

# CIM12, CIM12R (Railway)

## Time relay with AC solid-state output

8 time functions and stepping function, ON-OFF switch, 50 ms ... 60 h, DIN Rail mounting according to DIN 43 880



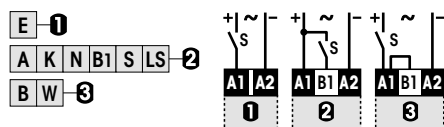
### Type: CIM12/UC24-240V

Sophisticated multifunction time relay, 1 triac output, suitable for high frequency of operations and inductive loads, 8 time functions, stepping function and service function ON/OFF, time ranges: 50 ms ... 60 h, multifunction LED state indicator, suitable for any time-control application and also staircase lighting, Light-switch neon lamp current absorption on input B1, manual switching function for maintenance, emergency, etc., 16.6 Hz applications. Railway version available.

<b>Maximum contact load</b>	<b>2 A / 250 V</b>
<b>Minimum contact load</b>	<b>50 mA</b>

### Time functions and related connection diagrams (Function diagrams: refer to page 152)

The functions are selectable by rotary switch



LED function table:

LED	Relay	Time run
OFF	OFF	NO
Continuous ON	ON	NO
Short blinking	OFF	YES
Long blinking	ON	YES

### Time data

7 partial time ranges, $t_{max}$ (rotary switch)	0.6, 6, 60 s / 6, 60 min / 6, 60 h
Fine adjustment range (rotary knob)	$t_{min} \dots t_{max}$ , 0.5 ... 6
Time range tolerance	$t_{min}$ : -5 % ... +0 % / $t_{max}$ : -0 % ... +5 %
Repetition accuracy	± 0.1 % or DC: 2 ms / AC: 10 ms
Response time, power on, on A1	≤ 45 ms
Min. trigger pulse on B1	20 ms (AC / DC)
Reset time B1 (AC/DC)	≤ 30 ms
Voltage failure buffering (50 / 60 Hz)	≥ 20 ms

### Output

Type	Triac, zero crossing
Rated operational current at 40 °C (Fig.1)	2 A
Max. inrush current (10 ms)	100 A
Max. switching voltage	250 V
Max. AC load AC-1	300 VA
I <sup>2</sup> t value	78 A <sup>2</sup> s
Leakage current	< 1 mA

### Power supply- and control input

Nominal voltage	<b>UC 24-240 V (UC = AC / DC)</b>
Operating voltage range	UC 19 ... 250 V
Power consumption	approx. 1 W
Frequency range	15 ... 60 Hz
Allowed DC residual current into B1	≤ 0.5 mA
AC Neon lamp residual current into B1	≤ 10 mA
Trigger threshold voltage on B1, AC / DC	15 / 17 V

### Insulation

Test voltage between output and control input	2.5 kVrms 1 minute
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### General Specifications

Ambient temperature storage / operation	-40 ... 85 °C / -40 ... 60 °C (Railway: -70 °C)
Conductor cross section	Stranded wire 2.5 mm <sup>2</sup> , 2 x 1.5 mm <sup>2</sup>
Ingress protection degree	IP 20
Max. Screw torque	0.4 Nm
Housing material / weight	Lexan / 70 g

### Standard types

<b>UC (AC/DC), 15...60 Hz</b>	<b>CIM12/UC24-240V</b>
<b>Railway</b>	<b>CIM12R/UC24-240V</b>



### Connection diagram

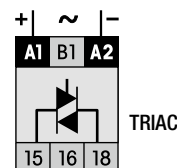
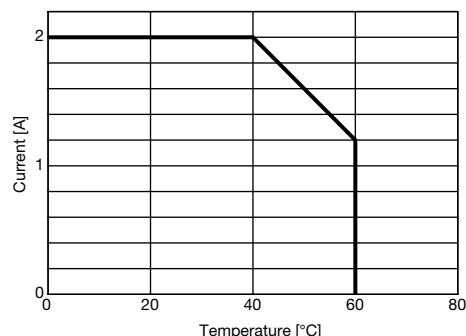
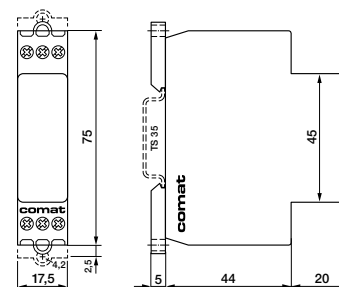


Fig. 1 Output derating curve



### Dimensions [mm]



### Technical approvals, conformities

EN 50155, EN 60730

