



Microgeneration

BSI Kitemark™ for microgeneration products

The Microgeneration Certification Scheme (MCS) is an internationally recognized quality assurance scheme, supported by the UK Department of Energy and Climate Change (DECC). BSI offers combined MCS and BSI Kitemark certification for Microgeneration products used to produce electricity and heat from renewable sources. This combined certification scheme gives a mark of quality and competence which demonstrates to consumers that companies are able to consistently manufacture to the highest quality.



MCS is supported by the industry and non-governmental groups. It is an important certification scheme for making a significant contribution to cutting the UK's carbon dioxide emissions and its dependency on fossil fuels.

How BSI can help

With unrivalled experience, accredited certification and testing, and Notified Body status, BSI is committed to helping manufacturers of Microgeneration products achieve certification to this scheme. BSI also offers the possibility of testing and certification to other standards, national and international certification schemes to help manufacturers achieve compliance and access global markets.

Why the BSI Kitemark™ for MCS products

As one of the most trusted and respected certification marks for over 100 years, there is no better mark of quality than the BSI Kitemark. Businesses and consumers have confidence and faith in products that carry the BSI Kitemark.

By combining the newest technologies with the oldest and most trusted certification mark, BSI Kitemark license holders and their customers have a clear advantage with a safer and reliable product.

88% of customers trust the BSI Kitemark and believe it shows a reputable company. With the BSI Kitemark certification for your products you can;

- Deliver value for money and performance – procurement teams and end-users can be sure that BSI Kitemark products are reliable and perform to a standard.
- Improve business performance through adopting and applying BSI Kitemark standard processes that reduce waste, increase profitability and efficiency.
- Enhance your reputation through association with BSI Kitemark integrity. As BSI is an independent organization, impartiality is assured and licenses are re-assessed regularly.
- Stand out from your competitors by offering the BSI Kitemark as well as MCS. To help grant funded business you could not have a better key selling point for customers than BSI Kitemark certification. 75% of UK adults say the BSI kitemark helps make choosing products easier.
- Gain procurement preference by tendering for public sector projects. BSI Kitemark can help procurement teams and specifiers to demonstrate that best practice has been applied and that they are delivering reliable solutions to greener energy issues.

bsi.

...making excellence a habit.™

What products does BSI Kitemark™ for Microgeneration cover?

BSI is an MCS Certification Body for:

- Solar thermal panels (MCS 004)
- Solar photovoltaic (PV) panels (MCS 005)
- Micro and small wind turbines (MCS 006)
- Heat pumps (MCS 007)
- Solid biomass heating appliances (MCS 008)
- Pitched roof kits for PV panels (MCS 012)
- Heat-led micro combined heat and power (CHP) units (MCS 014)

- Electricity-led micro combined heat and power (CHP) units (MCS 015)
- Bespoke building integrated solar PV panels (MCS 017)

As with all BSI schemes, our flexible approach means that product evaluation can be scheduled to suit the needs of our clients on a project by project basis – including BSI's own test labs, client's labs or our global network of selected partner labs.

Routine factory inspections required by the scheme can be undertaken globally, using BSI's extensive network of expert assessors located in over 100 countries.

Solar Thermal Collectors

This scheme (MCS 004) applies to both "on-roof" and "roof integrated" thermal solar collectors. Generally, compliance with the MCS rules is demonstrated by ensuring the products:

- Comply with **BS EN 12975-1: 2006** (Thermal solar systems and components) and/or **BS EN 12976-1: 2006** (Thermal solar systems and components. Factory made systems).
- Comply with additional weather-proofing requirements for roof integrated systems
- Are manufactured under a documented factory production control system

In addition to the requirements for the solar thermal collectors, BSI can also offer certification of pitched roof kits against MCS 012 to ensure that fixing kits for solar collectors have adequate wind resistance, fire rating and weather resistance.

Solar Photovoltaic Modules

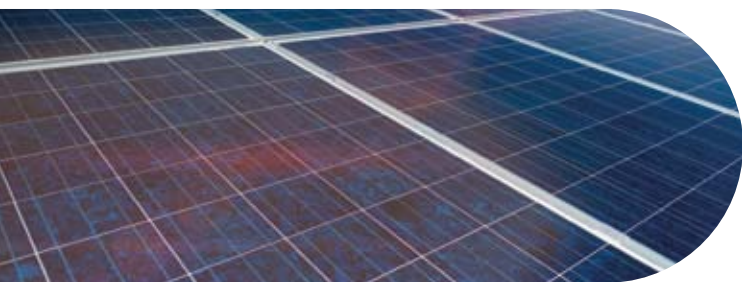
This scheme (MCS 005) applies to both "on-roof" and "roof integrated" solar photovoltaic modules. Generally, compliance with the MCS rules is demonstrated by ensuring the products:

- Comply with **BS EN 61215: 2005** (Crystalline silicon terrestrial photovoltaic modules) and/or **BS EN 61646: 1977** (Thin film terrestrial photovoltaic modules. Factory made systems).
- Comply with additional weather-proofing requirements for roof integrated systems
- Are manufactured under a documented factory production control system

In addition to the requirements for the solar photovoltaic modules, BSI can also offer certification of pitched roof kits against MCS 012 to ensure that fixing kits for PV modules have adequate wind resistance, fire rating and weather resistance.

We are also able to provide certification for Bespoke Building Integrated Photovoltaic Products (MCS 17). Where we can ensure compliance with:

- **BS EN 61215:2005** - Crystalline silicon terrestrial photovoltaic modules
- **BS EN 61646:2008** - Thin film terrestrial photovoltaic modules
- **BS EN 61730-1:2007** - Photovoltaic (PV) module safety qualification. Requirements for construction



The BSI Kitemark™ certification journey

- 1 Client application**
Manufacturer/designer/ service provider submits application with basic details (inc. range of products/ services covered)
- 2 Contract review**
 - BSI review Kitemark application
 - Requests additional information
 - Prepares quote
- 3 Quote acceptance**
Manufacturer/supplier/ designer/service provider accepts quotation.
- 4 Initial assessment**
FPC or quality management system assessed by BSI
- 5**

Micro & Small Wind Turbines

This scheme (MCS 006) applies to small-scale wind turbines (with rated electrical output not exceeding 50kW at 11.0ms-1). Generally, compliance with the MCS rules is demonstrated by ensuring they meet the requirements of "The British Wind Energy Association small wind turbine performance and safety standard" (29 Feb 2008), covering:

- **BS EN 61400-2: 2006** (Design requirements for small wind turbines)
- **BS EN 61400-12-1: 2006** (Power performance measurements of electricity producing wind turbines)
- **BS EN 61400-11: 2003** (Wind turbines. Acoustic noise measurement techniques)

Heat Pumps

This scheme (MCS 007) applies to most types of heat pump (air/air, ground/air, air/water, ground/water etc). Generally, compliance with the MCS rules is demonstrated by ensuring that heat pumps:

- Comply with **BS EN 14511:2007 Parts 1 – 4** (Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling)
- Have Coefficient of Performance that exceed the minimum specified in Clause 7 for the type of heat pump
- Are manufactured under a documented factory production control system

Solid Biomass Fired Heating Systems

This scheme (MCS 008) applies to solid biomass fired heating appliance with nominal heat output up to 45 kW. Generally, compliance with the MCS rules is demonstrated by ensuring the products:

- Comply with all "CE Marking" regulations that apply to the product design;
- Comply with one of the following standards as relevant to the design:
 - **BS EN 13240: 2001+A2:2004** (Room heaters fired by solid fuels)
 - **BS EN 14785: 2006** (Residential space heating appliances fired by wood pellets)
 - **BS EN 12809: 2001+A1:2004** (Residential independent boilers fired by solid fuel)
 - **BS EN 303-5: 1999** (Heating boilers for solid fuel up to 300kW)

- Achieve the efficiency levels given in Clause 7.1 (relevant to the design)
- Meet the carbon monoxide and particulate emissions limits given in Clause 7.2
- Are manufactured under a documented factory production control system

Micro Combined Heat and Power (CHP) Units

This scheme applies to small-scale (< 50kW) CHP units intended to be used in a single dwelling, and covers both heat-led (MCS 014) and electricity-led (MCS 015) designs. Covers products fuelled by natural gas, LPG, hydrogen, heating oil, bio-oils etc.

Generally, compliance with the MCS rules is demonstrated by ensuring the products:

- Comply with all "CE marking" regulations that apply to the product design;
- Comply with **G83/1** (for connection to the UK electricity network)
- Achieve certain efficiency levels when measured in accordance with **PAS 67**
- Have noise emissions that comply with **BS EN 15036-1**
- Are manufactured under a documented factory production control system

Green Deal

Green Deal is the Government's flagship policy for reducing carbon emissions by improving the energy efficiency of existing buildings in the UK (residential and commercial). It is based on a key principle that the costs of some energy efficient measures will pay for themselves through the resulting savings on energy bills.



Find out how you could grow your market share through increased demand for energy saving products. **Contact BSI today.**

Product testing

- Initial type testing completed by BSI or evidence of testing submitted
- Inspection of service delivery

6

Evaluation

BSI considers all evidence and assesses against product manual/standard and makes recommendation

7

Risk and compliance check

BSI independently review recommendation and evidence and make a decision

8

Kitemark certificate

Certificate is issued if decision is positive. Annual surveillance Incl. FPC/QMS and audit testing/inspection.

A partnership through compliance

With a wealth of experience in the testing and certification field, BSI is ideally equipped to work with you from the design stage through to the testing and compliance process, helping you to get your products on the marketplace.

Whatever level of service is required, from certification to custom product testing or project management for specialist out-sourced testing, BSI is here to help every step of the way.

Call +91 11 4762 9000 Today or visit our website bsigroup.com/en-IN

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