

Solar Module Roof Lifting and Mounting - JSA - A

en-US · Basic task controls · 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 Review roof and staging							
HP-2 Establish roof access							
HP-3 Lift land and restrain							
HP-4 Inspect and hand over							

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. Review roof and staging	1. Local roof collapse 2. Fall through fragile area 3. Blocked rescue route	1. Bundle point load omitted 2. Skylight strength assumed 3. Staging covers access	1. Review temporary load map 2. Identify fragile roof zones 3. Preserve protected routes	1. Support and roof evidence 2. Bundle worker and equipment loads 3. Fragile areas and access				
2. Prepare lifting operation	1. Falling modules 2. Wind-driven load strike 3. Rigging failure	1. Package lift method unknown 2. Wind limits unreviewed 3. Lift gear unsuitable	1. Use approved package lift 2. Apply actual weather limits 3. Inspect rated lifting equipment	1. Package weight and center 2. Wind and lift orientation 3. Rigging and equipment basis				
3. Establish roof access	1. Edge fall 2. Skylight fall 3. Dropped-tool injury	1. Protection incomplete 2. Opening mistaken for floor 3. Tools unsecured	1. Install required fall protection 2. Protect openings and weak areas 3. Control tools and area below	1. Roof-edge protection 2. Skylight and opening controls 3. Safe access and tool control				
4. Lift land and restrain	1. Bundle slide 2. Panel uplift 3. Roof overload	1. Restraint absent 2. Lift released too early 3. Landing point changed	1. Land at accepted location 2. Apply planned wind restraint 3. Hold changed staging locations	1. Actual landing location 2. Temporary load distribution 3. Stability and restraint check				
5. Install rails and modules	1. Module detachment 2. Roof leakage 3. Glass breakage	1. Wrong clamp combination 2. Penetration seal damaged 3. Module used as walkway	1. Match mounting components 2. Apply specified weatherproofing 3. Keep people off modules	1. Rail clamp and module match 2. Attachment zone and tightening 3. Penetration and seal inspection				
6. Inspect and hand over	1. Hidden mounting defect 2. Unaccepted electrical use 3. Water intrusion	1. Clamp check omitted 2. Mechanical completion equals start 3. Seal check skipped	1. Inspect mounting and roof 2. Separate electrical acceptance 3. Record weatherproofing status	1. Attachment and module checks 2. DC lead and electrical status 3. Roof seal and access condition				

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

4. Pre-work checklist

☐ Support and roof evidence	☐ Package weight and center	☐ Roof-edge protection
☐ Actual landing location	☐ Rail clamp and module match	☐ Attachment and module checks
☐ Fragile areas and access	☐ Stability and restraint check	☐ Roof seal and access condition