

Solar inverter installation and DC wiring - JSA - C

en-SG · Supervision, records, handover · v1.0 · 2026-10-14 · Sources: article section 9

Site: | Item ID: | Work area:

Approval	Work supervisor	Technical reviewer	Release / handover authority

1. Job details and team signatures

Date / time	Location / area		Assessor		Supervisor	
Team signatures						

2. Conditions and hold points

Stage	Time	Location / area	Environment / readings	Item / condition	Controls	Plant / tools	Approval / signature
HP-0 Start							
HP-1 Mount and isolate							
HP-2 Prepare connectors							
HP-3 Test and restore							
HP-4 Handoff operation							

Complete after actual checks. Recheck after changes, defects or shift handover.

3. JSA risk assessment

Job stage	Hazards and effects	Failure factors	Technical and procedural controls	Site verification	P	S	R	A
1. Solar work scope	1. Unapproved turn-on 2. Wrong circuit worked 3. Structural mounting failure	1. QP interface omitted 2. LEW scope unclear 3. Mounting treated as release	1. Agree QP and LEW duties 2. Match circuits and design 3. Retain commissioning holds	1. Design and mounting evidence 2. LEW scope and licence 3. Connection requirements				
2. Energy boundary	1. DC shock 2. Stored-charge exposure 3. AC backfeed	1. AC off trusted alone 2. Array side unguarded 3. Wait treated as voltage test	1. Trace all supplies 2. Verify actual work points 3. Guard remaining live parts	1. AC DC and storage map 2. Wait and voltage evidence 3. Array-side access boundary				
3. Connector acceptance	1. Hot connection 2. DC arc 3. Water ingress	1. Pair assumed compatible 2. Wrong assembly tool 3. Contaminated seals	1. Match permitted pair 2. Apply connector instructions 3. Inspect contacts and seals	1. Both part identities 2. Cable tooling and assembly 3. Cleanliness and sealing				
4. Wiring verification	1. Reversed polarity 2. Lost earth continuity 3. Cable damage	1. String map wrong 2. Earth connection omitted 3. Entry under tension	1. Confirm circuit polarity 2. Verify protective earth 3. Support and protect entries	1. String and polarity record 2. Earthing and fastening 3. Routing and strain control				
5. Testing and faults	1. Test-voltage damage 2. Faulted inverter exposure 3. Unsafe local switching	1. Electronics unprotected 2. Alarm simply reset 3. Fault procedure ignored	1. Release LEW test boundary 2. Hold and resolve defects 3. Follow model fault response	1. Test setup and results 2. Cause and corrective action 3. Retest and access limits				
6. Commissioning transfer	1. Wrong grid settings 2. Unresolved fault operated 3. Untraceable strings	1. Startup alone accepted 2. Configuration unchecked 3. As-built map absent	1. Verify connection conditions 2. Transfer test and alarm results 3. Record final circuit map	1. LEW turn-on release 2. Configuration and test record 3. Receiver and restrictions				

P/S/R/A: Complete only after actual site assessment using the site risk method.

4. Pre-work checklist

☐ Design and mounting evidence	☐ AC DC and storage map	☐ Both part identities
☐ String and polarity record	☐ Test setup and results	☐ LEW turn-on release
☐ Connection requirements	☐ Routing and strain control	☐ Receiver and restrictions