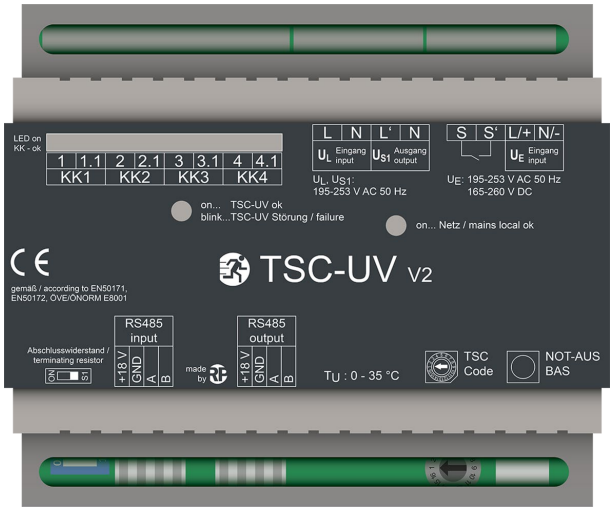
Instructions for use

SubDistributionBox TSC-UV V2



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Carrier rail controller for SubDistributionBox TSC-UV V2

Assembly and Instructions for use

Type of change	
1	New features
2	Bug fixes
3	Other

Revision	Author	Type of changes	Time stamp
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Assembly and Instructions for use

1. Table of content

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2. Introduction

Thank you very much for purchasing the Carrier rail controller for SubDisributionBox TSC-UV V2 (hereinafter reffered to as TSC-UV V2).
This Assembly and Instruction for use documents the assembly and operation of the TSC-UV V2 and helps you to connect the controller quickly.
The Technical Date of TSC UV V2 can be found in chapter 13.

3. General Information

These assembly and operating instructions are intended to the following target group: Qualified electrican according to DIN VDE 0105 and autorised Specialists. It explains the safe and professional handling of the TSC-UV V2. The general safety regulations and local accident prevention instruction applicable to the area of use as well as instructions and safety information must be observed.
These assembly and operating instruction must be read before starting any work with the TSC-UV V2. TSC-UV V2.

3.1 Intend use

The TSC-UV V2 is a control and switching module for sub-distribution boards of multiControl plus safety lighting systems.

WARING!
Risk of injury from dangerous electrical voltage.
Death or serious injury from electric shock possible.
Modul may only be carried out in a voltage-free when state!

3.2 Liability and warrannty

These instructions for use have been compiled with due regard to the regulations in force. Furthermore, all laws, standards and guidelines of the respective country in which the controller operated must be observed. The manufacturer assumes no warranty or liability for damage or consequential damage caused by:

- use not in accordance with the intended use.
- unauthorised or improper modification of the connections, settings or programming of the TSC-UV V2.
- non-compliance with regulations and codes of practice for safe operation.
- use of spare parts other than original

3.3 Disposal

Notice
Environmental pollution from electronic components.
Electronic components must be disposed of in accordance with the laws applicable in the respective country.

Packaging materials are to be reused or recycled.

4. Symbols used in this manual

general information

read assembly and instruction for use

warning of environmental damage

5. Safety

The TSC-UV V2 has been built in accordance with the applicable, recognised rules of technology and is considered to operate safe.
If the TSC-UV V2 is used improperly or not as intended by personnel who have not been properly trained, dangers that may arise. The following should ne observed:

- safety messages in the assembly and instructions for use.
- fixed working and safety instructions of the operator.

Faults that affect the function or safety of the TSC-UV V2 must be reported immediately to the responsible department and removed.
The TSC-UV V2 must be checked according to the instructions given in chapter 7 (Installation) before it is put into operation for the first time.

5.1 Content of the assembly and instruction for use

Every person who works with the controller must have read and understood the assembly and instruction for use before starting work.
This also applies if the person has already worked with such controller or similar controllers or has been trained by the manufacturer.

5.2 Modifications and alterations to the TSC-UV V2

It is forbidden to make changes or extensions that have not been approved by the manufacturer. Modifications or repairs that are not described in the assembly and operating instructions are reserved exclusively for trained specialist and service personnel!

5.3 Responsibility oft he operator

At all times the assembly and instrucions for use must be freely accessible to all persons working on or with the TSC-UV V2. The TSC-UV V2 shall only be operated in a technically perfect and operationally safe condition,

5.4 Requirements fort he personnel

Work with the TSC-UV V2 is reserved exclusively for trained electricians or authorised specialists who must have received instruction on any hazards that may occur.
Skilled personnel are who can assess the work assigned to them and recognise hazards. It must be ensure that tasks and activities have been defined and understood.

6. Conformity to standards

TSC-UV V2 complies with the national and international standards EN50171, EN50172 and ÖVE/ÖSTANDARD E8001 standard.

7. Installation

The safety regulations applicable to the installation and operation of electrical equipment, the generally recognised rules of technology and the rules of good engineering practice must be observed!

8. Assembly

The installation location must comply with the relevant installation standards (e.g. sub-distribution boards). Attention must be paid to impermissible temperatures during operation.

9. Delivery options and scope of delivery

included in the scope of delivery are:

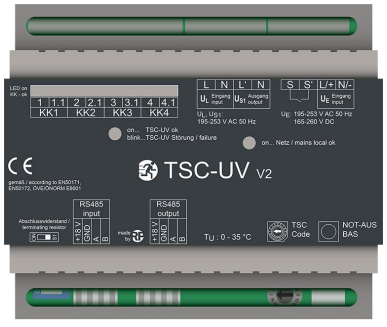

Figure 1: TSC-UV V2

10. Functional description

The TSC-UV V2 contains 4 separate network guard loops (CCIF), which are designated KK1, KK2, KK3 and KK4. non maintainet standby (MB) is triggered when the line of the network guard loop is interrupted or clumped. The operating status is visualised by the corresponding LED "KK-ok" as follows:

• LED „KK-ok“ lights up permanently	network guard loop closed
• LED „KK-ok“ flashes	network guard loop triggered (interruption or fault)

The following must be observed during installation:

- A 10 kΩ terminating resistor must be set.
- The maximum length of the network guard loop must not exceed 500 m.

Voltage drop must be observed.

- cable type J -Y(ST)Y 2x2x0,8mm²
- internal evaluation of the resistance value lies between 5-15kΩ

In the TSC-UV V2, a separate rental power feed (AC local) with integrated network guard is provided. Here, an additional AC feed can be provided by a local general lighting distributor and tenant-related electricity billing can be realised.
Only in the event of emergency operation of the main system (non maintenet standby) by triggering the mains guard loop, battery or test operation or failure of the local general lighting distributor is switched over to the single-discharger feed of the main plant. Switching is done by a contactor switch integrated in the MCUV-E.

The network guard function is visualised via the LED "Mains / mains local ok" as follows:

• LED „network / mains lokal ok“ lights up	Local network ok, power is taken from the local general lighting distributor
• LED „network / mains lokal ok“ of	Local mains outside the limit values, power is taken from the main system

A potential-free relay contact S / S' (NO) is integrated in the TSC-UV V2 for evaluation of the emergency operation (modified standby by triggering the mains monitor loop (battery or test operation).
A separate operating mode selector switch (BAS) is provided as a push-button on the TSC-UV V2 to simplify installation and maintenance work. The BAS can switch off and on the TSC-UV V2 associated circuits of the DIN rail circuit module (TSM) in continuous light, modified standby and battery operation off and on.

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The TSC-UV V2 is connected to the main system via the RS485 BUS. In the event of faults in the communication, all circuits in this sub-distribution are switched to modified standby. Because there is no communication for switching off the circuits, this can be realised via the "EMERGENCY OFF/BAS" button as follows:

• Circuits Off (charging mode)	Press and hold "EMERGENCY STOP/BAS" for 3 seconds until the "TSC-UV" LED flashes quickly – Release the button.
• Circuits On (Ready for use)	„Press and hold "EMERGENCY STOP/BAS" for 3 seconds until the "TSC-UV" LED flashes quickly → Release the button.

After the changeover, the operating mode can be recognised by the "TSC-UV" LED.

• Internal BAS on standby	Lights up permanently (factory setting)
• Internal BAS on charging mode	• Flashes (0.1 s on; 1 s off)

The function is used for load-free backup of the TSM. Even if the circuits are switched off, a function or capacity test, including a preheating time, is possible at any time. The final circuits are only voltage-free when the output fuses are removed from the carrier rail circuit module TSM! Each restart of the system or switching the power supply to the sub-distribution off and on resets the charging operation and switches the circuits back on. After completion of the work, the correct operating mode must be restored.

The replacement of a TSC-UV V2 with a TSC-UV HW 1 is prohibited.

11. Overview of the available LEDs

KK-ok (KK1, KK2, KK3, KK4)	
glow permanently	network guard loop closed
flashes	Network guard loop triggered (Interruption/fault)
TSC-UV ok & TSC-UV failure	
glow permanently dauerhaft	internal operating mode selector switch (BAS) set to ready for operation
flashes (0,1s an/1s aus)	internal operating mode selector switch (BAS) on charging mode
flashes (1/s)	Because there is no communication to main system.
Netz/mains lokal ok	
glow permanently	mains o.k.
does not glow	mains failed

12. Structure and function

12.1 EMERGENCY STOP Button

With the EMERGENCY STOP/BAS push-button, circuits assigned to the TSC-UV V2 can be switched off and on during the operating modes continuous light, modified standby and battery operation.

12.2 Addressing

An address is assigned to the TSC-UV V2 via the rotary coding switch. A maximum of 12 modules are possible. Double address assignment is not permitted.

12.3 Terminating resistor

The terminating resistor must be activated on the last module of the series connection (setting-ON)

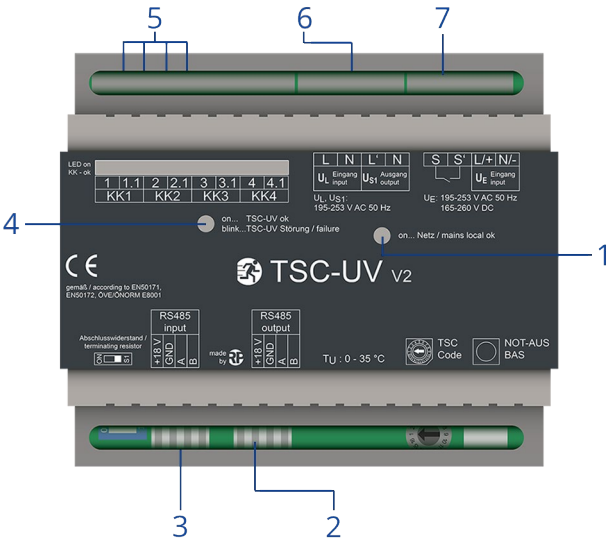

Figure 2: TSC-UV V2

1 LED-Netz/mains lokal o.k.
2 output in sub distribution box for current circuit modules TSM32
3 entrance from main facility
4 satatus LED
5 4xCCIF
6 monitoring AC local
7 power supply main facility

13. Technical data

Housing	
Dimensions (H x B x T)	86x105x60 mm [3,38x4,13x2,36 Inch]
Installation	for vertical DIN rail mounting
Protection class	IP20

Climatic conditions	
Surrounding temperature	0-35 °C [32-95 F]
Installation	Für vertikale Hutschienenmontage
Protection class	IP20

Eletrical Parameters	
ratet voltage	230V +/-10%
Monitored voltage range AC (power control function)	195V – 253V AC
Devise fuse	F2A (THT)
rated frequency	50/60Hz
power loss	
Terminal block	0,5 – 2,5mm² starr

RS485 BUS	
input- / output voltage	18V
polarity	pre-assembled, plug is reverse polarity protected