

SYSTEM PACKAGE DATA SHEET

Package 2: SAJ 13.30 kWp + 50.0 kWh nominal

Three-phase SAJ package with two independent 25 kWh high-voltage battery stacks and fast backup transfer capability.

Inverter and battery compatibility confirmed

SAJ lists H2-10K-T3-AU with B2-25.0-HV1 in its official compatibility statement. Two 25 kWh stacks provide 50.0 kWh nominal energy and 48.0 kWh usable energy at the datasheet 96% DoD.

PACKAGE 2


SAJ

13.3kW SOLAR + 50kWh BATTERY

- ✓ 13.3kW Solar PV System
- ✓ x28 JA Solar N-Type Panels
- ✓ 10kW SAJ H2-10K-T3 Hybrid Inverter (3-Phase)
- ✓ 50kWh Battery Storage (2 x 25kWh Stacks)
- ✓ Online Monitoring & Mobile App
- ✓ VPP Ready
- ✓ Whole Home Backup Capability*
- ✓ NETCC Approved Installation



PERFECT FOR:

Families seeking maximum backup power and energy independence.

13.30 kWp

DC solar array

10.0 kW

3-phase hybrid inverter

50.0 kWh

Nominal battery energy

48.0 kWh

Usable battery energy

Package configuration

Component	Selected model / quantity
Solar modules	28 x JA Solar JAM54D40-475/LR N-type bifacial dual-glass modules
Hybrid inverter	1 x SAJ H2-10K-T3-AU, three-phase
Battery	2 x SAJ B2-25.0-HV1 stacks; each stack has 5 x 5 kWh modules
Monitoring	SAJ monitoring platform / mobile application; communications hardware as specified
Backup	H2 backup output; final whole-home or essential-load arrangement is site-specific

Capacity reconciliation

Solar: $28 \times 475 \text{ W} = 13,300 \text{ W}$ (13.30 kWp). Battery: $2 \times 25.0 \text{ kWh} = 50.0 \text{ kWh}$ nominal; $2 \times 24.0 \text{ kWh} = 48.0 \text{ kWh}$ usable. DC/AC ratio: 1.33.

Design basis

The inverter has two battery inputs and the SAJ compatibility certificate includes the B2-25.0-HV1. Final design must confirm whether each stack connects to a dedicated battery input, firmware version, battery addressing, protection and cabling.

1. Solar PV array and module data

13.30 kWp Array rating (STC)	28 Module quantity	475 W Module rating	1.33 PV / inverter ratio
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JA Solar JAM54D40-475/LR

N-type bifacial double-glass module. The selected 475 W SKU produces an exact 13.30 kWp array with 28 modules.

PV module parameter	Official datasheet value
Rated maximum power (Pmax)	475 W at STC
Voc / Vmp	40.55 V / 34.18 V
Isc / Imp	14.67 A / 13.90 A
Module efficiency	23.8%
Power tolerance	-5 W to +10 W
Construction	108 half-cells; N-type; 1.6 + 1.6 mm dual glass; IP68 junction box
Dimensions / weight	1762 x 1134 x 30 mm; 22 kg
Maximum system voltage / fuse	1500 V DC / 25 A
Temperature coefficients	Pmax -0.290%/C; Voc -0.250%/C; Isc +0.045%/C
Warranty stated in datasheet	15-year product warranty; 30-year linear power warranty

Array calculation and design notes

Item	Calculation / requirement	Result
Nameplate array	28 modules x 475 W	13,300 W
Approx. module area	28 x 1.762 m x 1.134 m	55.95 m2 before gaps
Inverter PV allowance	13.30 kWp compared with 20.0 kWp published maximum	Within published allowance
Current check	Module Isc 14.67 A versus each SAJ MPPT input limit	Final string allocation required

Final string design required

The H2-10K-T3 provides three MPPT trackers and up to two strings per tracker. The 28 modules should be allocated only after cold-voltage, hot-voltage, current, roof orientation and shading calculations are completed.

Official source

[JA Solar official JAM54D40/LR datasheet](#)

2. Hybrid inverter / energy controller data

SAJ H2-10K-T3-AU

Three-phase high-voltage hybrid inverter. The Australian 10 kW model is listed at 9999 W / 9999 VA and provides three MPPTs, two battery inputs and a fast backup output.

Inverter parameter	Official datasheet value
Maximum PV array power	20,000 W
Maximum DC voltage	1000 V
MPPT operating range / start voltage	180-900 V / 180 V
MPPTs / strings	3 MPPTs; up to 2 strings per MPPT
Maximum input current	40 / 40 / 40 A
Maximum short-circuit current	50 / 50 / 50 A
Battery type / voltage	LiFePO4; 180-800 V
Battery inputs / current	2 inputs; 50 A maximum charge and discharge
Rated AC output	9999 W / 9999 VA (AU model)
Rated / maximum output current	14.5 A / 14.5 A
Grid connection	3L + N + PE; 220/380, 230/400 or 240/415 V
Backup output	10,000 VA maximum; 15,000 VA peak for 3 seconds
Transfer time	<=10 ms
Efficiency	98.0% maximum; 97.6% European
Enclosure / temperature	IP65; -40 C to +60 C, derating above 45 C
Dimensions / weight	576 x 659 x 242 mm; 50 kg
Communications	Wi-Fi / Ethernet; optional 4G

System integration notes

Official compatibility evidence available

SAJ compatibility documentation includes H2-10K-T3-AU and B2-25.0-HV1. Final firmware and parallel-stack configuration should still be checked at procurement.

Backup output is power-limited

The stated battery energy does not increase the inverter continuous backup rating. Connected loads remain limited by the inverter and backup architecture.

Official source

[SAJ H2 10-30 kW three-phase AU datasheet](#)
[SAJ H2 / B2 compatibility statement](#)

3. Battery storage, backup and system notes

2 x SAJ B2-25.0-HV1 high-voltage battery stacks

Each stack is a five-module, 25.0 kWh nominal high-voltage LFP system. The package uses two stacks for 50.0 kWh nominal and 48.0 kWh usable energy.

Battery parameter	Official datasheet value
Cell chemistry	Lithium iron phosphate (LiFePO4)
Quantity / module count	2 stacks; 5 battery modules per stack
Energy per stack	25.0 kWh nominal; 24.0 kWh usable
Combined energy	50.0 kWh nominal; 48.0 kWh usable
Depth of discharge	96%
Nominal voltage	512 V per stack
Operating voltage range	448-576 V
Rated power	15,360 W per stack
Maximum charge / discharge current	30 A per stack
Communication	CAN
Ingress protection	IP65
Temperature range	Charge 0 to 50 C; discharge -10 to 50 C
Dimensions / weight per stack	1305 x 626 x 365 mm; 252.5 kg

Combined mass and access planning

Two complete stacks total about 505 kg excluding other equipment. Confirm slab capacity, transport path, clearances and impact protection.

Advertised versus usable energy

The technically accurate wording is 50.0 kWh nominal / 48.0 kWh usable. Both figures are included so the customer can compare packages correctly.

Package functionality and commissioning scope

Function	Included / expected	Site-dependent requirement
Online monitoring	Manufacturer portal / mobile app	Internet, account setup and communications hardware
Backup power	Supported by selected hybrid platform	Gateway / changeover equipment and nominated compliant loads
Smart energy control	Self-use, time-of-use and export control	Correct meter / CT installation and tariff / DNSP settings
Commissioning and handover	Required	Test results, serials, photos, warranty registration and owner training

Official sources

[SAJ B2 high-voltage battery AU datasheet](#)

[SAJ H2 / B2 compatibility statement](#)

Technical disclaimer: This consolidated sheet is a technical reference, not a construction drawing or final design approval. Final equipment selection, string configuration, protection, cable sizing, backup circuits, clearances, network approval, firmware compatibility and installation method must be confirmed after site inspection and completed in accordance with the latest manufacturer instructions, applicable Australian Standards, DNSP requirements and local regulations. Manufacturer specifications can change without notice.