	0,1 ... 1 s	1 ... 10 min
	0,3 ... 3 s	3 ... 30 min
	1 ... 10 s	6 ... 60 min
	3 ... 30 s	
	10 ... 100 s	
Time setting:	Infinitely variable, on relative scale	
Recovery time		
tw 50 / 100:	< 60 ms	
Repeat accuracy:	0.1 %	
Voltage influence:	≤ 1 % at 0.8 ... 1.1 U _N	
Temperature influence:	0.05 % / K	

Input

Nominal voltage U_N:	AC/DC 12 V, AC/DC 24 V, AC 110 ... 127 V, AC 220 ... 240 V	
Voltage range:	0.8 ... 1.1 U _N with AC and DC 48 % residual ripple 0.9 ... 1.25 U _N in battery operating mode	
Release voltage:	15 % U _N	
Nominal consumption:	AC/DC 24 V	0.6 W
	AC 230 V 50 Hz	3.5 VA
Nominal frequency:	50 / 60 Hz	
Frequency range:	± 5 %	

Output

Contacts:	1 changeover contact	
Contact material:	AgSnO ₂	
Measured nominal voltage:	AC 250 V	
Release time of the contacts:	< 20 ms	
Thermal current I_{th}:	Max. 10 A (See quadratic total 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
Glow lamp load:	1200 W	
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:	6000 switching cycles/h	
Short circuit strength		
Max. fuse rating:	10 A gG / gL	IEC/EN 60947-5-1
Max. line circuit breaker:	B16	
Mechanical life:	> 30 x 10 ⁶ switching cycles	

General Data

Operating mode:	Continuous operation	
Temperature range:		
Operation:	- 20 ... + 60 °C	
Storage:	- 25 ... + 70 °C	
Relative air humidity:	95 % at 40 °C	
Altitude:	≤ 2000 m	
Clearance and creepage distances		
Rated impulse voltage/ pollution degree:	4 kV / 2 (base insulation)	IEC 60664-1 III
Overvoltage category:	III	
Insulation test voltage, type test:	2.5 kV; 1 min	
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61000-4-2
HF irradiation:		
80 MHz ... 1 GHz:	12 V / m	IEC/EN 61000-4-3
1 GHz ... 2.7 GHz:	10 V / m	IEC/EN 61000-4-3
Fast transients:	4 kV	IEC/EN 61000-4-4
Surge voltage		
Between		
wires for power supply:	2 kV	IEC/EN 61000-4-5
Between wire and ground:	4 kV	IEC/EN 61000-4-5
HF-wire guided:	20 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

Technical Data

Housing:	Thermoplastic with V0 behaviour according to UL Subj. 94	
Vibration resistance:	Amplitude 0.35 mm IEC/EN 60068-2-6 frequency 10 ... 55 Hz	
Climate resistance:	20 / 060 / 04	IEC/EN 60068-1
Terminal designation:	EN 50005	
Wire connection:	DIN 46228-1/-2/-3/-4	
Cross section:	2 x 2,5 mm ² solid or 2 x 1,5 mm ² stranded ferruled	
Stripping length:	10 mm	
Wire fixing:	Flat terminals with self-lifting clamping piece IEC/EN 60999-1	
	0.8 Nm	IEC/EN 60999-1
Mounting:	DIN rail IEC/EN 60715	
Weight:		
IK 7813:	75 g	
SK 7813:	94 g	

Dimensions

Width x height x depth:		
IK 7813:	17.5 x 90 x 58 mm	
SK 7813:	17.5 x 90 x 98 mm	

Standard Type

IK 7813.81 AC 220 ... 240 V	0.1 ... 1 s
Article number:	0033628
• Output:	1 changeover contact
• Nominal voltage U _N :	AC 220 ... 240 V
• Time range:	0.1 ... 1 s
• Width:	17.5 mm
SK 7813.81 AC 220 ... 240 V	0.1 ... 1 s
Article number:	0054738
• Output:	1 changeover contact
• Nominal voltage U _N :	AC 220 ... 240 V
• Time range:	0.1 ... 1 s
• Width:	17.5 mm

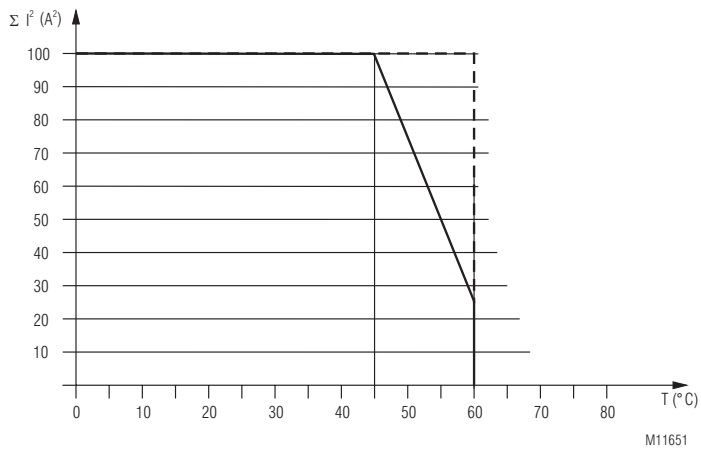
Variant

IK 7813.81/107:	With a time of 5 s or 0.4 s to be used in 3-phase voltage systems changeover control
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Ordering example for variant

IK 7813 .81 / _ _ _ AC 220 ... 240 V 1 ... 10 s	
	Time range
	Nominal voltage
	Variant, if required
	Contacts
	Type

Characteristic



--- device mounted away from heat generation components.

— device mounted without distance heated by devices with same load.

Quadratic total current limit curve

Connection Example

