

Description

Moduly has the first fully integrated smart AC battery system on the market that requires no central panel installation. From residential to light commercial use, Moduly can be installed in minutes with zero technical expertise, and scaled to meet the exact needs of you and your customers alike.

Moduly is specifically designed to pair with green building, solar, and off-the-grid projects. Installation requires no technical expertise and can be accomplished in less than five minutes, allowing you to save labor expenses and time.



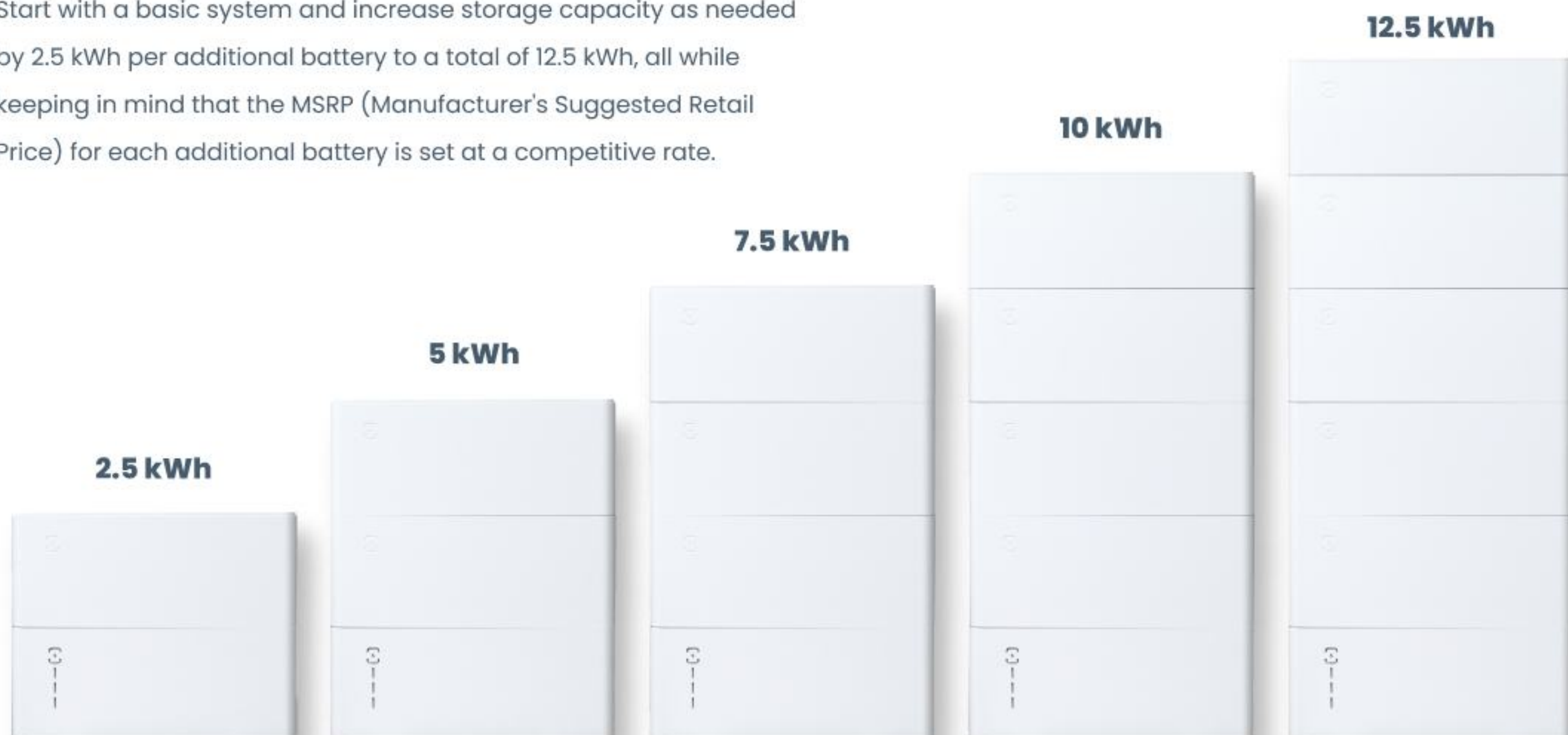
Wall mounted



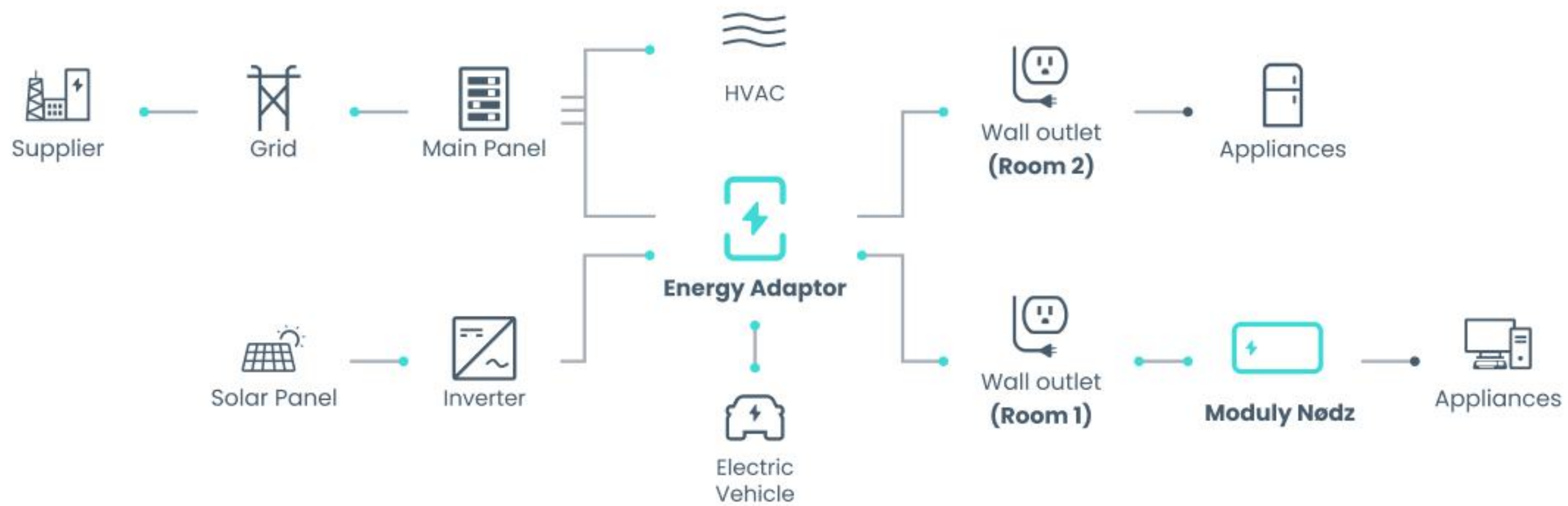
Floor mounted

Capacity

Start with a basic system and increase storage capacity as needed by 2.5 kWh per additional battery to a total of 12.5 kWh, all while keeping in mind that the MSRP (Manufacturer's Suggested Retail Price) for each additional battery is set at a competitive rate.



System layout



System Information

Performance specifications

Input AC Voltage	AC 110 V (60 Hz)
On-Grid Power	1.8 kW
Maximum on-grid power	2 kW/4 kW peak
Energy Capacity	2.5 kWh up to 12.5 kWh*

Communication specifications

Wireless protocol	IEEE 802.11 b/g/n-compliant Bluetooth LE
Wireless communication distance	Approx. 10m (line of sight)
Wi-Fi frequency	2412 ~ 2484 MHz Supports 20 MHz, 40 MHz bandwidth in 2.4 GHz band

Off-grid inverter / UPS

Rated power	2000 W
Peak power	4000 W
Input voltage range	20 - 31 V
Output voltage	110 VAC ± 5%
Output frequency	60 Hz ± 0.5 Hz
Output waveform	Pure Sine Wave
Operating temperature	-14 °F to 122 °F (-10 °C to 50 °C)
Protection function	Low voltage, Over voltage, Overload, Over temperature, Short circuit, Input reverse polarity (burn fuse)

Grid-tie inverter

Rated power	1800 W
Input voltage range	20 - 45 VDC
Output voltage	120 VAC
Output frequency	50 Hz/60 Hz (Auto control)
Output current	~15 A at 120 VAC
Power factor	>97.5%
THD	<5%
Phase shift	<2%
Output waveform	Pure Sine Wave
Operating temperature	-13 °F to 158 °F (-25 °C to 70 °C)
Protection function	Islanding; Short-circuit; Low Voltage; Over Voltage; Over Temperature Protection

Mechanical specifications

Controller Module	27.2 in x 7.9 in x 10.8 in (69.06 cm x 20.06 cm x 27.5 cm)
Controller Weight	25.5 kg (56.2 lbs)
Battery Module	27.2 in x 7.9 in x 8.6 in (69.06 cm x 20.06 cm x 21.8 cm)
Battery Weight	32.1 kg (70.7 lbs)*
Mounting	Floor or Wall
Material	Aluminum Housing

Battery specifications (per module)

Battery chemistry	LiFePO4
Nominal voltage	25.6 V
Voltage range	17.6 V - 29.2 V
Nominal capacity	96 Ah/2.46 kWh
Charging current	Standard 0.2 C(19 A)/Rapid 0.5 C(48 A)
Max continuous discharge current	100 A
Operating temperature	32 °F to 113 °F (0 °C to 45 °C)
BMS protection function	Over-discharge, Overcharge, Short circuit, Temperature protection, Overcurrent protection

Battery charger

Maximum output voltage	29.2 ± 0.2 VDC
Nominal output power	800 W
Input voltage	100 - 240 VAC 50 Hz/60 Hz
Maximum input current	15 A (AC)
Operating temperature	14 °F to 122 °F (-10 °C to 50 °C)
Protection function	Over voltage, Over temperature, Short circuit, Input reverse polarity

Safety and compliance

Controller Certifications	UL 2054, UL 62368-1, CAN/CSA C22.2 No. 62368-1:19, IEEE 1547
Battery Certifications	ANSI/CAN/UL 1973, FCC
Environmental (for battery)	California Prop 65
Transportation	UN 38.3
Protection	Anti-islanding

* Values are given per module, the system is capable of handling up to 5 modules of 2.5 kWh.