



The Certification Mark for Onsite
Sustainable Energy Technologies

FAQs for MIS 3002 v3.1

Q: I wanted to know about the gPV string fuse, and if it will be required in all domestic installations from April 2013, or just for N paralleled connected strings?

A: Anytime you specify a string fuse on the DC of the PV array side it needs to be a type gPV. In most domestic installations the size of the array will mean that string fuses will not be required.

Q: I have been digesting the new guide and have a query on the slate roof fixing method with regard to drilling holes. We have been using a product called xxx which you may be aware of on slate roofs. It involves drilling the slate then applying xxx sealing product. The product is MCS012 approved and I am somewhat confused as to if this product is still ok to use?

A: I am not aware of any products that have been given an MCS012 certificate yet - are you sure this product has a certificate?

The following are the key issues:

- The bolt or flashing shall not transfer any load on the slates / tiles beneath
- The system shall not rely on silicone or other mastic sealant to provide a weather tight seal
- The system must durably seal every layer of roof covering that is perforated by the bolt system
- The system shall not rely on a sealing washer or plate that presses down on the slate/tile to ensure a weather tight seal
- The bolt fixings shall not be into battens

If the product fails on any one of these tests, then it can't be used. The product you describe looks to transfer loads onto the slates - i.e. it potentially fails the first test.

NOTE – “All products certified in accordance with MCS 012, must be capable of being installed in accordance with the relevant technology MCS installer standards.”

Q: We have a micro-inverter that has an input from two PV modules. Looking at the new Guide (page 37, 2.1.12.4, bullet point 1 in the MCS PV Guide), which refers to BS 7671 clause 712.537.2.2.5, - does this mean it cannot be installed in the UK?



The Certification Mark for Onsite
Sustainable Energy Technologies

A: This inverter can be used. However, this clause means you will have to fit a DC isolator between the PV modules and the inverter.

Q: I have a question on the type gPV fuse. As most inverter manufacturers have a gPV fuse within the inverter anyway, the need for a fuse on the DC is normally minimal. Is that correct?

A: Yes, for most domestic systems under the MCS scheme, the requirement to fit a string fuse is fairly unlikely, though will be required for some array designs. However, string fuses are a common requirement in larger systems with larger inverters, where multiple parallel connected strings are required.

When a designer calculates that string fuses are required, it may be that the fuses in the inverter are sufficient to meet the requirements as detailed in the Solar PV guide. However, this is rarely the case and external fuses usually need to be specified.

Q: I just heard about the new pv guide. I am about to quote a customer and realised that the kWh/kWp are much higher than I have used previously. Can I start using these new figures now? Will I be compliant with the REAL code if I do so?

A: Yes, you can start using the new kWh/kWp data straight away; provided you follow the entire performance estimation procedure as detailed in section 3.7 of the new PV guide - including the new shade assessment method.

Q: Is there a blank solar chart available?

A: Yes this is being made available as a download on the MCS website [here](#).

Q: I can't find the kWh/kWp data for my region?

A: All the data is available as a single excel download on the MCS website:
<http://www.microgenerationcertification.org/mcs-standards/installer-standards>.

Q: Why isn't there a sunpath diagram for each region of the UK?

A: You highlight an issue we pondered over when we designed the new process. Yes a chart for various regions would potentially be more accurate, however in designing the whole method we had to balance accuracy and complexity. In the end we decided that a single chart for the whole of the UK was an acceptable solution given that the entire method is



The Certification Mark for Onsite
Sustainable Energy Technologies

estimated to yield results “within 10% for most systems”. Note: The Guide allows you to do an additional assessment using an alternative method if you choose to (providing this additional method is not given greater prominence than the standard MCS estimate).

Q) Is there anything in the PV Guide that covers additional checks on the roof and surrounding area in line with the risk of snow shedding?

A) There is nothing in the PV Guide at the moment that covers this, however we are reviewing this with a view to the possibility of including something in the next revision to the PV Guide. We would recommend that installers bring this to the attention of their customers following the recent fall of snow across the UK.

Q) In undertaking a shade calculation are we required to climb on to the roof to do so?

A) In most cases, certainly in the vast majority of good sites, this will not be required. Further guidance will be forthcoming, however, the only time we envisage that climbing on to the roof may be necessary, is in situations where there are near shading objects (for e.g. chimney stacks, satellite dishes, dormers, overhead cables, aerials, etc) which could cast a shadow on the array. In such situations, it is important for your assessment to be as accurate as possible, this therefore may require climbing on to the roof, in which case all working at heights regulations shall be complied with in full.

If the shade assessment on the roof is particularly complex, you should be asking yourself whether the site is suitable for Solar PV.

Q) Please can you confirm if this web based estimation utility is acceptable under the new MCS 3002. Link - <http://re.jrc.ec.europa.eu/pvgis/apps4/pvest.php>

A) No, but it can be used in addition to the new MCS method.