TKT7Series

The TKT7 series is an efficient and flexible 230 V addressable central battery system with a touch screen user interface.

TEKNOWARE®

Flexible.
Versatile.
Sustainable.

An efficient and flexible addressable central battery system for emergency lighting.

The central battery system in the TKT7 series offers an efficient, high-tech emergency lighting solution for medium to large-sized buildings. You can easily modify the system according to your needs, making the new TKT7 series a truly flexible choice.

The TKT7 series has a bright touch screen and logical user interface, so it is easy to use. It also has automatic luminaire detection, which makes commissioning the luminaires in your system simple and fast. The central battery system is compatible with all of our 230 V addressable luminaires so you can replace an existing system with ease. The TKT7 series is an easy to adapt solution for locations which need different numbers of luminaires.

Easy commissioning
It automatically detects the luminaires in your system. No data cables, no hassle.

Different user levels
You can define different user levels according to usage.

Automatic addressable testing
Set up the system and let the TKT7 take care of the testing.

User-friendly
All models come with a bright touch-screen and logical user interface.

Wide selection
The TKT7 series adapts to various needs.

Selectable output circuits
Parallel connections are possible up to 1400 W.

Future-proof
You can add new features after installation and expand the system according to your needs.

High performance
Maximum power up to 25.2 kW.

Fast backup
Full system CBU configuration backup to USB drive.

Compatible with Tapsa Ctrl
The TKT7 series is compatible with all our 230 V addressable luminaires.

FACTS IN BRIEF

AUTOMATIC TESTING

TOUCH SCREEN

DIFFERENT USER LEVELS

UPGRADEABLE


Teknoware TKT7624CP
Name: SHOWROOM
System status: OK
Administrator: O
Operation status: DC mode
Mains voltage: ON
Battery voltage: 229.9 V
Battery current: 0.0 A
Charging mode: Discharge
Running test: None
External device status: OK
Show Internal Errors ->
HOME
DEVICES
TEST
SETTINGS

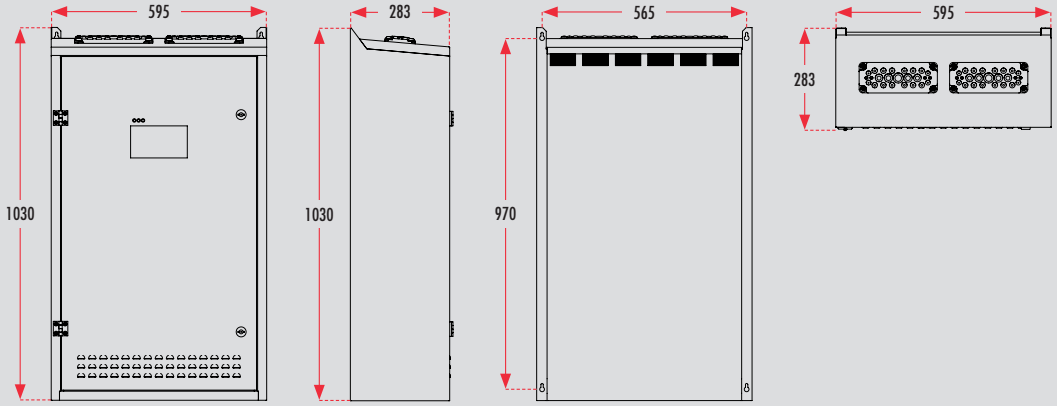

TEKNOWARE
AC DC
OK ERROR
BUTTON
DIP

Product code	Max. input power (mains, VA)	Number of circuits / outputs (VA)	Max. total load, mains operation (VA)	Max. total load, 1 h battery operation (W)	Max. total load, 3 h battery operation (W)	Nominal supply voltage
TKT75 series | Max. battery capacity: 65 Ah						
TKT7504CFP	2515	4 x 350	1400	1400	1400	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7504CP	2515	4 x 350	1400	1400	1400	1~ N/PE 220-240 VAC, 50/60 Hz
TKT7508CFP	3915	8 x 350	2800	2800	2800	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7508CP	3695	8 x 350	2580	2800	2800	1~ N/PE 220-240 VAC, 50/60 Hz
TKT7516CFP	6715	16 x 350	5600	5600	3340	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7516CP	3695	16 x 350	2580	5600	3340	1~ N/PE 220-240 VAC, 50/60 Hz
TKT7524CFP	9515	24 x 350	8400	6000	3340	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7524CP	3695	24 x 350	2580	6000	3340	1~ N/PE 220-240 VAC, 50/60 Hz
TKT76 series | Max. battery capacity: 150 Ah						
TKT7604CFP	4165	4 x 350	1400	1400	1400	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7608CFP	5565	8 x 350	2800	2800	2800	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7616CFP	8365	16 x 350	5600	5600	5600	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7624CFP	11165	24 x 350	8400	8400	7580	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT77 series | Max. battery capacity: 450 Ah						
TKT7724CP	16695	24 x 350	8400	8400	8400	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7732CP	19510	32 x 350	11200	11200	11200	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7740CP	22310	40 x 350	14000	14000	14000	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7748CP	25110	48 x 350	16800	16800	16800	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7756CP	27910	56 x 350	19600	19600	19600	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7764CP	30710	64 x 350	22400	22400	22400	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7772CP	33510	72 x 350	25200	25200	22740	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT78 series | Max. battery capacity: 65 Ah | Integrated battery cabinet included						
TKT7804CFP	2515	4 x 350	1400	1400	1400	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7804CP	2515	4 x 350	1400	1400	1400	1~ N/PE 220-240 VAC, 50/60 Hz
TKT7808CFP	3915	8 x 350	2800	2800	2800	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7808CP	3695	8 x 350	2580	2800	2800	1~ N/PE 220-240 VAC, 50/60 Hz
TKT7816CFP	6715	16 x 350	5600	5600	3340	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7816CP	3695	16 x 350	2580	5600	3340	1~ N/PE 220-240 VAC, 50/60 Hz
TKT7824CFP	9515	24 x 350	8400	6000	3340	3~ N/PE 220-240/380-415 VAC, 50/60 Hz
TKT7824CP	3695	24 x 350	2580	6000	3340	1~ N/PE 220-240 VAC, 50/60 Hz

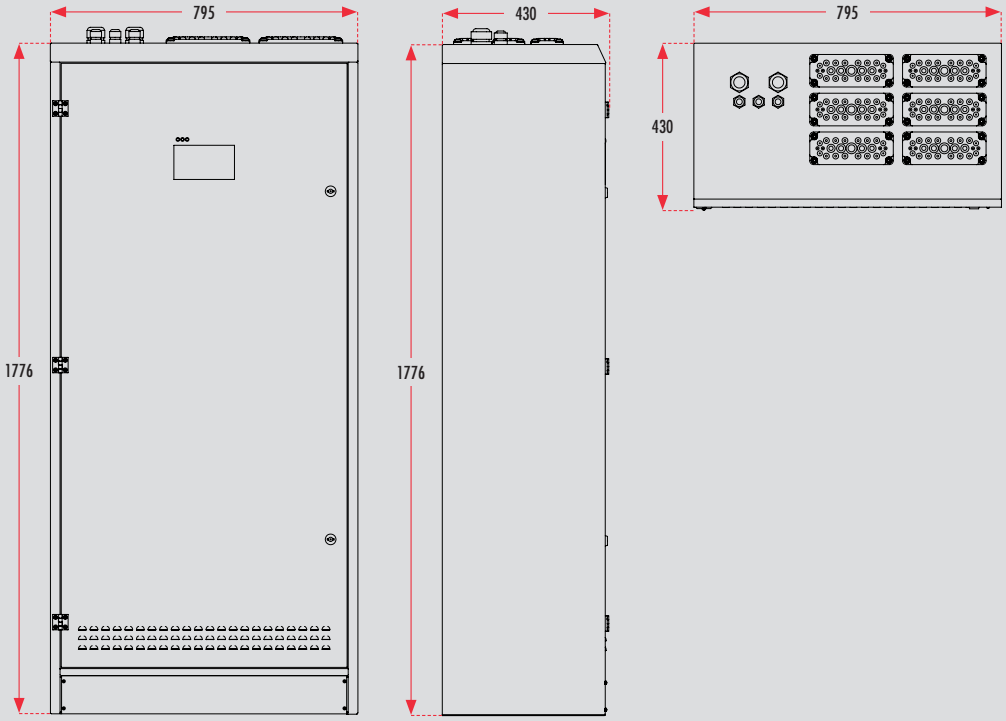
| **Output voltage:** 230 VAC/DC | **Batteries:** 18 x 12 V (216 V) | Required short circuit current, when using 2.5 A fuse, applying 0.4 s tripping time: 10 A | 4 x 350 VA, 2 x 700 VA or 1 x 1400 VA parallel connections are possible | **Max load inrush current:** 350 W circuit (1 circuit): 120 A/1 ms | 700 W circuit (2 circuits parallel): 250 A/1 ms | 1400 W circuit (4 circuits parellel): 300 A/1 ms

Dimensions [mm]

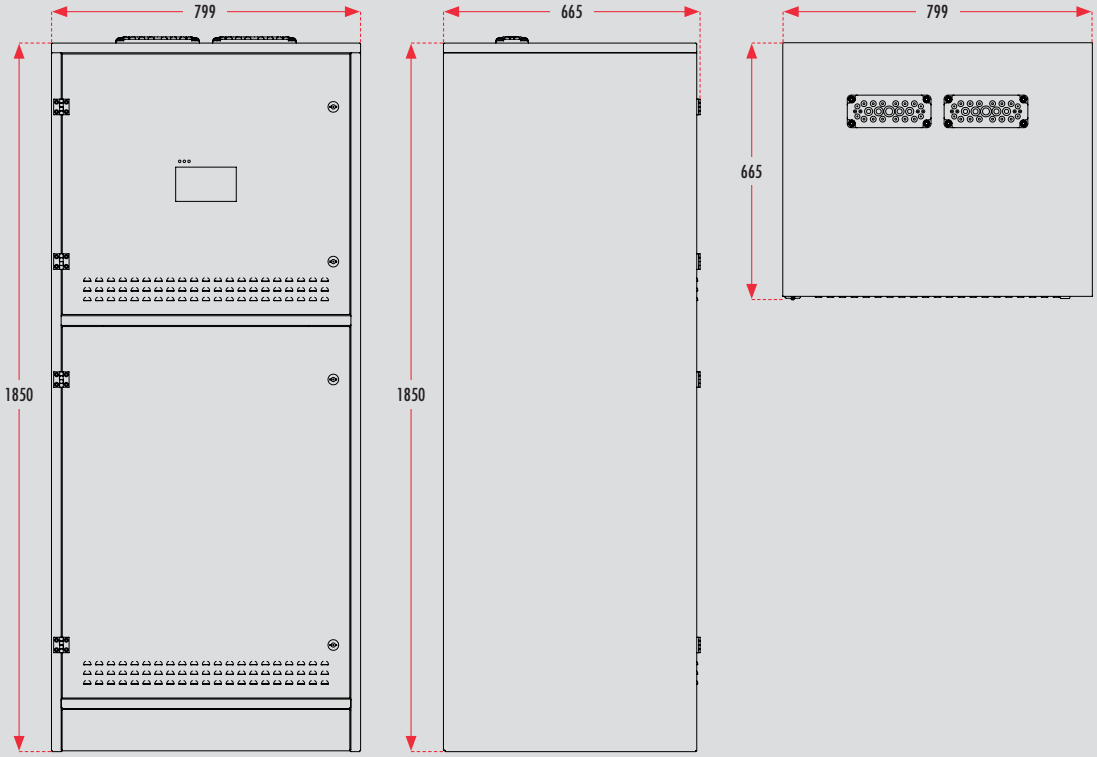
TKT75xx
TKT76xx



TKT77xx



TKT78xx



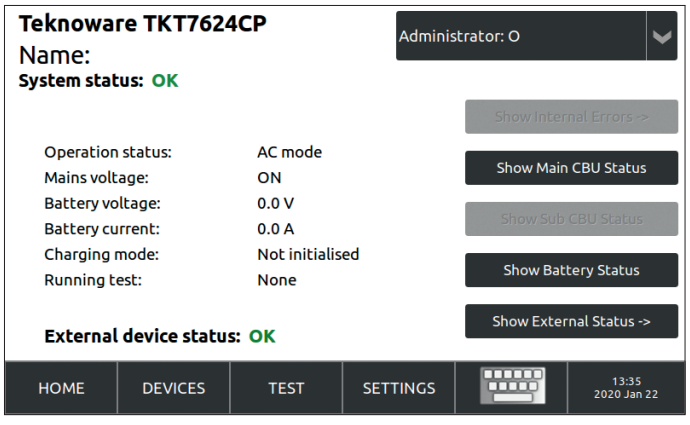
Functionality

In a normal situation, the central battery unit operates using a 230 V AC mains voltage, maintaining the battery charge level and supplying a voltage of 230 VAC to the output circuits. If the mains voltage is interrupted, the central battery unit switches to battery use. This connects a voltage of 216 VDC to the output circuits. The battery supply will be used as long as the mains voltage remains unavailable or until the battery voltage has dropped to the deep discharge limit.

Main View

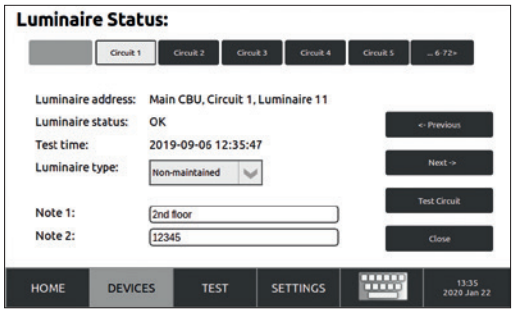
In addition to the standard functions mentioned above, the TKT7 series also includes monitoring, testing and reporting functions. You can access all features using the touch screen user interface.

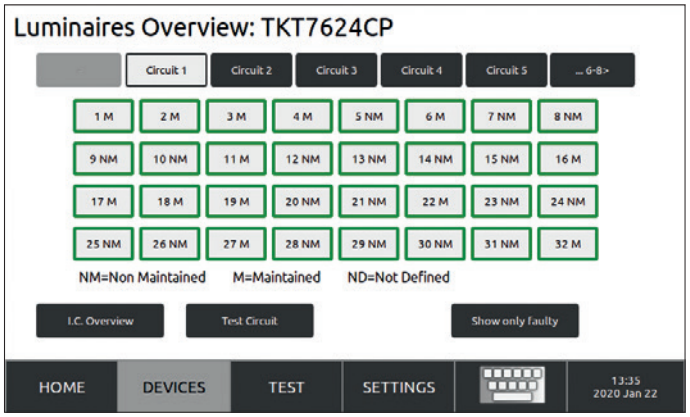
You can see the system status at a glance without signing in. You can access other functions, according to your user level, after you have signed in.



Luminaires Overview

You can see at a glance how the luminaires are working: Green indicates that everything is working correctly; Red indicates luminaires that have reported an error. To see further information about an error, simply tap a luminaire that is marked red.

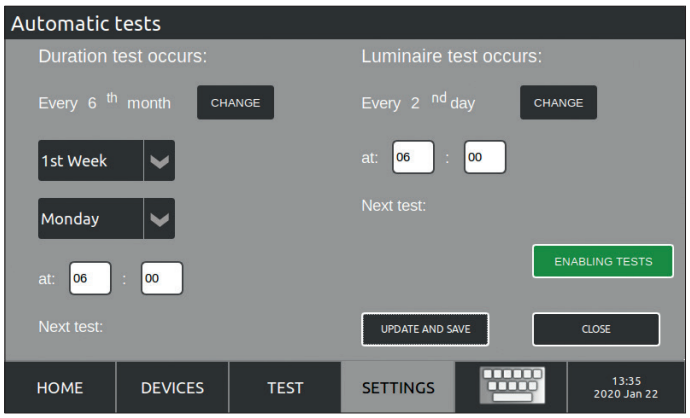


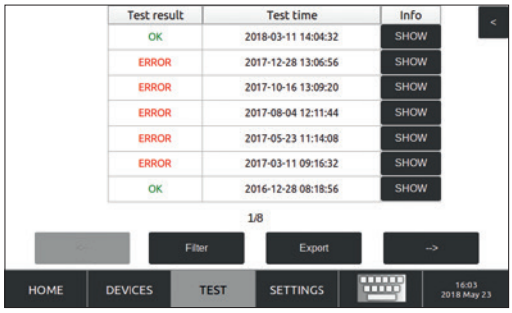


Automatic tests

The TKT7 series takes care of testing luminaires automatically, as well as monitoring their operation and indicating the addresses of faulty luminaires. Battery testing is also automated.

You can define when the automatic tests are carried out. You can set the time intervals between duration tests and between luminaire tests, as well as setting the time of day the tests are carried out.





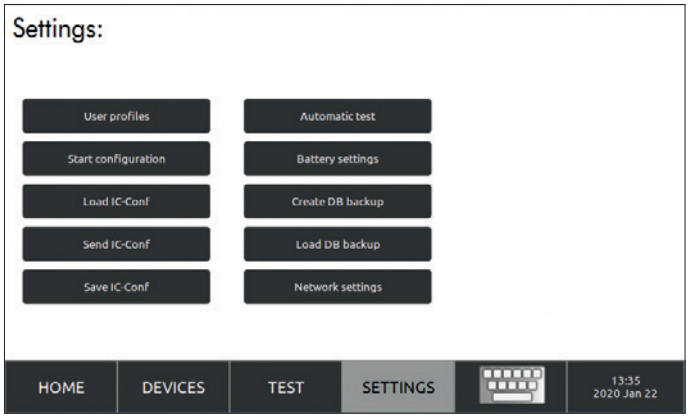
You can check the log of previous luminaire tests. This includes a list of errors and further details about each test.

Settings

The TKT7 series allows you to define your settings according to your needs. You can, for example, define different user levels according to usage.

Commissioning the central battery system is easy because it automatically detects and adds luminaires to the system. You can also create a backup of the CBU database on a USB drive. The database contains all settings, including user-profiles and circuit and luminaire data. If needed, you can load a previously saved CBU backup database from a USB drive.

The TKT7 series also contains the network settings used for direct connection, WebACM and ACM connections, and MyTeknoware connections.

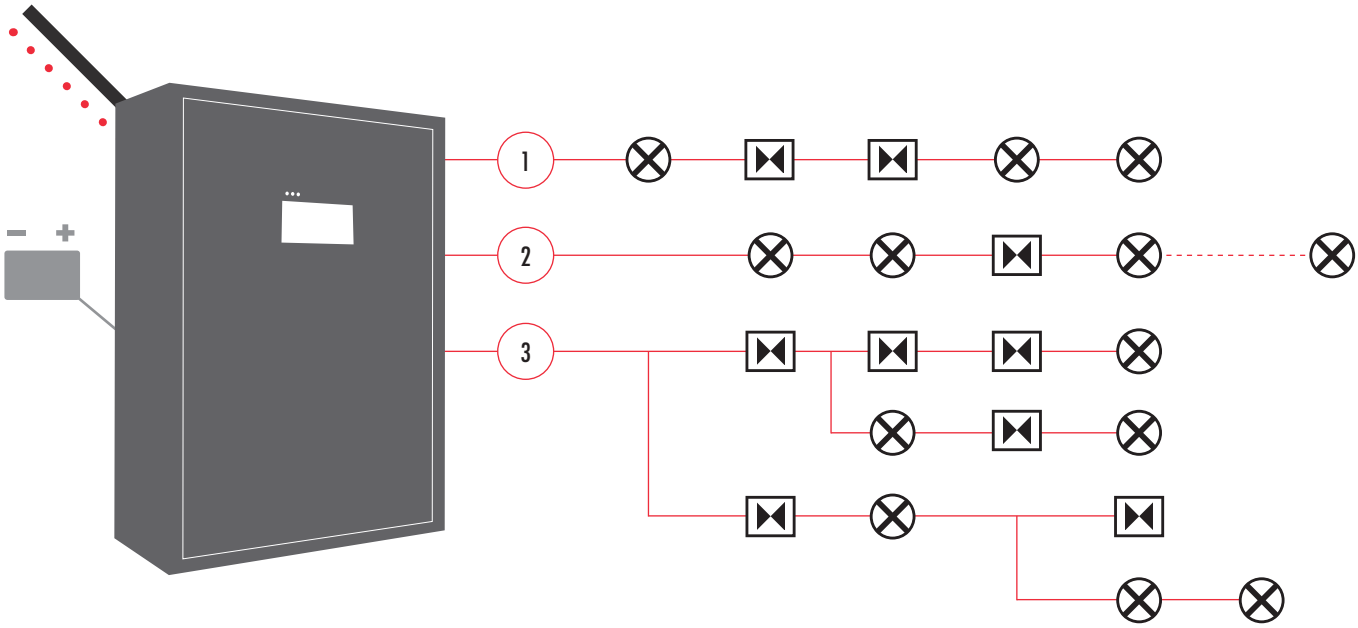


Addressable Central Battery System

TapsaCtrl

The backup power source for the emergency and emergency exit lights is provided centrally in the central battery system for the emergency lighting. This allows the entire emergency lighting system to be monitored centrally in several ways. Central monitoring of the addressable emergency and exit lights makes it possible to control each lighting circuit and luminaire individually.

All of our addressable central battery systems are made with Tapsa Ctrl (Tapsa Control). This is the brand name of our addressable monitoring system. The data between the Tapsa Ctrl central unit and the luminaires connected to it is transferred via the power supply wires for the luminaires. No separate data cabling is required. The central battery system in the TKT7 series can also be connected, via an interface, into building management systems.



1 Emergency luminaires and exit luminaires in the same circuit
2 Up to 32 luminaires in the same circuit (please note local restrictions)
3 Free circuit arrangement

Central battery unit · Battery cabinet · Mains supply · Central monitoring · Non-maintained luminaire · Maintained exit luminaire

Highlights

- The system is self-learning, with the possibility for automatic configuration during commissioning.
- Automatic monitoring of individual luminaires and luminaire circuits, as well as battery condition.
- Automatic luminaire testing at a set intervals.
- Automatic battery duration testing at set intervals.
- Up to 32 luminaires can be included in the same circuit (please note local restrictions).
- According to the standards EN 50171 and EN 62034.

Benefits

Clear savings with automatic monitoring

Individual control of each luminaire

Automatic testing and reporting

No separate data cabling for luminaires

Flexibility with External Modules

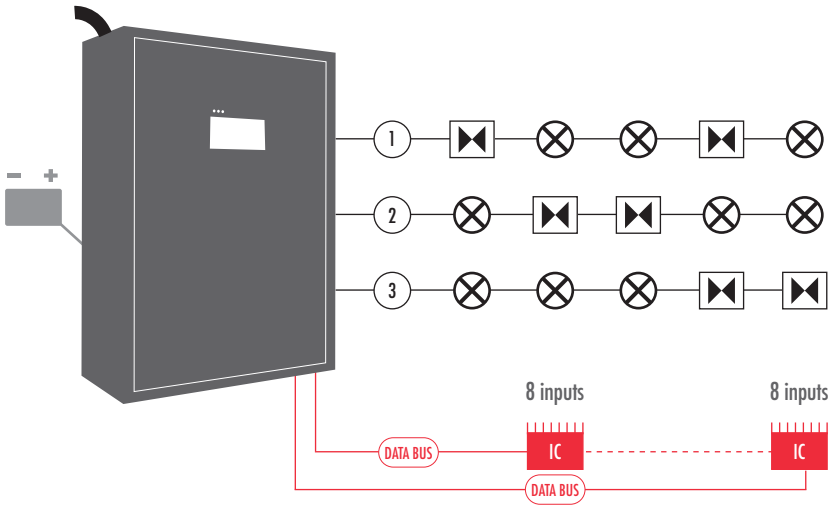
With the TKT7 series, you can implement a fully controllable emergency lighting system throughout the whole building. You can also utilize monitoring data from various sources using our external modules.* This enables you to adapt your emergency lighting system to various requirements.

*The external modules **are optional.**

Intelligent Controller

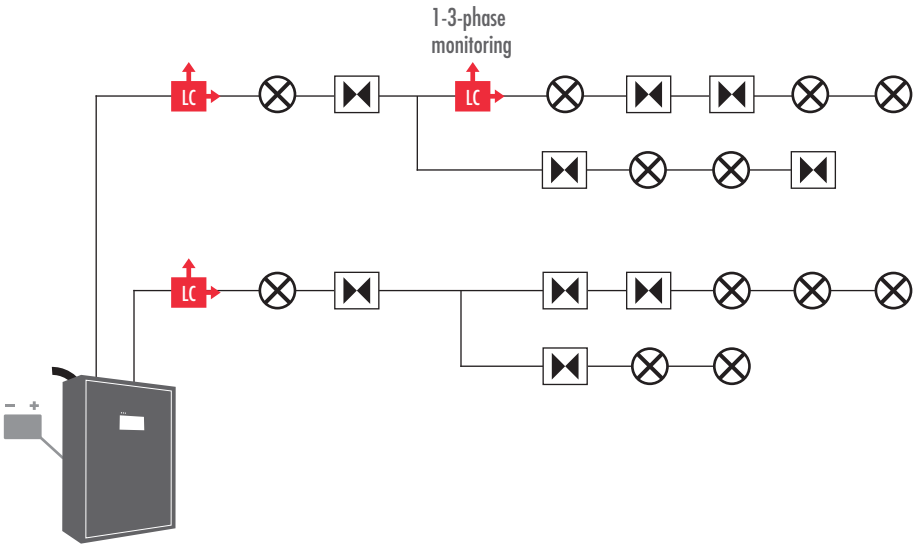
Our Intelligent Controller (IC) enables non-maintained emergency lights to be controlled with the help of freely configurable voltage inputs. You can specify which emergency luminaires switch on using AC voltage when the voltage from one or more local distribution boards drops out. With the help of the Intelligent Controller, you can use emergency lights as normal luminaires, and control them with switches or sensors.

The Intelligent Controller requires an optional IC interface for the TKT7 series.



Local Controller

The Local Controller enables the local control of emergency lights in the central battery system. It monitors the local power supply and controls all the luminaires connected to its output. The Local Controller ensures that the emergency lights are switched on if the power supply of the normal lighting fails. Both maintained and non-maintained emergency lights can be connected to the same circuit. This eliminates separate cabling for maintained and non-maintained lights.



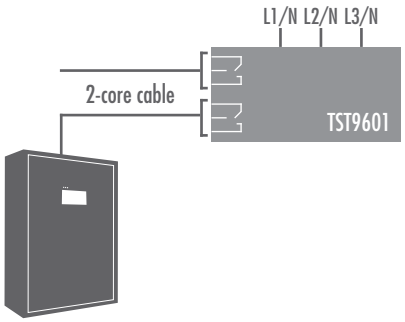
Central battery unit | Battery cabinet | Mains supply | LC Local Controller | Non-maintained luminaire | Maintained exit luminaire

 *The external modules **are optional.**

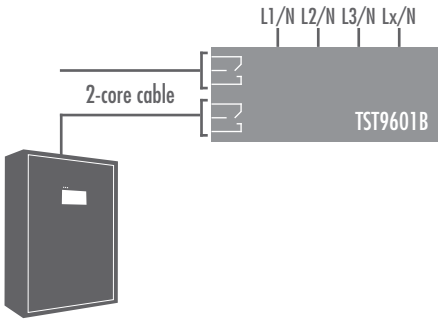
Phase Controller

The Phase Controller makes it possible to monitor one to four phases on the local distribution board. It has two potential-free contact relays, which are activated if one or more controlled phases drop out or are missing. The relay outputs can be connected in NO or NC, and it is possible to control other devices with them. You can connect the relay outputs to the CBU (central battery unit) inputs, to switch emergency lights on.

TST9601



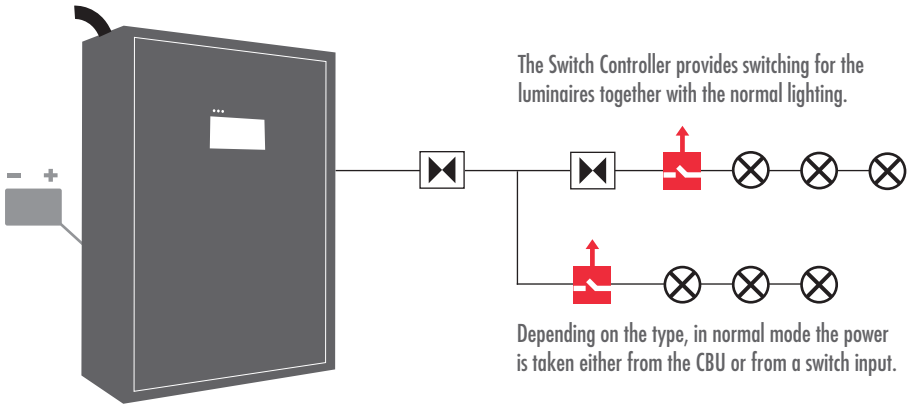
TST9601B



Switch Controller

In normal mode, you can operate the emergency lights in the central battery system with the Switch Controller using a light switch. When the system switches to emergency mode, the state of the Switch Controller does not effect the luminaires – the luminaires will be switched on automatically, regardless of the position of the light switch.

The Switch Controller can also be used together with the Local Controller.



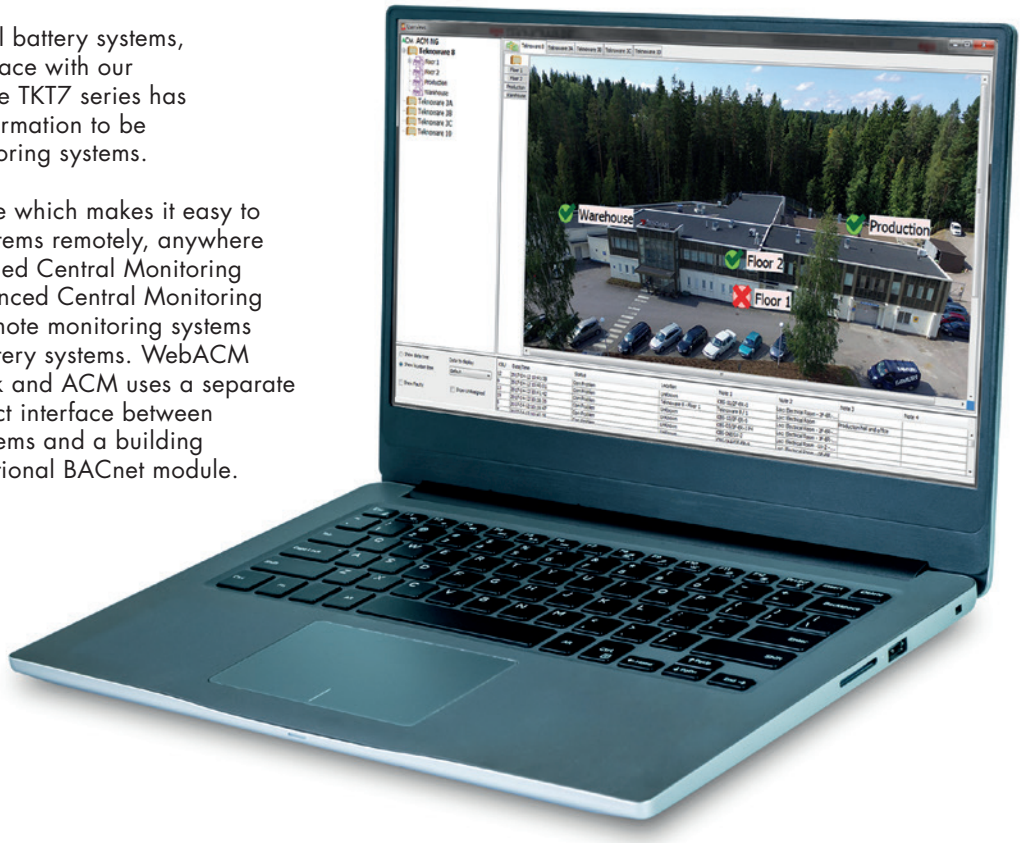
Central battery unit | Battery cabinet | Mains supply | Switch Controller | Non-maintained luminaire | Maintained exit luminaire

*The external modules **are optional.**

Easy Monitoring with Central Monitoring Solutions

When you have multiple central battery systems, you can monitor them in one place with our central monitoring solutions. The TKT7 series has an interface which enables information to be transferred to our central monitoring systems.

MyTeknoware is a cloud service which makes it easy to monitor emergency lighting systems remotely, anywhere and anytime. Our Web Advanced Central Monitoring software (WebACM) and Advanced Central Monitoring (ACM) are both centralized remote monitoring systems for our addressable central battery systems. WebACM connects to an Ethernet network and ACM uses a separate network. You can create a direct interface between TKT7 series central battery systems and a building automation system using an optional BACnet module.

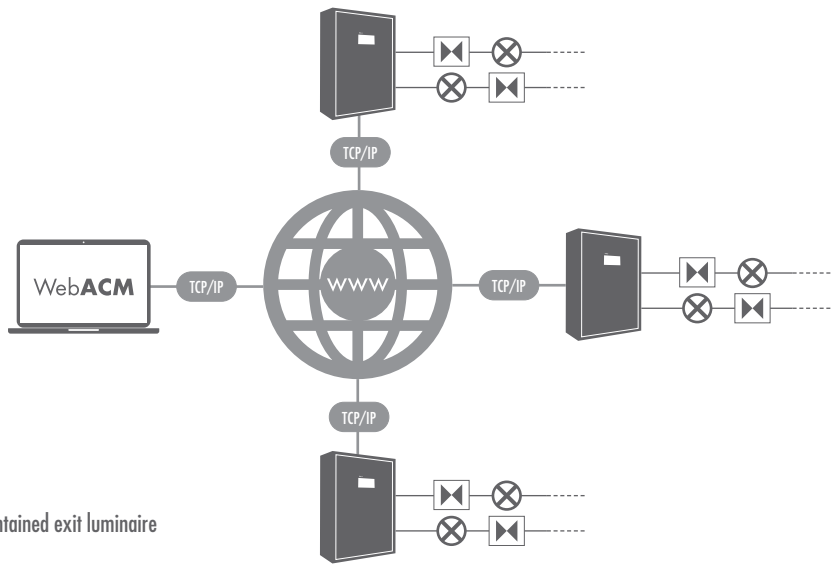


Web Advanced Central Monitoring (WebACM)

Web Advanced Central Monitoring software (WebACM) is a centralized remote monitoring system, which connects to an Ethernet network, for our addressable central battery systems.

WebACM allows you to monitor up to 150 central battery systems at the same time. WebACM enables luminaires and central battery systems to be placed on a building's layout drawings. The software also provides information about faulty luminaries, executed tests, faults, and so on. The test history from the system is automatically saved to a log file.

WebACM needs Java supported software and a PC with an internet connection. In fault situations, WebACM sends a notification automatically to email addresses specified by the user. You can connect WebACM to a building automation system using the optional BACnet module.



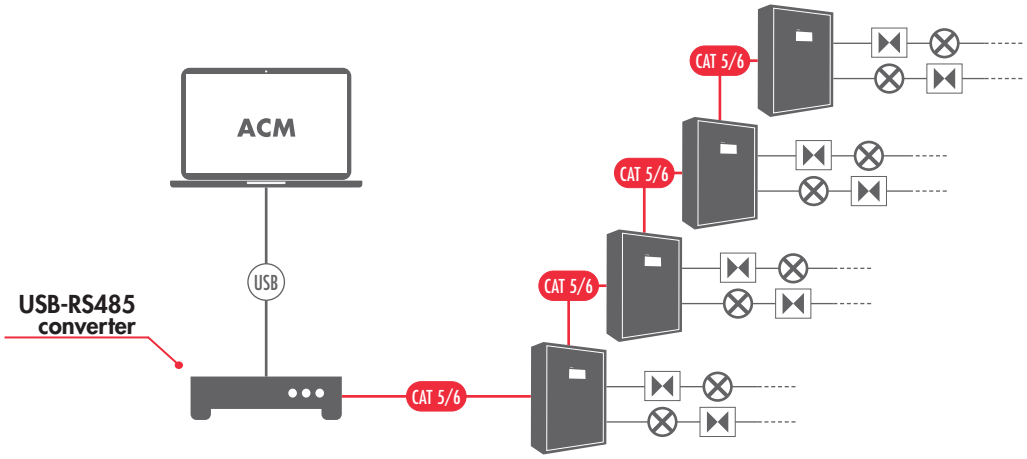
 *The central monitoring products **are optional**.

Advanced Central Monitoring (ACM)

Advanced Central Monitoring (ACM) is a centralized remote monitoring system, which uses a separate network, for our addressable central battery systems. Thanks to the RS485 protocol, you can control the central battery system from up to one kilometre away with your computer.

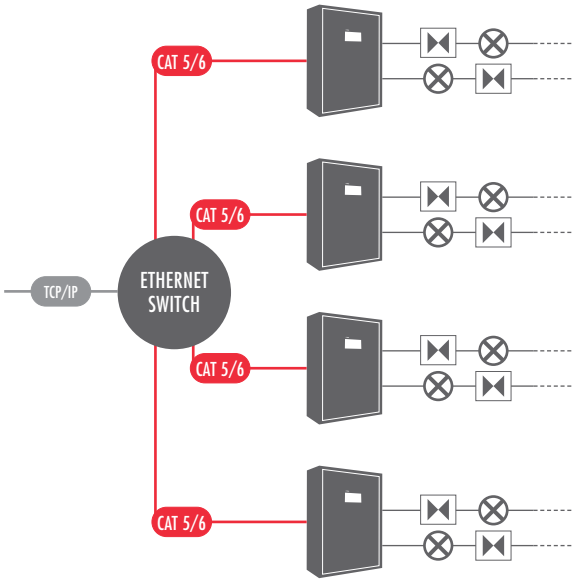
ACM allows you to monitor up to 150 central battery systems at the same time. ACM enables luminaires and central battery systems to be placed on a building's layout drawings. The software also provides information about faulty luminaries, executed tests, faults, and so on. The test history from the system is automatically saved to a log file.

ACM needs Java supported software and a PC with an internet connection. In fault situations, ACM sends a notification automatically to email addresses specified by the user. You can connect ACM to a building automation system using the optional BACnet module.



BACnet Integration

You can create a direct interface from a TKT7 series central battery system to a building automation system with an optional BACnet module. The BACnet integration provides access to all the data in the central battery system, which is imported as BACnet objects. Teknoware's interface is the BACnet module, which transmits the BACnet objects from the central battery system and the luminaires. Battery and luminaire tests can also be initiated in this way.



Central battery unit Non-maintained luminaire Maintained exit luminaire

*The central monitoring products **are optional**.

MyTeknoware Cloud Service

MyTeknoware is a cloud-based portal that makes it easy to monitor emergency lighting systems remotely. You can see the status of all your emergency lighting systems in real-time, at one glance, no matter how many you have or how large your emergency lighting systems are. You can also subscribe to your portal to receive email summaries and alerts from the system.

MyTeknoware is quickly deployable, and it doesn't require any preliminary investment. Just connect it to your Teknoware emergency lighting system. MyTeknoware will then collect data from all your locations and display them in an easy-to-use interface. You can monitor and control everything on your mobile or computer, in any browser.

Benefits

Fast and easy
Monitor your emergency lighting systems anytime, anywhere. MyTeknoware works on all browsers and devices, and it's easy to use. You can add users according to your needs for free.

Cost-saving
It's a cost-effective solution because you can check all your emergency lighting systems, anywhere, without travelling to the site. No preliminary investments needed.

Secure
MyTeknoware is a cloud-based portal, which is powered by Amazon (AWS), so you don't need a local database. It uses SSL-certified access for secure communication through your browser.

 *The central monitoring products **are optional**.

Connect and control
See at a glance how your emergency lighting systems are working in different locations, in real-time. MyTeknoware tells you the name of the location, the name of the customer and the exact address. Moreover, you can manage and plan maintenance operations using the task list for each site.

Receive email summaries and alerts
Our emergency lights are programmed to test themselves regularly. If a light detects a problem, it will inform the central monitoring system. The system records all information about the test in a log file. By subscribing to your portal, you'll receive email summaries and alerts from the system, including notifications telling you when you need to log in to MyTeknoware.

Meet regulatory requirements
The emergency light equipment maintenance program and the log must be presented to the rescue authorities for control purposes on request. You can export the reports quickly, making it easy to present them to the authorities when required.

Features

- Control your emergency lighting systems through one portal.
- Check the luminaire's type, status, condition and location.
- Gather information, error logs and test results.
- See automatic status reports.
- Arrange luminaires by groups, such as by floor or other area, or by building or site.
- Set prohibited times for testing.
- Manage maintenance operations through the task list.
- Manage customer and user information.
- Export documents and task lists.
- Subscribe and receive email summaries and alerts.

*The central monitoring products **are optional**.

Separate Address Modules

The TKT7 central battery system is compatible with all of our 230 V addressable luminaires. The data between the central unit and the luminaires connected to it is transferred via the power supply cabling for the luminaires. No separate data cabling is required. If you want to connect other luminaires to the central battery system, you will need separate address modules.

TS9825x and TS9826x Address Modules

These address modules are connected to the circuit cabling and luminaire ballast.

TS98253

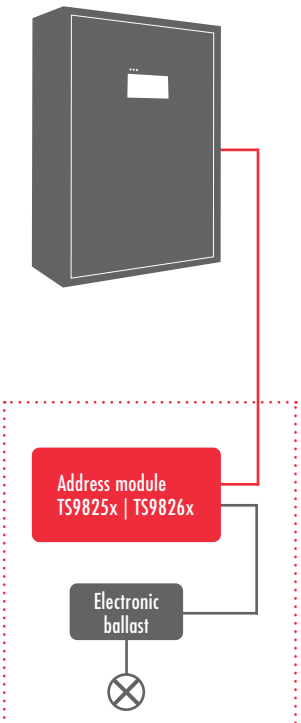
TS98253B

TS98254

TS98263

TS98263B

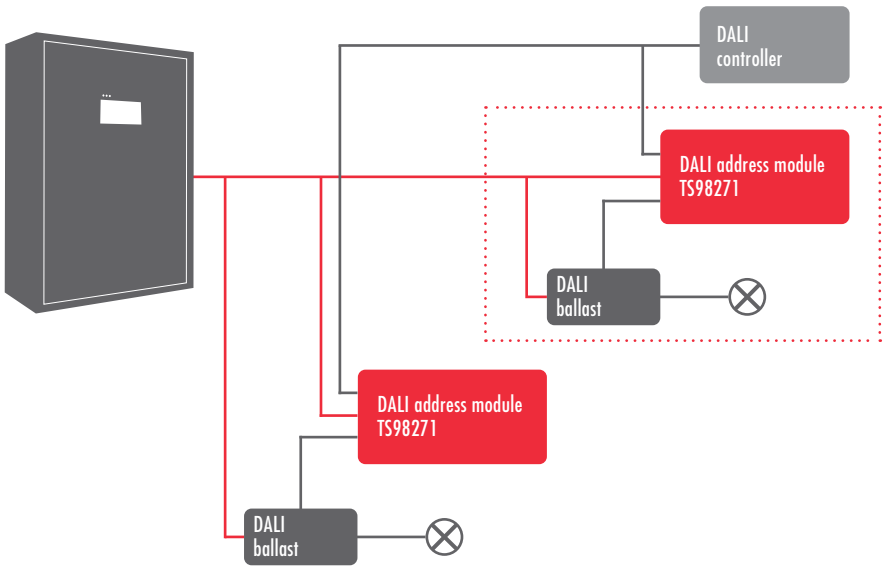
TS98255



TS98271 Address Module

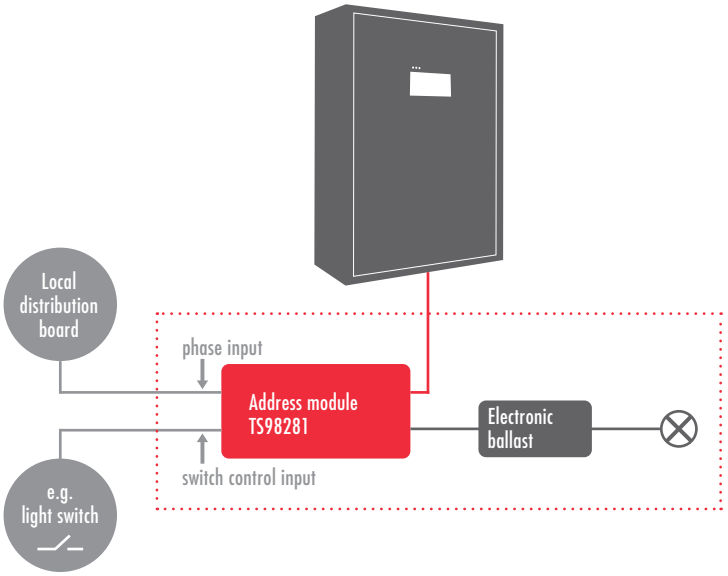
The DALI address module is connected to the circuit cable, DALI ballast and DALI controller. The TS98271 is a DALI compatible address module connected to the luminaire. It simulates the function of the DALI controller.

In the emergency mode, the luminous output can be adjusted manually from 10-100%.



TS98281 Address Module

The TS98281 is an addressable module, with switch and supply monitoring input. The function is similar to that of the Local Controller and Switch Controller. The address module is used with one luminaire and with one controlled phase.



Product code	Standby power	Max. load	Current limit for fault detection	Output voltage	Operation mode	Compatibility	Dimensions (mm)
TS98263	1 VA / 1 W	60 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Intelligent Controller • Local Controller	98 x 41 x 21
TS98263B	1 VA / 1 W	60 VA	5±2,5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Intelligent Controller • Local Controller	98 x 41 x 21
TS98253	1 VA / 1 W	100 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Intelligent Controller • Local Controller	98 x 41 x 21
TS98253B	1 VA / 1 W	100 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Intelligent Controller • Local Controller • Slim model	142 x 30 x 25
TS98254	1 VA / 1 W	200 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Intelligent Controller • Local Controller	150 x 44 x 32
TS98271	2 VA / 2 W	N/A	N/A	N/A	N/A	• Dimming in emergency mode • DALI • Intelligent Controller	150 x 43 x 32
TS98281	1.5 VA / 1.5 W	200 VA	10±5 mA	220-240 V, 50/60 Hz AC, DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Phase input • Switch input • Intelligent Controller • Local Controller	150 x 43 x 32
TS98255	2 VA / 2 W	625 VA	400 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Local Controller	150 x 44 x 32

NOTE! The compatibility of DALI with the ballast is dependent upon different manufacturers and products: always ensure compatibility.

Batteries (18 x TEAxx / xxAh)

Product code	Battery capacity (Ah)	Max total load, 1 h operation time (W)	Max total load, 3 h operation time (W)	Battery cabinet	Battery cable	Dimensions of the battery (mm)	Weight of the battery (kg)
TEA020	6.5	870	350	TK6500B(P)	XJ997B	151 x 65 x 102	2.5
TEA021	15	1700	770	TK6500B(P)	XJ997B	183 x 79 x 169	5.7
TEA022	24	2720	1250	TK6500B(P) x 2	XJ997C	167 x 177 x 126	7.9
TEA023	38	4550	2050	TK6500B(P) x 2	XJ997C	199 x 167 x 172	12.2
TEA024	65	7500	3340	TK6500(P) x 3	XJ997E	350 x 169 x 180	19.2
TEA024B	100	11780	5050	–	XJ997E	305 x 168 x 228	30.8
TEA024D	150	17670	7580	–	–	485 x 172 x 240	47
TEA024C	200	23300	10010	–	–	522 x 238 x 240	65
2 x TEA024D	300 (2 x 150)	25500	15160	–	–		
2 x TEA024C	400 (2 x 200)		19600	–	–		
3 x TEA024D	450 (3 x 150)		22740	–	–		

| A 10% reserve is recommended for the loads (W) mentioned in the table

Battery cabinets

Product code	Battery capacity (V/Ah)	Protection rating (IP)	Weight (kg)
TK6500B	18 x 12 / 15	20	14.0
TK6500BP	18 x 12 / 15	34	19.0
TKT6500	6 x 12 / 100	20	28.0
TKT6500P	6 x 12 / 100	34	35.0

Battery cables

Product code	Length of the battery cable (m)	For
XJ997B	1.5	6.5 Ah batteries
XJ997	1.5	≥ 15 Ah batteries
XJ997C	2.5	Two battery cabinets
XJ997E	3.5	Three battery cabinets

Optional features

Product code	Product description	For
TST7750	IC-interface	TKT7 series
TSTxxx	Output connector kit	TKT7 series

Central monitoring options

Product code	Product description	For
TWC1000	MyTeknoware licence	TKT7 series
TST5161	WebACM software	TKT7 series
TST5131	ACM software	TKT7 series
TST7701	BACnet interface	TKT7 series

LET THERE BE CONFIDENCE.

People tend to take the presence of light for granted. We take it seriously. By creating the perfect solutions for our customers' needs, we offer solutions that increase the comfort, functionality and safety of their applications. Our passion is to design and manufacture interior and lighting solutions for public transportation vehicles and emergency lighting systems for buildings and cruise ships.

Our roots are in Finland, where our head office and largest production facilities are located. We also have production units in the UK, Malaysia, Poland and the USA, and we employ about 600 experts in eight different countries. Our global sales network serves our customers in more than 30 countries.

Teknoware is part of the Teknopower Group.

Teknoware – Made in Finland.

Teknoware | P.O. Box 19, FI-15101 Lahti | Ilmarisentie 8, FI-15200 Lahti
Tel: +358 3 883 020 | emexit@teknoware.com | teknoware.com

TEKNOWARE®