

Technical data sheet

Load monitoring · LOCC-Box-C2

Electronic circuit breaker rated up to DC 4 A

Single channel version, adjustable current range, adjustable characteristic with current limitation acc. to NEC class 2



Identification

Type	LOCC-Box-C2 7-6413
Part No.	716413

Product version

Hardware revision	2.0
Software version	2.3
Datasheet version	02

Input

Type of function	1-channel 1 pin switching
Rated voltage U_N	DC 12/24 V
Operation voltage range	DC 11–30 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

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

Output

Switching element	MOSFET
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Output current	Max. DC 4 A
Power output	Limited to <100 W
Voltage drop	Max. 275 mV (4 A)
Status display output	LED green: operating voltage present, no error LED red: error in load circuit
Switch-on capacity	4700 µF
Current range	0.5 A – 4 A (can be set via switch in 0.5 A steps)
Characteristic	Fast (1), medium (2), slow 1 (3) see 'characteristic curves'
Current limitation	<5 A
Power Dissipation	1,1 W

Signal output

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

General

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 (EN 60715)
Installation position	Any
Degree of protection	IP20 (only as complete system with supply terminal and end block)
Connection type	Push-In 0.25 mm ² – 2.5 mm ² AWG 24 – AWG 14
Weight/unit	0.07 kg
PU (units)	1

General ambient conditions

Operation temperature range	-25 °C ... +50 °C
Storage temperature range	-40 °C ... +85 °C
Relative air humidity	10 – 95 % RH, brief condensation
Vibration resistance	4 g acc. to EN 60068-2-6
Shock resistance	15 g acc. EN 60068-2-27

Certifications/Standards

Conformity	CE UKCA
Certifications	cULus (E170585) URus (E490188)

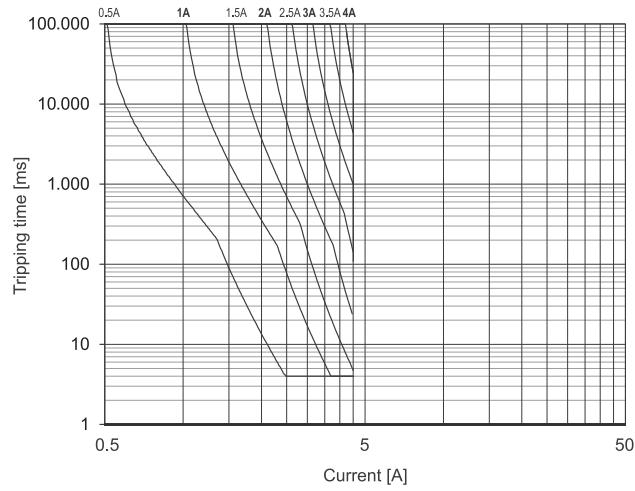
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EN 61000-6-2
EN 61000-6-3
EN 61131-2
UL 61010-1
UL 61010-2-201
UL 2367
DNVGL-CG-0339
Temperature Class C – not certified
Humidity Class B – not certified
Vibration Class B – not certified
EMC Class A – not certified

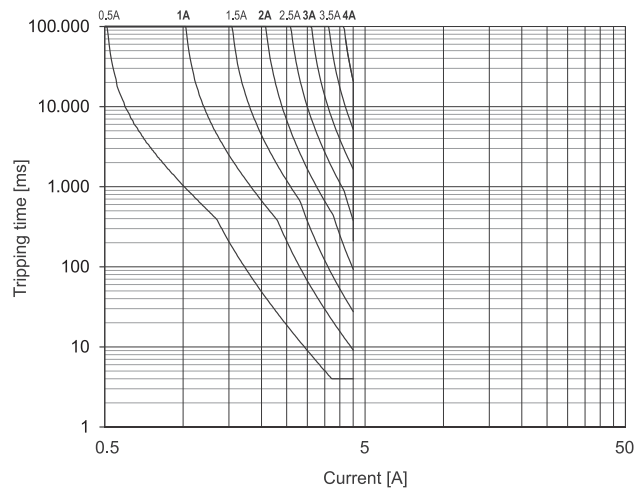
Technical drawing of the front view of the 1P+N+PE 16A 250V 50/60Hz switch. The drawing shows a rectangular switch with a handle on the right side. Dimensions are provided in millimeters: 116 (total width), 110 (width to the start of the handle), 8.1 (height of the top section), 107.4 (total height), 40.9 (height of the bottom section), and 23.4 (height of the bottom section). The handle is labeled 7. The bottom section is labeled 1 x 16A. The handle has a current selector (I) and a characteristic selector (C). The handle also features an LED status display and a push button On / Off. The handle is numbered 1, 2, 3, 4, 5, 6, 7.

1: + Output
2: Control input (Set/Reset)
3: Status output
4: NC
5: 0V
6: + Supply (alternative)
7: + Supply

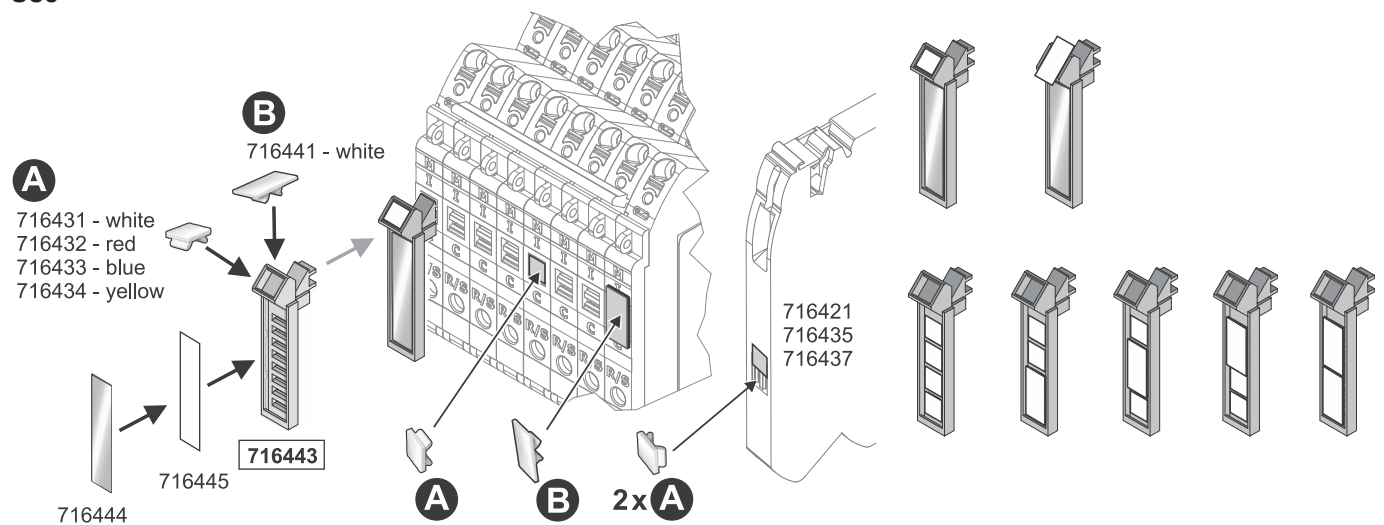
2: Characteristic medium



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. NOTICE: Switching off and on via pushbutton required.
Button ***	ON/OFF	Nominal operation: ON/OFF Load monitoring tripped: 1st push: acknowledge 2nd push: ON
Rotary Switch (I) – Switch Position**	Rated current, see page 4.	
Rotary Switch (C) – Switch Position**	Characteristic: 1: fast 2: middle 3: slow-1 4: slow-2 5: slow-3	

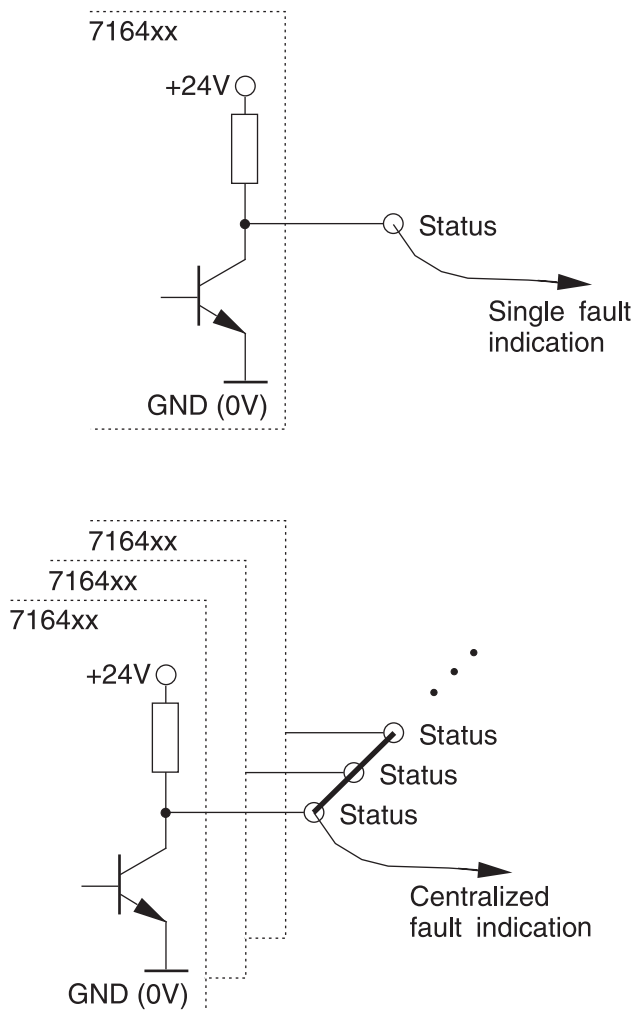
* If the operating voltage is switched off, the last status is saved (Default).

** 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

