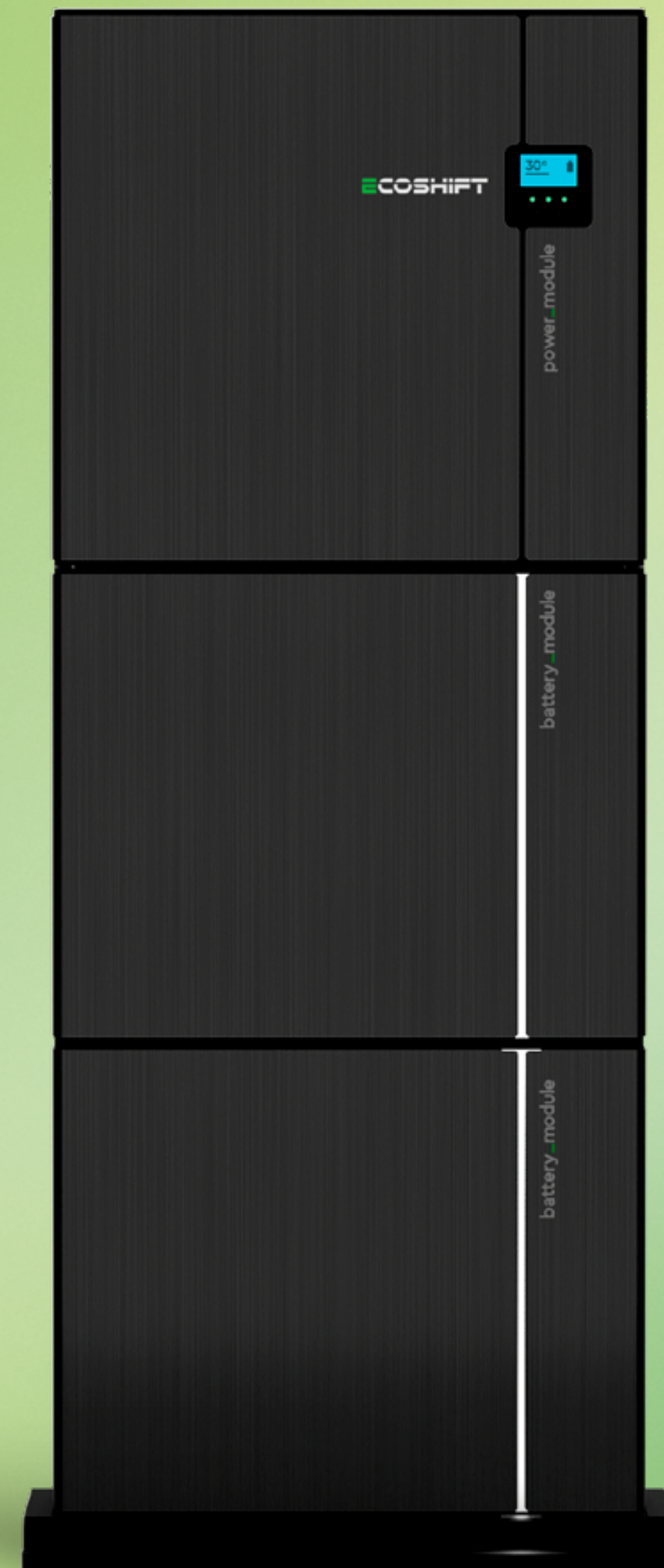


BES 1.0

ONE of a kind

ECOSHIFT
SUSTAINABLE ENERGY MICROMOBILITY SOLUTIONS

PETROS
PETROPOULOS GROUP
Since 1922





WHO ARE WE?

ECOSHIFT is an exciting new endeavour of Petros Petropoulos Group.

At our new innovative manufacturing assembly line, in Athens, we are developing smart, technologically advanced residential and commercial energy storage solutions, electric micromobility vehicles and an array of engineering services. Our mission is to create the largest innovative engineering hub in Europe.

WHY WE DO IT?

Join our movement! Sustainability is a mindset, not a trend.

Let's redefine sustainability and eco friendly energy storage management. Our Battery Energy Storage Solution - BES 1.0 ENERGY STORAGE SYSTEMS - is equipped with intelligent BMS, analyzing energy consumption patterns and transforming every home into a more independent entity.



Member of Petros Petropoulos group of companies.

ENERGY MODULAR STORAGE SYSTEM

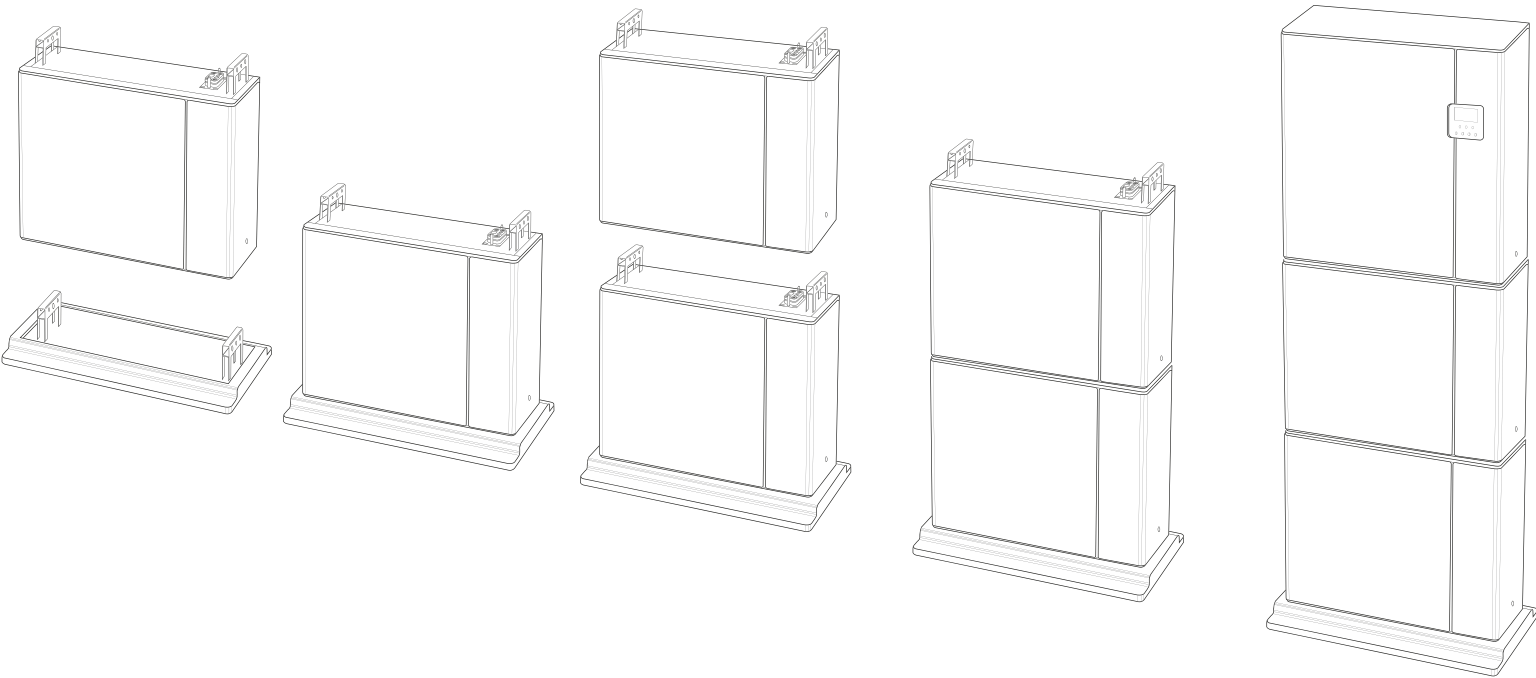


Economical & Friendly

- System cycle life ≥ 10 years
- Support Complete protection features, including short circuit, over/under voltage, overload, and reverse feeding protection

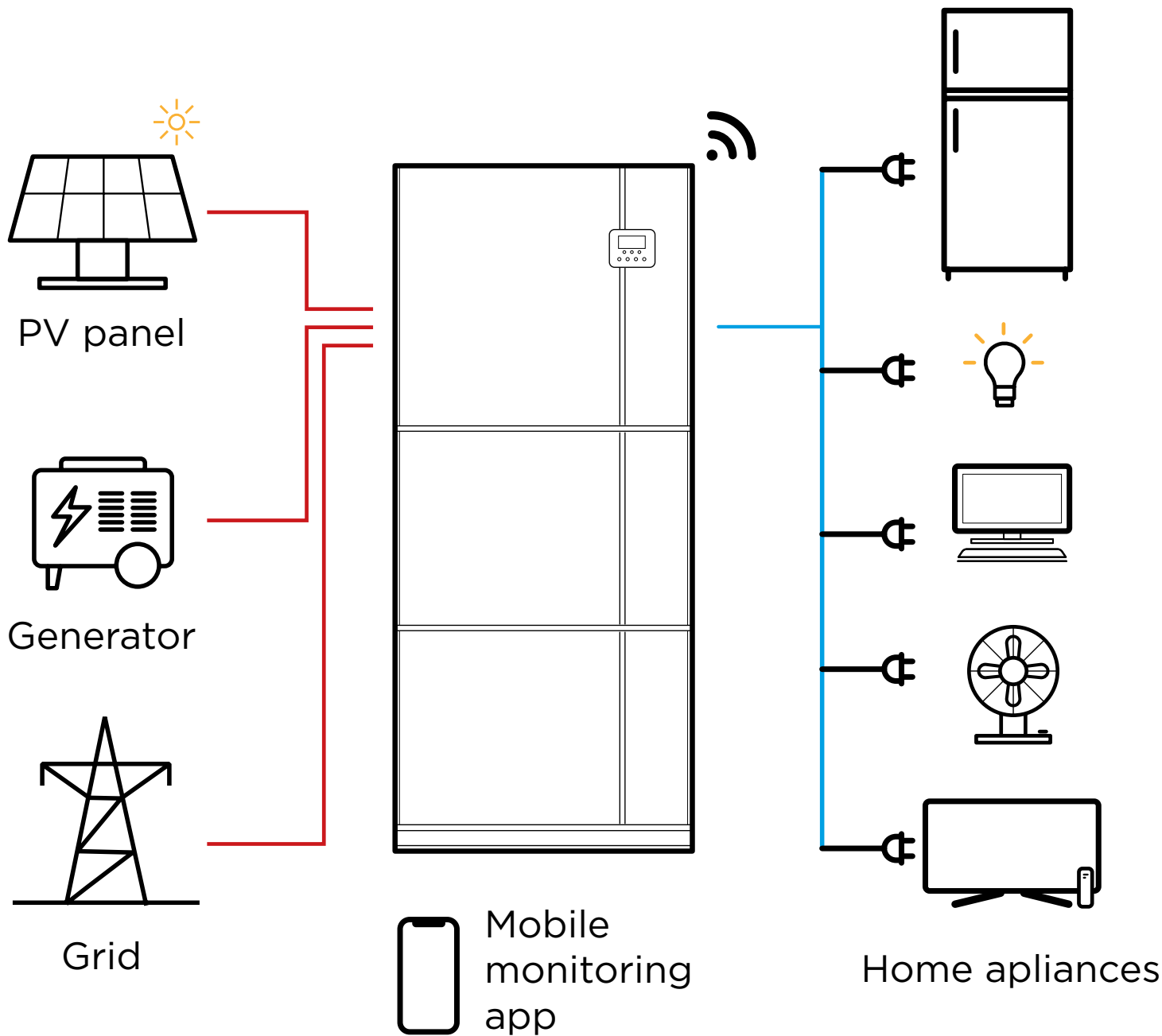
Simple & Flexible

- Modular design, easy installation and operation
- Support battery expansion
- Two output modes: (a) grid bypass, (b) inverter output
- Four modes: (a) solar-only, (b) grid priority, (c) solar priority, (d) hybrid charging



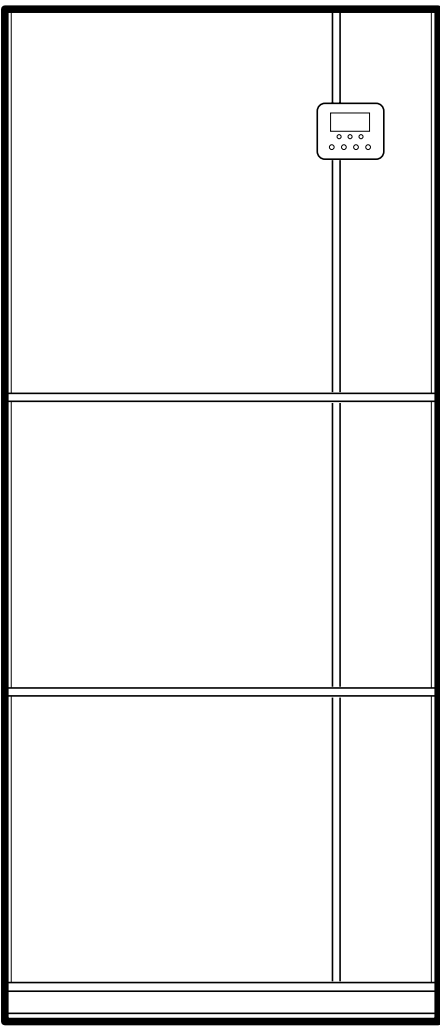
Intelligent & Efficient

- Integrated BMS management system to support intelligent management with single cell/battery voltage detection, current detection, temperature detection, low voltage protection, overvoltage protection, charge/discharge overcurrent protection, charge/discharge high/low temperature protection, charge/discharge MOS high temperature protection, short circuit protection, reverse connection protection, and more. It also features SOC calculation, charge/discharge MOS
- Compatible with CANbus/RS485 communication interface with LCD

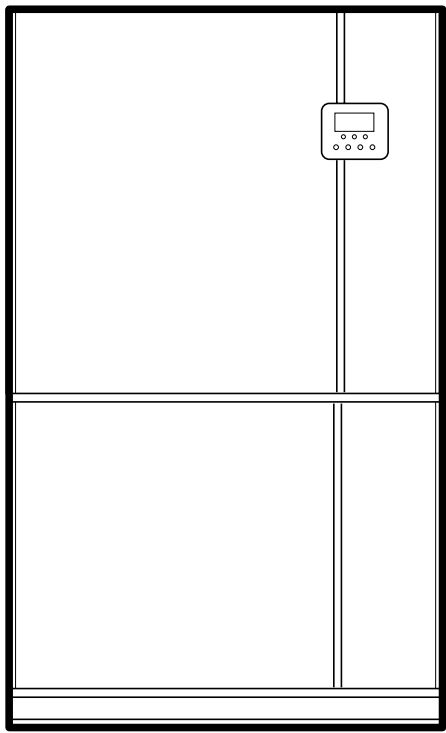


Product Range

MODEL 1 10kWh



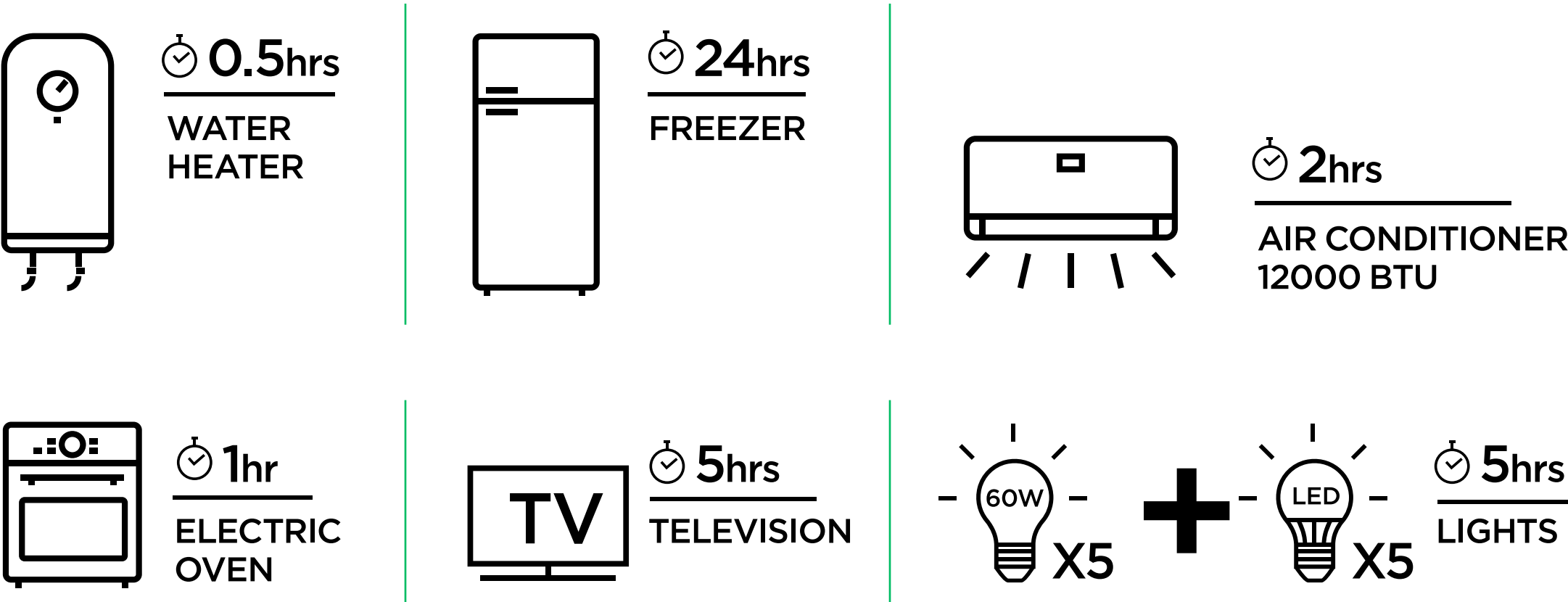
MODEL 2 5kWh



ESSENTIAL

APPLIANCES

MODEL 1 10kWh



2 MODULES

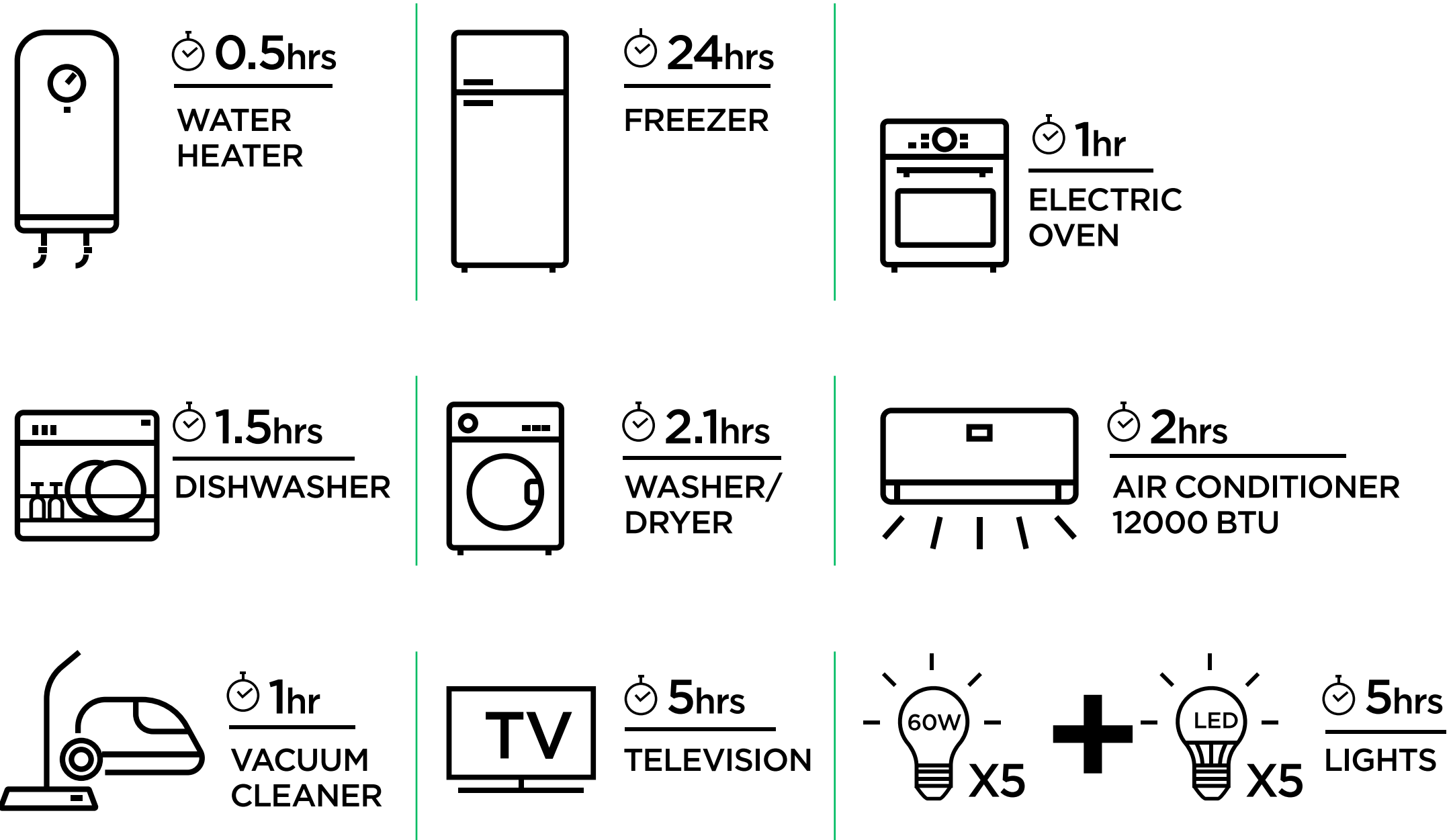
127%

of daily usage ⌚ 24hrs

HEAVY

APPLIANCES

MODEL 1 10kWh



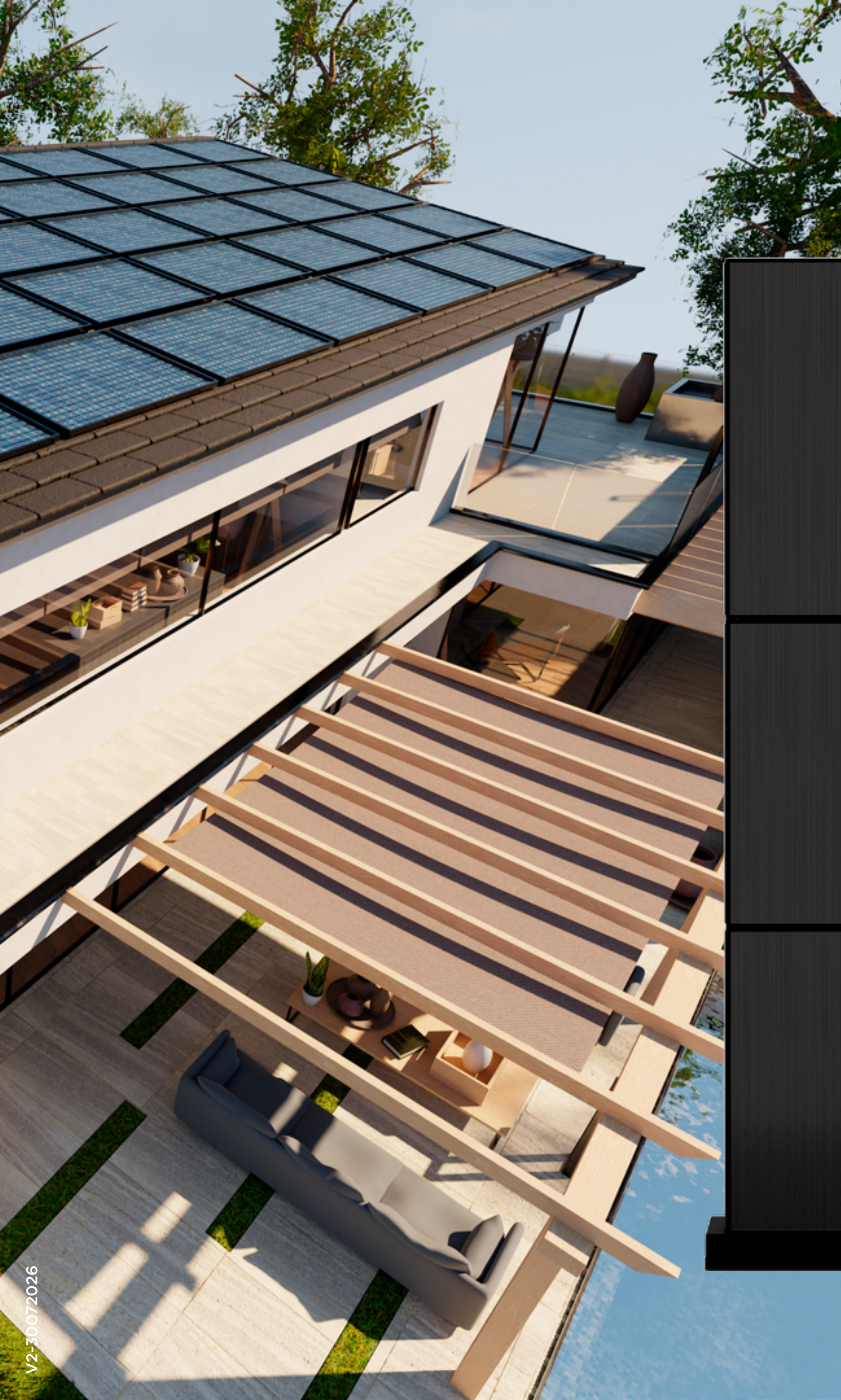
2 MODULES

70%

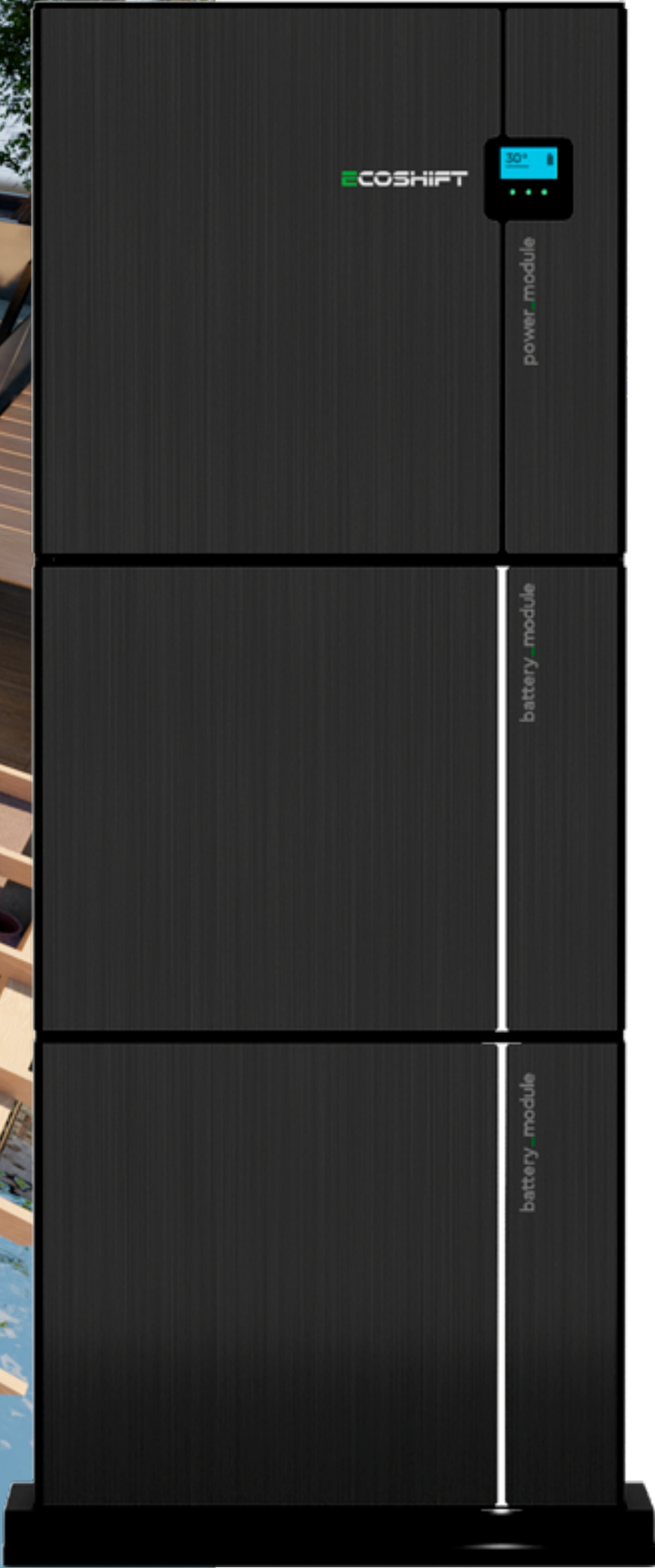
of daily usage ⌚ 24hrs

BES

ENERGY
STORAGE
SYSTEMS



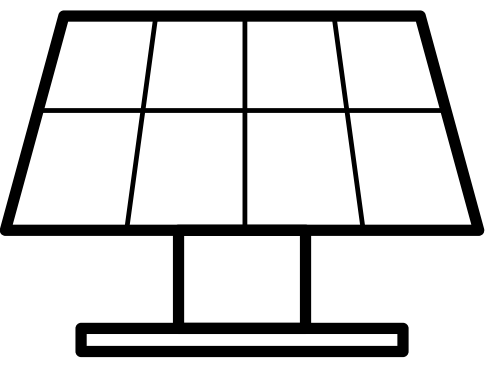
MODEL 1 10KWH



AUTONOMOUS ENERGY

BES ENERGY
STORAGE
SYSTEMS

80%
of daily usage ⌚ 24hrs



WITH JUST
10PV
PANELS
~16m² of space required

X5 + X5

TECHNICAL SPECS



System Specification	BES 1.0 IBU5000I-10B
Nominal Output Power	5000 W
AC Output Frequency and Voltage	50/60Hz; 230 Vac
Grid Type	Single Phase / Three-phase during parallel operation (1-6 units)
Recommended Energy Configuration	10kWh (Min.)
Max. Charging Current	60 A
Bypass Overload Current	40 A
Battery Operating Voltage	40 ~ 60 V
Battery Chemistry	LiFePO4
IP Rating of Enclosure	IP54
Warranty	Ten (10) Years batteries and Two (2) Years Inverter
Inverter Technical Specification	BES 1.0 IBU5000I-10B
Max. PV Input Power	5500 W
MPPT Voltage Range	120 ~ 450 Vdc
Max. PV Open Circuit Voltage	500 V
Max. PV Input Current	22 A
Charge Short-circuit Protection	Blown Fuse
Wiring Protection	Inverse Wiring Protection
Peak Power (off grid)	10,000VA
Power Factor	1
Display	LCD Color Screen
Relative Humidity	5% ~ 95%
Inverter Dimension	600 x 200 x 565 mm (L x W x H)
Inverter Weight	32 Kg
Communication Interface	RS485 / WiFi
Inverter Certification	CB-IEC 62109; CE-EMC; FCC; SAA; CETL
Efficiency	>95%
Battery Technical Specification	BES 1.0 IBU5000I-10B
Nominal Voltage	51.2 V
Operating Voltage	40 ~ 60 V
End-off Voltage	40 V
Battery Module Energy	5.12 kWh
Charge and Discharge Current	100 A
Max. Continuous Discharge Current	100 A
Battery Communication Interface	CAN / RS485
Thermal Dissipation	Aerosol fire extinguishing system
Battery Module Dimension	600 x 200 x 485 mm (L x W x H)
Battery Base Dimension	655 x 335 x 50 mm (L x W x H)
Battery Module Weigh	62 Kg
Operating Temperature Range	-10°C ~ 55°C
Cycle Life	5000 (25°C ± 2°C, 0.5C/0.5C, 80% DOD)
Battery Module Certification	CB-IEC 62619; CE-EMC; UN38.3; MSDS; Sea Certificates
Compatible Inverters	Growatt, INVT, LuxPowerTec, SAJ, Megarevo, Deye, SOFAR, Pylon, Must, Sinexcel, Afore, GoodWe, SOLIS, Schneider, AlphaOutback, Watten, Senergy, Sorotec, SMK, Sumry

BES ENERGY
STORAGE
SYSTEMS

BES 1.0

You can download the leaflet from here:

www.bes.ecoshift.gr/ecoshift-bes.pdf

ECOSHIFT
SUSTAINABLE ENERGY MICROMOBILITY SOLUTIONS

13th km Athens-Thessaloniki Highway, Athina 144 52

www.ecoshift.gr

ANNEX

WARRANTY TERMS



- 1. This warranty** (hereinafter the “**Warranty**”) covers all energy storage systems, manufactured by “ECOSHIFT”¹, under the name “BES”. The Warranty covers material or manufacturing defects in the components and parts of BES, under the conditions and limitations of these Warranty Terms.
- 2. Duration:**
 - 2.1. The Warranty period is defined as 2 years for the inverter and 10 years for the batteries.
 - 2.2. The Warranty period begins on the delivery date of a new BES from ECOSHIFT or from an authorized dealer of ECOSHIFT to the first buyer/recipient, as the delivery date is determined by the relevant supporting documents (delivery note or other).
- 3. Validity Conditions:** The warranty is valid only if:
 - i. The instructions of the manual of BES for installation, placement, storage, and use have been followed continuously from the delivery of BES to the first buyer/recipient and throughout its entire period of use.
 - ii. The BES was delivered to ECOSHIFT or to an authorized partner within a reasonable period of time from the occurrence of the defect.
 - iii. Any repairs, works, or interventions on the BES have been carried out exclusively by ECOSHIFT or by an authorized partner.
- 4. Exclusions – Scope of the Warranty:**
 - 4.1. The Warranty does not cover wear, damage, or defects arising from or due to:
 - i. Improper, defective, or non-compliant to the ECOSHIFT’s instructions placement, installation, connection, or storage.
 - ii. Use under extreme conditions, misuse, or use beyond factory specifications.
 - iii. Accidents, collision, or impact of objects on the BES under any conditions.
 - iv. Modifications, works, and/or interventions on the BES or its parts or components by third parties not authorized by ECOSHIFT, as well as the use and installation of parts or components not approved by ECOSHIFT or used (second-hand) parts.
 - v. Failure to charge the BES batteries for a long period of time and/or charging contrary to the manual of BES.
 - vi. Malicious acts.
 - vii. Gross negligence.
 - viii. Exposure outdoors, exposures to the effects of weather or to other external conditions (indicatively fire, flood, lightning, earthquake, short circuit) and/or to extreme pollution.
 - ix. Ingress/penetration of liquids into any component due to misuse or negligence.
 - x. Use of chemicals.
 - xi. Continued use of the BES despite the existence of indications of damage or defect.
 - xii. Failure to comply with the maintenance instructions and schedule provided by “ECOSHIFT.”
 - xiii. Any incident or condition which, according to the law, commercial practices, or good faith, cannot be attributed to the manufacturer.
 - 4.2. The Warranty does not cover any normal wear and tear
 - 4.3. The Warranty does not cover, and ECOSHIFT is not obliged to provide for or in any way remedy, the loss of use of the BES until the defect is repaired, nor any other direct or indirect damage or loss of profits.
- 5. Other Terms:**
 - 5.1. The replacement or repair of BES and/or its parts and/or its componens shall be determined and assessed by ECOSHIFT on a case-by-case basis in accordance with the rules of science and accepted technical practice.
 - 5.2. The components or parts of BES which are replaced shall be delivered to ECOSHIFT and shall automatically revert to its ownership.

¹: “ECOSHIFT” is a trademark of the company (société anonyme) under the name “PETROS PETROPOULOS S.A.”, headquartered in Athens, 96 Iera Odos, Postal Code 10447, Tax Identification Number 094043269, and General Commercial Registry (G.E.MI.) number 000285301000.