Star Charge

vLight

Innovative PV-Coupled Residential Battery System

7 kWh ~ 20 kWh

Residential

vLight is a state-of-the-art PV-coupled battery system designed for retrofitting existing PV setups. It allows homeowners to store excess solar energy without requiring additional inverters, AC wiring changes, communication reconfigurations, or new permits. This seamless integration enhances energy usage and reduces electricity costs, providing an innovative and cost-effective way to optimize solar investments.

Smooth Upgrade

Integrate to solar system via internal PV Bus, no AC wiring changes required, and adaptable to various inverters without the need for an additional storage inverter.

Modular Design:

3.46 kWh per module; each pack accommodates 2 to 6 modules, depending on the pack size.

Enhanced Safety

Each battery module is equipped with FCS and uses LFP cells.

Easy Installation

A single module weighs less than 30 kg, allowing for single-person installation.

IP55-Rated

Designed for both outdoor and indoor use.

vLight

vLight : A Simple Step Upgrades Your Existing Solar Into a Solar + Storage System

Solar panels — Solar inverter — Distribution panel — Grid
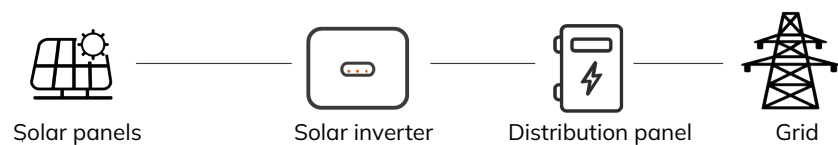
No AC wiring change needed

No communication to PV inverter needed

Solar panels — Solar inverter — Distribution panel — Grid

vLight
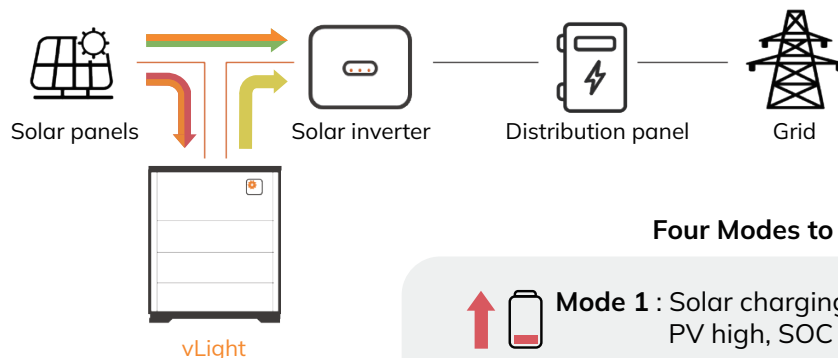
Four Modes to Maxize the Usage of Solar Power

Mode 1 : Solar charging
PV high, SOC low

Mode 2 : ESS discharging
PV low, SOC high

Mode 3 : Bypass operation
Solar high, SOC full

Mode 4 : Charging + Bypass
Solar high, SOC high

Specifications

Specifications are subject to change without notice.

Type	vLight-7	vLight-10	vLight-14	vLight-17	vLight-20
PV max. input voltage	1000 V d.c.				
PV max. input current	27 A d.c.				
Max. short circuit current-Isc	36 A d.c.				
Number of PV string	1				
Output (Inverter Port)	360-900 V d.c.				410-900 V d.c.
Max. continuous output current	27 A d.c.				
Number of battery modules	2	3	4	5	6
Operating voltage range	108.0-129.6 V d.c.	162.0-194.4 V d.c.	216.0-259.2 V d.c.	270.0-324.0 V d.c.	324.0-388.8 V d.c.
Battery energy	6.9 kWh	10.3 kWh	13.8 kWh	17.2 kWh	20.7 kWh
DOD	90%				
Rated power	≥2.7 kW	≥4.1 kW	≥5.4 kW	≥6.8 kW	≥8.1 kW
Max. output power	3.2 kW	4.8 kW	6.4 kW	8.0 kW	9.6 kW
Max. discharge/charge current	25 A d.c.				
Weight	80.7 kg	109.7 kg	138.7 kg	167.7 kg	196.7 kg
Dimension	798x220X1102	798x220x1294	798x220x1485	798x220x1677	798x220x1868
Protection level	IP55				
Communication method	Dongle/RS485				
Compliance standards	UN38.3, IEC/EN 62109-1, IEC/EN 62477-1, IEC/EN 62619, IEC/EN 63056, EN 61000-6-1, EN 61000-6-3				