

vBOOST 250

250-WATT DC-TO-DC CONVERTER MODULE



eIQ Energy's innovative, patent pending, power management technology makes solar energy more dependable and affordable. Our parallel solar product line enables solar arrays to harvest more energy, and has advantages throughout the entire deployment: from design to installation and daily operation.

The heart of parallel solar is the vBoost converter module, which steps up the voltage output of a solar panel and creates a parallel connection to a constant-voltage bus.

eIQ Energy's Parallel Solar approach gives array designers unprecedented flexibility and faster installation. Our distributed power point tracking provides immediate improvements in energy harvest and array operation.

Designed for use with lower-voltage panels (20 to 50 volts), the vBoost 250 mounts directly on the PV panel rail, connecting to the PV module with an MC3 or MC4 connector. Power and data are carried on a single cable.

FEATURES

Parallel architecture with constant voltage output over entire input power curve

Direct connection to solar panel MC connector; no additional panel wiring needed

Complete cable assembly with #10 UL rated PV wire for vBoost unit interconnection and #12 UL wire for connection to PV modules

Full communications over power line to central module. Collected data includes:

- Voltage input** (from panel)
- Current input** (from panel)
- Power input** (from panel)
- Voltage output** (from vBoost)
- Current output** (from vBoost)
- Power output** (from vBoost)
- Ambient temperature**
- Unit status**

Auto shut-off when unit is disconnected from inverter/Comm Module

Watertight NEMA 4 enclosure

Flexible mount points for connection to any racking system

High-availability fault tolerant design

vBoost | 250

Electrical Specifications	vBoost250
Input	
Maximum Input Power	250W
Maximum Input Voltage	50V
Minimum Input Voltage	20V
Maximum Input Current	10A
Output	
Maximum Output Power	250W
Output Voltage Range	250V-350V (set by inverter)
Maximum Output Current	1.25A (internal current limit; 1.5A fuse)
Conversion efficiency (peak)	97-98%
Operating Temperature Range	
	-40°C to 65°C
Enclosure	
	NEMA 4 sealed metal case
Maximum Units in Series	
	9,300 watts at 310 VDC output voltage
Compliance	
	UL1741/IEEE1547; CSA107.1, CE, FCC P15
EMI Input/Output Filters	
	FCC Class B
Mechanical	
Dimensions: inches (cm)	10.25" x 5" x 2.25" (26 x 12.7 x 5.7)
Weight	4.6 lbs



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