

SYSTEM PACKAGE DATA SHEET

Package 1: JA Solar + Fox ESS

13.30 kWp Solar System - solar-only, grid-connected package designed for Australian residential or light-commercial applications.



Package configuration

28 x 475 W JA Solar modules
1 x 10.0 kW Fox ESS inverter

Perfect for: Large homes, daytime loads, pool equipment and EV charging.

Reference models:
JAM54D40-475/LR
H3-10.0-E

13.30 kWp	10.0 kW	28	1.33
DC solar array	Inverter AC rating	475 W modules	DC/AC ratio

Package configuration

Component	Selected model / quantity
Solar modules	28 x JA Solar JAM54D40-475/LR, 475 W each
Inverter	1 x Fox ESS H3-10.0-E, 10 kW three-phase hybrid inverter
Monitoring	FoxCloud app and web portal
System type	Solar-only, grid-connected; no battery storage included
Indicative module area	55.9 m2 before roof setbacks, access paths and module gaps

Capacity reconciliation and design basis

28 modules x 475 W = 13,300 W (13.30 kWp). The selected inverter is rated at 10.0 kW, producing a DC/AC ratio of 1.33. Indicative starting point: 14 modules on each MPPT (final cold/hot voltage and current checks required).

Final string allocation, cable sizing, protection, export limits and network approval must be confirmed after site inspection and engineering checks.

1. SOLAR PV ARRAY AND MODULE DATA

JA Solar JAM54D40-475/LR

N-type monofacial double-glass module.

13.30 kWp	28	475 W	55.9 m2
Array rating at STC	Module quantity	Module rating	Approx. module area

PV module parameter	Reference value
Rated maximum power (Pmax)	475 W at STC
Maximum power voltage (Vmp)	34.18 V
Maximum power current (Imp)	13.9 A
Open-circuit voltage (Voc)	40.55 V
Short-circuit current (Isc)	14.67 A
Module efficiency	23.8%
Technology	N-type monofacial double-glass module
Dimensions / weight	1762 x 1134 x 30 mm; 22 kg
Temperature coefficient of Pmax	-0.290%/C
Maximum system voltage / series fuse	1500 V DC / 25 A
Warranty stated for reference model	15-year product; 30-year linear power

Array calculations

Item	Calculation / requirement	Result
Nameplate array	28 x 475 W	13,300 W
Approximate module area	28 x 1.762 m x 1.134 m	55.9 m2 before gaps
Indicative string approach	Indicative starting point: 14 modules on each MPPT (final cold/hot voltage and current checks required).	Final engineering required
Roof allowance	Add setbacks, walkways, mounting clearances and obstruction zones	Site dependent

Module design notes

- Cold-condition open-circuit voltage and hot-condition operating voltage must be calculated using the site design temperatures.
- Module current must remain within each MPPT input-current and short-circuit-current limit.
- Final roof layout must consider orientation, shade, wind loading, fire access, mounting zones and manufacturer clamping requirements.
- The current approved-product listing and exact model suffix must be confirmed before ordering and STC documentation.

Official / reference source
JA Solar JAM54D40 LR 475 W datasheet, Version Global-EN-20250711A.

2. INVERTER, MONITORING AND INSTALLATION NOTES

Fox ESS H3-10.0-E

10 kW three-phase hybrid inverter.

Inverter parameter	Reference value
Phase configuration	Three-phase
Rated AC output	10.0 kW
Recommended / maximum PV input	20.0 kWp
Maximum DC input voltage	1000 V
MPPT operating range	160-950 V
MPPT / string inputs	2 MPPT / 2+1 strings
Maximum PV input current	26 A / 14 A
Maximum efficiency	98.0%
Ingress protection	IP65
Dimensions / weight	449 x 519 x 198 mm; 28 kg
Monitoring	FoxCloud app and web portal

Package compatibility review

Check	Package value	Assessment
Array / inverter ratio	13.30 kWp / 10.0 kW = 1.33	Review against inverter allowance and design goals
Module current	Imp 13.9 A; Isc 14.67 A	Compare with 26 A / 14 A
String voltage	Indicative starting point: 14 modules on each MPPT (final cold/hot voltage and current checks required).	Complete cold/hot calculations before approval
Monitoring	FoxCloud app and web portal	Internet and account commissioning required

Model-specific note: Battery connection is optional; this package is presented as a solar-only configuration.

Standard installation and handover scope

Function	Included / expected	Site-dependent requirement
Mounting and DC cabling	Compliant rooftop mounting and PV cabling	Roof type, access, cable route and fire access zones
AC connection	Dedicated protection and connection to the main switchboard	Switchboard capacity, phase allocation and network service limits
Export control / metering	Configured where required	Compatible meter/CT and DNSP approval conditions
Online monitoring	App / portal setup and customer handover	Stable internet and communications hardware
Commissioning	Electrical tests, settings, labels, serials and photos	Final network settings and approved design
Documentation	Quotation, equipment schedule and handover records	STC eligibility and exact warranty registration requirements

3. SOURCES, WARRANTY AND COMPLIANCE NOTES

Package 1: JA Solar + Fox ESS

The technical values in this package sheet were consolidated from the manufacturer references listed below. Open the linked documents and confirm the latest revision before quoting, ordering or installation.

Manufacturer reference documents

Component	Reference document	Official source
JA Solar module	JA Solar JAM54D40 LR 475 W datasheet, Version Global-EN-20250711A.	Open module source
Fox ESS inverter	Fox ESS H3/AC3 Australia datasheet V1.1, 2 July 2025.	Open inverter source

Final pre-quotation and procurement checklist

Check	Required confirmation
Exact product identity	Confirm full model suffix, phase configuration, firmware/hardware revision and Australian approved-product listing.
Solar array design	Complete cold Voc, hot Vmp, MPPT current, short-circuit current, string quantity, orientation and shading calculations.
Site and network	Confirm roof area and structure, switchboard capacity, service phase, DNSP connection approval and export-control requirements.
Protection and cabling	Finalise DC/AC isolating devices, protective devices, cable sizing, voltage drop, earthing, labelling and fire-access requirements.
Warranty and registration	Use the warranty terms applying to the exact Australian product supplied and complete manufacturer registration after commissioning.
Customer handover	Provide commissioning results, serial numbers, monitoring access, shutdown procedure and system documentation.

Warranty wording

The reference module document states 15-year product; 30-year linear power. Inverter warranty duration is governed by the exact model, sales channel, registration conditions and the manufacturer warranty policy applicable in Australia at the date of supply. Do not publish a warranty period unless it has been verified for the exact product being quoted.

Technical and commercial disclaimer

This consolidated package sheet is a preliminary technical reference and marketing-support document. It is not a construction drawing, network approval, final string design or substitute for current manufacturer installation manuals. Final equipment model, phase configuration, firmware, string allocation, protection, cable sizing, roof layout, export limits, warranty terms and approved-product status must be confirmed after site inspection and before procurement. Installation must comply with applicable Australian Standards, DNSP requirements, manufacturer instructions and local regulations. Manufacturer specifications can change without notice.

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