



PowerCube Series GEN 2

VA800D / VA2000D / VA2500D / VA3000D + VB5000D

Expand as Your Energy Needs Grow

 FROM 800–3,000 W Plug-in to whole-home ¹	 UP TO 3,000 W Solar input, 4 MPPTs ²	 Hybrid Microinverter with built-in battery	 ≤ 10 ms Backup switchover	 2.5–27.5 kWh Modular storage, stackable ³	 AI Smart energy management
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Safety and Durability

 Aerosol Fire Suppression Built into every battery module	 Self-Heating Automatic cell heating in cold weather
 12,000 Cycles⁴ Long-life LFP cells	 IP66 Dust-tight and water-jet protected
 15-Year Design Life Built for long service	 10-Year Warranty⁵ Standard product warranty

VA Series

Inverter unit with
2.5 kWh built in

VB5000D

5 kWh stackable
battery pack



¹ 800 W (VA800D) to 3,000 W (VA3000D). In some regions, systems up to 800 W may be plugged directly into a socket. Install strictly in line with local regulations; a dedicated protected circuit in the distribution board is recommended.

² VA2000D, VA2500D and VA3000D. VA800D: up to 2,000 W.

³ 2.5 kWh built into the VA unit, plus up to 5 × VB5000D packs of 5 kWh each.

⁴ Measured under laboratory test conditions. Actual cycle life depends on operating conditions.

⁵ Conditions apply. Refer to the VaySunic Limited Warranty for details.

Values were measured in the VaySunic laboratory under specific test conditions and may vary in actual use. Images are for reference only.

Typical Applications



01 · BALCONY

Balcony and Plug-in Solar²

TYPICAL CONFIGURATION¹

VA800D + (0–1) × VB5000D

2.5–7.5 kWh

800 w

AC output

2,000 w

Solar input

3,000 w

Backup / off-grid³



02 · GARDEN

Garden, Patio and Carport

TYPICAL CONFIGURATION¹

VA2000D + (1–2) × VB5000D⁴

7.5–12.5 kWh

2,000 w

AC output

3,000 w

Solar input

3,000 w

Backup / off-grid



03 · ROOFTOP AND RETROFIT

Rooftop and Retrofit⁵

TYPICAL CONFIGURATION¹

VA3000D + (3–5) × VB5000D

17.5–27.5 kWh

3,000 w

AC output

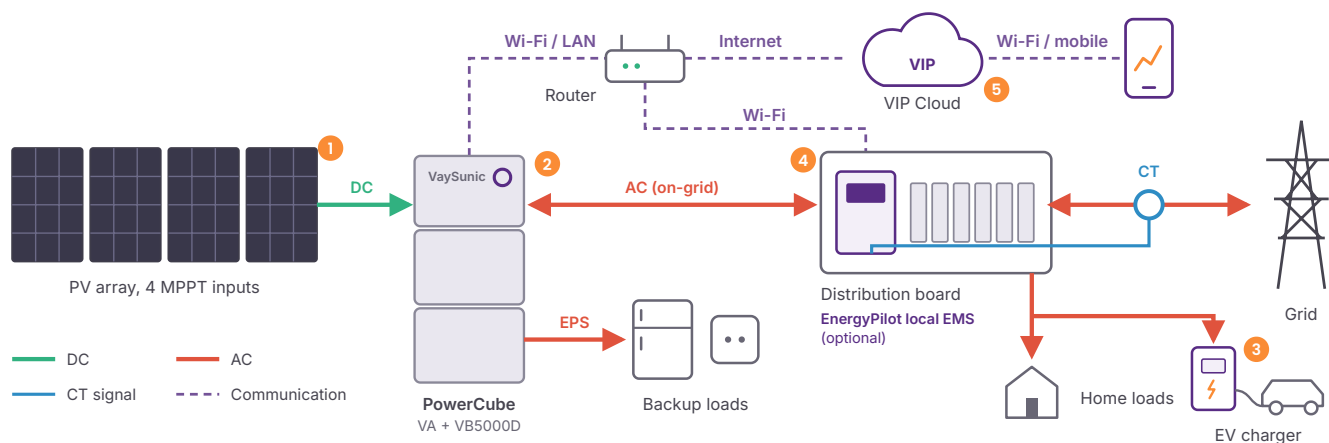
3,000 w

Solar input

3,000 w

Backup / off-grid

One Ecosystem Solar, storage, charging and local EMS, added block by block



1 SOLAR PV + SolarCore

4 MPPT inputs,
expandable with
microinverters

2 STORAGE PowerCube

Hybrid microinverter
with stackable
batteries

3 CHARGING ChargeFlow

EV charger with
solar-priority
charging

4 LOCAL EMS EnergyPilot

Local dispatch and
zero export

5 CLOUD VIP Cloud

App, monitoring and
AI scheduling

¹ Typical configurations are for guidance only. Size each system to the site and local regulations.

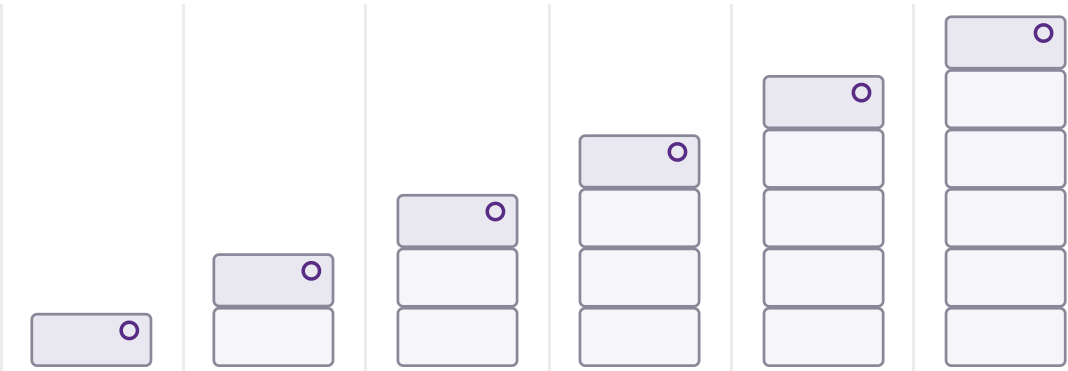
² Plug-in connection only where local regulations allow.

³ Up to 3,000 W with PV and battery together, or with 7.5 kWh or more installed. Battery alone at 2.5 kWh: 1,200 W.

⁴ Shown with a socket connection, only where local regulations allow; a dedicated protected circuit is recommended.

⁵ Retrofit: add PowerCube and EnergyPilot to an existing PV system.

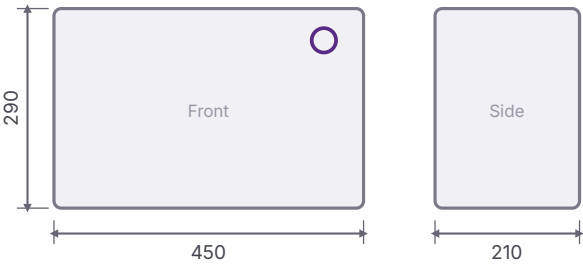
Start with one VA unit and stack up to five VB5000D packs; new and existing packs can be mixed. Secure every stack with the anti-tip accessory. For more capacity, three or more systems can run in parallel.



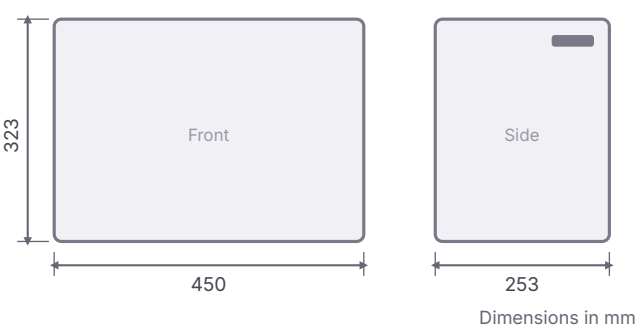
Configuration	VA	VA + 1	VA + 2	VA + 3	VA + 4	VA + 5
System Capacity	2.5 kWh	7.5 kWh	12.5 kWh	17.5 kWh	22.5 kWh	27.5 kWh
Battery-only AC Output ¹	1,200 W	3,000 W	3,000 W	3,000 W	3,000 W	3,000 W
Stack Height ²	290 mm	613 mm	936 mm	1,259 mm	1,582 mm	1,905 mm
Stack Weight ²	26 kg	67 kg	108 kg	149 kg	190 kg	231 kg

Dimensions

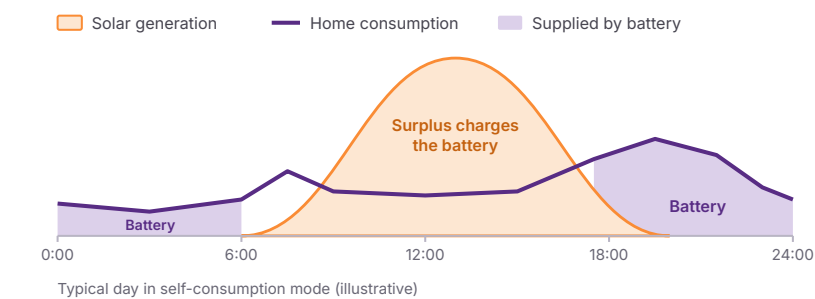
VA Series



VB5000D



Smart Energy Management



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Self-Consumption
Solar first, surplus stored for the evening
- 

Time-of-Use
Charges cheap, supplies at peak prices
- 

Backup
Adjustable SOC reserve for outages
- 

Zero Export
Grid feed-in limited via EnergyPilot



Solar Forecast
Plans charging around the expected solar yield.



AI Scheduling
Learns your usage and optimises charging automatically.



App Monitoring
Live energy flows and settings on your phone.

1 AC output from the battery alone; PV makes up the rest. Grid output is capped by the VA model rating (800 / 2,000 / 2,500 / 3,000 W); backup output is 3,000 W on all models.
2 Calculated from module dimensions and weights, excluding base and mounting brackets.

Model	VA800D	VA2000D	VA2500D	VA3000D
PV Input (DC)				
Compatible PV Module Power (Wp) ¹	200–550+	400–750+	500–750+	610–750+
Max. PV Input Power (W) ²	2,000 (4 × 500)	3,000 (4 × 750)	3,000 (4 × 750)	3,000 (4 × 750)
MPPTs / Voltage Range / Max. Input (V)	4 / 18–60 / 60			
Max. Input / Short-Circuit Current (A)	20 / 25 per MPPT			
AC Input (Grid Charging)				
Nominal Voltage (Range) / Frequency ⁵	230, 240 V (180–275 V) / 50 Hz			
Max. Input Current / Max. Charging Power ⁴	13.8 A / 3,000 W			
AC Output (On-Grid)				
Rated Output Power (W) ³	800	2,000	2,500	3,000
Rated / Max. Output Current (A)	3.5 / 3.5	8.7 / 16	10.9 / 16	13.0 / 16
Nominal Voltage (Range) / Frequency ⁵	230, 240 V (180–275 V) / 50 Hz			
Power Factor	> 0.99 (default), adjustable 0.8 leading to 0.8 lagging			
Total Harmonic Distortion	< 3%			
Overvoltage Category	III (AC port)			
AC Output (Backup / EPS)				
Max. Continuous / Peak Power ³	3,000 W / 4,500 W (15 s)			
Rated Output Current (A)	13			
Nominal Voltage (Range) / Frequency (Range)	230 V (218.5–241.5 V) / 50 Hz (49.5–50.5 Hz)			
Switchover Time (Grid to Backup)	≤ 10 ms			
Backup Connection	Dedicated EPS port			
Battery (Built-in)				
Cell Type	LiFePO ₄ (LFP)			
Nominal Capacity (Wh)	2,508.8			
Cycle Life ⁶	12,000 cycles			
Self-Heating	Integrated, automatic			
Max. Expandable Capacity	27.5 kWh per system (VA + 5 × VB5000D); three or more systems in parallel			
Battery Pack VB5000D				
Nominal Capacity / Max. Power	5,017.6 Wh / 2,500 W (0.5C)			
Pack Mixing	Supported			
Dimensions (W × D × H) / Weight	450 × 253 × 323 mm / 41 ± 0.5 kg			
Communication (to VA)	CAN			
Other Parameters	Same as the VA unit			
Protection and Safety				
Aerosol Fire Suppression	Integrated, automatic activation			
Integrated Protection	Insulation monitoring, DC surge protection, residual current monitoring			
Grid and AC Protection	Anti-islanding, AC over-current, AC over-voltage			
Battery Protection (BMS)	Temperature monitoring, over-voltage, over-current			
General Data				
Dimensions (W × D × H) / Weight	450 × 210 × 290 mm / 26 ± 0.5 kg			
Ingress Protection	IP66			
Charging / Discharging Temperature ⁷	–20 to 55 °C / –20 to 55 °C			
Operating Ambient Temperature	–20 to 50 °C (derating at high temperatures)			
Storage Temperature	–25 to 60 °C			
Relative Humidity / Max. Altitude	5–90% / 2,000 m			
Cooling / Mounting	Natural convection, fanless / Floor-standing, anti-tip accessory			
Communication / Monitoring	Wi-Fi (2.4 GHz), LAN, CAN (battery) / LED indicators, VIP Cloud			
Smart Energy Management	AI scheduling, dynamic tariff support, solar forecast (VIP Cloud)			
Zero Feed-in Control	Via EnergyPilot local EMS controller (optional)			
Warranty ⁸ / Design Life	10 years / 15 years			

Standards Compliance Certification status varies by market. Contact VaySunic for current certificates.

Grid	EN 50549-1:2019 · EN 50549-10:2022 · VDE-AR-N 4105 (DE) · CEI 0-21 (IT) · C10/11 (BE) · G98 (UK) · PEA / MEA (TH)
Safety	IEC/EN 62109-1 · IEC/EN 62109-2 · IEC/EN 62477-1 · EN 50665:2017 · EN IEC 62311:2020
Radio and EMC	RED 2014/53/EU · EN 300 328 · EN 301 489-1 / -17 · IEC/EN 61000 series · IEC/EN 62920
Cybersecurity	EN 18031-1 · PSTI (UK)
Battery	IEC/EN 62619 · IEC/EN 63056 · UN 38.3

1 Recommended module power per MPPT input. Check module Voc at the lowest site temperature against the 60 V input limit.
2 PV power feeds both AC output and battery charging. This oversizing does not affect the warranty.
3 Rated power is reached with PV and battery supplying together. Battery-only AC output: 1,200 W with 2.5 kWh, 3,000 W with 7.5 kWh or more installed.
4 Charging from the PV and AC ports can be combined up to the maximum charging power.
5 Nominal voltage, frequency and ranges are set to the local grid code. Grid feed-in power may be limited by local regulations.
6 Measured under laboratory test conditions. Actual cycle life depends on temperature, charge and discharge rate, and depth of discharge.
7 With built-in self-heating. When the cell temperature is low, the battery automatically heats the cells into the operating range, for both charging and discharging. Temperatures refer to cell temperature.
8 Conditions apply. Refer to the VaySunic Limited Warranty for details.