

MINITIMER

Timer, Release Delay

AA 7666, EC 7666, EF 7666, EH 7666



- According to IEC/EN 61 812-1
- Delay up to 60 h
- 6 time ranges on one unit, adjustable at front side
- Repeat accuracy $\leq \pm 0.5\%$
- ($\leq \pm 1\%$ for the range 3 and 6 s)
- Time lapse display
- Switching position display (except for EH 7666)
- With instantaneous contact
- No voltage safe
- EF 7666: front side protected against beam water, IP 65
- AA 7666: width 45 mm
- EC 7666: front size 48 x 72 mm
- EF 7666: front size 72 x 72 mm
- EH 7666: front size 96 x 96 mm

Approvals and Marking



Application

Time dependent controls

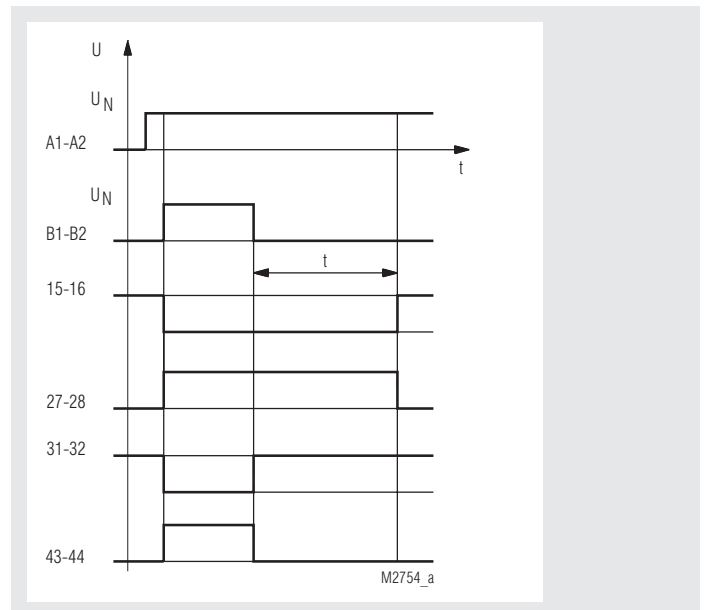
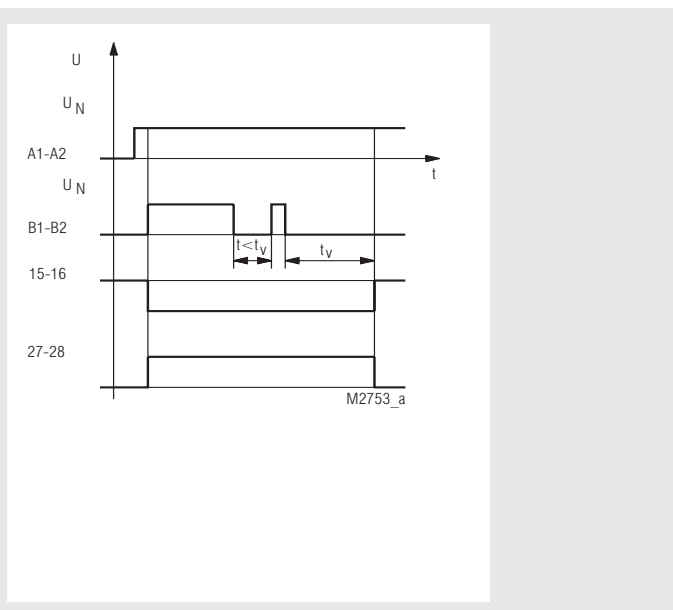
Indication

Time display: via red pointer at scale of the device
 Switching position: red sign when NO contacts are closed (not for EH 76669)
 Time range display: final scale value in a window

Notes

The frequency changing switch 50 / 60 Hz is located on the bottom side of the unit.

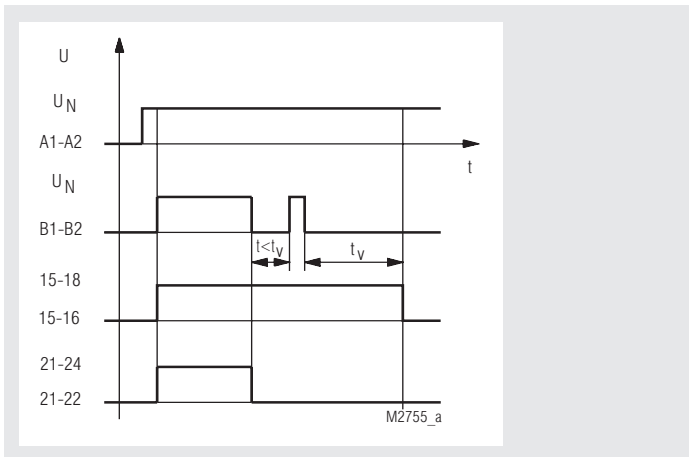
Function Diagrams



AA 7666.21, EC 7666.21, EH 7666.21

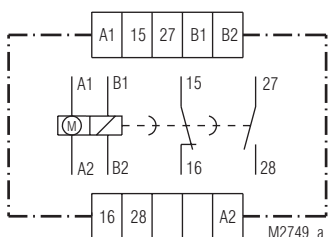
EF 7666.24

Function Diagrams

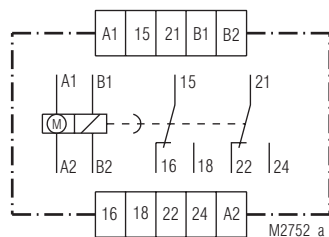


AA 7666.32, EF 7666.32

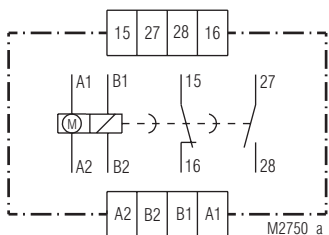
Circuit Diagrams



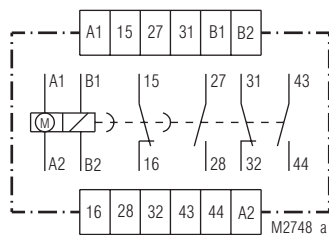
AA 7666.21



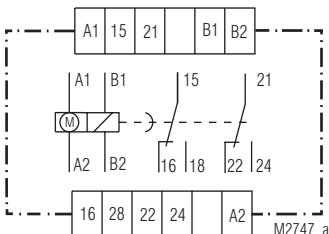
AA 7666.32



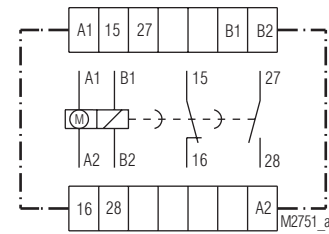
EC 7666.21



EF 7666.24



EF 7666.32



EH 7666.21

Technical Data

Time circuit

Time ranges:

6-range models
 0.15 ... 3 s 1.5 ... 30 s 15 ... 300 s
 0.4 ... 10 s 4 ... 100 s 40 ... 1000 s
 or
 0.15 ... 3 s 0.15 ... 3 min 0.15 ... 3 h
 1.5 ... 30 s 1.5 ... 30 min 1.5 ... 30 h
 or
 0.2 ... 6 s 0.2 ... 6 min 0.2 ... 6 h
 2 ... 60 s 2 ... 60 min 2 ... 60 h
 infinite with black (white) setting pointer
 on absolute scale

Time setting:

Recovery time:

$\leq \pm 0.5\%$ of max. scale value

Repeat accuracy:

(at 3 and 6 s $\leq \pm 1\%$)

EH 7666, DC-version:

$\leq \pm 3\%$ of the max. scale value

Technical Data

Input

Nominal voltage U_N :

AC 24, 42, 110, 127, 230, 240 V

Special voltages

AA 7666:

AC 12, 400, 415 V

EH 7666:

DC 12, 24, 48, 60*, 110*, 230* V

* with external series resistance

Voltage range:

0.8 ... 1.1 U_N

Nominal consumption:

AC 7 VA

DC 12 V 5 W

DC 24 V 5 W

DC 48 V 7 W

DC 60 V 10 W

DC 110 V 13 W

DC 230 V 18 W

Nominal frequency:

50 / 60 Hz to e selected

Frequency range:

$\pm 5\%$ f_N

Frequency influence:

reverse proportional

Output

Contacts

AA 7666.21,

EC 7666.21,

EF 7666.21,

EH 7666.21:

1 NC contact, delayed

1 NO contact, delayed

1 NO contact, instantaneous

1 NC contact, instantaneous

1 NC contact, delayed

1 NO contact, delayed

EF 7666.24:

1 changeover contact, delayed

1 changeover contact, instantaneous

<math>< 35</math> ms

<math>< 60</math> ms

4 A

EF 7666.32:

Operate time of contacts:

Release time:

Thermal current I_{th} :

Switching capacity

to AC 15:

3 A / AC 230 V IEC/EN 60 947-5-1

Electrical life

to AC 15 at 3 A, AC 230 V:

1 x 10^5 switching cycles

to AC 15 at 1 A, AC 230 V:

5 x 10^5 switching cycles

Permissible switching

frequency:

3 000 switching cycles / h

Short circuit strength

max. fuse rating:

10 A gL IEC/EN 60 947-5-1

Mechanical life:

> 30 x 10^6 switching cycles or

> 15 000 h

General Data

Operating mode:

Continuous operation

Temperature range:

- 20 ... + 55 °C

Clearance and creepage

distances

rated impuls voltage /

pollution degree

inputs:

4 kV / 2

IEC 60 664-1

in-/output:

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:

4 kV

IEC/EN 61 000-4-4

Surge voltages

between

wires for power supply:

2 kV

IEC/EN 61 000-4-5

between wire and ground:

4 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:

IEC/EN 60 529

AA 7666:

Housing: IP 40

Terminals: IP 20

EC 7666, EH 7666:

Housing-front: IP 40

Housing: IP 30

Terminals: IP 10

EF 7666:

Housing-front: IP 65

Housing:

Thermoplast with V0 behaviour

according to UL subject 94

Vibration resistance:

Amplitude 0.35 mm

frequency 10...55Hz, IEC/EN 60 068-2-6

Technical Data

Climate resistance:	20 / 055 / 04; A/B/C	IEC/EN 60 068-1
Terminal arrangement:	DIN 46 199-5	
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
Mounting		
AA 7666:	DIN rail	IEC/EN 60 715
EC 7666, EF 7666, EH 7666:	flush mounting	
Weight		
AA 7666:	320 g	
EC 7666:	320 g	
EF 7666:	400 g	
EH 7666:	450 g	

Dimensions

Width x height x depth

AA 7666:	45 x 77 x 127 mm
EC 7666:	48 x 72 x 120 mm
EF 7666:	72 x 72 x 128 mm
EH 7666:	96 x 96 x 138 mm

Front panel cut-out

EC 7666:	44 x 67 mm
EF 7666:	67 x 67 mm
EH 7666:	ø 91 ⁺¹ mm

Front surface

EC 7666:	48 x 72 mm
EH 7666:	72 x 72 mm
EH 7666:	96 x 96 mm

Standard Type

AA 7666.32 AC 230 V 50/60 Hz 0.15 s ... 30 h	
Article number:	0025127 stock item
• Time range:	0.15 s ... 30 h
• Nominal voltage U _N :	AC 230 V
• Output:	1 changeover contact, delayed 1 changeover contact, instantaneous
• Width:	45 mm

Ordering Example

AA 7666 .32 AC 230 V 50 / 60 Hz 30 h	
AA 7666	Type
.32	Contact
AC 230 V	Nominal voltage
50 / 60 Hz	Nominal frequency
30 h	Time-range max. value

Accessories

for EC 7666:

ZS 700.06:	Lockable cover Article number: 0004057
ET 7001.407.034:	Plug-in-socket for EC 7666.21 Article number: 0004072

for EF 7666:

ZS 700.07:	Lockable cover Article number: 0004058
ET 7616-0-22:	Sealing ring for sealing at the front side Article number: 0045909

