

# 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**



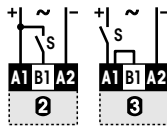
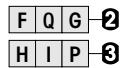
## Type: CIM3/UC24-240V

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.

**Maximum contact load** 16 A / 250 V AC-1 384 W DC-1  
**Recommended minimum contact load** 10 mA / 10 V

## Time functions and related connection diagrams (Function diagrams: refer to page 130)

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                              | $\pm 0.1$ % or DC: 2 ms / AC: 10 ms                   |
| Response time, power on, on A1                   | $\leq 45$ ms  |
| Min. trigger pulse on B1                         | 20 ms (AC / DC)                                       |
| Reset time B1 (AC/DC)                            | $\leq 30$ ms  |
| Voltage failure buffering (50 / 60 Hz)           | $\geq 20$ ms  |

## Contacts

|  |                                  |
|--|----------------------------------|
| Material CIM3 / CIM3R / Type               | AgNi / 1 CO, micro disconnection |
| Rated operational current at 40 °C / 60 °C | 16 A / 13 A                      |
| 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)                 | <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      | $\leq 0.5$ mA                     |
| AC Neon lamp residual current into B1    | $\leq 10$ mA                      |
| Trigger threshold voltage on B1, AC / DC | 15 / 17 V                         |

## Insulation

|   |                    |
|---|--------------------|
| Test voltage open contact                       | 1 kVrms 1 minute   |
| Test voltage between contacts and control input | 2.5 kVrms 1 minute |

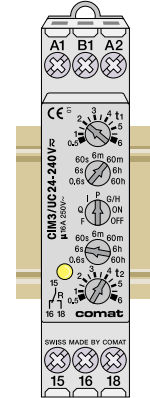
## General Specifications

|   |   |
|---|---|
| Ambient temperature storage / operation | -40 ... 85 °C / -40 ... 60 °C (Railway: -46 °C)             |
| Mechanical life of contact              | 30 x 10 <sup>6</sup> operations                             |
| 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  |

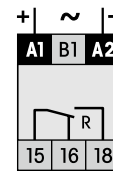
## Standard types

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

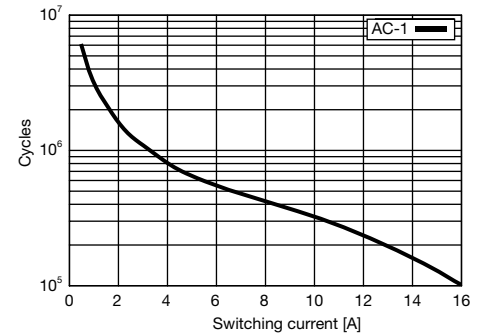
**CIM3/UC24-240V**  
**CIM3R/UC24-240V**



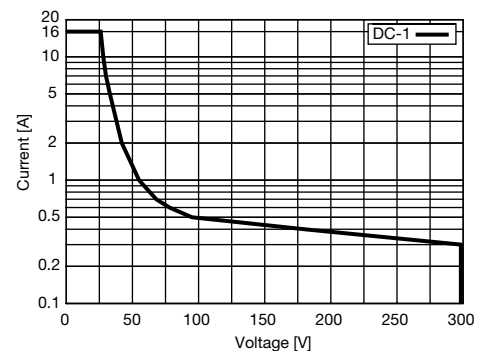
## Connection diagram



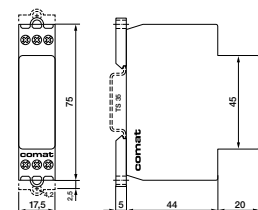
**Fig.1 AC voltage endurance**



**Fig. 2 DC load limit curve**



## Dimensions [mm]



## Technical approvals, conformities

EN 50155, EN 60730

