### Part numbers

<table>
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<th>Type</th>
<th>Packaging</th>
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<td>88829198</td>
<td>EMER8</td>
<td>Per unit A - B - C - D</td>
<td>0.1 →20 h</td>
<td>1 changeover relay</td>
<td>5 A NO</td>
<td>12 →240 V DC / 24 →240 V AC</td>
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### Specifications

#### Timing
- Timing ranges (7 ranges) 0.1 s → 1 s / 1 → 10 s / 6 → 60 s / 1 → 10 min / 6 → 60 min / 1 → 10 h / 2 → 20 h
- Repetition accuracy with constant parameters ± 0.5 %
- Drift Temperature ± 0.05 %/°C
- Drift Voltage ± 0.2 %/V
- Display accuracy according to IEC/EN 61812-1 ± 10 % / 25 °C
- Minimum pulse time 30 ms
- Maximum reset time by deenergisation 100 ms

#### Supply
- Multi-voltage power supply
  - EMAR2: 110-120 VAC
  - EMAR7: 240 VAC
  - EMAR8: 24 VAC/DC
  - EMER8/EMYR8: 12 →240 VDC / 24 →240 VAC

#### Operating range
- EMAR2: 93 to 132VAC
- EMAR7: 15 % + 10 % / 24 VAC - 15 % + 20 %
- EMAR8/EMYR8: 15 % + 10 %

#### Frequency (Hz)
- 50 / 60 Hz ± 5 %

#### Max. absorbed power
- EMAR2: approx. 3.2 VA 110 VAC
- EMAR7: approx. 3.2 VA 230 VAC
- EMAR8: approx. 1.2 VA (0.6 W) / 24 VAC (DC)
- EMER8/EMYR8: approx. 3.2 VA (1.5 W) / 230 VAC (DC)
- Approx. 1.2 VA (0.6 W) / 24 VAC (DC)

#### Immunity from micro power cuts : typical
- > 10 ms

#### Output specification
- Changeover relay 1 NO: 1250 VA / 150 W
- Maximum breaking current NO: 5 A 250 VAC / 5 A 30 VDC resistive
- Minimum breaking current 10 mA / 12 VDC
- Voltage breaking capacity 277 VAC / 30 VDC
- Electrical life (operations) 10⁷ NO cycles
- Mechanical life (operations cycles) 7 x 10⁶ cycles

#### General characteristics
- LED display
  - Green: voltage present
  - Yellow: timer R ON
- Fixing: Symmetrical DIN rail 35 mm
- Protection (IEC/EN 60529) Casing: IP40 Connection terminals: IP20
- Terminal capacity Multi-wire with ferrule
  - 1 x 0.5 → 4 mm² (AWG 20 → AWG 11)
  - 2 x 0.5 → 2.5 mm² (AWG 20 → AWG 14)
- Terminal capacity Single-wire without ferrule
  - 1 x 0.5 → 2.5 mm² (AWG 20 → AWG 14)
  - 2 x 0.5 → 1.5 mm² (AWG 20 → AWG 16)
- Stripping length (mm) 5 mm
- Max. tightening torques IEC/EN 60947-1 0.6 → 0.8 Nm
- Temperature limits use (°C) -20 °C → +60 °C
- Temperature limits stored (°C) -40 °C → -70 °C

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected
Relative humidity no condensation acc. to IEC/EN 60068-2-30
93 %

Vibration resistance according to IEC/EN 60068-2-6
10 →55 Hz, A = 0.35 mm peak to peak 10 x cycles, 1 octave/min

Weight (g)
60

Standard
Certifications
CE - cUL

Conformity with environmental directives
2002/95/CE : RoHS
1907/2006 : Reach

Immunity to electrostatic discharges acc. IEC/EN 61000-4-2
Level III
air ± 8 kV / contact ± 4 kV

Immunity to radiated, radio-frequency, electromagnetic field acc. IEC/EN 61000-4-3
Level III
10 V/m (80 M Hz →1 G Hz) 80 % AM (1 K Hz)
3 V/m (1.4 →2 G Hz) 80 % AM (1 K Hz)
1 V/m (2 →2.7 G Hz) 80 % AM (1 K Hz)

Immunity to rapid transient bursts acc. to IEC/EN 61000-4-4
Level III
Direct ± 2 kV (power supply)
Coupling ± 1 kV (I/O)

Immunity to shock waves on power supply acc. to IEC/EN 61000-4-5
Power supply/earth ± 2 kV
Power supply input ± 1 KV

Immunity to radio frequency in common mode acc. to IEC/EN 61000-4-6
10 V (0.15 →80 M Hz) 80 % AM (1 K Hz)

Immunity to magnetic field acc. (IEC/EN 61000-4-8)
50, 60 Hz 30 A/m, 1 min.

Immunity to voltage dips and breaks acc. to IEC/EN 61000-4-11
0 % residual voltage / 1 cycle
40 % residual voltage / 10 cycles (50 Hz) / 12 cycles (60 Hz)
70 % residual voltage / 25 cycles (50 Hz) / 30 cycles (60 Hz)

Insulation
Insulation voltage
250 V

Insulation coordination (IEC/EN 60664-1)
Category III, degree of pollution 3 ; up to 2000 m

Shock waves
2,5 KV (1,2 / 50 μs)

Breakdown voltage conforming to IEC/EN 61812-1
2 KV / 1 min / 1 mA / 50 Hz

Insulation resistance
> 500 MΩ / 250 V DC / 1 min

Dimensions (mm)

Curves
A function

Function A
Delay on energisation 1 relay

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected
**Curves**

**At function**

Timing on energisation with memory 1 relay

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**Curves**

**B function**

Timing on impulse one shot 1 relay

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**Curves**

**C function**

Timing after impulse 1 relay

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**Curves**

**D function**

Flip-flop Pause start 1 relay

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Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected
Function Di
- Flip-flop Pulse start 1 relay

Curves
H function
- U
- R

Function H
- Timing on energisation 1 relay

Curves
Ht function
- U
- C
- R

Function Ht
- Delay on energisation with memory 1 relay

Curves
Pe function
- U
- R

Function Pe
- Impulse counter (delay on) 1 relay

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected.
Function W
Timing after pulse on control contact 1 relay

Connections
EMER8 - EMYR8