

# Health and Safety



EN Use safety helmet



EN Danger of lightning in stormy weather



EN Use safety shoes



EN Heavy load



EN Use safety harness for protection against falling



EN Beware of tripping



EN Use safety gloves



EN Beware of slippery surfaces

EN Beware of high temperatures



EN Use safety goggles



EN Include the collector in the lightning protection device of the building

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# GENERAL

A. National and local building regulations and environmental requirements must be adhered to.

B. Check with local authorities for guidelines and requirements concerning fire safety for any building or structure that the modules will be mounted on or attached to.

C. Equipotential bonding / grounding / earthing between individual parts is to be performed according to country specific standards, as well as national laws and regulations.

D. Follow the safety regulations for all other system components, including wires and cables, connectors, charging regulators, inverters, storage batters, rechargeable batteries, etc.

E. All protective measures regarding working at heights and preventing falls specified in national and health and safety codes and regulations should be implemented before and during all work on roof-mounted and other PV array structures, and all necessary scaffolding and other protective measures applied at the site of the installation.

F. Use personal protective equipment, including gloves, helmet and eye protection when working

G. Do not wear metallic rings, watchbands, ear, nose, lip rings or other metallic devices while installing or troubleshooting photovoltaic systems.

H. Before connecting the Micro-inverter to the power distribution grid, contact the local power distribution grid company to get appropriate approvals.

I. The solar module should never be disconnected from the inverter while the inverter is connected to the public grid.

J. When an inverter is switched off/disconnected, it is necessary to wait for the time specified by the manufacturer before working on it. Its high voltage components need sufficient time to discharge.

K. The User must connect the Solar Energy Kit to an electrical outlet and never to the switchboard. If you choose to connect to the switchgear you must hire the services of properly qualified personnel to do so.

### SOLAR MODULES

A. For field connections, use minimum No.12 AWG Copper wired.

B. Consult your local authority for guidelines and requirements for building or structural fire safety.

C. Roof constructions and installations may affect the fire safety of a building; improper installation may create hazards in the event of a fire.

D. Use components such as ground fault circuit breakers and fuse as required by local authority.

E. Do not use panels near equipment or in places where flammable gases may be generated.

F. Make sure that all electrical connections are completely dry before they are assembled. Materials, tools and working conditions need to be clean and dry.

G. Short circuits on the DC side of the installation can cause arcing. This is a burn and fire hazard.

H. Do not use any damaged solar module. Broken front Glass or damaged laminate back sheet can expose personal to hazardous voltages. Modules should not be disassembled.

I. Do not lift the module by grasping the module's junction box or electrical leads.



J. Do not stand or step on module.

K. Do not drop the module or allow objects to fall on the module.

L. The back sheet of the PV module must be kept from any damage or scratching to prevent electric shock and fire

M. Do not apply paint or adhesive to module top surface.

N. Do not use mirrors or other magnifiers to concentrate sunlight onto the modules. Obtain a building permit if necessary.

O. To avoid glass breakage, do not place any heavy objects on the module.

P. Be cautious when setting the module down onto a surface.

Q. Inappropriate transport and installation may break the module.

R. All modules must be earthed.

S. Modules should be carried using both hands.

T. Modules should not be allowed to sag or bow under their own weight when being carried.

# **MICRO-INVERTERS**

A. Before installation, check the unit to ensure absence of any transport or handling damage, which could affect insulation integrity or safety clearances. Choose installation location carefully and adhere to specified cooling requirements. Unauthorized removal of necessary protections, improper use, incorrect installation and operation may lead to serious safety and shock hazards or equipment damage.

B. Only one photovoltaic module can be connected in the input of the inverter. Do not connect batteries or other sources of power supply. The inverter can be used only if all the technical characteristics are observed and applied.

C. Do not install the equipment in adverse environment conditions such as flammable, explosive, corrosive, extreme high or low temperature, and humid. Do not use the equipment when the safety devices do not work or disabled.

D. Inform the manufacturer about non-standard installation conditions.

E. Anytime the inverter has been disconnected from the power network, use extreme caution as some components can retain charge sufficient to create a shock hazard. Prior to touching any part of the inverter use care to ensure surfaces and equipment are at touch safe temperatures and voltage potentials before proceeding.

### MOUNTING SYSTEMS

A. Prior to installation, ensure that the product complies with on-site static loading requirements. For roof mounted systems, the roof load-bearing capacity must always be checked.

B. At least two people must be present for the duration of the installation work in order to provide rapid assistance in the event of an emergency.

C. The assembly instructions of the photovoltaic Kit manufacturer must be adhered to.