SOLAR iBOOST+

Solar iBoost+ FAQ's

11/06/2019

What can I run from my Solar iBoost+?
Solar iBoost is designed for use with up to 2 immersion heaters each rated up to 3kW for water heating in the home, each immersion is used in turn by the Solar iBoost+. The immersions should have thermostat controls but no electronic controls between the Solar iBoost+ and the immersion. It should only be installed by a qualified electrician.

When does my Solar iBoost+ start putting energy into my hot water tank?
As your PV array starts to generate in excess of your household power requirement the Solar iBoost+ will begin to "dump" energy into your hot water tank. For example, if you have 2.2kW of export energy then the Solar iBoost+ will divert this less a small buffer of up to 100W to ensure that the system deals smoothly with the changing use of household energy and the PV array's generation.

What happens if I switch on my kettle and the Solar iBoost+ is working?
The clamp rapidly detects changes between import and export and sends a signal to the Solar iBoost+ to taper back any water heating to maintain minimum export levels. If exports drop below that Solar iBoost+ switches off and waits until exports are restored and returns to "Heating by Solar." If you have an iBoost Buddy fitted you will see the changes between import and export in the home and know when spare energy is available for use elsewhere.

How will I know how much energy Solar iBoost+ has saved me?
The Solar iBoost+ main unit has a built in display, simply touch any button and the back light illuminates, if energy is flowing "*Heating by Solar xx.xxkW*" will display. Each press of the display button reveals savings from *Today, Yesterday, Last 7 Days, Last 28 Days, Total Savings*. You can also view this remotely within the home by adding an iBoost Buddy to the system. This connects wirelessly and is also a home energy monitor that displays import and export levels. Visit www.solariboost.co.uk to find out more.

How does the Solar iBoost+ know when my water tank is fully heated?
Immersion elements must contain a thermostat, your electrician will check this. When the set temperature is reached the thermostat operates to switch the element off. The Solar iBoost+ automatically switches over to heat the 2nd immersion if connected and when the immersion(s) is/are satisfied '*Water Tank HOT'* is displayed.

Is the Solar iBoost+ a "proportional controller" or a switch?
Solar iBoost+ uses electronic control technology to cleverly allow only the same as the excess power generated to be diverted to the immersion. As this excess energy varies, Solar iBoost+ manages the power levels applied to the immersion up to a maximum of 3kW. It is not an open and close switch.

How does it work with battery storage at the same property?
The Solar iBoost+ default export cut-in threshold setting is 100W. When installed with a battery system with a cut-in below 100W no changes are normally necessary as the battery storage system is prioritized by default. Solar iBoost+ cuts in only when exports return to >100W. If necessary, the Solar iBoost+ levels can be adjusted in 50W increments up to a maximum level of 500W on units released from May 2019 only. Where an earlier model is installed a replacement Sender 250 is available with a fixed threshold of 250W.

Does the Solar iBoost+ affect my Feed in Tariff Payments?
In the UK there have been a number of different FiT mechanisms, some more favourable than others. Whichever scheme you have it is always beneficial to "self-consume" on-site generated energy, you may need to take measures in the home to achieve that. The great benefit of fitting a Solar iBoost+ is that it operates automatically to pick up any excess energy and use it to heat water. Where an export meter is fitted the benefits of the Solar iBoost+ can still easily outweigh the rising energy costs of water heating especially in the summer when it's possible to switch off or reduce the use of your boiler for water heating.

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What warranty will I get with the Solar iBoost+ and iBoost *Buddy*? Two years from date of purchase.

Does the Solar iBoost+ need to be installed on a dedicated circuit?
No. It should be installed between an isolation switch and the immersion heater next to the cylinder, the cable run to the immersion must be no more than 3m. It is important that no switches are in the wire between the Solar iBoost+ and the immersion.

Can the Solar iBoost+ be installed further away from the immersion heater or at the consumer unit?
This is not recommended because is it does not allow for local isolation at the immersion location and it risks that other loads could later be connected between the Solar iBoost+ and the immersion.

Where should the Solar iBoost+ Sender be fitted?
The Solar iBoost+ sender and clamp should be fitted at the household utility meter cabinet. Ensure the clamp's latch is firmly closed around the live feed from the utility meter to the consumer unit. A label on the clamp clearly indicates to the installer how to be sure of fitting it in the correct orientation. The clamp should be fitted on the utility meter side of a Henley block if present.

What is the distance range between the Solar iBoost+ and the wireless sender?
Approx. 500m line of sight, or up to 30m within a building. The strength of the signal can be affected by thick walls in a similar way to a wireless router or a cordless phone in your home.

Is there a repeater available to boost the signal of the Solar iBoost+ sender?
The range of Solar iBoost+ is effective in the vast majority of homes. A clamp cable extension is available to purchase that can be passed through thick walls to reduce the gap between the devices.

What is the life expectancy of batteries in the Solar iBoost+ wireless sender?
Approximately 18-24 months from installation. A warning symbol flashes red *and* the message *Sender Battery Low* appears on the Solar iBoost+ screen advising that the batteries will soon require replacement. If you have an iBoost *Buddy* the signal strength and battery condition are permanently displayed.

Can I run the wireless sender from a grid supply instead of batteries?
Yes. An optional power supply and specific replacement Sender is available to purchase at www.marlec.co.uk

Can I still switch on my immersion if I need water in a hurry?
The Solar iBoost+ replaces your immersion switch and any timers. It has a "Boost" button and each press increases the time the grid heats the immersion by 15 minutes, this can run up to 2 hours. The time remaining counts down on the display. If you add an iBoost Buddy then you can also press the Boost button remotely within the home, visit www.solariboost.co.uk to find out more.

How exactly does the Dual Immersion feature work?
The Solar iBoost+ version has a cascading load system. This means that 2 immersions can be connected, the first is the priority and when this is satisfied the free solar energy transfers to the 2nd immersion. A clever feature is that the system checks the condition of the 1st immersion every 15 minutes, if the temperature has fallen the free solar energy reverts to it until it is again satisfied and then returns to the 2nd immersion. This cycle continues until both are satisfied when *Water Tank Hot* is displayed.

Can I view the Solar iBoost+ display elsewhere?
The Solar iBoost+ connects wirelessly with the optional iBoost+ Buddy. This is both a home energy monitor and remote display and control for the Solar iBoost+ giving you convenient and quick access to what's happening with energy in your home. The "eco-gauge" swings to indicate energy consumption or excess and a "traffic light" glows red/amber/ green to let you know if the home is importing and exporting energy. Use the Buddy to conveniently activate the Boost feature too.

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How do I integrate the Solar iBoost+ with an Economy 7 timer?
The Solar iBoost+ includes a programmable timer for 2 times each day on a 5/2-day basis. This feature can be used to replace existing timers. At the user pre-set times full grid power is diverted to the 1st then 2nd immersion independently of the pv generation. The water may already be partially or fully heated from the day's excess pv power and thus the grid operation may only need to "top up" the pre-heated water.

Can I set up different automatic timed settings other than 5/2?
Yes, a useful feature in Solar iBoost+ is the option to switch rapidly between Winter/Summer/OFF Timed settings. This is useful if you want to use grid power to top up the free hot water but the duration and start time might be different according to the time of year and how you are using any other heating system. Winter/Summer settings means that you only need to program the times once and just press a button to change the season. This feature is selectable from the remote iBoost *Buddy* where used.
An example of when you might use this is: In the summer when your space heating is off you may want to switch off gas or oil water heating too if your Solar iBoost is delivering most of the hot water you need. You should note that grid power is used during the timed operations. In winter you may not need the timed top up if your gas/oil heating is operating.

What's the maximum immersion heater power rating I can use with the Solar iBoost+?
Any immersion element rated up to 3kW is suitable. As the immersion element is a resistive load it will accept any variable amount of power up to its rated maximum. This enables it to accept even the smallest amount of power sent to it from the Solar iBoost+ and start heating water. The Solar iBoost+ has connections for 2 separate immersion heaters, each can be rated up to 3kW and they will operate in turn to heat the water whether they are *Heating by Solar* or are in grid Timed or Boost mode.

How can I use a Solar iBoost+ on my three phase system?
There are 2 possible options:
1. Use one Solar iBoost+ on one phase with its own 3kW immersion or resistive load. In three phase systems it is very rare that all phases are equally loaded so we recommend that the installer connects the Solar iBoost+, the clamp and immersion to the phase with the lowest load.
2. Fit one Solar iBoost+ onto each phase, each with up to 3kW of load.

I have 2 cylinders at my property, how do I configure my Solar iBoost+ installation?
1. If the 2 cylinders are each within 3m cable run of the Solar iBoost+ one Solar iBoost+ can be installed with 2 immersion connections. Caution: do not place an isolation switch in the Solar iBoost+ output.
2. If the cylinders are further apart you can install one Solar iBoost+ on each cylinder and prioritise them by setting one of the Solar iBoost+ cut-in's higher than the other. The lowest set unit will operate first to Water Tank Hot level before the 2nd Solar iBoost cuts in at the higher export level.

Can I use the Solar iBoost+ with other renewable technologies such as wind turbines?
The Solar iBoost+ measures the export at your utility meter so if you regularly export power from your property then this unit will deliver hot water. Suggested maximum turbine rating is 10kW.

I've heard devices like this can cause flicker; does the Solar iBoost+ have this problem?
The Solar iBoost+ uses a special switching method to switch power into the immersion heater, this technology does not cause flicker on electrical circuits.

What happens if I have a power cut?
The Solar iBoost+ automatically detects that there is no export taking place and stops heating water. It resumes when export is next detected and the built-in memory retains the settings and savings to date.

Want to find out more? Watch our YouTube videos at www.solariboost.co.uk