

Solar inverter installation and DC wiring - JSA - B

en-SG · Technical failure review · 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. Prepare mounting	1. Overheating 2. Cable damage 3. Live contact	1. Clearance missing 2. Sharp route 3. No terminal barrier	1. Match installation space 2. Protect cable route 3. Guard remaining live parts	1. Airflow and environment 2. Cable supports 3. Live-side boundary				
2. Mount and isolate	1. AC backfeed 2. PV voltage contact 3. Capacitor discharge	1. Supply omitted 2. Sunlight ignored 3. Time alone trusted	1. Control AC and DC sources 2. Lock and test work boundary 3. Follow wait and verification	1. Source inventory 2. Tester and work-point result 3. Stored-energy record				
3. Prepare connectors	1. DC arc 2. Hot contact 3. Insulation failure	1. Wrong crimp tool 2. Wrong strip length 3. Damaged strands	1. Use specified tooling 2. Follow assembly dimensions 3. Inspect contacts and seals	1. Tool and die match 2. Polarity and crimp 3. Damage and cleanliness				
4. Wire and support	1. Hot termination 2. Earth path lost 3. Cable tension	1. Torque guessed 2. Earth omitted 3. Entry unsupported	1. Use specified tightening 2. Connect protective earth 3. Support and seal entries	1. Tightening record 2. Earth connection 3. Bend seal and strain				
5. Test and restore	1. Test overvoltage 2. Earth fault 3. Live rework	1. Electronics connected 2. Defect ignored 3. Re-isolation omitted	1. Use approved test setup 2. Resolve faults before start 3. Re-isolate before rework	1. Test settings and boundary 2. Alarm and stop results 3. LEW test and restoration release				
6. Hold abnormalities	1. Earth exposure 2. Repeated bad connection 3. Fault-state incident	1. Water ignored 2. Pair issue unresolved 3. Unsafe switch action	1. Follow model fault plan 2. Quarantine bad components 3. Use qualified recovery	1. Safe access boundary 2. Pair and change history 3. Retest restrictions				

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

4. Pre-work checklist

☐ Airflow and environment	☐ Source inventory	☐ Tool and die match
☐ Tightening record	☐ Test settings and boundary	☐ Safe access boundary
☐ Live-side boundary	☐ Bend seal and strain	☐ Retest restrictions