

## Technical data sheet

### Load monitoring · LOCC-Box-SC

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**Electronic circuit breaker rated up to DC 5 A**

**Single-channel design, adjustable current range: DC 1 A – 5 A**

**Adjustable characteristics, fast, medium-speed, slow 1**



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#### Identification

|          |                        |
|----------|------------------------|
| Type     | LOCC-Box-SC 7-6408     |
| Part No. | <a href="#">716408</a> |

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#### Product version

|                   |     |
|-------------------|-----|
| Hardware revision | 2.0 |
| Software version  | 2.6 |
| Datasheet version | 02  |

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#### Input

|                            |                                 |
|----------------------------|---------------------------------|
| Type of function           | 1-channel 1 pin switching       |
| Rated voltage $U_N$        | DC 12/24 V                      |
| Operation voltage range    | DC 10–30 V                      |
| Rated current $I_N$        | DC 5 A                          |
| Supply current             | DC 40 A over Cu-rails 10 × 3 mm |
| Reverse voltage protection | Internal electronics            |
| Connection type input      | Screwless contact slide         |

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#### Control input (Set / Reset)

|              |                                          |
|--------------|------------------------------------------|
| Signal level | DC 12/24 V acc. to EN 61131              |
| OFF          | Pulse with falling edge >100 ms, <800 ms |
| ON           | Pulse with falling edge > 1 s            |

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#### Output

|                   |        |
|-------------------|--------|
| Switching element | MOSFET |
|-------------------|--------|

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12.03.2024 • Subject to technical modification

Part No. [716408](#) • Datasheet version: 02

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|                       |                                                                                  |
|-----------------------|----------------------------------------------------------------------------------|
| Output current        | Max. DC 5 A                                                                      |
| Voltage drop          | Max. 90 mV (5 A)                                                                 |
| Status display output | LED green: operating voltage present, no error<br>LED red: error in load circuit |
| Switch-on capacity    | 10000 µF                                                                         |
| Current range         | 1 A – 5 A (adjustable via switch in 1 A steps)                                   |
| Characteristic        | Fast (1), medium (2), slow 1 (3) see 'characteristic curves'                     |

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#### Signal output

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|                   |                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------|
| Signal level      | DC 12/24 V: operating voltage on standby, no error,<br>DC 0 V: error, output switched off and manual "OFF" |
| Switching element | Transistor, collector with pull-up resistance                                                              |

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#### General

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|                        |                                                                          |
|------------------------|--------------------------------------------------------------------------|
| Dimensions (w × h × d) | 8.1 mm × 107.4 mm × 116.0 mm                                             |
| Housing material       | PA 6.6 (UL 94 V-0, NFF I2, F2)                                           |
| Mounting               | DIN rail mountable TS35<br>(EN 60715)                                    |
| Installation position  | Any                                                                      |
| MTBF                   | 690000 h                                                                 |
| Degree of protection   | IP20 (only as complete system with power terminal and end block)         |
| Connection type        | Push-In<br>0.25 mm <sup>2</sup> – 2.5 mm <sup>2</sup><br>AWG 24 – AWG 14 |
| Weight/unit            | 0.07 kg                                                                  |
| PU (units)             | 1                                                                        |

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#### General ambient conditions

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|                             |                                   |
|-----------------------------|-----------------------------------|
| Operation temperature range | -25 °C ... +50 °C                 |
| Storage temperature range   | -40 °C ... +85 °C                 |
| Relative air humidity       | 10 % – 95 %, without condensation |
| Vibration resistance        | 4 g acc. to EN 60068-2-6          |
| Shock resistance            | 15 g acc. EN 60068-2-27           |

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#### Certifications/Standards

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|                |                                   |
|----------------|-----------------------------------|
| Conformity     | CE<br>UKCA                        |
| Certifications | cULus (E135145)<br>URus (E490188) |

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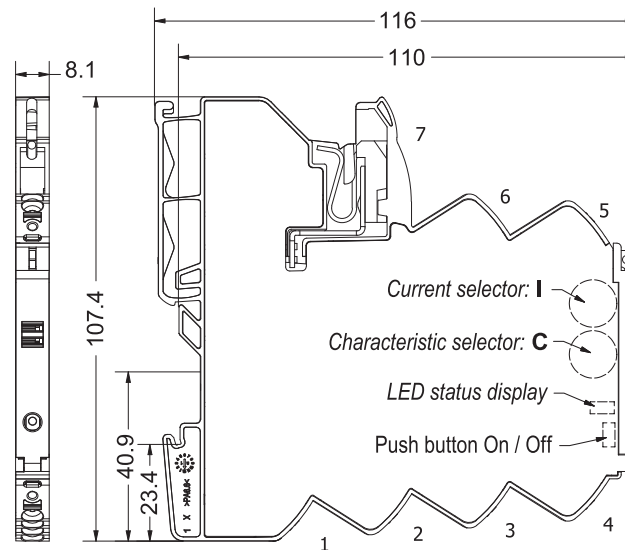
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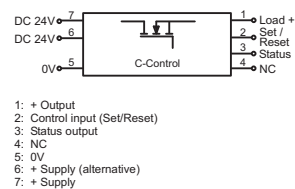
#### Standards

EN 61000-6-2  
EN 61000-6-3  
UL 60947-5-1  
UL 2367  
DNVGL-CG-0339  
Temperature Class D – not certified  
Humidity Class B – not certified  
Vibration Class B – not certified  
EMC Class A – not certified  
Enclosure Class A – not certified

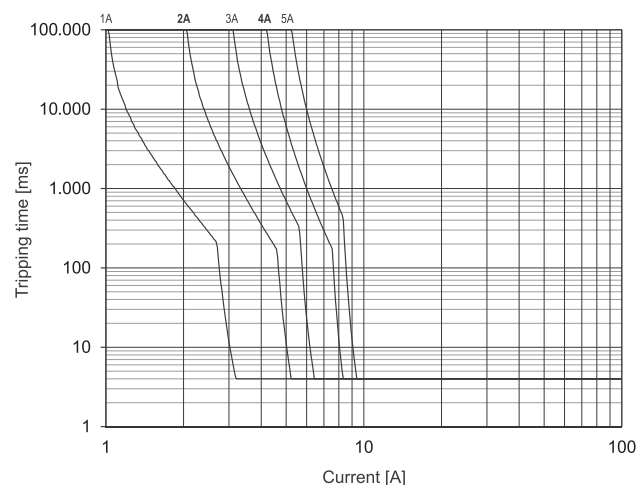
#### Dimensions



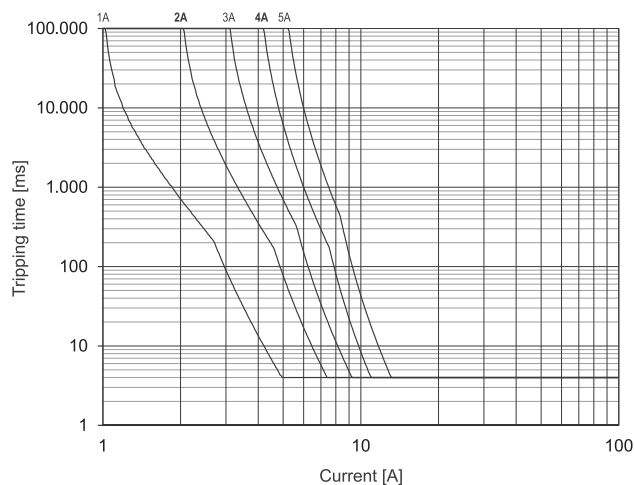
#### PIN assignment



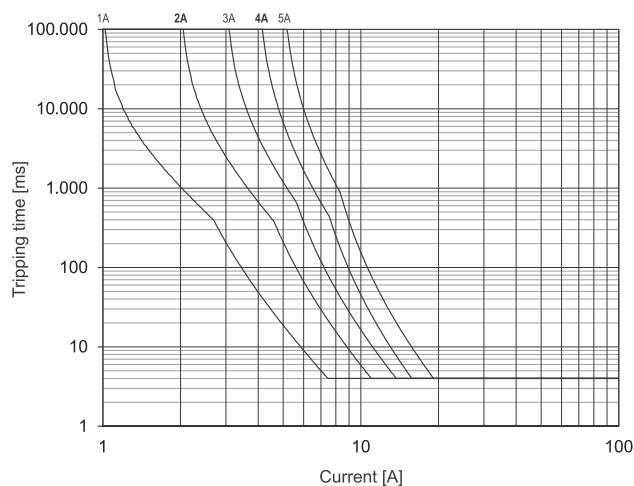
#### 1: Characteristic fast



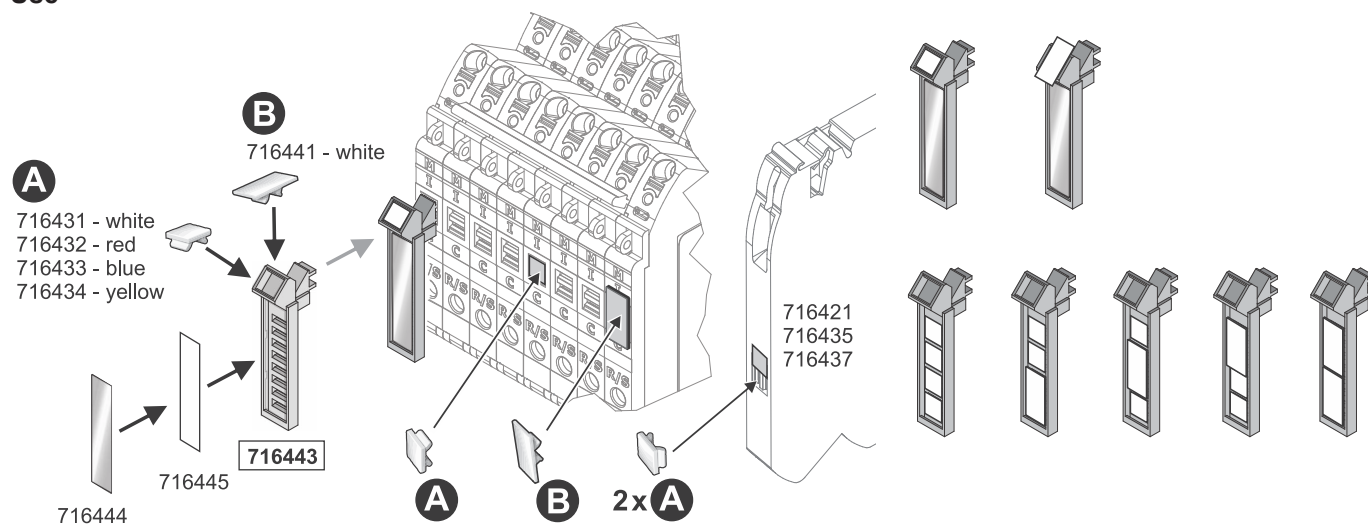
## 2: Characteristic medium



## 3: Characteristic slow-1



## Use



### LED status

#### LED Status, Button, Rotary Switch

|                                       |                                                                    |                                                                                                                              |
|---------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| LED green                             | ON                                                                 | Function is OK*                                                                                                              |
| LED green, flashing 1 Hz              | Overload                                                           | Load above 90 % of I nominal                                                                                                 |
| LED green, flashing 5 Hz              | Overload                                                           | Load above 100 % of I nominal                                                                                                |
| LED red                               | OFF                                                                | Module switched off or acknowledged*                                                                                         |
| LED red, flashing 1 Hz                | Overload                                                           | Output off due to overload/short circuit*                                                                                    |
| LED red, flashing 5 Hz                | Error                                                              | Wiring error – feedback (internal error)                                                                                     |
| LED red, flashing shortly             | OFF                                                                | Output off via remote set/reset                                                                                              |
| LED red/green, flashing 1 Hz          | ON                                                                 | Target settings via rotary switch deviate from actual settings. <b>NOTICE: Switching off and on via pushbutton required.</b> |
| Button ***                            | ON/OFF                                                             | Nominal operation: ON/OFF<br>Load monitoring tripped: 1st push: acknowledge<br>2nd push: ON                                  |
| Rotary Switch (I) – Switch Position** | Rated current, see page 4.                                         |                                                                                                                              |
| Rotary Switch (C) – Switch Position** | Characteristic: 1: fast 2: middle<br>3: slow-1 4: slow-2 5: slow-3 |                                                                                                                              |

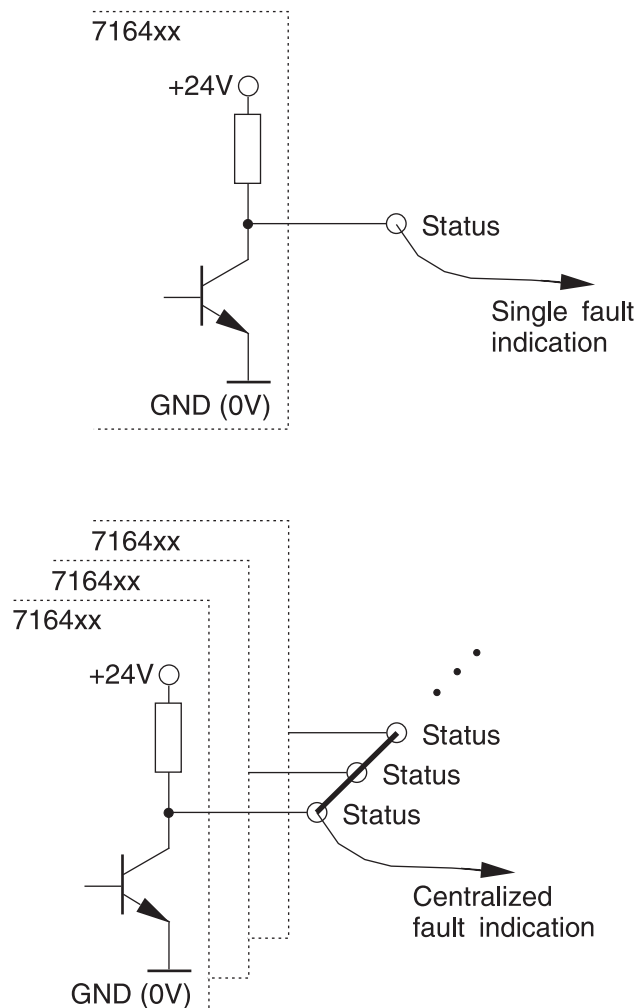
\* If the operating voltage is switched off, the last status is saved (Default).

\*\* Accept the setting - after switching on again via the button, not by Remote Set/Reset

\*\*\* Master function - switch off via push button, can only be switched on again via push button

For further information see also the operating instructions

### Signal output



Mounting diagram

 **HINWEIS / NOTICE / AVIS**

