

1. Basic safety information

WARNING

Danger of death through electric shock or fire!
Installation should only be carried out by a qualified electrician!

- The device is designed for installation on DIN top hat rails (in accordance with IEC 60715)
- It complies with product standard EN 60669-2-1
- > Do not operate the device outside the specified technical data

The device must be installed in an enclosed switchgear cabinet made of metal or an appropriate fire-resistant material!

After proper installation, the housing component under the cover must not be accessible!

2. Proper use

Control box TC 649 C is an annual time switch with astronomical function, which can be controlled and updated via Theben Cloud and managed centrally from a computer and a smartphone. The control box is used for lighting and ventilation.

Do not use on safety devices, e.g. escape route doors, fire safety equipment, etc.

Disposal

 For an environmentally appropriate disposal, send the device back to the owner

3. Installation and connection

Installing TC 649 C



Connecting TC 649 C

Connecting the power supply

- > Strip cable to 8 mm (max. 9 mm)
- ► Insert the line into the terminal and fasten it
- > Plug terminal into power supply socket
- ► Connect to power supply
 - → During the start of the operating system, all LEDs are flashing. After approx. 150 s the start process is completed and the power LED (PWR/TLS) flashes.

Wiring diagram



 $\textcircled{\sc 0}$ Switch the load with a contactor.

If a load is switched directly, secure the device with a circuit breaker of 6 A.

4. Device description

Connections





Voltage



The performance specifications can be found on the side and on the device shoulder (see picture). After installation they are not visible any more!

LEDs

Status messages are indicated by four LEDs.



Label	Description	
Web server	Web server started	
Time	Connection to NTP server	
Relay	at least 1 relay connected	
PWR/TLS	Power and TLS	

5. Start-up

For the professional electrician/network administrator

① By default, the network interface is set to DHCP.

- Tor configuration with a static IP address, see <u>https://www.theben.de/tc-649-en/</u>
- Connect TC 649 C with the local network at LAN interface "Ethernet".
- > Connect voltage.
 - → During the start of the operating system, all LEDs are flashing. After approx. 150 s the start process is completed and the power LED (PWR/TLS) flashes.

For the operator

To use the TC 649 C device, proceed as follows:

Access via host name (DHCP):

- Enter the host name in the address bar of the browser (only with Google Chrome). The host name is the serial number of TC 649 C (printed on the housing)
- Example: http://dthe0200001234

D THE02 XXXX XXXX

If access via the host name does not work (depending on router), use the manual at <u>https://www.theben.de/tc-649-en/</u>

Access via static IP address:

To set up access via a static IP address, use the manual

- During initial operation, enter the user name "admin" and the password "admin" to log in.
- By default, the network interface is set to DHCP. If the TC 649 C device is to be used without DHCP server, please contact your network administrator or use the manual.

Start-up with Theben Cloud, use the manual.

Operation using the App OBELISK top3

You can access the cloud directly via the OBELISK top3 app.



Download – OBELISK software

The OBELISK software is required to carry out an ot.2 download in the "Control" menu. It can be found at

https://www.theben.de/en/pc-set-obelisk-top2-3-9070409

Start	Settings 🔻	Control - Info -
		Direct connection
		OT2 download
		Astro offset

6. Technical data

Operating voltage:	extended operating range
	230 V~, -20% +15%
Switching capacity:	$6 \text{ A}/250 \text{ V AC, } \cos \varphi = 1$
5 1 5	Switching of any external conductor
	is permitted. Switching SELV is only
	permissible if both switching channels,
	top or bottom, switch SELV.
Minimum load:	5 V / 1 mA
Switch contact:	µ contact
Frequency:	50 Hz
Power consumption:	3 W
Set operating range:	–10 °C to +45 °C
Threshold for operation:	–25 °C to +55 °C
Threshold for storage and	–25 °C to +70 °C
transport:	
Humidity:	95%, non-condensing
Protection class:	Il subject to designated installation
Protection rating:	IP 30



7. Contact

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Hotline Phone +49 7474 692-369 hotline@theben.de Addresses, telephone numbers etc. www.theben.de

8. Use of open source software

- This product uses open source software (OSS). A list of the OSS components used and their licence type and version can be found at <u>https://www.theben.de/tc-649-en/</u>
- $\ensuremath{\textcircled{}}$ If you need to connect groups of devices, please contact the Theben hotline.