

Solar Voltage Booster

The Microcare Solar Voltage Booster is an electronic device which is mounted onto the back of a PhotoVoltaic (PV) solar panel to interface with and boost the voltage of the Solar PV panel. It is designed to increase the voltage of a standard PV panel (17-35V) to match the levels required for use with borehole pumps. This is designed for rural and farming environments where grid electricity is not always available close to water sources such as boreholes and dams. Operating as a high frequency DC/DC converter the unit allows the pump controller to track the maximum power from the solar panel through the regulator in such a way that it doesn't affect the performance of the system and pump controller. This equates to a peak efficiency of 98% making a single panel look like an array of panels to the pump controller with a seamless invisible link between the panels and pump controller.



- Multiplies input voltage by 15
- Input Voltage range: 10 to 50 V_{DC}
- Panel power up to 360W supported
- Modular expansion
- Easy installation—All connections MC4
- Self-protecting design
- Most cost effective option for smaller pump systems
- Fits behind most standard PV panels
- 95% efficient over wide power range
- Electronics fully encapsulated

Model	SVB—350 (Single Phase Applications)	SVB—550 (Three Phase Applications)
PV Voc Range	20V to 50V	
PV VMP Range	12V to 40V	
Intended use	VMP = 37V, V _{OUT} = 350V	VMP = 37V, V _{OUT} = 550V
Voltage multiplication factor	9.7	14.9
Rated Output Power	360W	
Efficiency	95% (over wide range)	
Ambient Temp Range	-40°C to 75°C	
Protection	4.5kA Surge protection on all inputs	
Dimensions (H x W x D)	70x100x36mm	
Warranty	1 year	