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PREVENT

PROTECT

POWER CONFIDENTLY

SAFE, COMPLIANT SOLAR PV SYSTEMS BUILT TO PERFORM

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Prevent. Protect. Power Up Your PV Systems Confidently

SELECT in partnership with Europa PLC

This leaflet has been developed in partnership with SELECT, the trade association for the electrical contracting industry in Scotland. SELECT works to promote high standards, safety and best practice across the sector. In collaboration with Europa PLC, a leading UK distributor of electrical components and bespoke solutions, this guidance combines industry expertise with trusted products, helping ensure solar Photovoltaic (PV) systems are installed, maintained and operated safely and effectively.

Regulatory Compliance

Solar PV installations in the UK are to be designed and installed in line with the most current applicable requirements, including BS 7671 (IET Wiring Regulations), the relevant Building Regulations and other applicable regulations and standards. The latest update to the IET wiring Regulations, BS 7671:2018+ Amendment 4:2026, reflects advancements in modern electrical installations, including renewable energy systems and associated technology. BS 7671 sets out the requirements for safe design, erection and verification of low-voltage electrical installations. Installations should always be carried out by qualified professionals who are competent to undertake such work and demonstration of competence may be reflected by an organisation or individuals being members of certification schemes or registration bodies

Compliance with recognised standards and certified installation helps ensure your PV system remains safe, reliable and fit for purpose.

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Powering Homes, Businesses and Public Buildings, Safely

Solar PV is a smart, sustainable investment, but like any electrical system, it must be installed and maintained correctly to ensure safe, reliable performance.

This guide outlines the key steps to help you prevent risks, protect your system, and power up with confidence, from using certified installers and quality components, preventing issues with the system and making the systems safe for first responders to carrying out simple ongoing checks to ensure systems remain efficient.

Why It Matters

Safety and Performance Go Hand in Hand

Solar PV systems are long-term investments that must be installed and maintained to the highest standards.

Incorrect installation or poor-quality components can lead to overheating, system faults, or electrical arcing which is a potential cause of rooftop fires.

Ensuring compliance and using proven components protects both your property and your investment.

Prevent

Professional Installation | Install with Confidence

Compliance starts with the right installer. Their qualifications, competency and experience will ensure that the installation of the PV system:

- Meets UK safety and compliance standards
- Is designed and installed correctly
- Uses approved components and methods

Visit the 'Find a Member' page on the SELECT website at www.select.org.uk to find your nearest registered professional.

Compliance starts with the right installer.

PV Connector Compatibility & Warranty Protection

Safe Installation | Compliant Practice | Reliable Performance

Electrical connectors are a critical safety component within any PV system.
Incorrect, poorly installed, or incompatible connections can lead to overheating, system faults, loss of performance and in severe cases, electrical arcing or fire.

In the UK, solar PV installations are required to be designed and installed in accordance with the current applicable standards and regulations, including IET BS 7671:2018+A4:2026, relevant Building Regulations, manufacturer installation instructions and other applicable product and installation standards relating to PV systems and electrical safety.

These requirements reflect recognised industry practice for the safe design, erection and verification of low-voltage electrical installations, including renewable energy systems and associated technologies.

Connector Compatibility Requirements

Industry standards and manufacturer guidance generally require that:

- PV connectors are only mated with compatible and approved connector types
- Different connector systems are not intermated unless specifically approved by the relevant manufacturer
- All connections are installed strictly in accordance with manufacturer instructions
- Electrical installation work is carried out by competent and qualified professionals

These requirements are essential to ensure:

- Electrical safety
- Regulatory compliance
- System performance
- Long-term reliability
- Preservation of manufacturer warranties

Solar Guardian Connection Requirement

The Solar Guardian is supplied with factory-fitted Stäubli connectors.

Because of this:

- The mating connector used at the Solar Guardian interface must be the correct compatible Stäubli connector type specified for that product
- No alternative connector type should be used at this connection point unless explicitly approved by the manufacturer

This ensures the connection remains tested, compliant and electrically secure at a critical point within the PV system.

Use of Different Connector Systems Within a PV Installation

Different connector systems may be present within the same PV installation where permitted by the system design and manufacturer guidance.

However, it is essential that:

- Every connector pair that is plugged together is compatible and approved for use together
- Connectors are never intermated between incompatible types or systems
- Each individual connection complies with the relevant manufacturer's installation and certification requirements

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Where alternative connector systems are used elsewhere within the installation, they must remain within their own approved mating system and be installed in accordance with applicable standards and manufacturer instructions.

Warranty Implications

The use of connectors outside manufacturer guidance or approved installation practice may affect warranty coverage.

If incompatible connectors are intermated or incorrectly installed:

- Connector manufacturer warranties may be void
- PV equipment warranties may exclude affected circuits or components
- Installer workmanship warranties may be impacted
- Insurance claims may be affected in the event of system failure or fire investigation

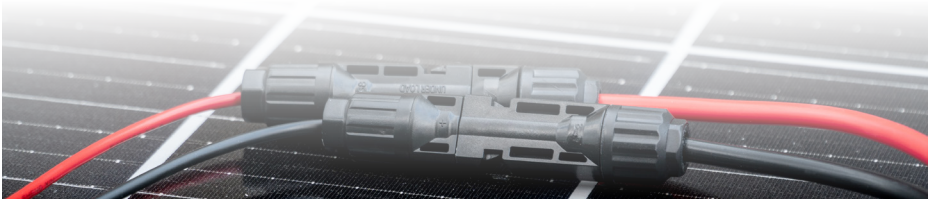
This is because non-compliant or incompatible connections are generally treated as installation error rather than product defect.

Key Takeaway

PV installations may contain different connector systems, but every individual connection must be compatible, approved and installed in accordance with manufacturer instructions and applicable UK electrical installation requirements, including BS 7671:2018+A4:2026.

Following these requirements helps ensure:

- Safe system operation
- Compliance with recognised installation standards
- Preservation of warranty protection
- Long-term system reliability and performance



Insurance & Notification

Keep Your Cover Up to Date

If you have solar PV panels installed, it's important to inform your home insurance provider. Adding solar panels can affect your policy, and keeping your insurer updated ensures your system is properly covered in the event of damage or a claim.

Some installers may include insurance or warranties as part of their service, but this can vary.

What You Should Do

- Notify your insurance provider once installation is complete
- Confirm your solar PV system is included in your cover
- Check for any changes to your policy or premiums
- Review any insurance or warranty provided by your installer

Don't assume you're covered, always check with your provider.

Helpful Tip:

Keep records of your installation, including certificates, warranties and installer details.

These may be required for insurance purposes.

PROTECT

Smart Protection | Protect What Matters Most

Even with high-quality components and professional installation, additional protection can further reduce risk and enhance system safety.

The Solar Guardian provides an extra layer of protection by automatically isolating the DC current of the solar source.

A DC isolator is installed in accordance with BS 7671 Section 712 to provide safe isolation of the PV array for maintenance and fault conditions.

Where required, a firefighter's (fire safety) switch may also be incorporated as part of the overall emergency isolation strategy, to support firefighter access and system shutdown during emergency response.

How It Works

The Europa Solar Guardian is a rapid shutdown safety device designed to provide additional protection for solar PV systems.

In the event of an issue, if a problem is detected, the Solar Guardian will:

- Automatically isolate the DC current of the solar source when the AC power is lost
- Stop the flow of electricity to improve safety

This rapid shutdown function is especially important in emergency situations, allowing safer access for maintenance teams or emergency services.

Built for Safety and Reliability

- Certified to recognised international standards (TÜV, CE, CB, SAA)
- Designed for high-voltage PV systems (up to 1500V DC)
- Integrated temperature monitoring with automatic shutdown at elevated temperatures
- Sealed enclosure with waterproof venting to help prevent internal condensation

Why It Matters

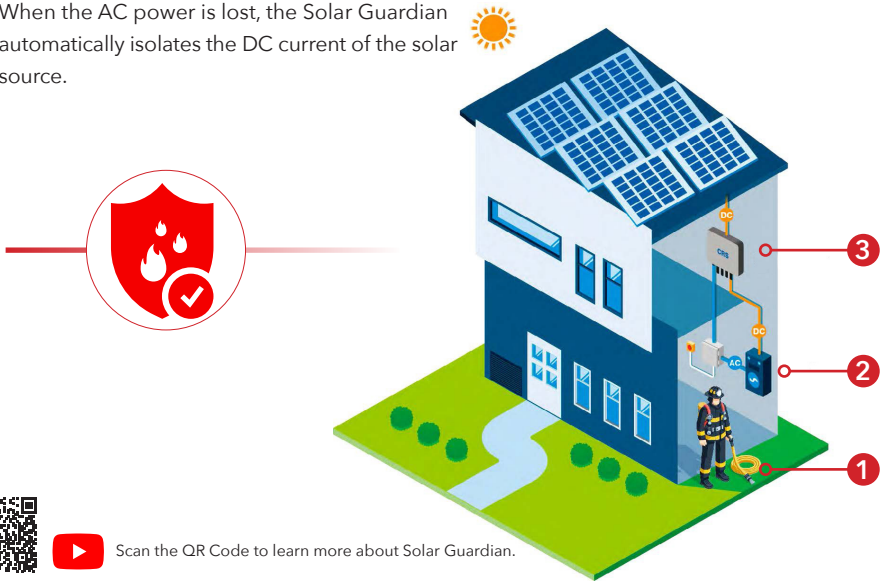
Adding a rapid shutdown device provides an extra layer of protection beyond standard installation practices, supporting safer operation, maintenance and emergency response.

Automatic protection when it matters most. Add an extra layer of protection to your system.

- Auto String Level Rapid Shutdown
- Manual Option Shutdown
- AC Power Loss Auto Shutdown
- Over Temp Auto Shutdown
- Compatible with most String Inverters & Panels
- No Cross Talk with Inverter or WiFi

Automatic disconnection at temperatures >70° C

1. The firefighter / first responder switches off the AC current manually to extinguish the fire without risk of electric shock.
2. The inverter will interrupt AC current, when it detects electric circuit loss.
3. When the AC power is lost, the Solar Guardian automatically isolates the DC current of the solar source.



Scan the QR Code to learn more about Solar Guardian.

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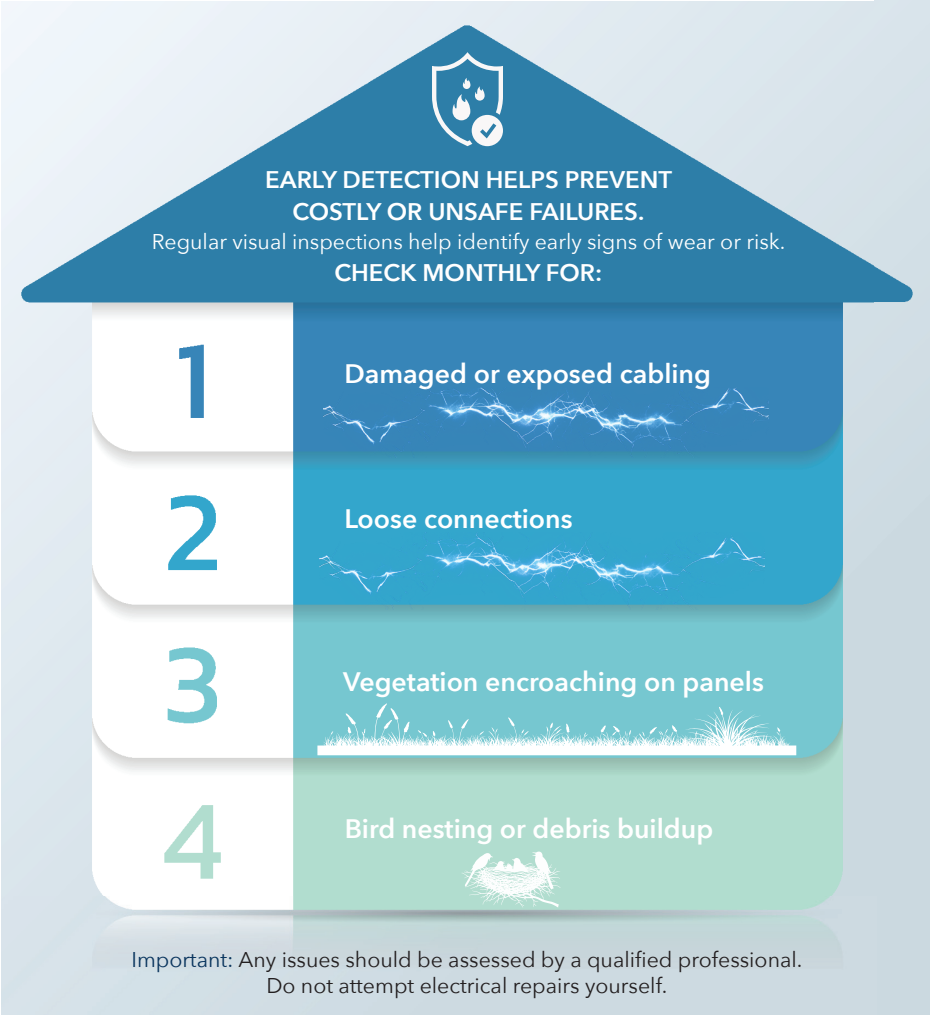
POWER UP CONFIDENTLY

Routine Visual Checks | Simple Checks. Ongoing Protection.

Solar PV systems are constantly exposed to the elements. From rain, wind and temperature changes to dust, debris and wildlife, these conditions can affect system performance over time.

That's why it's essential that all components are designed for durability and installed to a high standard.

Regular visual checks and ongoing maintenance help ensure your system remains safe, efficient and protected against environmental wear.



Important: Any issues should be assessed by a qualified professional.
Do not attempt electrical repairs yourself.

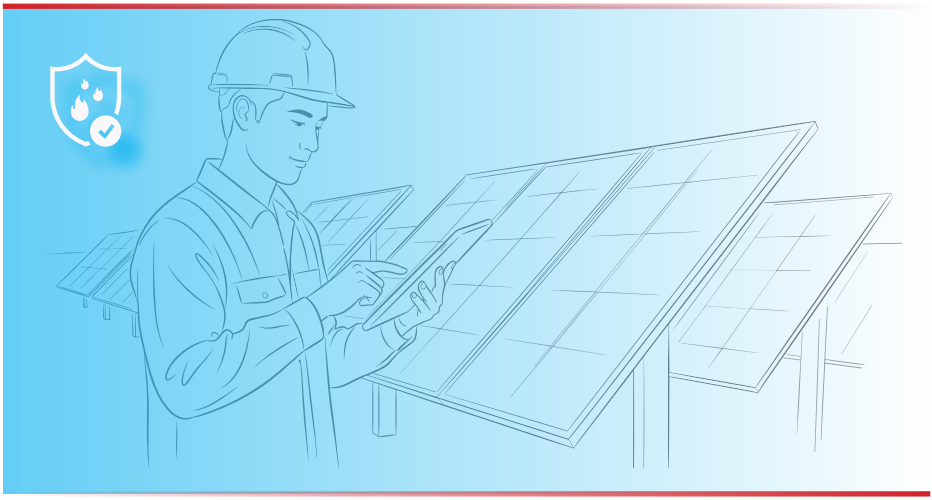
Ongoing Maintenance

Maintain Compliance. Maximise Performance.

Routine maintenance ensures your system continues to meet safety standards and perform efficiently.

Recommended actions:

- Schedule periodic inspections by qualified installers
- Keep panels clean and free from obstruction
- Ensure all electrical components remain secure and protected



Regular maintenance supports long-term safety, compliance and performance.

SOLAR GUARDIAN by EUROPA

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Confidence in Every Connection

A safe, efficient solar PV system starts with compliant installation, quality components and ongoing care.

Our technical team are on hand to help advise the products you need for your PV requirements.

From Europa's firefighter switch, AC and DC Isolators, PV connectors to Solar Guardian we can help build a safe, reliable and future-proof installation.

By following best practices and choosing trusted solutions, you can protect your system and maximise its performance for years to come.

Learn more about the products and services available from Europa by visiting our website or browsing our latest catalogue.

Scan the QR codes below.

Contact our technical team on 01582 692 444 or technical@europa-plc.com

EUROPA

europa-plc.com

catalogue

Disclaimer

This leaflet is intended for general guidance only and does not constitute a comprehensive statement of all applicable regulations, legislation, or standards relating to solar PV installations.

The information provided reflects industry guidance and requirements applicable at the time of printing.

While every effort has been made to ensure accuracy, no guarantee is given that the content is complete, current, or free from error or omission.

Users of this leaflet should always refer to the latest versions of relevant standards, regulations and official guidance, and seek advice from a qualified professional where necessary.

Neither Europa PLC nor SELECT accepts any liability for any loss, damage, or consequences arising from reliance on the information contained within this leaflet.

Stay in Touch | Europa Head Office

Europa House
Airport Way
Luton
LU2 9NH

Sales: sales@europa-plc.com | Sales: 01582 692 440

Technical: technical@europa-plc.com | Technical: 01582 692 444

Accounts: accounts@europa-plc.com | Accounts: 01582 692 451

Customer Service: custserv@europa-plc.com | Customer Service: 01582 692 448

Online: europa-plc.com

Find out more by reading **RC62: Recommendations for fire safety with PV panel installations.** The latest revision has been produced to deliver a Joint Code of Practice for fire safety with photovoltaic panel installations.

FIND OUT MORE

Fire Protection Association
London Road
Moreton in Marsh
Gloucestershire GL56 0RH
T: +44 (0)1608 812500
E: info@riscauthority.co.uk
W: www.thefpa.co.uk

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