



# **TAELEK Tsense 3phase Cost-Effective Timer Instruction Manual**

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**TAELEK Tsense 3phase Cost-Effective Timer** 



# **Technical Specifications**

• Product Name: Taelek Tsense 3phase

· Origin: Finland

• Features: Cost-effective timer and wirelessly controlled 3-phase relay

# **Product Usage Instructions**

# **Initial Installation**

The electrical installation is complete.

# **Settings Easily with Mobile Phone**

The installer or end-user can customize the 3-phase functions using the free control app.

Download the app on your mobile device from the provided links.

### **Use of the Phone App**

The app allows you to view basic information about the 3-phase unit and make necessary changes.

Connect to the device by touching the arrow button. A flashing red LED indicates successful connection.

# **3-phase Weekly Timer**

Create a weekly program by selecting hours for each day when the relay should be on.

Save the completed program using the SAVE button.

Ensure the device is set to WEEKLY TIMER mode and make any mode changes if required in the settings page.

### 3-phase Wireless Relay

Pair a 3-phase wireless relay with a Tsense eco plug for an affordable power management system.

Control electricity consumption based on spot prices and user-defined conditions.

Examples of systems to be controlled include hot water heaters, electric heating systems, and electric car charging sockets.

### **Pairing Instructions**

- 1. Connect the control phone app to the 3-phase device.
- 2. Select WIRELESS RELAY operating mode in settings and save the changes.
- 3. Enter the eco plug ID from the QR sticker to the network key fields.
- 4. Exit the settings page to complete the process.

#### **TECHNICAL SPECIFICATIONS**

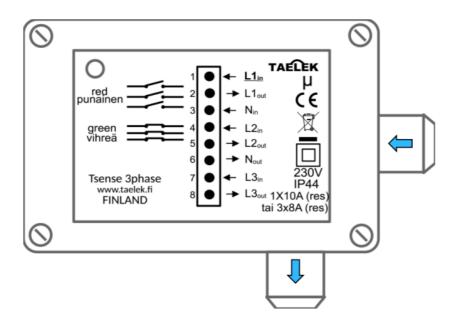


- 3 phase relay 230VAC/8A for resistive loads
- 1 phase relay 230VAC/10A for resistive loads
- Works as a standalone weekly timer or alternatively as a wireless switch controlled by the Tsense eco plug
- Configured with a phone app over Bluetooth connection
- IP44, operating temperature 5...35°C
- Case dimensions (mm): 105 x 70 x 42

### **INITIAL INSTALLATION**

- Open the case lid and attach the bottom part of the case to the desired location
- Bring in the supply cable through the entry (right end in the picture) and connect the wires to the L1in-L3in and Nin terminals. Use the other cable entry for the load wires and connect them to the L1out-L3out and Nout terminals
- Tighten the grommets and secure the cover of the enclosure

- · Connect the power to the device
- The indicator light in the upper left corner indicates the status of the unit
- Flashes red-green the first time, indicating a clock error (automatically corrected when connecting to the device via the phone app)



THE ELECTRICAL INSTALLATION IS COMPLETE!

# **SETTINGS EASILY WITH MOBILE PHONE**

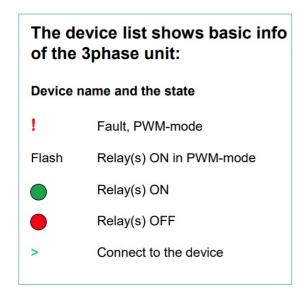
The installer or end-user can customise the 3phase functions with the free ecoControl app. It can be downloaded to a mobile device from the links below:

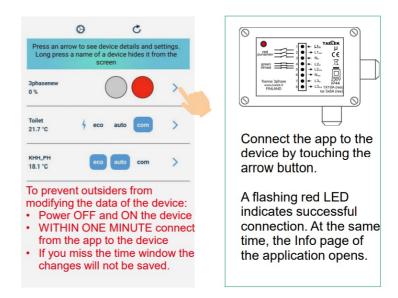




In Android phones app may ask your permission for Location Services. Please give the permission. The app does not collect the location info but the use of Bluetooth requires that.

# **USE OF THE PHONE APP**





### **Device list page functions:**

- Settings (cogwheel) opens the cover page settings. You can select the language and restore the devices that were hidden from the cover page
- Refresh button scans the available devices and lists them so that the last found one is added to the bottom
- · Hide a device from the list by pressing and holding down the selected device
- Get support button opens web-page with detailed thermostat manuals (internet connection is needed)

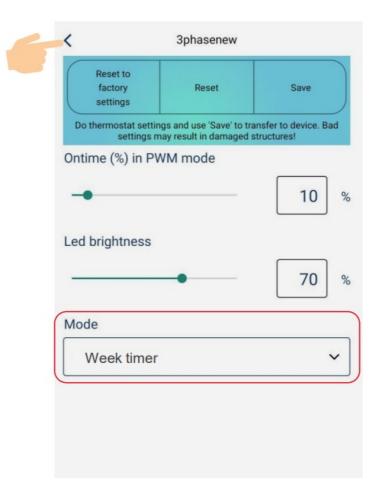
# **3phase WEEKLY TIMER**

Once you are connected, the Info page will open in the app. The weekly program is created by selecting the hours for each day of the week when the relay should be on. Save the completed weekly program in the memory of the device using the SAVE button (1) at the bottom.



Check that the device is set to the WEEKLY TIMER mode. Press the cogwheel button (2) in the top right corner of the info page to open the settings page. Change the mode if needed and save the data.

Finally, use the arrow button (3, 4) in the top left corner to exit the settings page and exit the info page in the same way, which will also disconnect you.



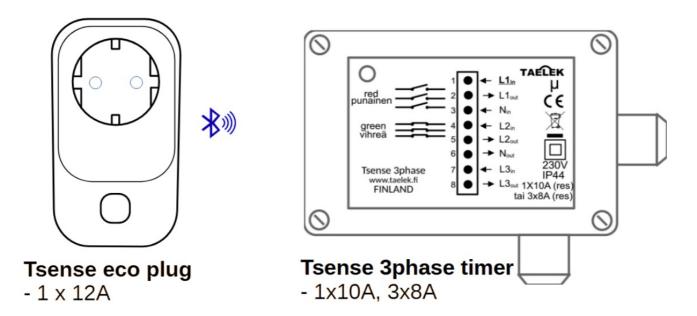
# 3phase WIRELESS RELAY

Combining a 3phase relay together with a Tsense eco plug provides an affordable power management system. The Tsense eco plug retrieves daily the hourly electricity prices (i.e. spot prices) for the coming day. It then controls the electricity consumption of the devices connected to the system according to these spot prices and the conditions set by the user:

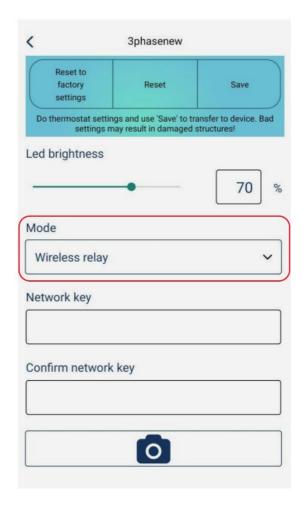
- 1. Automatic hourly control, based on the electricity price and its price limits
- 2. Manual control with eco plug push button

# Examples of the systems to be controlled:

- · Hot water heaters
- · Electric heating systems
- Electric car charging sockets



Pairing a 3phase wireless relay with a Tsense eco plug

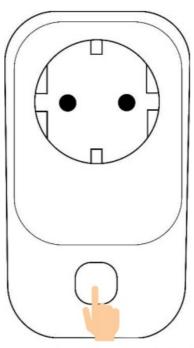


- 1. Connect the ecoControl phone app to a 3phase device (remember to recycle the 3phase power before making the connection). 3phase led starts to flash in red.
- 2. Move to the settings and select WIRELESS RELAY operating mode. Save the changes (top right corner)
- 3. Enter the eco plug ID from the QR sticker to the network key fields. You can type it or to be more efficient use the camera function of the app. Save the changes.
- 4. Exit the settings page using the "<" button in the top left corner and then exit the Info page in the same way.
- 5. Press the eco plug button to check that 3phase follows (with a small delay) the eco plug. The green led means the relay is on and the red led means the relay is off.



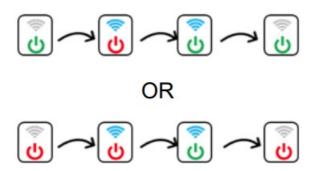
# eco plug manual control

With the eco plug button you can manually force the relay ON. E.g. if you need to have more hot water when electricity price is high and eco plug has switched off the 3phase.



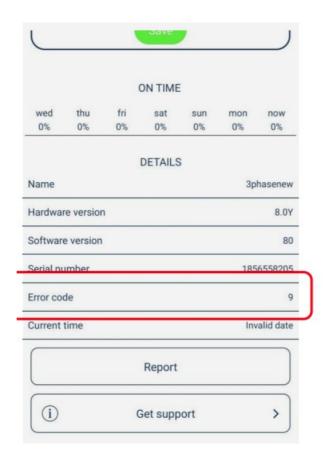
STATUS	Low	High
LEDS	cost	cost
Manual	<b>\$</b>	<b>\$</b>
mode	பு	Ģ
Auto	÷	÷
mode	<del>Ů</del>	Ġ

- Press the button to switch to manual control
- Manual control overrides the automation
- The mode is indicated in blue
- Pressing again changes the mode (cheap→ expensive)
- A third press returns to automatic mode



# **FAULT CASE**

Connect with the app and see the device info:



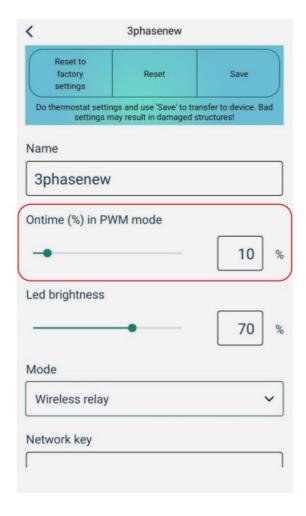
If 3phase indicates an error with a flashing red-green LED, the error code can be read on the ecoControl Info page. You can also create a report on the relay to be sent by e-mail. The detailed information in the report will help to provide customer support remotely.

Code	Cause	Effect
2	Overheating	Relays off
3	Other internal fault	Relays off
9	No control signal received even if "Wireless relay" mode is selected	PWM mode
10	Clock time lost due to long power failure (over 5 hours) and the device is in "Week timer" mode	PWM mode

#### Notice!

The real-time clock error code 10 will automatically be removed from the info page after the first contact from the app because the clock will be timed then. Other error codes remain on the info page until the cause of the error is removed.

# **FAULT CASE: PWM MODE**



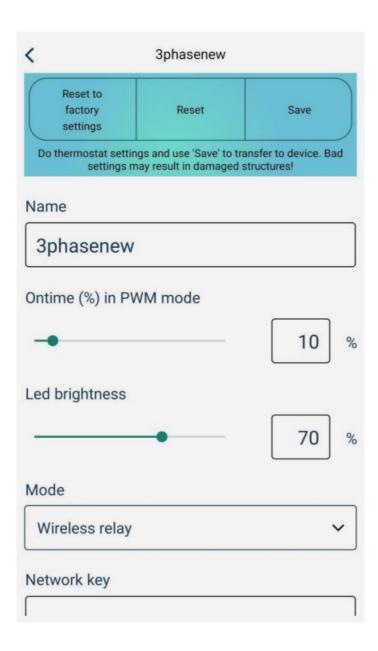
PWM mode is the third operating mode of the device, but it cannot be selected in the settings. The mode is activated when:

- In weekly timer mode the time of day is lost during a long power outage (more than 5 hours)
- In wireless relay mode no control from the eco plug is received.

In PWM mode, the relay is ON for part of every 1 hour cycle until the cause of the fault is removed. The On Time is defined by the user in 10% (6 minute) increments in the device settings.

For example, On Time = 10% means that the relay is on for 6 minutes and off for 54 minutes every hour. At 40% the relay is on for 24 minutes every hour, etc.

#### **OTHER SETTINGS**



- Device name (freely selectable)
- Indicator led brightness

# **OTHER INFORMATION**



- Actual time relays have been on as a percentage of a day (for monitoring energy consumption)
- Create a report to be sent by email to the seller of the device or the customer support
- · Link to user and application manuals

#### **QR CODE**

Device ID can be entered into the Network key fields either by typing them on the app's keyboard or by reading them from a QR code using the phone's camera function. To avoid typing errors, it is advisable to use the camera whenever possible. Finally, remember to save your settings. Below is a general guide for Tsense devices.



### **FAQ**

# Q: How do I change the operating mode of the device?

A: Press the cogwheel button in the top right corner of the info page to access settings and change the mode as

needed.

# Q: What should I do if the app does not connect to the device?

A: Ensure that the device is powered on and try reconnecting. You may also need to check Bluetooth settings on your phone.

# **Documents / Resources**



TAELEK Tsense 3phase Cost-Effective Timer [pdf] Instruction Manual
Tsense 3phase Cost-Effective Timer, 3phase Cost-Effective Timer, Cost-Effective Timer, Effective Timer, Timer

# References

User Manual

Manuals+, Privacy Policy

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