

# CENTRAL BATTERY

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CONTROL AND MONITORING SYSTEM





# TM CB-A

## CENTRAL BATTERY SYSTEM



- » Power supply of emergency luminaires from one point.
- » Monitoring of circuits, luminaires and grounding status.
- » Modular design for easy expansion.
- » Touch navigation, easy to use interface.
- » Correct configuration makes the system maintenance-free.
- » Building visualisation using the ELVIS program.

### VERSIONS

#### Basic version

only monitoring of circuits

Only the current of the individual circuits is monitored. The system informs the user about the damage occurrence, giving the circuit number on which the failure occurred, e.g. ballast damage, fluorescent lamp burnout.

#### Extended version

monitoring of single luminaires

Each luminaire has a built-in addressable module that monitors the current. Thanks to this, the system can inform the user exactly which luminaire is a problem. Thanks to the use of addressed modules it is possible to flexibly configure the operation mode.

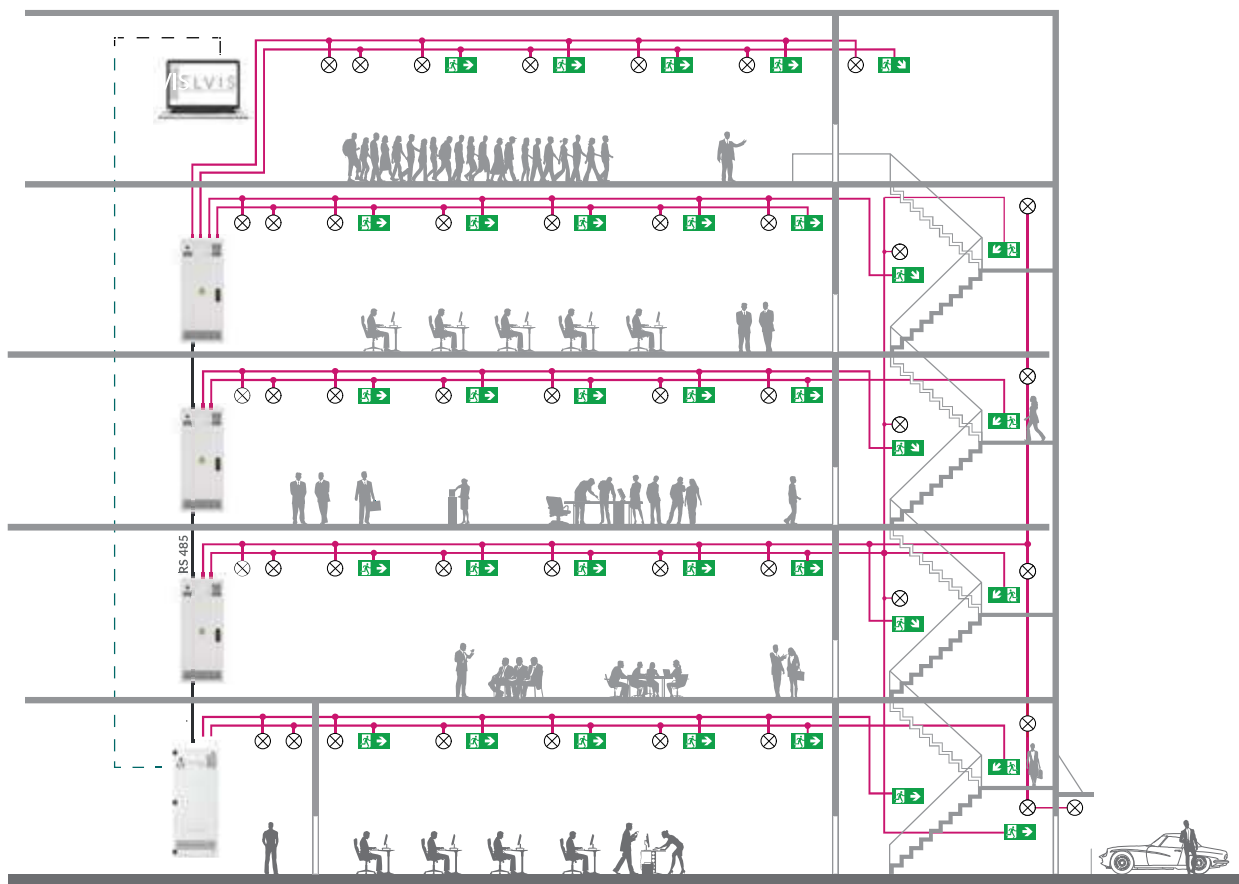
$$20 \times 24 \times 64 = 30720$$

maximum number of emergency  
fittings / circuit

maximum number  
of circuits

maximum number  
of substations (63) + station (1)

maximum number of emergency  
fittings in the system



central station

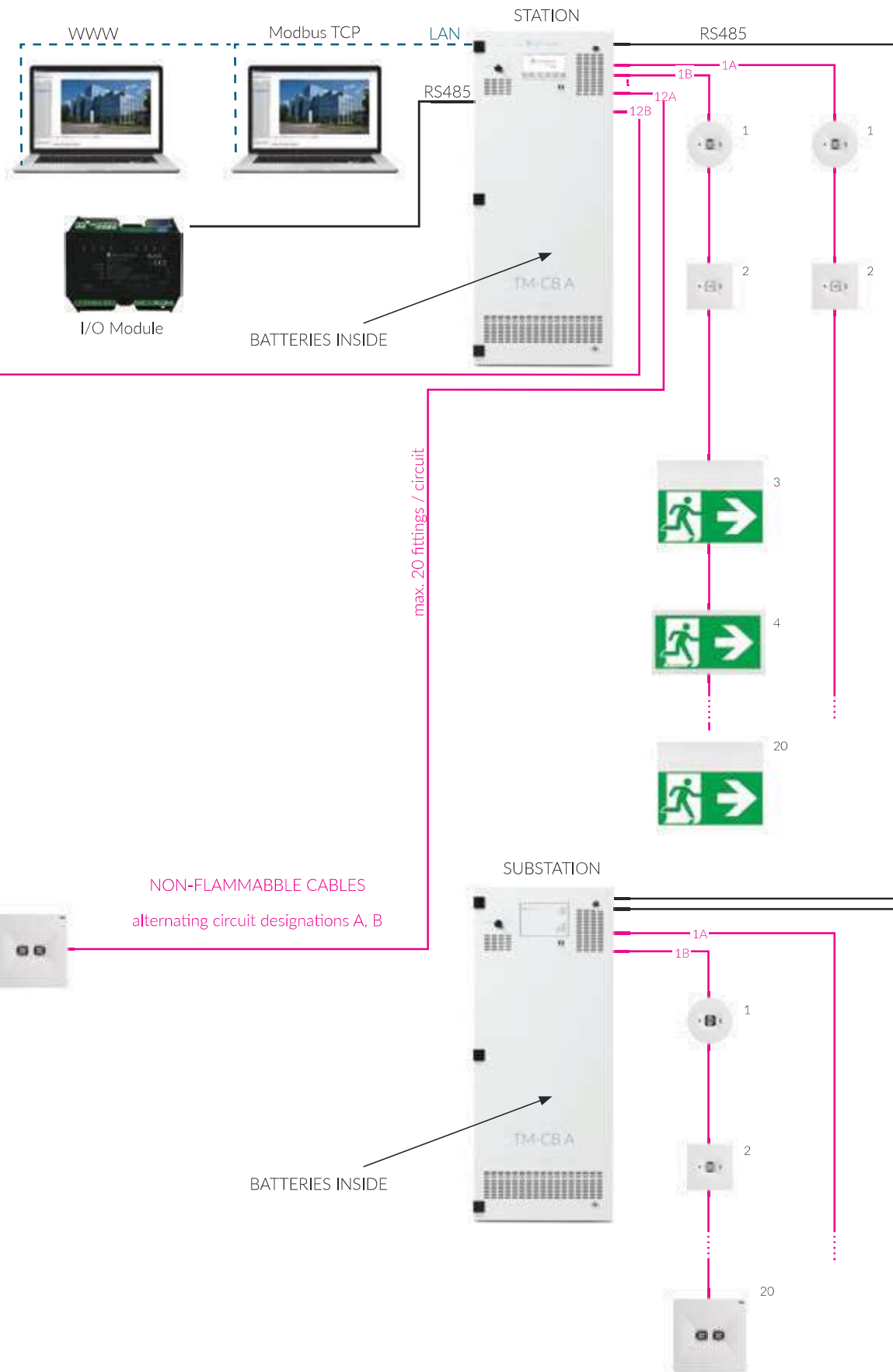


substations



fire-resistant cable





## BASIC SYSTEM PARAMETERS

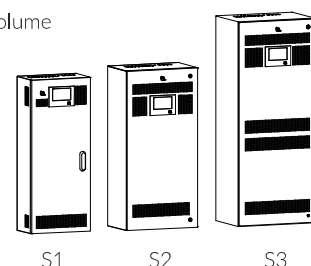
Max. number of emergency fittings / circuit	20
Maximum circuits number	24
Maximum number of stations	1
Maximum number of substations	63
Max. number of emergency fittings in the system	30 720

## HOUSING

Material	RAL 9003 powder coated black steel
Protection degree	IP20
Insulation class	I

## HOSUING DIMENSIONS

Model	Dimensions	Power	Nominal volume
S1	1208 x 501 x 321 mm	≤1560 W	7 Ah
S2	1253 x 601 x 412 mm	≤2330 W	22 Ah
S3	1553 x 646 x 502 mm	≤4280 W	33 Ah



## TM-CB A PARAMETERS

Power supply	230 V AC / 50Hz
Nominal voltage	216 V DC
Batteries	Maintenance-free lead-acid batteries, service life up to 12 years.
Charging	CC/CV
Power	500 VA / circuit (max. 2,5 A)
Circuit operation	AC - mainmode / DC - battery mode
Mode	Flexible programming of individual circuits: mains, out-of-the-box, mixed.

## STATION

The control unit with touch panel. Station monitors the correct operation of emergency lighting devices. It determines their status through automatic function and autonomy tests and by checking the correctness of parameters. With this solution, information on all circuits and fittings installed in the building and connected to the system are readily and promptly available to the user at one location.

## SUBSTATION

It has the same parameters as the station except for one feature - it is not equipped with a touch screen LCD panel. It has 9 diodes indicating the system status and operation correctness. TM-CB A Central Battery System enables connection of up to 63 substations.

## CABLING

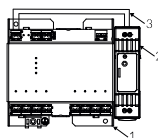
RS 485 port	connection between station/substation with I/O module
RS 485 port	connection between station with substation
LAN	communication with vizualization ELVIS / BMS
cross-section 2,5 mm <sup>2</sup>	AC main supply
cross-section 3 x 1,5 - 2,5 mm <sup>2</sup> , fireproof	AC/DC for luminaires

## I/O MODULE

Device enabling control of emergency lighting groups, dedicated to DATA 2 and TM-CB emergency lighting systems. IN input and OUT output models are available. The DATA 2 and TM-CB system allows the connection of up to 16 I/O modules. The address of each module is set on DiP-switches on their housing. IN SW, IN 24, IN 230 version is used to control the night lighting, fire-emergency lighting groups, fire scenarios and has 8 inputs. The output module (OUT) is used to inform about the system status. It has 8 potential-free outputs.

## VERSIONS

IN SW	potential-free input
IN 24	24 V voltage detection
IN 230	230 V voltage detection
OUT	potential-free output 400 V AC / 250 V DC, max. 6 A
1   TM-I/O	2,4 W
2   DR-15-12, 12 V 15 W	1,2 W
3   CCA 2x0,75 mm	1,2 W



## I/O MODULE MODELS PARAMETERS

Model	Power IN	P <sub>max</sub>	I <sub>max</sub>	IN <sub>1-8</sub> U <sub>max</sub>	K <sub>1-8</sub> U <sub>max</sub>	K <sub>1-8</sub> I <sub>max</sub>	I,II,III
OUT	12 V DC ±10%	2,4 W	170 mA	-	400 V AC / 250 V DC	6 A	⊕
IN SW	12 V DC ±10%	1,2 W	100 mA	-	-	-	⊕
IN 24	12 V DC ±10%	1,2 W	100 mA	30 V DC	-	-	⊕
IN 230	12 V DC ±10%	1,2 W	100 mA	250 V AC	-	-	⊕

## CIRCUIT CONTROLLER

Device that controls the operation of the output circuits. Depending on the operation mode, it switches on the appropriate voltage type, controls monitor fittings, conducts current measurements, switches luminaires to modified mode. One circuit controller supports two output circuits.

## COORDINATOR

Controller of the entire station. Performs all control and monitoring functions. LEDs on the front panel inform about the correct operation of the station in real time. It is responsible for: measurement of battery charging and discharging current, battery voltage, battery symmetry voltage, power supply voltage amplitude, internal system temperature and interaction with the user by displaying system status information.

## CHARGER

The charger continuously monitors charging current, battery voltage and temperature. It is a Plug&Play type device. The device charges by selecting charging voltages depending on the cell temperature. The correct operation of the charger, as well as errors are indicated by means of diodes.

