

immerSUN and Solar iBoost compared

Attribute	immerSUN	Solar iBoost	Comments
Manufacturer	4eco Ltd	Marlec Eng Co	4eco Ltd have been manufacturing microgeneration power diversion devices since 2012. The award winning <i>immerSUN</i> is the most sophisticated device on the market, is easy to install and is the number one choice for installers
Power control method is employed	PWM	Phase angle	Using pulse width modulation ensures that the power going to the load is a non-distorted true sine wave
No side effects using this technology	✓	✗	Phase angle devices that deal with loads of up to 3kW, can create electromagnetic interference (EMI), this can interfere with inverters and other electronic devices in the home
Full EMC & safety testing	✓	✗	Test reports for the <i>immerSUN</i> , relating to Safety Testing & EMC testing can be downloaded from the <i>immerSUN</i> website
Installation verification & error detection	✓	✗	Many installation faults are automatically detected by the <i>immerSUN</i> , reducing the need for site revisits
Wireless sensor mains powered?	✓	✗	The <i>immerSUN</i> 's mains powered wireless sensor ensures 'up to the second' data is transmitted The Solar iBoost's battery powered device transmits data every 10 seconds; this is to conserve battery power. This delayed data can result in power drawn from the grid to satisfy the requirements of the immersion heater
Threshold level at which point power is diverted to the load < 50w	✓	✗	The Solar iBoost allows 500w of power to be exported <u>before</u> it starts to divert any surplus power to the load. The <i>immerSUN</i> is therefore more efficient. This is especially important during periods of lower generation
Supports multiple loads	✓	✗	The <i>immerSUN</i> can sequentially control up to 3 separate resistive loads. The Power Diverter supports just one
Short-circuit protection	✓	✗	The <i>immerSUN</i> has guaranteed integral short-circuit protection in case of immersion heater failure The Solar iBoost has no internal fuse this means it offers no protection against surges, short circuits etc.
Data monitoring available	✓	✗	<i>myimmerSUN</i> remote monitoring enables homeowners to monitor all aspects of their household power distribution in real time; import/export, generation, power diverted, and household consumption.
Multifunction relay	✓	✗	The <i>immerSUN</i> has a multifunctional relay can be used for many purposes; • Export threshold control for switching on/off other appliances • Pump operation • Boiler control • Fault signal
Multiple units can be linked	✓	✗	Up to 5 <i>immerSUN</i> devices can be wirelessly linked, enabling 15kW of surplus power to be self-consumed on each phase. The Solar iBoost does not have this capability, so can only manage up to 3kW of surplus power.
<i>trusine</i> technology	✓	✗	The <i>immerSUN</i> 's <i>trusine</i> power control technology, gives fast smooth automatic power adjustment, it will not cause interference with other appliances or affect the operation of inverters
Advanced installations supported	✓	✗	The <i>immerSUN</i> has additional features to support more advanced installations such as; • Immersion control with heat pumps • Electric underfloor heating systems • Multi-tariff metering (e.g. economy 7)