



THE BATTERY OF THE FUTURE

Business and Residential Energy Storage Systems

Back-up power
anytime, anywhere.



Maximize the use of Solar Energy and reduce overall energy cost.



Solar Self-consumption

ECO ESS is totally integrated with Cloud hosted Ape' SmartHome software platform, which provides comprehensive configuration and reporting tools that would allow you to save free or less expensive energy during the day and use the storage in the night or during power outage.



Time-of-day (TOD) Tariff

ECO ESS will allow you to store energy from solar when available and the Grid when it is less expensive according to the time of the day. The stored energy could be used during power outage and when the energy cost is highest during peak time. This will lower electricity bills, decrease carbon emissions and maximize clean energy usage throughout the day.

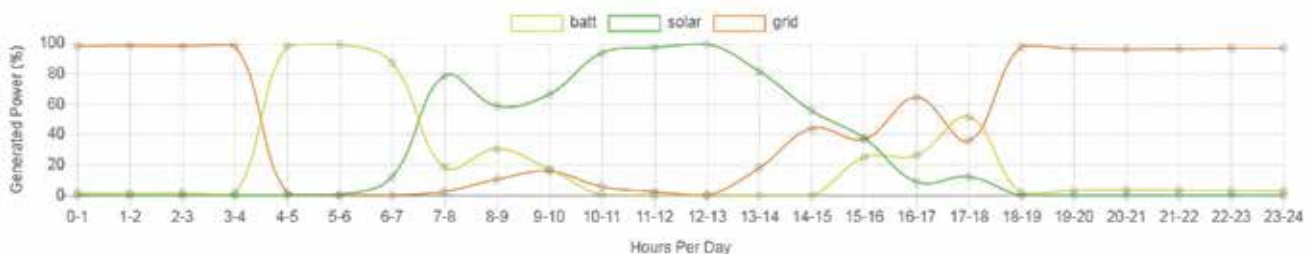


Energy Saving From ESS

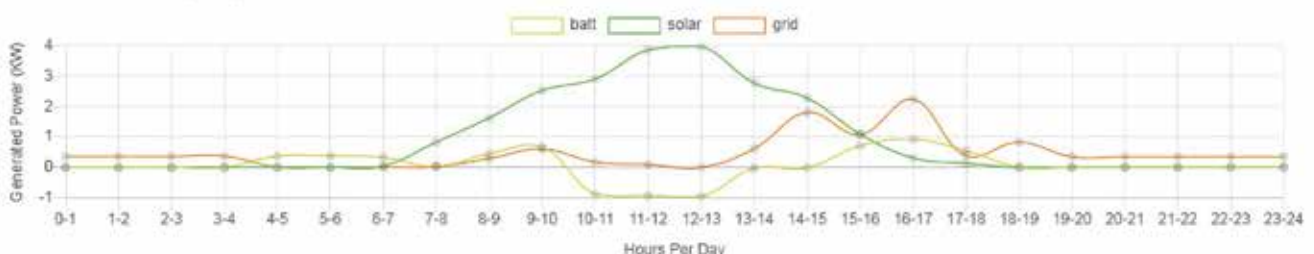
ECO ESS, will use 2~3 units per day from each 50Ah Li-ion battery installed in the system by re-using stored energy daily around 1.5 cycles per day. Flexible schedules can be created in the system to use less costly energy wisely to reduce energy cost. This will also prolong the life of Li-ion batteries.



Power Generation(%) from Total Power



Power Generation(KW)



Smart Back-up power during outage.

Energy blackout, which is unpredictable, can always cause problems no matter the duration whether it is hours or minutes. ECO ESS will act as an energy backup unit, providing reliable power supply, with optimum use of your battery bank.



Smart Backup Control

Integrated with Ape' SmartHome system which includes patented Ape' Smart Plug Sockets and management software platform, ECO ESS is capable of dynamic load selection, according to pre-defined user preferences. This will maximize the duration of backup power supply during grid power failure, with optimized use of your energy storage, based on the capacity of the battery bank.



Smart Load Management

By using advanced patented Ape' Smart Plug Sockets the system can identify critical and non-critical loads to manage them efficiently, when the system is in back-up mode. This will eliminate the need for re-wiring the premises to deploy a power back-up system. Built-in Automatic Transfer Switch (ATS) will further reduce wiring and other costs.



Flexible User Interface

Ape' SmartHome platform provides the facility to configure Off Grid / Hybrid Inverter, Li-ion Battery system remotely via Ape' IoT Gateway, which is incorporated in ECO ESS. In addition, flexible and efficient schedules and profiles could be created using Ape' SmartHome software platform, which will not only control the energy storage system but also the SmartHome system for ultimate comfort and energy efficiency.



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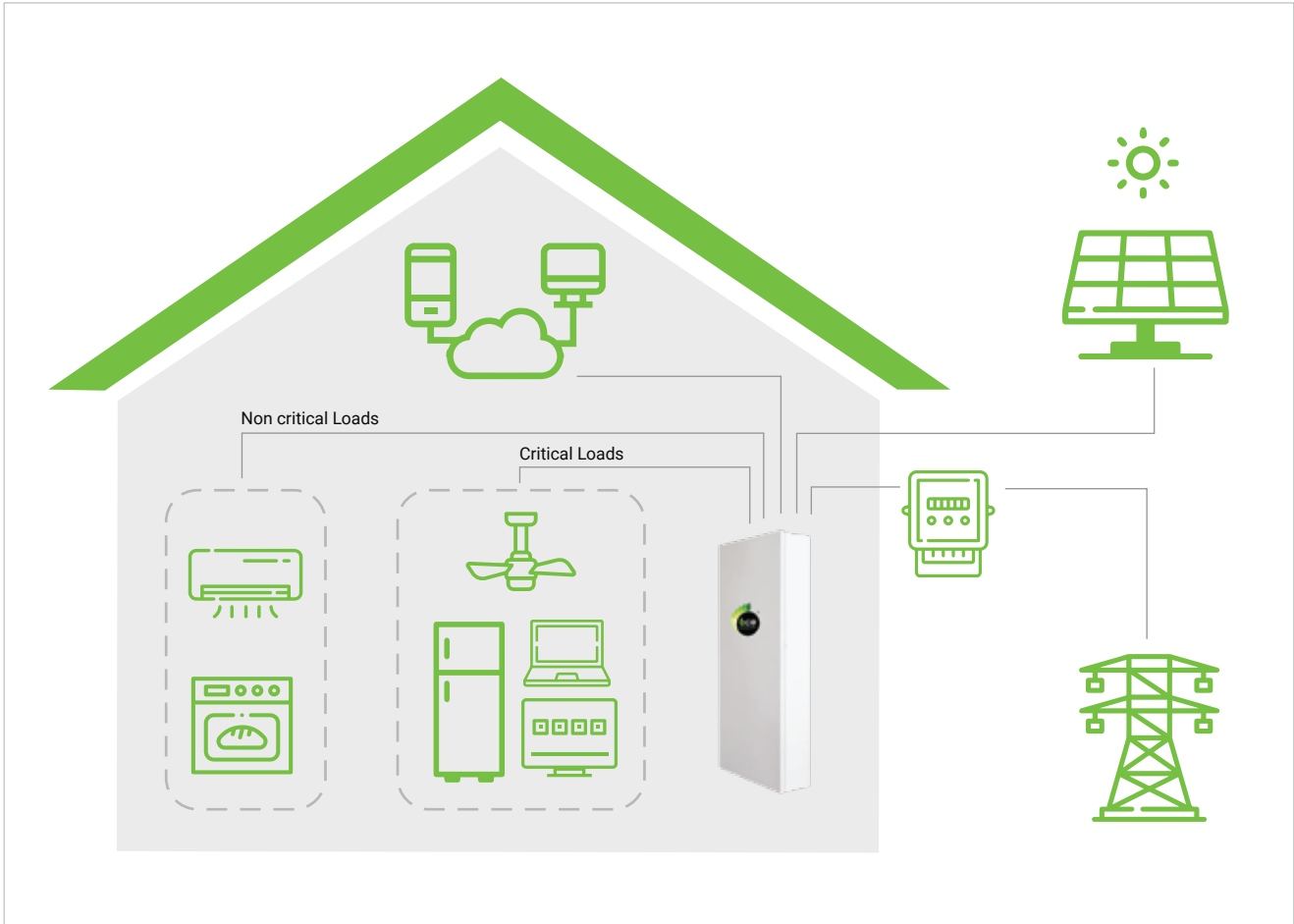
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eCO ESS – Ultimate system for your energy independence.

Provides you with energy during power failures and beyond...



✓ Sleek Cabinet Design

- Powder coated metal structure *
- Easy installation with minimum wiring
- Fan-less silent operation
- Configurable storage capacity
- Wall mounted or Free-standing unit

✓ Standard Inverter & Battery System

- Off-Grid or Hybrid inverter (3~10kW) **
- Li-ion Battery System (50~200Ah) ***

✓ Reliable Operation

- ATS with less than 10ms transfer time for back-up loads
- Built-in manual transfer switch as fallback system
- Built-in Grid isolation for extra safety

✓ Smart Control Unit

- Critical & Non-critical load management
- Modbus RS485 communication with Inverter and BMS
- Ambient Light & Temperature sensors
- Delayed grid connection for safety

* Size (H/W/D) – Type 1 (4' 6"/22"/ 9") – Type 2 (6'2"/22"/9")

** Compatible with SMA, Goodwe & Growatt – Other brands, please inquire

*** Compatible with Pylontech US2000 – Other brands, please inquire



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eco ESS Solutions

ECO ESS can be deployed in various configurations as shown below, depending on the exact customer requirement. Whether you have solar energy harvesting system already or you plan to install a new system, ECO ESS can be configured to suit your exact requirement as well as the budget.

Solution Configurations / Part

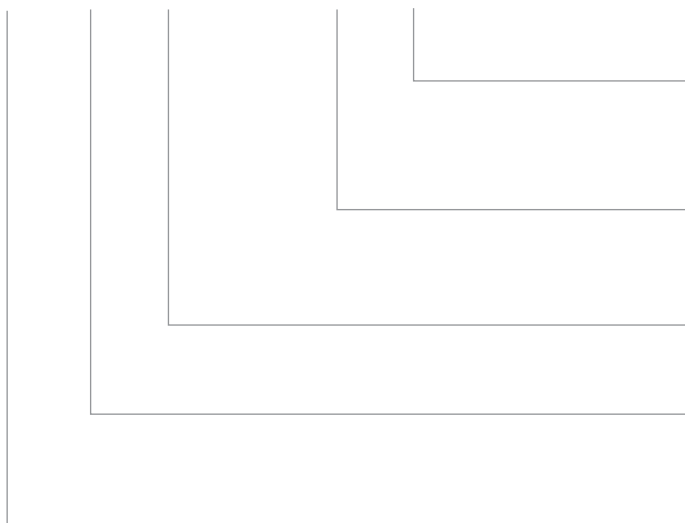
Solution / Part #	3K301P-05SS	5K301P-05ES	5K301P-05SS	5K301P-05PS	5K301P-05UG
MAXES	✓	✓	✓	✓	✓
Off-Grid Inverter	✓	✓	✓	✓	✓
DC Transfer Unit				✓	✓
Li-Ion Battery	✓	✓	✓	✓	✓
On Grid Inverter				✓	
PV Panels	✓		✓	✓	
PV Installation	✓		✓	✓	
AC/DC SPD Etc.,				✓	

Notes:

Please refer to specific Product Catalogue for more details on the applicable product configuration for you.

Solution Part # Description

3K 30 1P - 05 SS



Type of system

SS- Solar Self-Consumption
 ES - Energy Storage
 PS - Plus system (Hybrid system)
 UG - Upgrade (for existing PV systems)

Li-ion Battery Capacity

05 - 50 Ah / 2.4kWh
 10 - 100 Ah / 4.8 kWh
 20 - 200 Ah / 9.6 kWh

Power Supply - Phases

1P - Single Phase
 3P - Three Phase

Power Supply - Current

30 - Thirty Ampere
 60 - Sixty Ampere

System Capacity

3K - Three (03) Kilowatt
 5K - Five (05) Kilowatt



Features & Functions

	SLK-462209	SLK-622209
Battery Type	Lithium Ion (Li-ion)	
Nominal Battery Voltage	48VDC	
Size (H/W/D) in Inches	4'6"/22"/9"	6'2"/22"/9"
Inverter Type	Off-Grid / Hybrid (*1)	
IoT Gateway	Included	
WiFi Interface	Included	
Power Line Communication Modem	Included	
Grid Sensor	Included with Isolation Breaker (*2)	
Critical Load Current Sensor	Included	
Non-Critical Load Current Sensor	Included	
PV Panel Ambient Light Sensor	Optional	
Ambient Temperature Sensor	Included	
Primary Storage for System Data	Cloud (*3)	
System Monitoring Software	Included – Web and APP (iOS and Android)	
Non-Critical load separation	Available with optional Ape' Smart Plug Socket	

Above specifications are for reference only. The actual specification will depend on the application and site conditions.

Notes:

(*1) Will depend on the Country regulation and Inverter Manufacturer

(*2) During Grid failure, the system will be isolated in addition to Anti-Islanding feature of the Inverter

(*3) Cloud service to be provided by the Customer or provided by iS2 at a nominal monthly charge