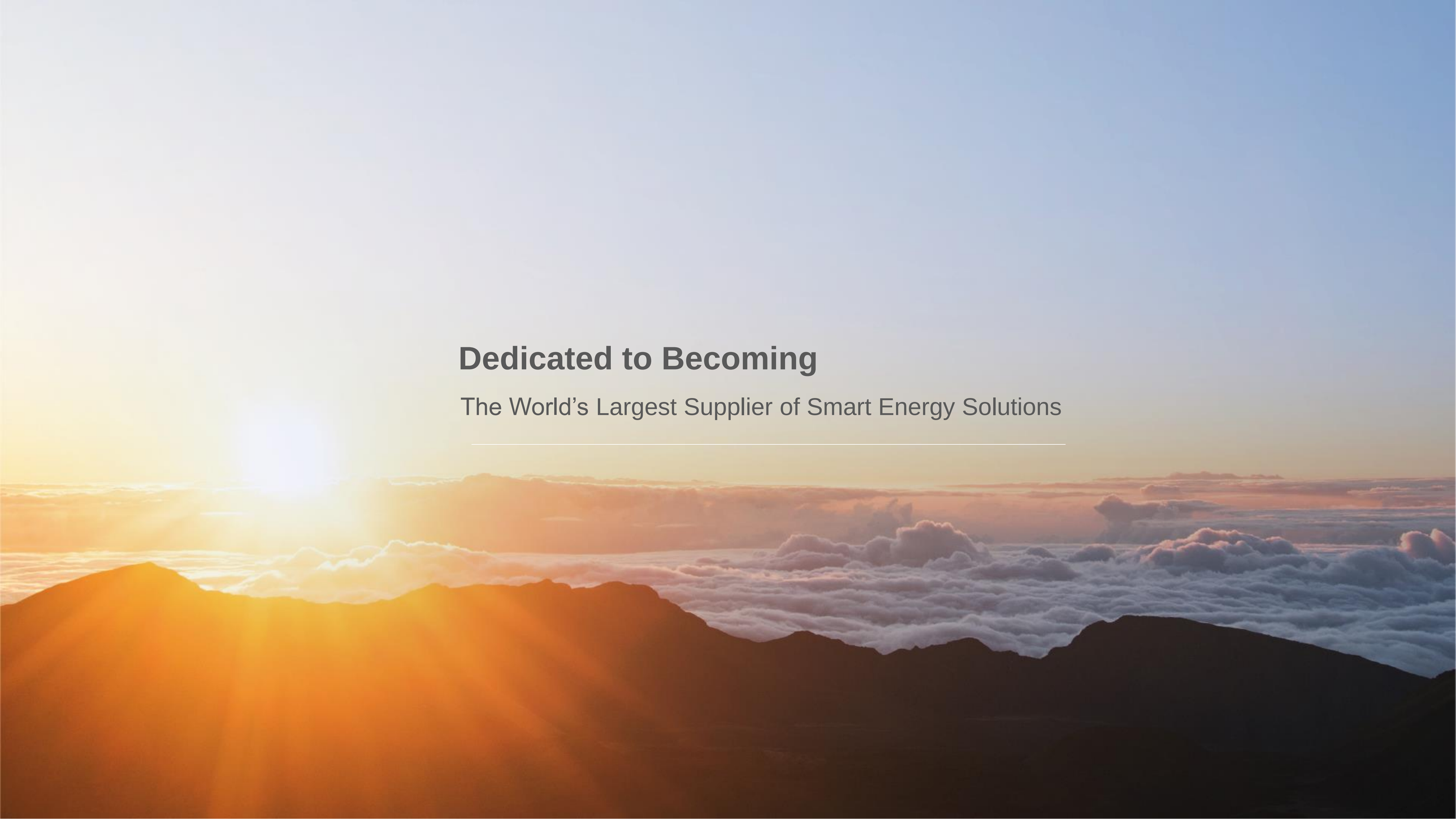
GroBoost Introduction

SHENZHEN GROWATT NEW ENERGY
TECHNOLOGY CO.,LTD



Dedicated to Becoming

The World’s Largest Supplier of Smart Energy Solutions

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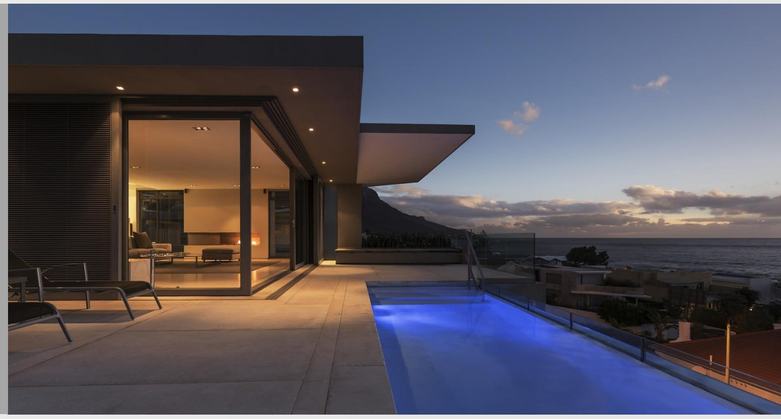
GroBoost Introduction



Product Overview

Solar to Thermal Energy

GroBoost is a continuously adjustable power regulator, which could convert the surplus solar energy to usable heat like hot water and space heating automatically, and it could help customers to maximize consumption rate of solar and save electricity

Features

Support single or three phase immersion heaters

Three-zone space heating possible with three independent output

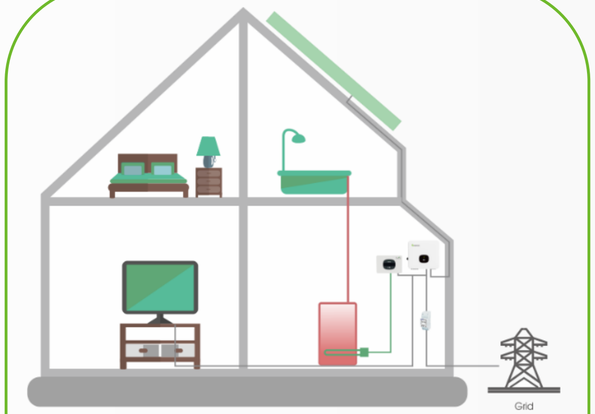
Continuously adjustable power control 0–10.8kW

Dynamic power regulation results in zero export

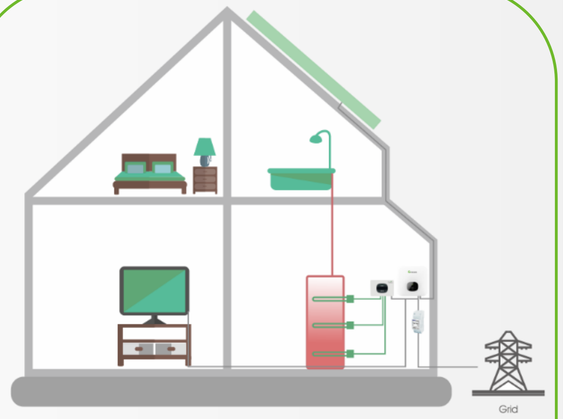
Integrated in Growatt smart home system, achieve up to 92% solar self-consumption rate.

Scenarios

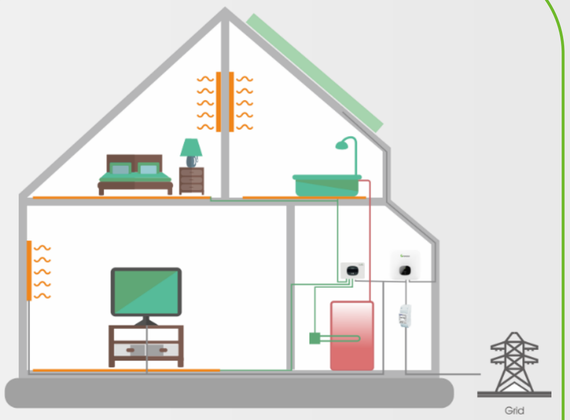
Four scenarios to maximize your self-consumption by GroBoost



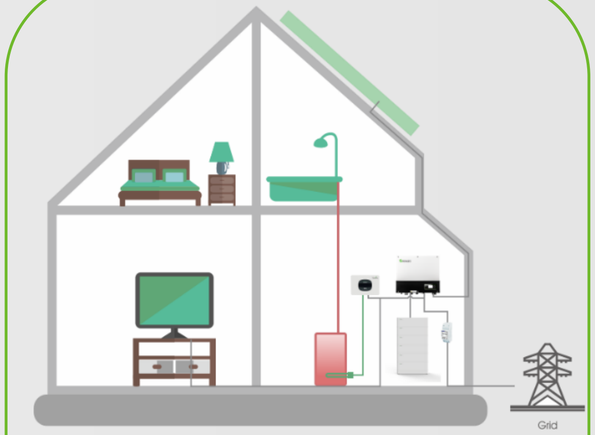
Compatible with three-phase immersion heater up to 10.8kW



Compatible with three 3.6kW immersion heaters

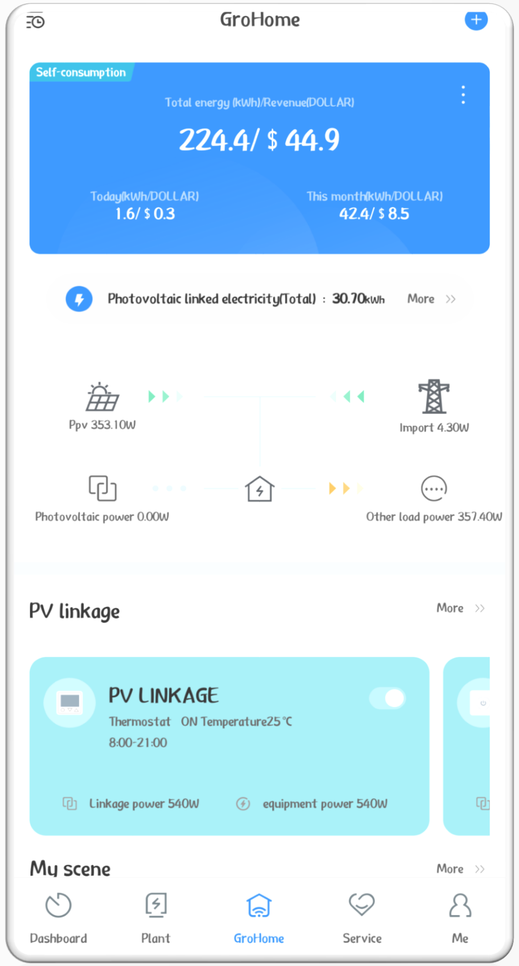


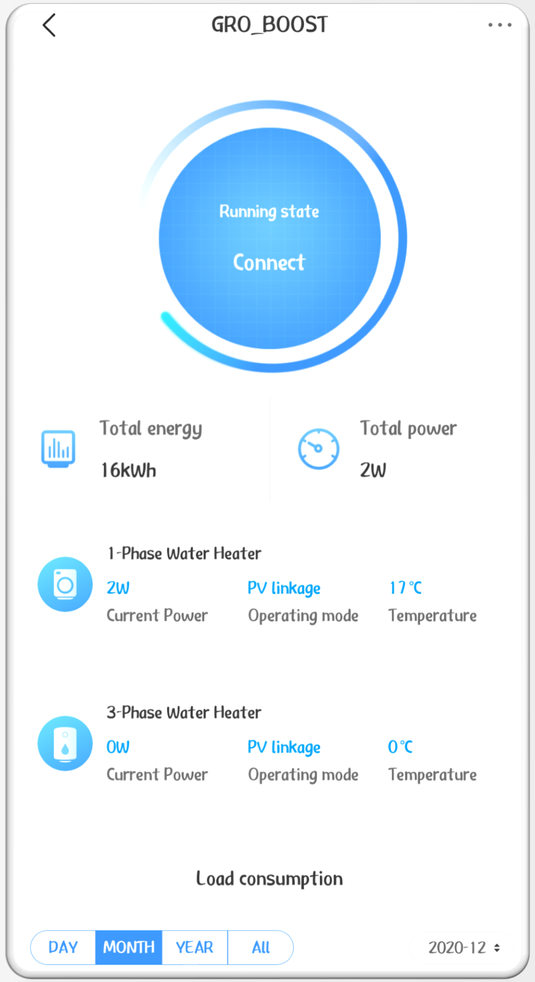
Water heater with two-zone space heating

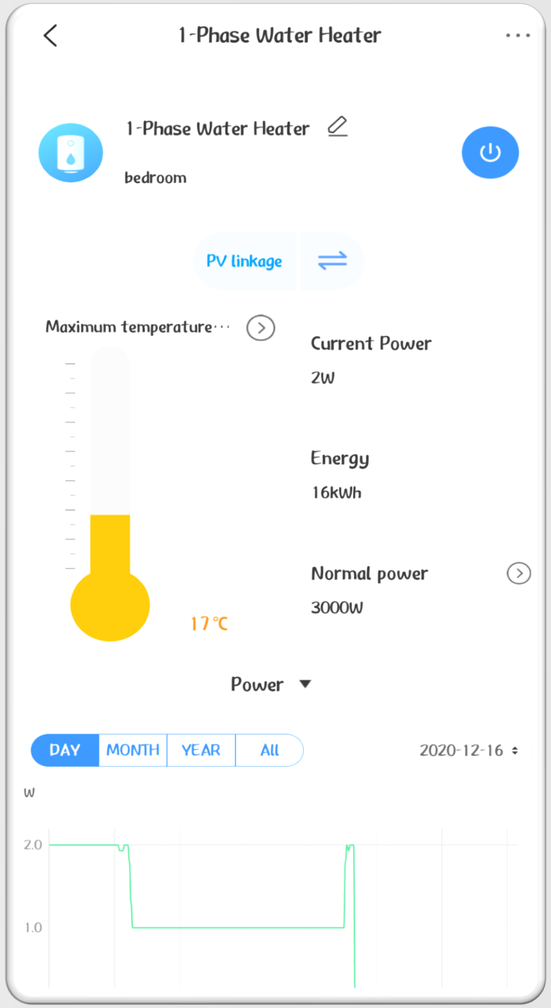


Solar plus heater with extended battery energy storage

ShinePhone App

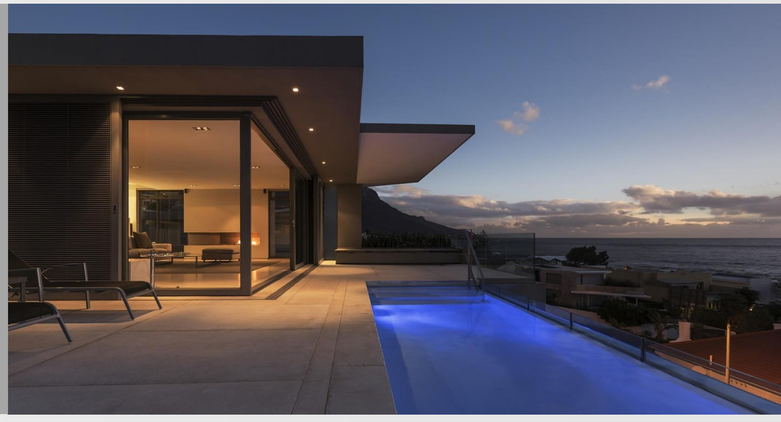






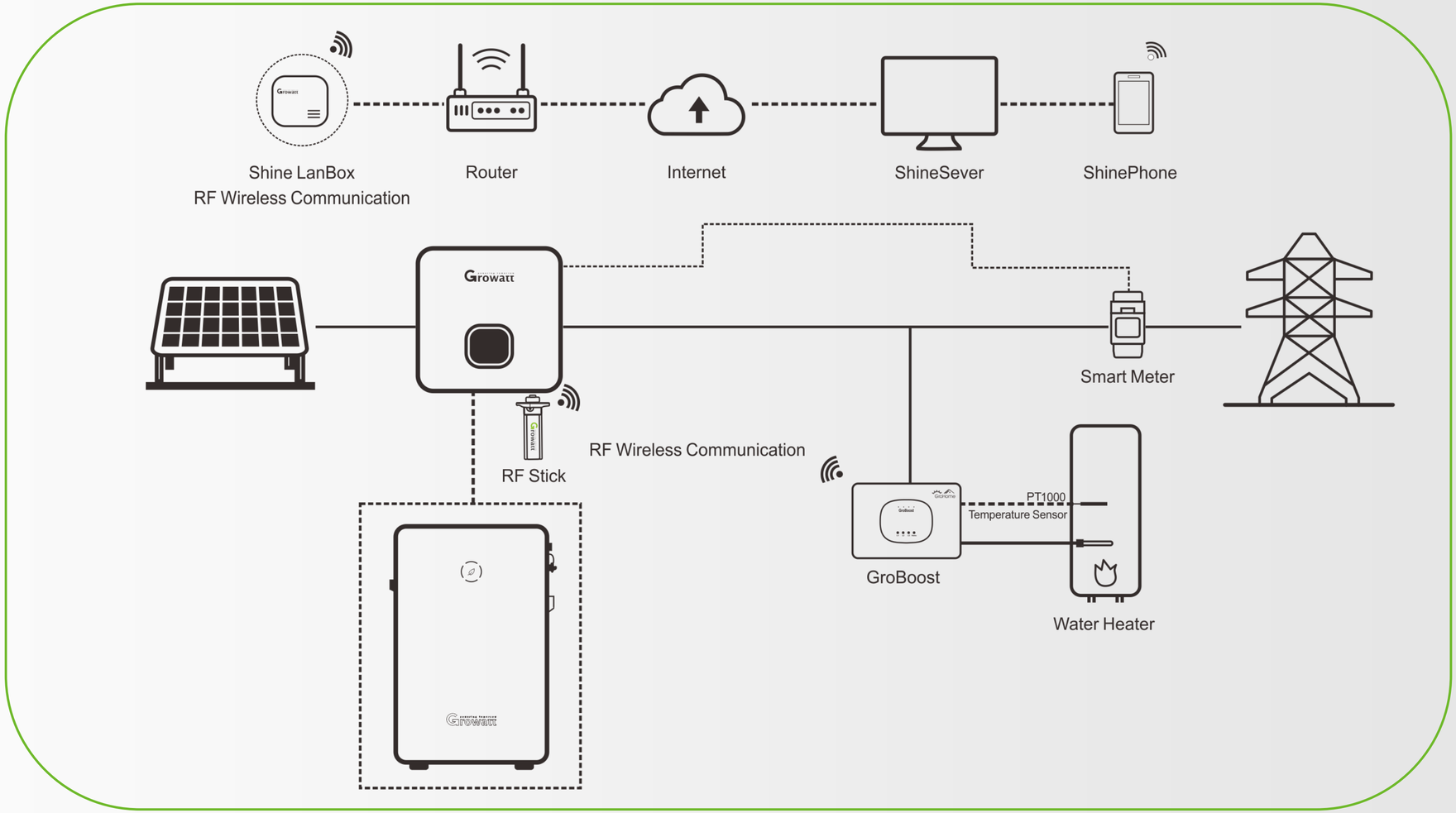
02

System Application



System Diagram

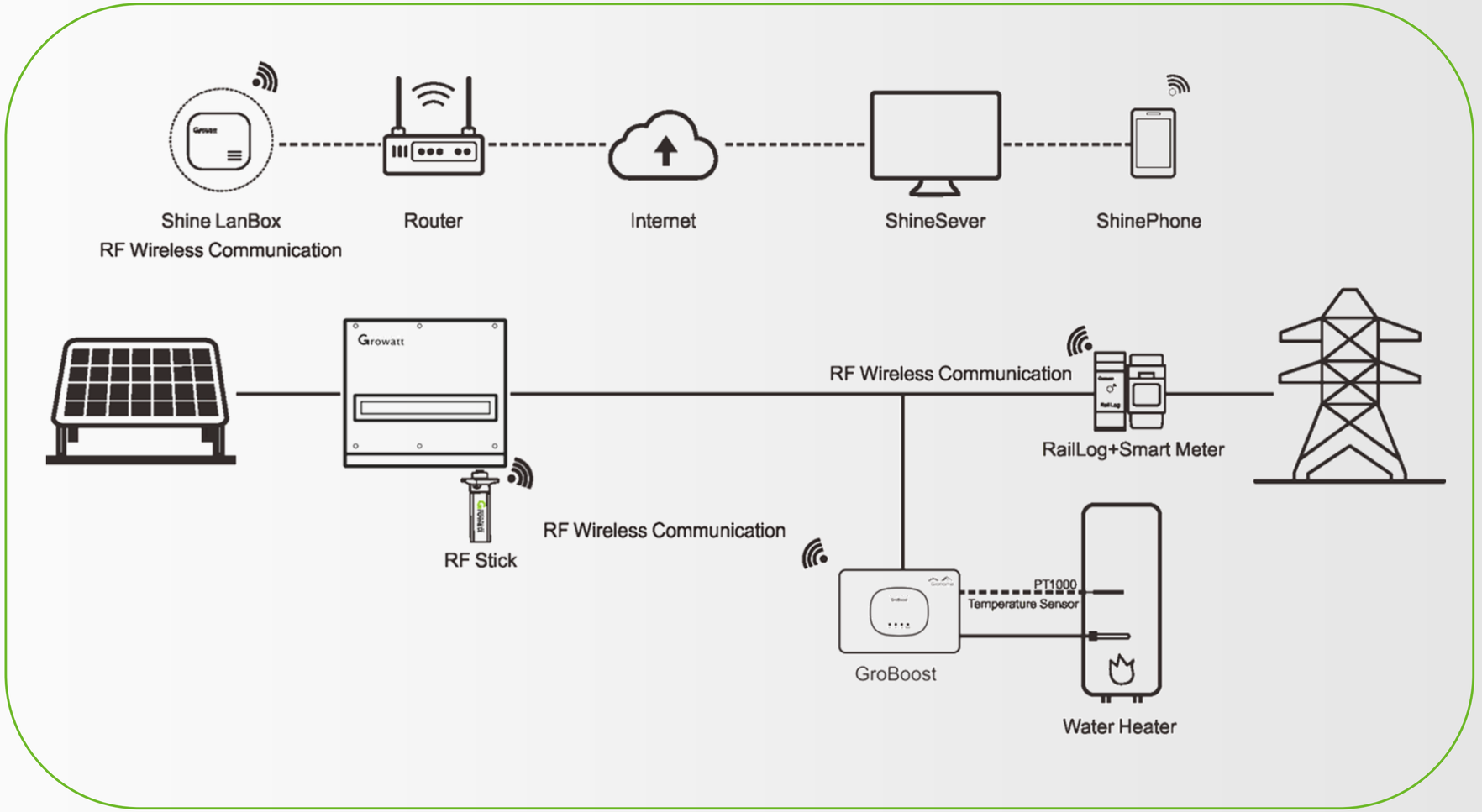
Working with Growatt new generation inverter (-X Series), like MIN, MOD, MID, and SPH/SPA series, which could support to upload the energy meter data to the cloud platform directly through Shine LanBox



*ShineLink and Smart Meter are required in this diagram

System Diagram

Working with Growatt –S series inverter, the smart meter data is transmitted wirelessly to the ShineLanBox through RailLog, and finally to the cloud platform



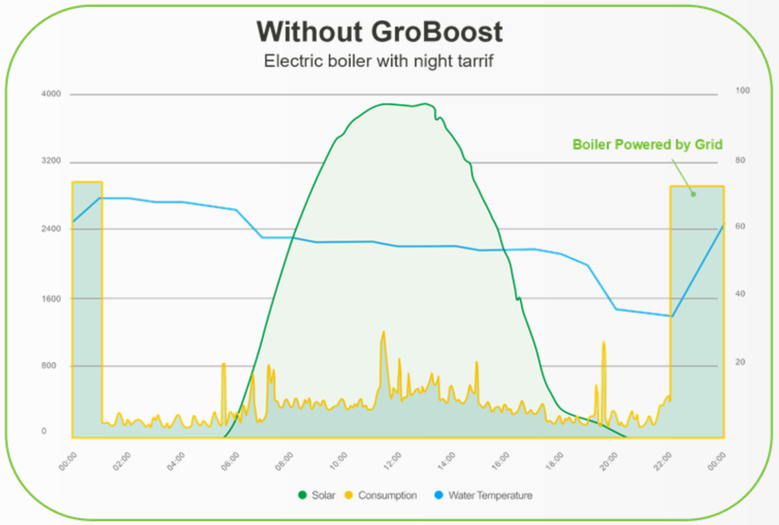
*ShineLink, Smart Meter and RailLog are required in this diagram

Multiple Work Modes

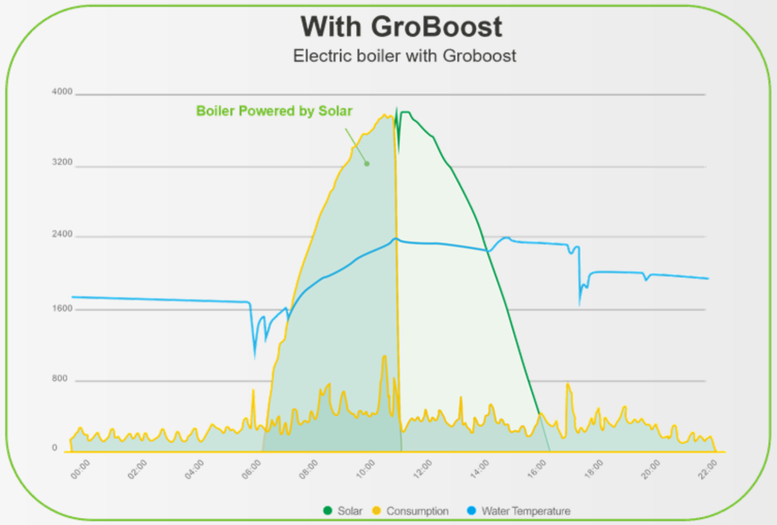
PV Linkage Mode

- GroBoost will be activated automatically and adjust its output power dynamically when there is surplus solar power feeding back into the grid

- If enabling the ***heating guarantee function***, once solar power is insufficient, the system will take the power from the grid to compensate the power supply, ensuring the normal operation of the heating equipment

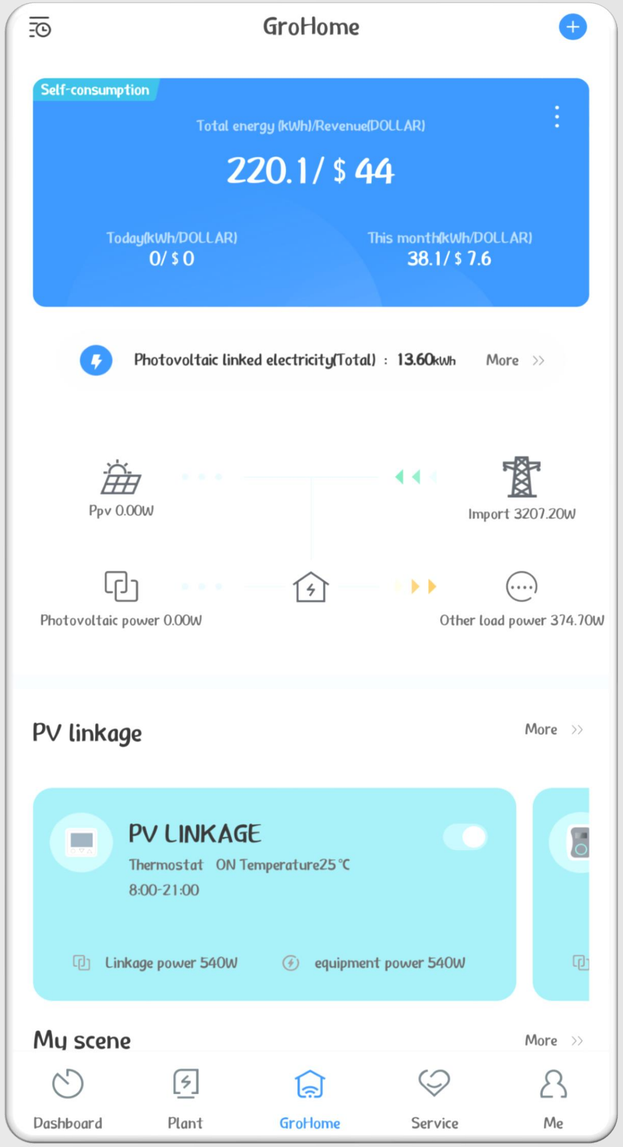


Self-Consumption **27%**



Self-Consumption **54%**

* System condition: 4kW solar system with GroBoost, typical three-person household has boiler with approx. 400 litre capacity (3kW) and approx. 8kWh hot water consumption per day



From ShinePhone APP

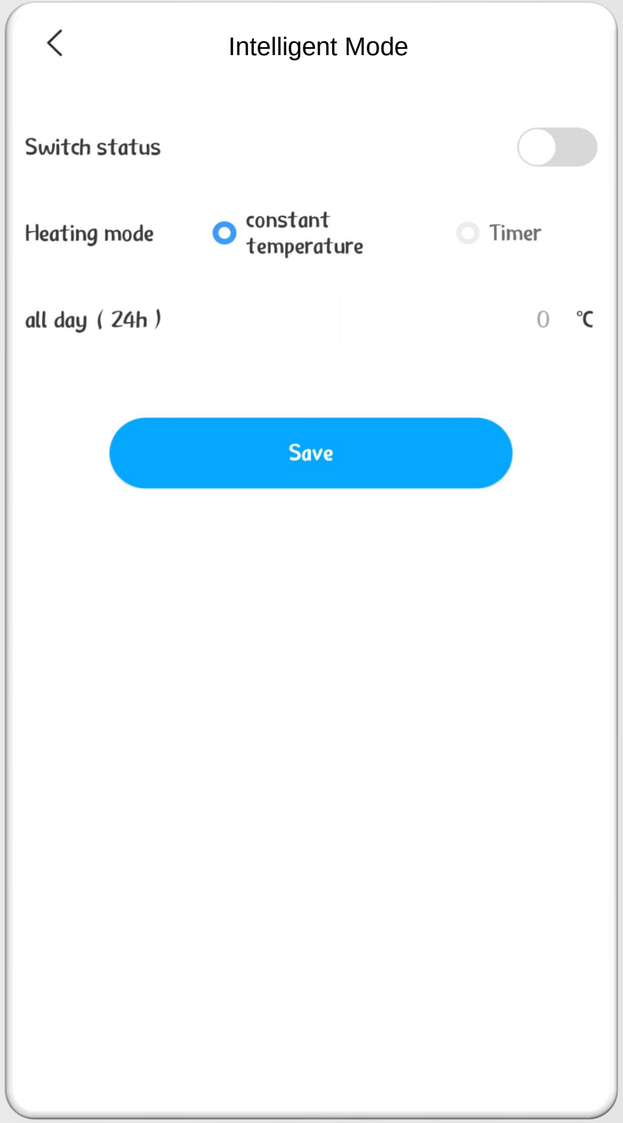
Multiple Work Modes

Intelligent Mode

- GroBoost works with an immersion heater to maintain the hot water at a set temperature all day no matter the power from solar or the grid
- GroBoost works with an immersion heater to heat the water to a set temperature during a certain time no matter the power from solar or the grid

Mandatory Mode

- Activating the GroBoost manually and work with an immersion heater to heat the water to a specified temperature as soon as possible in the case that the system loses internet



From ShinePhone APP

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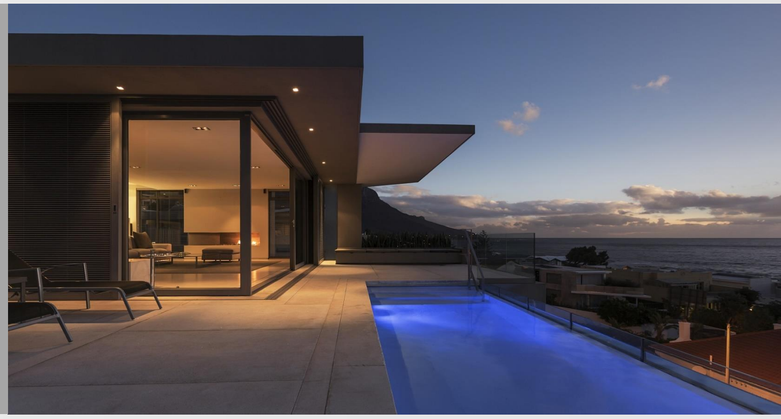
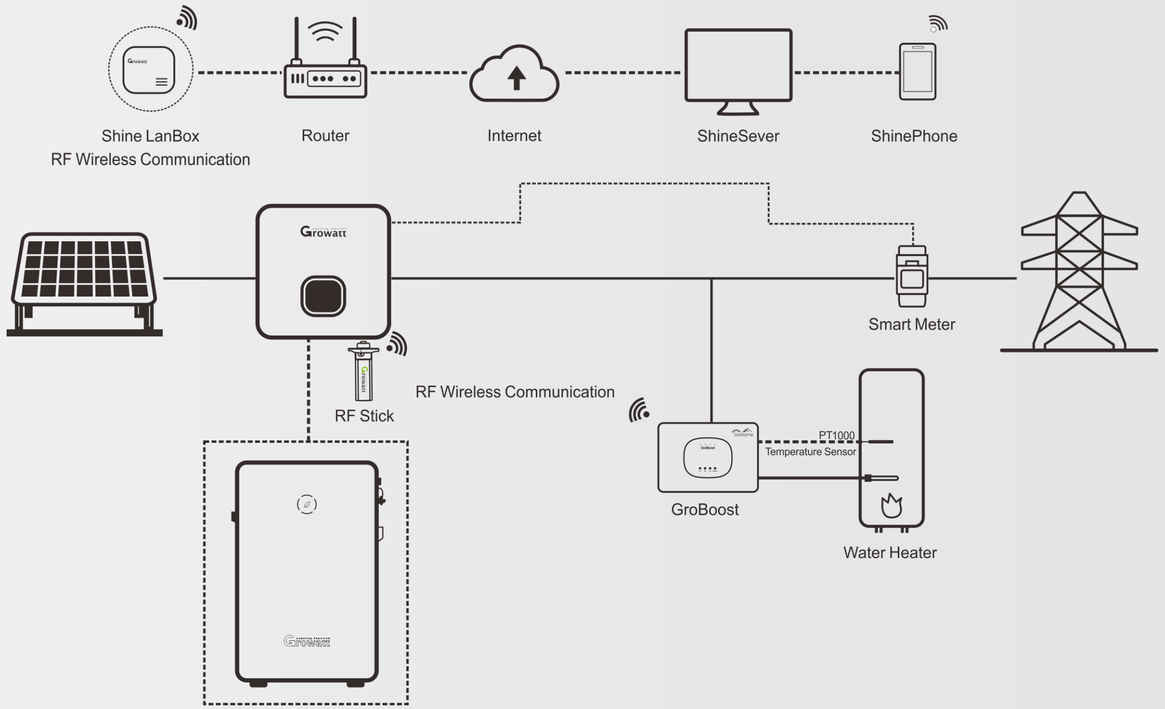
Package Solution



Package Solution

Package Solution	Package List
4kW Solar System	1. MIN 4000TL – XH 2. ShineLink-X 3. Smart Meter 4. ShinePhone App 5. Battery System(Optional)
4kW Solar + GroBoost	1. MIN 4000TL - XH 2. GroBoost 3. ShineLink-X 4. Smart Meter 5. ShinePhone App 6. Battery System(Optional)
4kW/13kWh ESS + GroBoost	1. SPH 4000TL BL 2. 2 * GBLI 6532 Battery System (6.5kWh) 3. GroBoost 4. ShineLink 5. Smart Meter 6. ShinePhone App

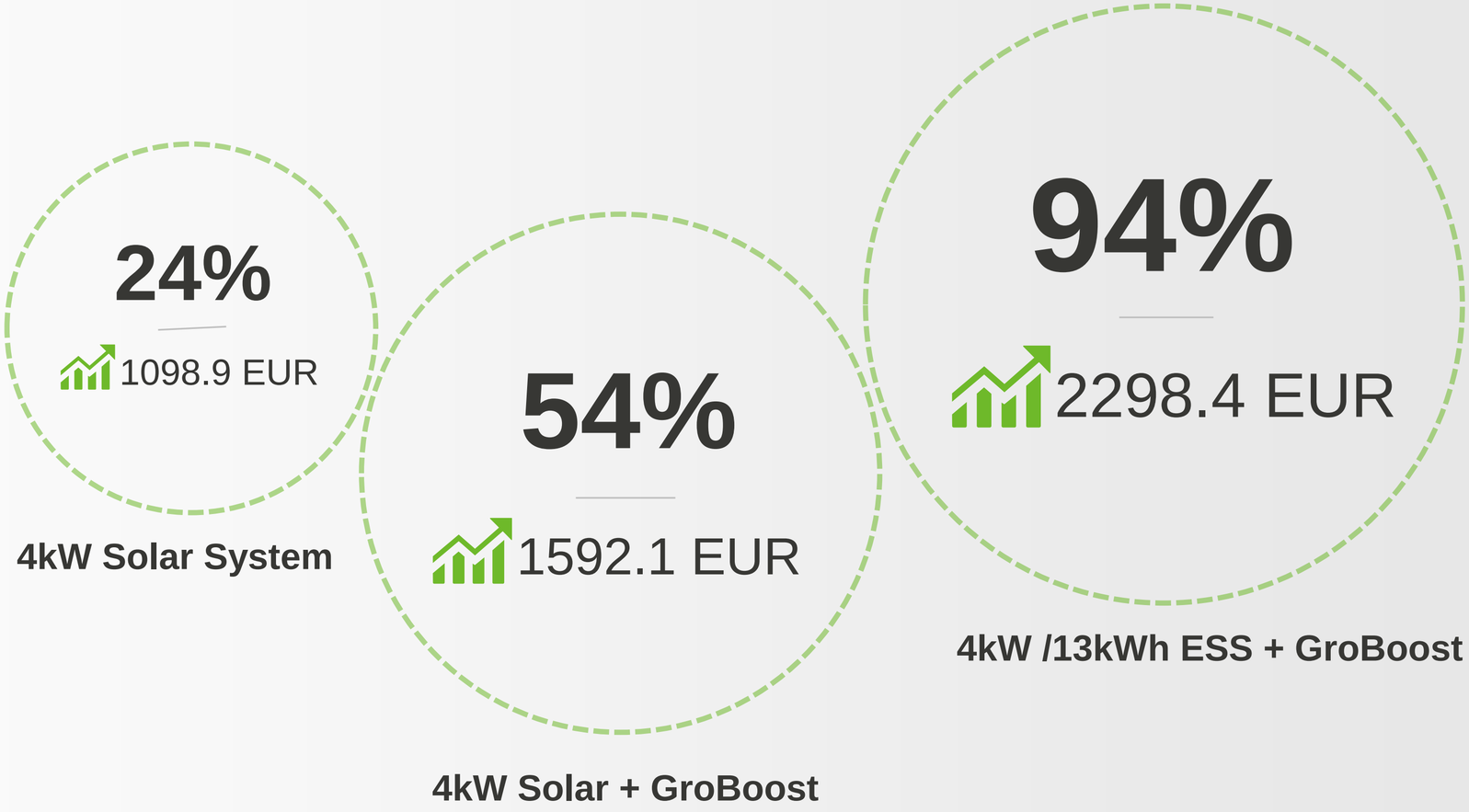


* EPS Function is available when you install ATS accessory into the system
* One PT 1000 Temperature sensor is included in GroBoost package
* When the GroBoost works with Growatt –S series Inverter, requiring RailLog device

Package Solution

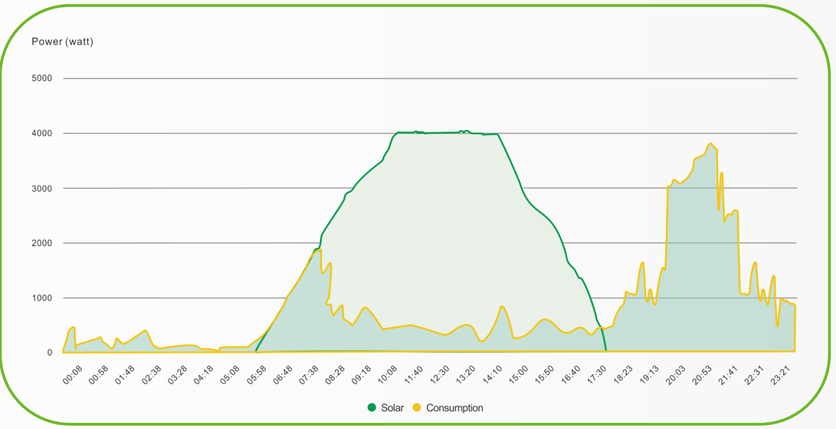
Self-Consumption/Day

Approximate Saving/Year



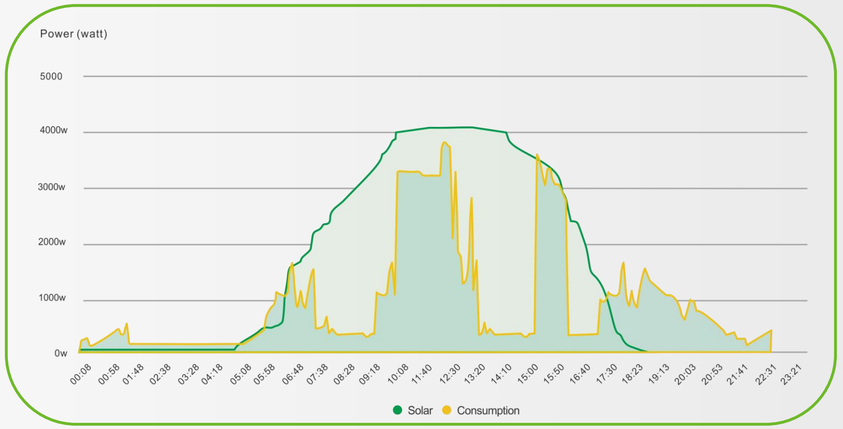
Package Solution

Package Solution	Consumed Energy	Averagely Produced Energy	Solar Power Exports into Grid	Self-Consumption		Approximate Saving/Year
4kW Solar System	21.8kWh	20.4kWh	15.5kWh	4.9kWh	24%	1098.9 EUR
4kW Solar + GroBoost	22kWh	20.7kWh	9.5kWh	11.2kWh	54%	1592.1 EUR
4kW/13kWh ESS + GroBoost	22.8kWh	20.5kWh	1.2kWh	19.3kWh	94%	2205.2 EUR



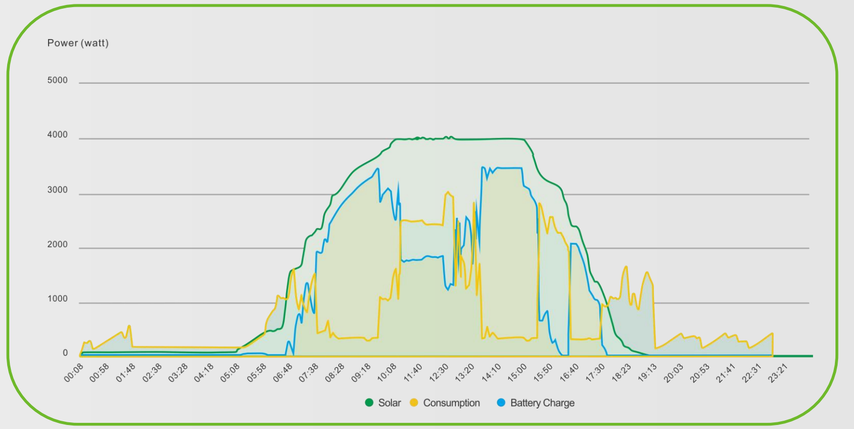
4kW Solar System

Self-Consumption 24%



4kW Solar + GroBoost

Self-Consumption 54%



4kW/13kWh ESS + GroBoost

Self-Consumption 94%

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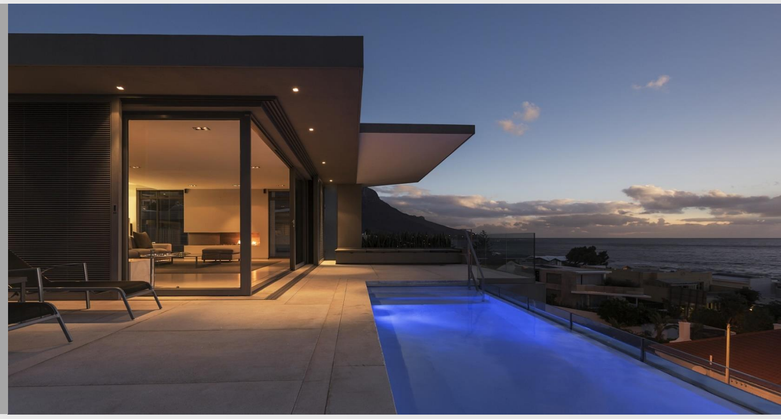
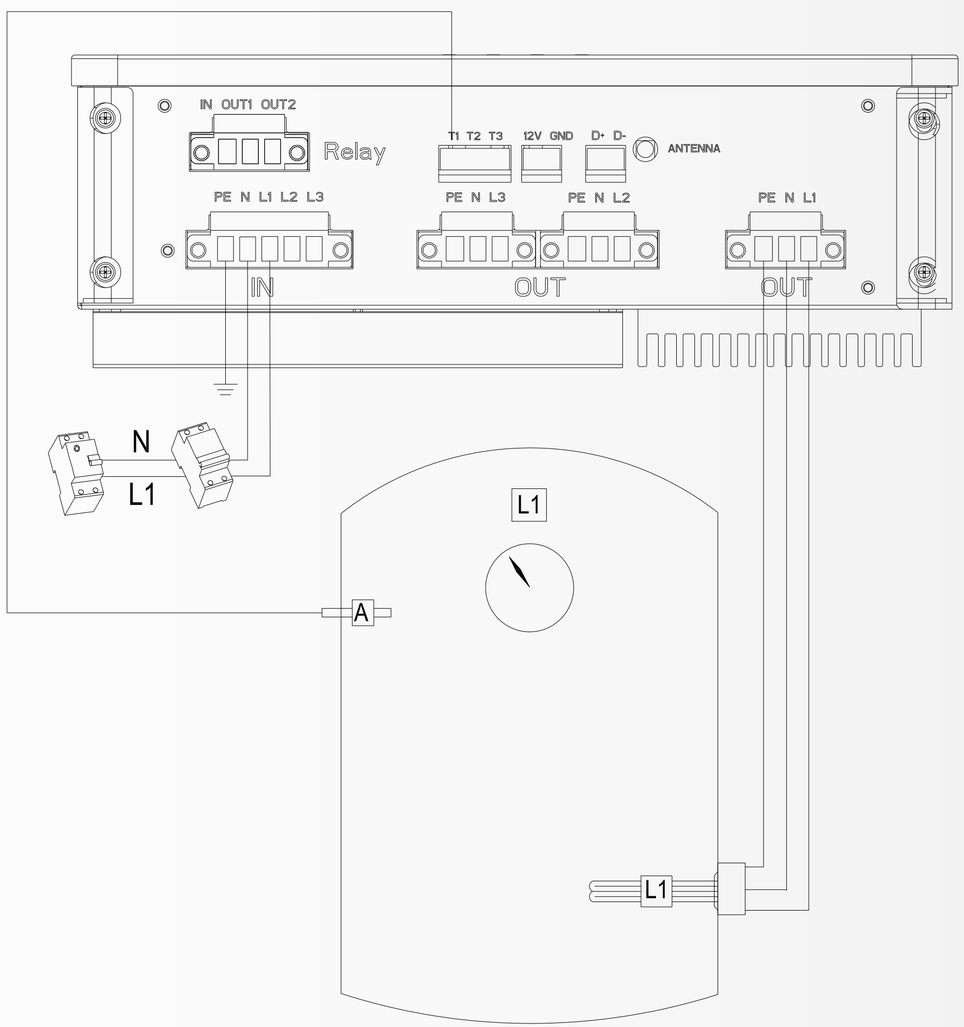
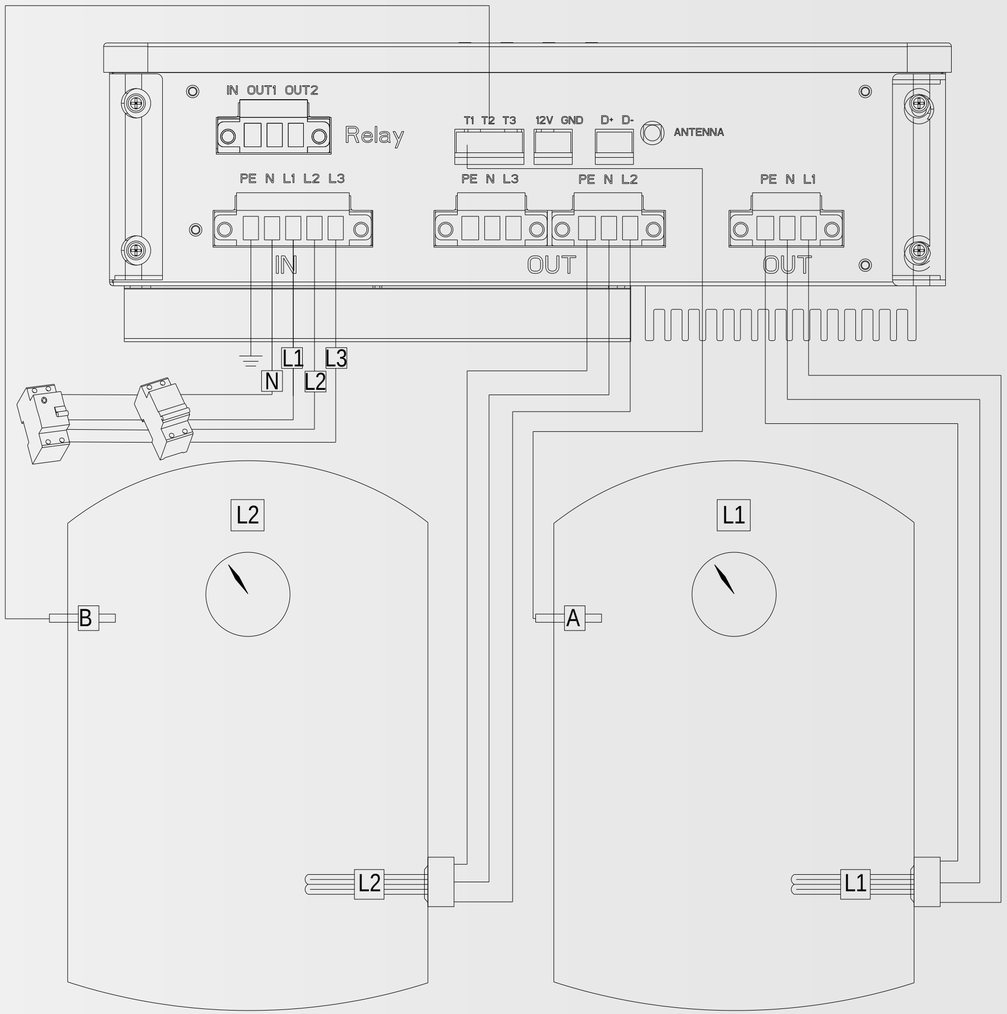
Appendix



System Connection

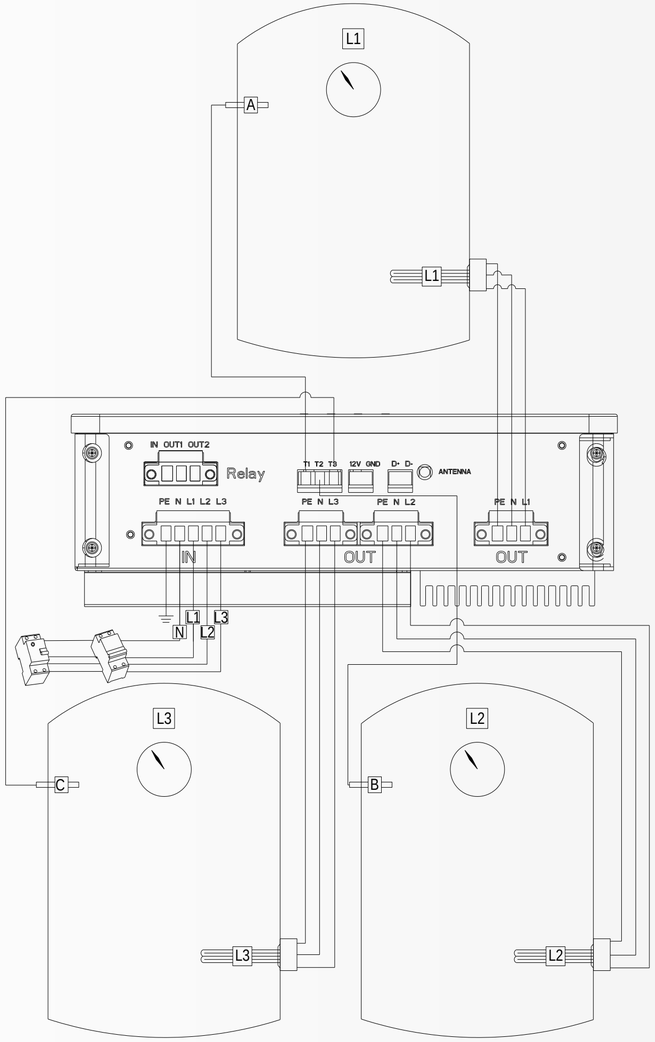


One 1-phase 3.6kW heating element

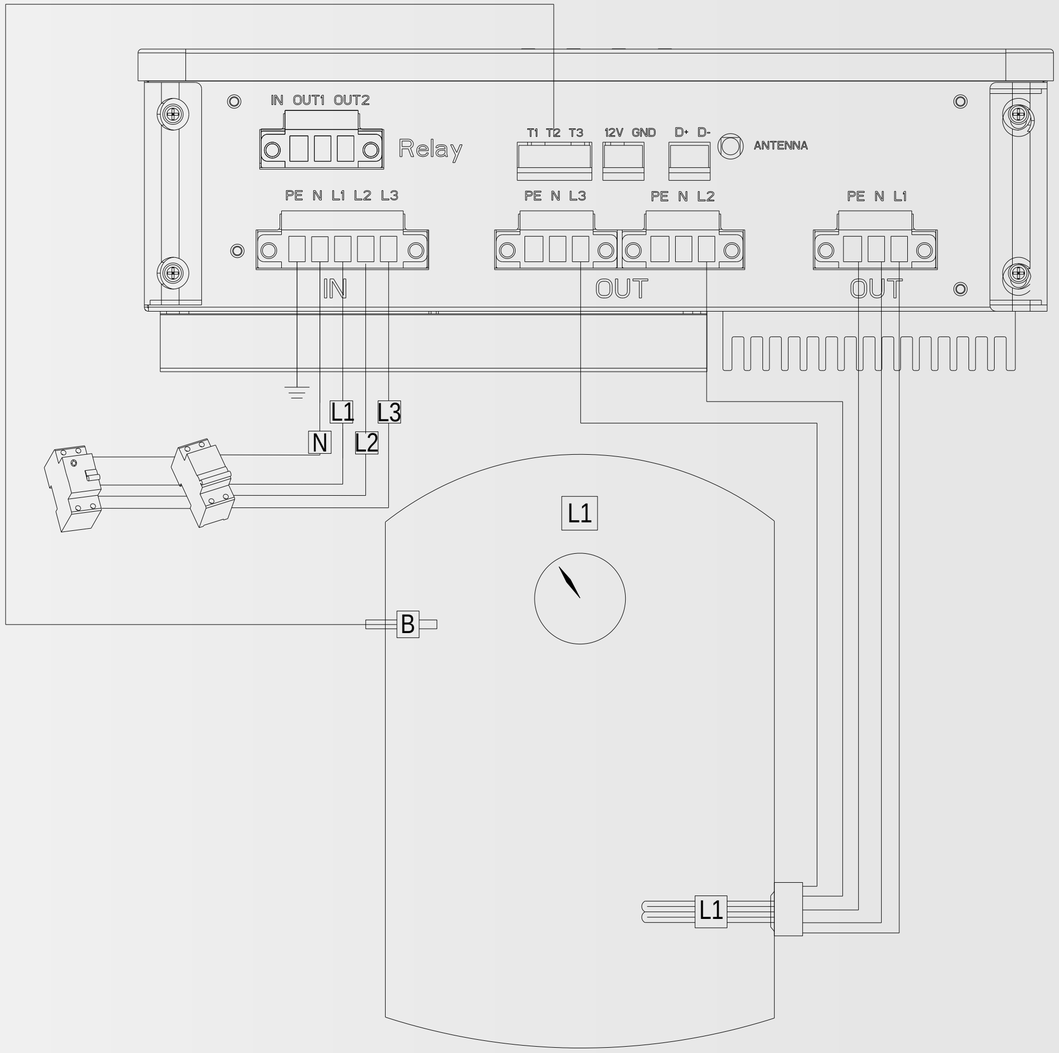


Two 1-phase 3.6kW heating elements

System Connection

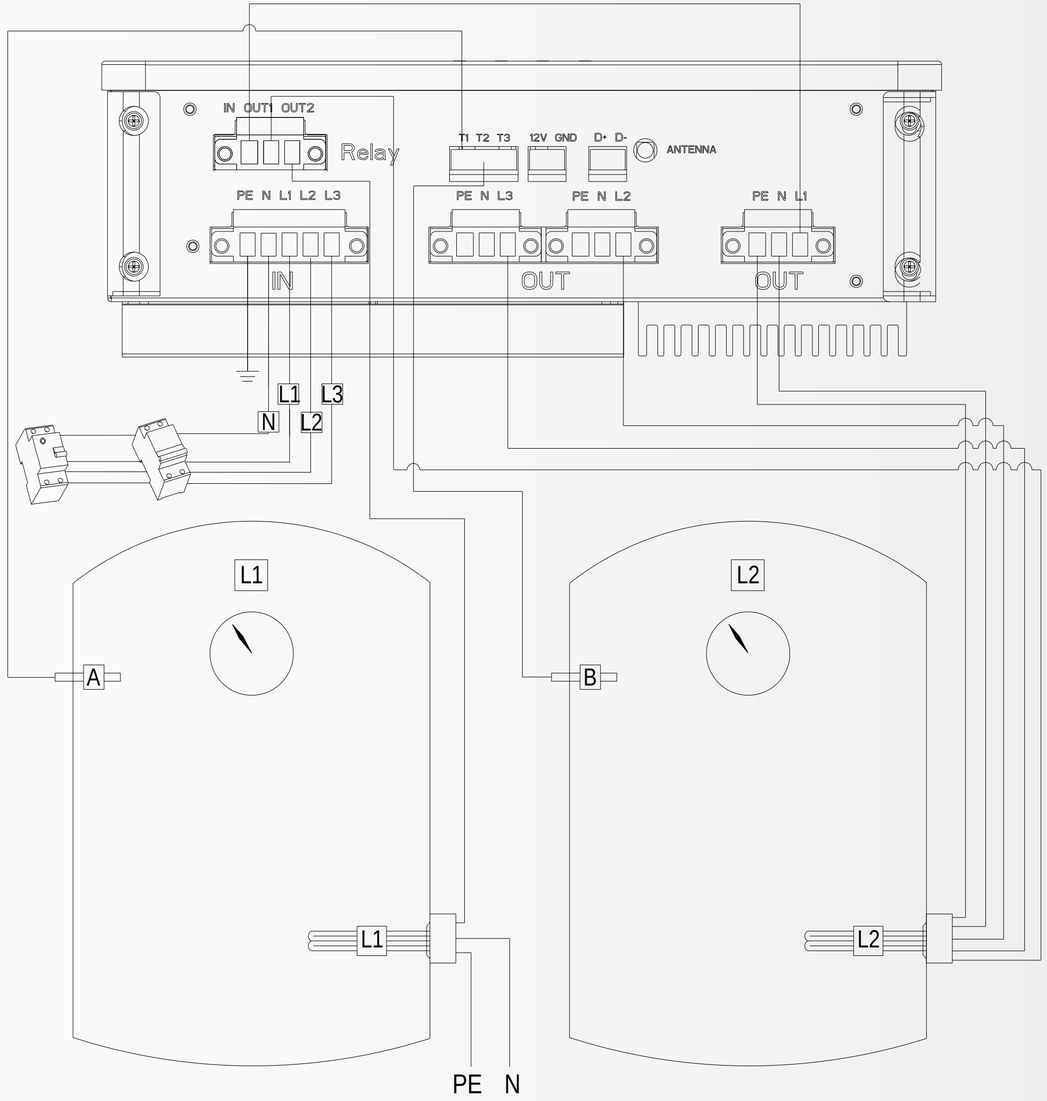


Three 1-phase 3.6kW heating elements



One three-phase heating element up to 10.8kW

System Connection



1-phase and 3-phase heating elements

GroBoost could work with one single-phase and one three-phase heating element, the GroBoost is capable of heating the L1 water heater first and then L2 water heater, so that the maximum amount of surplus solar energy can be used.

Thanks!

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