

L A V O ·

Hello There. Let's Rethink Energy.

LAVO Life's Product Data Sheet.



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Storage S4

AIO-13KWH1P4S-AP,
AIO-13KWH1P3S-AP,
AIO-13KWH1P2S-AP

With a built-in inverter and latest smart systems, you will be able to harness and maximise your use of renewable energy in a sleek and minimalist form factor.

Special Features

- Easy installation with modular and stacked design.
- High performance charge and discharge.
- Whisper quiet system.
- Independent all-in-one unit with built-in inverter and battery.
- Adaptive with self-power, backup and load shifting modes.



All Metal
Construction



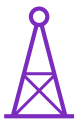
Cobalt Free
LifePO4



Plug and Play
Installation



Multi-State
Protection



Remote Firmware
Upgrade



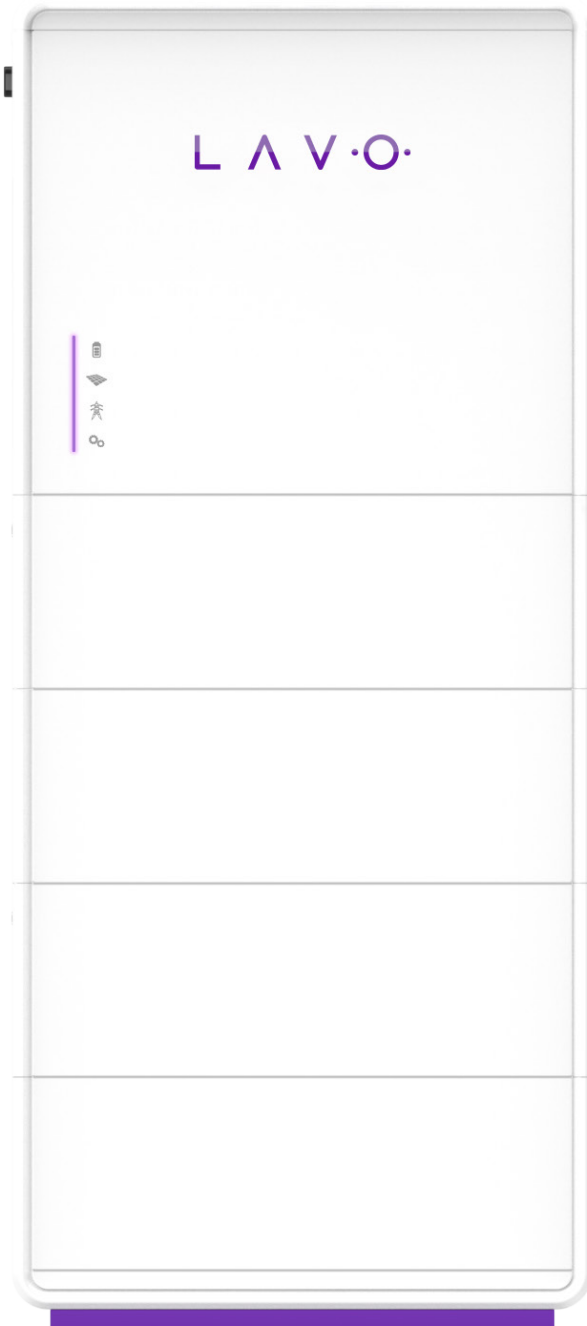
Smart
System



User
Friendly App



15 Year
Warranty



Storage S4

Model	AIO-13KWH1P4S-AP, AIO-13KWH1P3S-AP, AIO-13KWH1P2S-AP
Rated Energy (kWh)	13.3
Usable Energy (kWh)	12.6
Dimensions W*D*H (mm)	760*220*1650
Weight (kg)	181
Communication	RS485
Communication with Portal	Wifi/4G/Ethernet
Degree of Protection	IP65
Heat Dissipation Method	Natural convection
Operating Temperature Range	-20°C-54°C (55°C-60°C Derating)
Relative Humidity	0-95% RH
Warranty	15 Years
Mounting Method	Floor standing
Construction	Metal powdercoat
Certification & Standards	CEC, UN 38.3, IEC 62619, IEC 62109, AS/NZS 4777
Display	SOC indicator, status indicator

Safety and Monitoring

- AC Short-Circuit Protection
- Overload Protection
- Residual Current Detection
- Anti-Island Protection
- AC Surge Protection
- DC Surge Protection
- DC Over-Under-Voltage Protection
- AC Undervoltage Protection
- AC Underfrequency Protection
- PV Anti-Reverse Connect Protect
- DC Disconnect Device
- AC Over Current Protection
- AC Over Voltage Protection
- Over Temp Protection
- Communication Fault Protection

Inverter Module

Rated Output Power (kW)	7
Rated Output Current (A) @230VAC	30.5
Peak Output Power (VA)	8000@10s
Rated Output Voltage (V)	230
Phase	Single-phase
Rated Output Frequency (Hz)	50Hz / 60Hz

Backup Power Mode	Yes
Max Input Voltage (V)	550
MPPT Voltage Range (V)	120-500
MPPT Max Input Current (A)	15
MPPT Max Short-Circuit Current (A)	20
No. of MPPT Trace Paths	3

Battery Pack

Type of Battery	Lithium Iron Phosphate (LFP)
Rated Energy (kWh) Per Module	3.34
Rated Voltage (V)	102.4V
Max Charge/Discharge Current (A)	32/32
Weight (kg) Per Module	35
Max Battery Discharge Efficiency	95%

Storage S2

AIO-10KWH1P2S-CE

With a built-in inverter and latest smart systems, you will be able to harness and maximise your use of renewable energy in a sleek and minimalist form factor.

Special Features

- Easy installation with modular and stacked design.
- High performance charge and discharge.
- Whisper quiet system.
- Independent all-in-one unit with built-in inverter and battery
- Adaptive with self-power, backup and load shifting modes.



All Metal
Construction



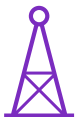
Cobalt Free
LifePO4



Plug and Play
Installation



Multi-State
Protection



Remote Firmware
Upgrade



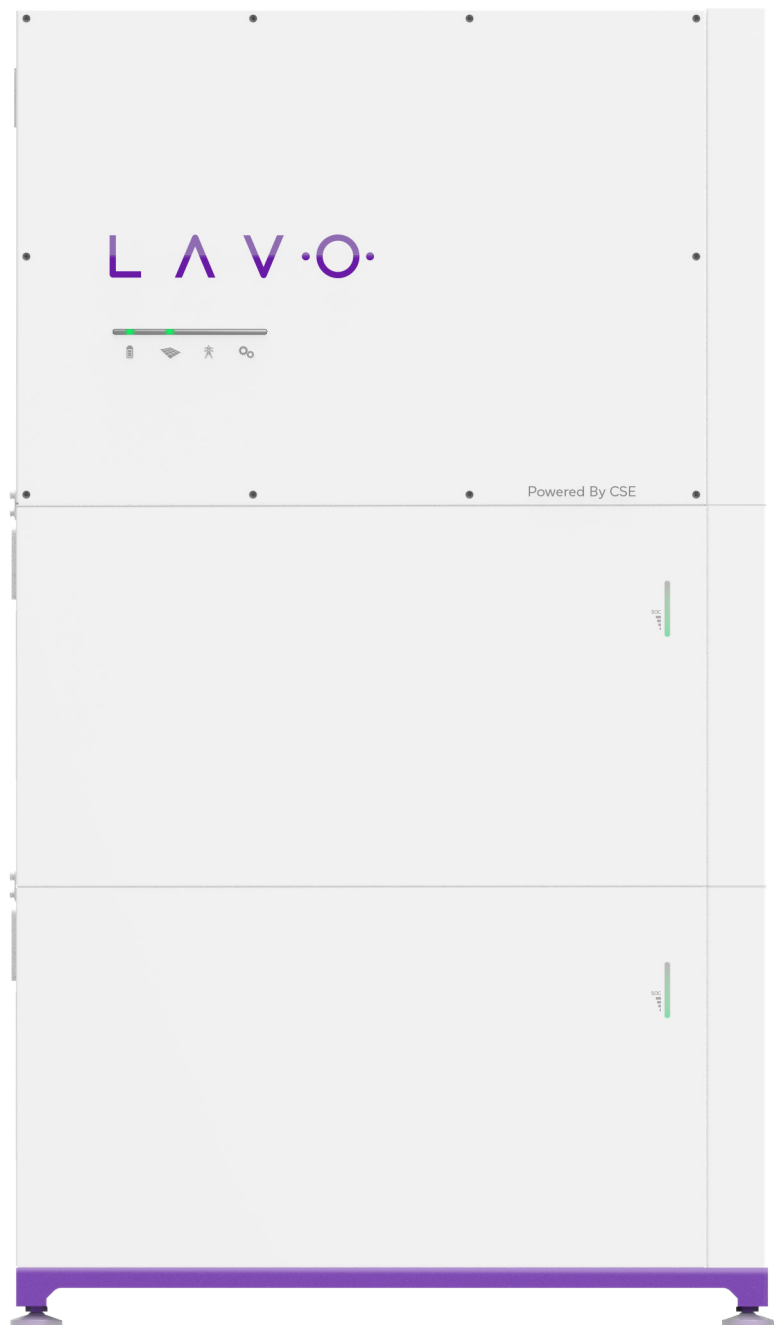
Smart
System



User
Friendly App



10 Year
Warranty



Storage S2

Model	AIO-10KWH1P2S-CE
Rated Energy (kWh)	10.2
Usable Energy (kWh)	9.7
Dimensions W*D*H (mm)	730*203*1270
Weight (kg)	122
Communication	RS485
Communication with Portal	Wifi / 4G / Ethernet
Degree of Protection	IP65
Heat Dissipation Method	Natural convection
Operating Temperature Range	-10°C~50°C (45°C~60° Derating)
Relative Humidity	0~95% RH
Warranty	10 years
Mounting Method	Floor standing
Construction	Metal powdercoat
Certification & Standards	CEC, UN 38.3, IEC 62619, IEC 62109, AS/NZS 4777
Display	SOC indicator, status indicator

Safety and Monitoring

- AC Short-Circuit Protection
- Overload Protection
- Residual Current Detection
- Anti-Island Protection
- AC Surge Protection
- DC Surge Protection
- DC Over-Under-Voltage Protection
- AC Undervoltage Protection
- AC Underfrequency Protection
- PV Anti-Reverse Connect Protect
- DC Disconnect Device
- AC Over Current Protection
- AC Over Voltage Protection
- Over Temp Protection
- Communication Fault Protection

Inverter Module

Rated Output Power (kW)	5
Rated Output Current (A) @230VAC	21.8
Peak Output Power (VA)	6000@10s
Rated Output voltage (V)	230
Phase	Single-phase
Rated Output Frequency (Hz)	50Hz / 60Hz

Backup Power Mode	Yes
Max Input Voltage (V)	600
MPPT Voltage Range (V)	120~550
MPPT Max Input Current (A)	13.5
MPPT Max Short-Circuit Current (A)	15
No. of MPPT Trace Paths	2

Battery Pack

Type of Battery	Lithium Iron Phosphate (LFP)
Rated Energy (kWh) Per Module	5.12
Rated Voltage (V)	51.2
Max Charge/Discharge Current (A)	50/75
Weight (kg) Per Module	48
Max Battery Discharge Efficiency	95%



Solar P415/P440

PV-415WMP-YL
and PV-440WMP-YL

With high quality encapsulation materials and classic glass-backsheet structure, these modules are perfectly suited to the harsh environment and provide you with high reliability and quality assurance.

Special Features

- Large cell size allows the module to generate a superior energy yield once in use.
- Modules meet IEC standard testing requirements and are built to withstand the harsh Australian environment.
- Wide applications enhances mechanical performance and compatibility with mainstream trackers and inverters.
- Multi-busbar design effectively reduces impact of micro-cracks and broken busbars, and half-cell structure reduces impact of shadow shading.
- Beautiful black minimalist panels.



Superior
Yield



Excellent
Durability



Wide
Applications



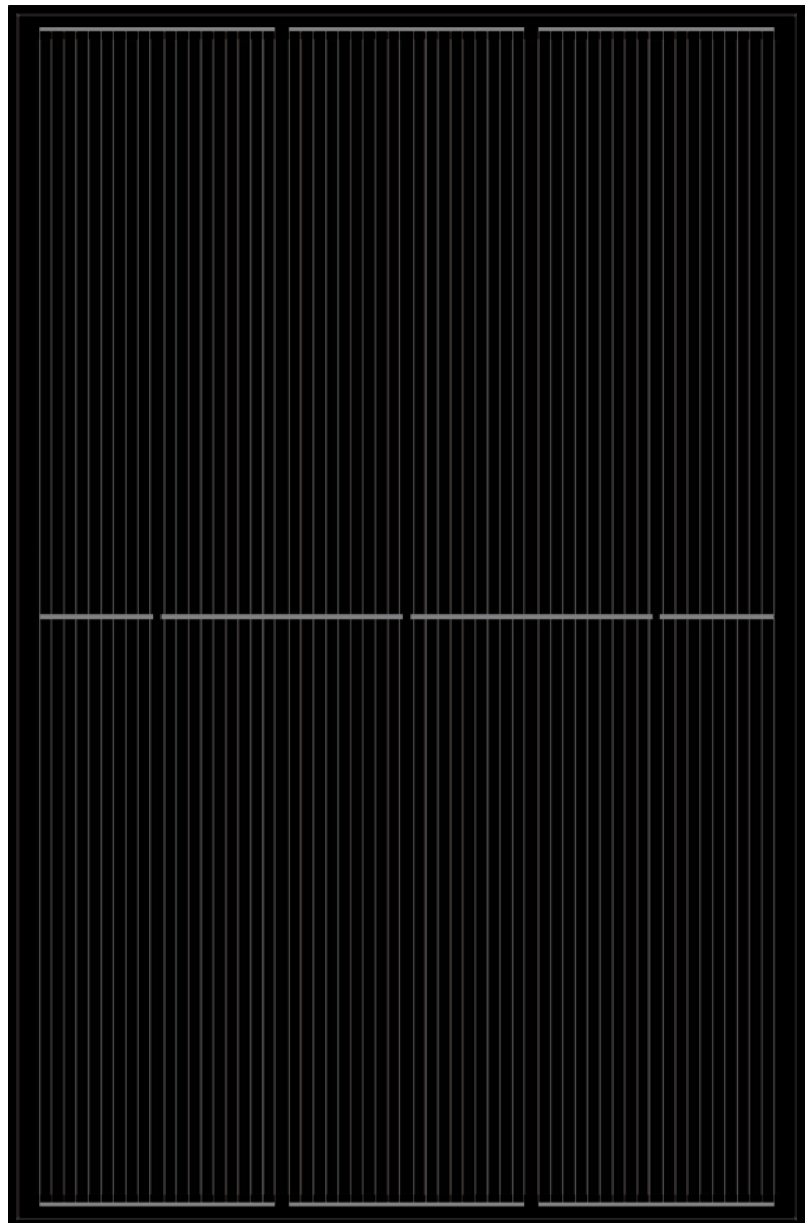
Ethically
Produced



25 Year
Warranty



Responsibly
Sourced



Electrical Parameters at Standard Test Conditions (STC*)

Module Type			Solar P415	Solar P440
Power Output	P_{max}	W	415	440
Power Output Tolerances	ΔP_{max}	W	0 / + 5	0 / + 5
Module Efficiency	η_m	%	21.25	22.53
Voltage at P_{max}	V_{mpp}	V	31.1	32.26
Current at P_{max}	I_{mpp}	A	13.35	13.64
Open-circuit Voltage	V_{oc}	V	37.39	38.86
Short-circuit Current	I_{sc}	A	14.02	14.40

*STC: 1000 W·m⁻² irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-3. Measurement tolerance of P_{max} , V_{oc} and I_{sc} is ±3%.

Operating Conditions

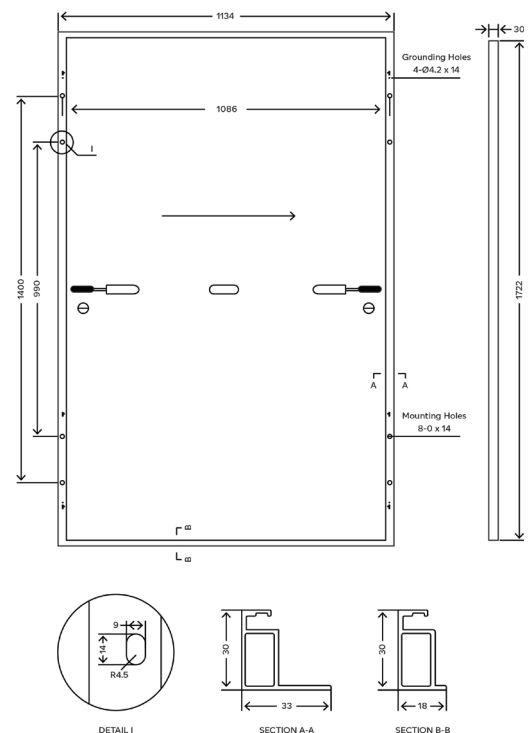
Max. System Voltage	1000 V _{DC} / 1500 V _{DC}
Max. Series Fuse Rating*	25 A
Operating Temperature Range	- 40°C to 85°C
Max. Static Load, Front (e.g. snow)	5400 Pa
Max. Static Load, Back (e.g. wind)	2400 Pa
Max. Hailstone Impact (diameter / velocity)	25 mm / 23 m·s ⁻¹

*Do not connect fuse in combiner box with two or more strings in parallel connection.

Construction Materials

Cell (material / quantity)	P-type monocrystalline silicon / 6 x 18
Glass (material / thickness)	Low-iron tempered glass / 3.2 mm
Frame (material)	Anodised aluminum alloy
Junction Box (type / protection degree)	3 bypass diodes / ≥ IP68
Plug Connector (type)	Staubli EVO2 or Yitong YT18-01 or Renhe RHC2
Cable (length / cross-sectional area)	± 1200 mm / 4 mm ²

Back View (units mm)



General Characteristics

Dimensions (L / W / H)	1722 mm / 1134 mm / 30 mm
Weight	21.5 kg
Fire resistance rating	Class C

P440 Thermal Characteristics

Nominal operating cell temperature	NOCT	°C	42 ± 2
Temperature coefficient of Pmax	γ	%/°C	- 0.30
Temperature coefficient of Voc	β	%/°C	- 0.25
Temperature coefficient of Isc	α	%/°C	0.046

Qualifications & Certifications

IEC 61215, IEC 61730, CE, UL 61730, IEC 62941:2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing, ISO 9001:2015 Quality management systems, ISO 14001:2015 Environmental management systems, ISO 45001:2018 Occupational health and safety management systems.



Charger C7/C11

EVC-7KW1PAC-CG
and EVC-11KW3PAC-CG

Make the switch to sustainable transportation. Invest in your future car with this EV charger and help contribute to a greener planet.



Smart
Control



Intelligent
Protection



Communication



Rated
Power



OCPP 1.6



3 Year
Warranty

Special Features

- Multi-protection
- 4G / Bluetooth
- Smart charging: OCPP 1.6
- Remote monitoring: App
- 5m cables



Specification Parameters

	Charger C7 - Single Phase	Charger C11 - Three Phase
Input Voltage	220V±20%	380V±20%
Rated Power	7kW	11kW
Output Voltage	220V±20%	380V±20%
Output Current	32A	16A
Dimensions of Pole	W*H*D: 120mm*1450mm*60mm	W*H*D: 120mm*1450mm*60mm
Frequency	45Hz~65Hz	
Standby Power	<5W	
Operation Temperature	-30°C~+55°C	
Relative Humidity	5%~95%	
Operation Altitude	≤2000m	
Protecting Rating	IP55	
Dimensions	L*W*H: 265mm*130mm*385mm	
Package Dimensions	Carton packing, L*W*H: 344mm*259mm*618mm	
Weight	<10kg (without pole)	
Cable Length	5m	
Weight of Pole	~3kg	

Compliance

IEC 62196-1-2014, IEC 62196-2-2016, IEC 61851-1-2017, IEC 61851-2-2011, IEC 62752-2016, IEC 62893-1-2017, IEC 62893-2-2017, IEC 62893-3-2017, EN 50620