CIM3, CIM3R (Railway)

**Time relay with mechanical changeover output contact**
6 time functions and service function, 7 time ranges from 50 ms...60 h,
DIN Rail mounting according to DIN 43 880

**Type: CIM3/UC24-240V**
Sophisticated multifunction time relay, 1 changeover power contact switching in zero crossing (50/60 Hz), 6 time functions and service function ON/OFF, 7 time ranges from 50 ms to 60 h, multifunction LED state indicator, suitable for any time-control application, light-switch neon lamp current absorption on input B1, manual switching function for maintenance, emergency, etc., 16.6 Hz power supply applications. Railway version available.

<table>
<thead>
<tr>
<th>Maximum contact load</th>
<th>16 A / 250 V AC-1 384 W DC-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended minimum contact load</td>
<td>10 mA / 10 V</td>
</tr>
</tbody>
</table>

**Time functions and related connection diagrams**
(Function diagrams: refer to page 130)
The functions are selectable by rotary switch

![LED function table](image)

**LED function table:**

<table>
<thead>
<tr>
<th>LED</th>
<th>Relay</th>
<th>Time run</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>NO</td>
</tr>
<tr>
<td>Continuous</td>
<td>ON</td>
<td>ND</td>
</tr>
<tr>
<td>Short blinking</td>
<td>OFF</td>
<td>YES</td>
</tr>
<tr>
<td>Long blinking</td>
<td>ON</td>
<td>YES</td>
</tr>
</tbody>
</table>

**Connection diagram**

![Connection diagram](image)

**Time data**

Partial time ranges, \( t_{\text{max}} \) (rotary switch)

0.6, 6, 60 s / 6, 60 min / 6, 60 h

Time adjustment range (rotary knob)

0.5 \( t_{\text{min}} \) \text{...} \( t_{\text{max}} \)

Time range tolerance

\( t_{\text{max}} - 5 \% \ldots \) \( t_{\text{max}} - 0 \% \ldots \) \( t_{\text{max}} + 5 \% \)

Response time, power on, on A1

\( \leq 45 \text{ ms} \)

Min. trigger pulse on B1

20 ms (AC / DC)

Reset time B1 (AC/DC)

\( \leq 30 \text{ ms} \)

Voltage failure buffering (50 / 60 Hz)

\( \geq 20 \text{ ms} \)

**Contacts**

Material CIM3 / CIM3R / Type

AgNi / 1 CO, micro disconnection

Max. inrush current

30 A

Max. switching voltage AC-1

250 V

Max. AC load AC-1 (Fig.1)

4 kVA

Max. DC load DC-1 30 V / 250 V (Fig.2)

240 W / 85 W

**Power supply- and control input**

Nominal voltage (A1, B1)

UC 24-240 V (UC = AC / DC)

Operating voltage range

UC 19 … 250 V

Power consumption

approx. 1 W

Frequency range

15 \( \ldots \) 60 Hz

Allowed DC residual current into B1

\( \leq 0.5 \text{ mA} \)

AC Neon lamp residual current into B1

\( \leq 10 \text{ mA} \)

Trigger threshold voltage on B1, AC / DC

15 / 17 V

**Insulation**

Test voltage open contact

1 kWrms 1 minute

Test voltage between contacts and control input

2.5 kWrms 1 minute

**General Specifications**

Ambient temperature storage /operation

\(-40 \ldots 85 \text{ °C} \ldots -40 \ldots 60 \text{ °C} \) (Railway: \(-46 \text{ °C} \))

Mechanical life of contact

30 x 10^6 operations

Conductor cross section

Stranded wire 2.5 mm², 2 x 1.5 mm²

Ingress protection degree

IP 20

Max. Screw torque

0.4 Nm

Housing material / weight

Lexan / 70 g

**Standard types**

UC (AC/DC) 15...60 Hz

CIM3/UC24-240V

Railway

CIM3R/UC24-240V

**Technical approvals, conformities**

EN 50155, EN 60730