

# Energy Saving Power Quality Conditioners

eSaver+™ – Compact Voltage and Solar Optimizer

Models: EE-202-Series



## FEATURES

**Compact Voltage Optimizer which boosts residential solar yields and saves energy through Conservative Voltage Reduction (CVR)**

- Continuous voltage regulation eliminates Voltage volatility and allows solar export at optimal voltage levels
- Voltage Output Regulated to  $\pm 1\%$  for CVR energy savings and increased Solar Energy yield
- High Efficiency 98.5% @ 60% Load
- Variable export control option available
- Bidirectional – passes reactive power bi-directionally
- Optimal power and voltage regulation ensures 100% Solar inverter up-time and full Solar energy recovery (See Fig. 3)
- Adaptive Regulation compensates Residential wiring losses
- IP54 Packaging
- Intelligent software control; Programmable over the internet
- Full Power Quality, Solar inverter Monitoring and Consumption Data available Locally or Remotely
- Adaptive Regulation compensates Residential wiring losses
- 1-Phase Input 180-275 VAC | 50 Hz | 5KVA
- With VO Regulation Current Capability 22A, Bypass to 63A
- EMI Electrical Noise Suppression Networks
- Line Surge protected - IEC 61000-4-5 to 10KV / 40KA
- Compliance to AS/NZS 60335.1:2011 + A1 + A2
- Comms Option LAN, WiFi, 3G, 4G
- Smaller Lower power Units available



## DESCRIPTION

The Edge Electronics Compact High Efficiency Bi-directional AC-AC Voltage Regulator and Solar Optimizer is part of the Edge Electron's Energy Saving and Power Quality and Range of Products. It is an Intelligent, Software driven, Automatic AC-AC Voltage CVR Regulator. The eSaver+ is specifically designed to be Bidirectional and boosts any Power applied at the Voltage Regulated Output back to the Input, eliminates Voltage Volatility and protects sensitive loads from voltage surges (See Fig 3).

**The Edge Electronics eSaver+ enables constant voltage regulation which significantly improves solar yields, lowers electricity consumption, reduces electricity costs, improves power quality and reliability and helps protect the environment.**

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<b>Key Features</b>	
Input Voltage Range	180 - 275 VAC   1-Ph
Output Voltage	Regulated to +- 1%, Fixed or Programmable
Bidirectional	Power applied to Regulated Output Boosted to Input
Efficiency	98.5% @ 60% Load
KWH energy Savings	Approximately 1% for each 1% Voltage Reduction (CVR)
Lightning Strike	Power line surge protected to 10KV per IEC61000-4-5
Operating Temperature Range*	-10 to 50°C Ambient (Please see Derating Curve Fig. 2)
Max. Humidity	95% (Non Condensing)
Patent	Patents Pending

\* Note: Power ≤ 5KVA/Module depends on Thermal environment (Please see Derating Curve Fig. 2).

				
Model no.	EE-201-0050-001	EE-201-0050-002	EE-201-0050-003	EE-201-0050-004
Description	Shrouded	Shrouded	Un-Shrouded	Un-Shrouded
Color	Black	Silver	Grey	White
Dimension (cm)	L 54.9 x W 32.8 x D 13.3		L 52.8 x W 26.3 x D 9.0	
Weight (kg)	11.5		10	

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## ELECTRICAL SPECIFICATIONS

Fig 1 – eSaver+ Voltage Regulation

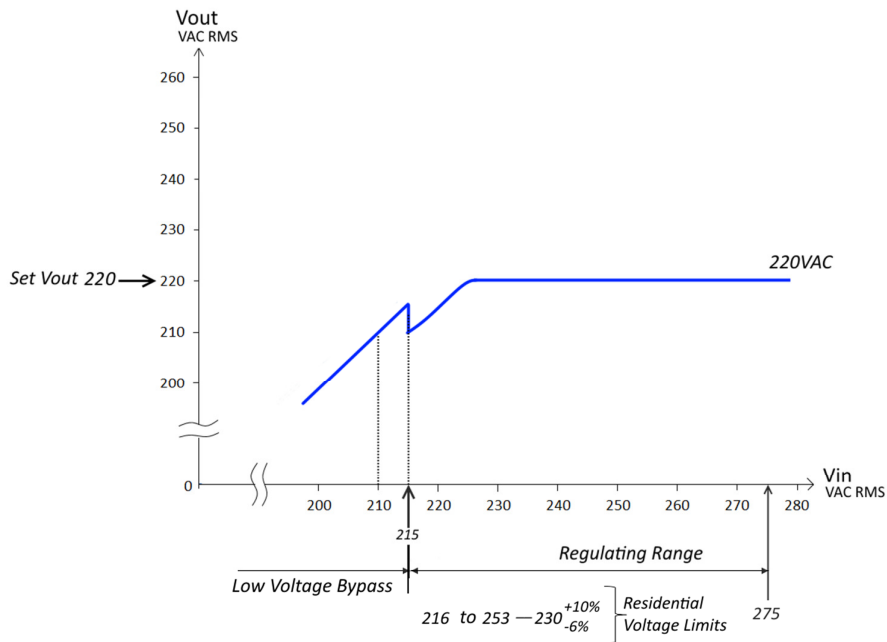
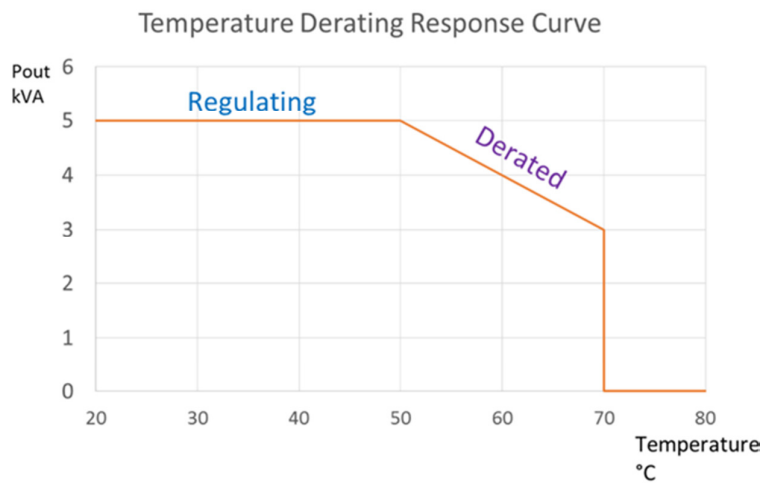


Fig 2 – Temperature Derating



Please see Application Notes for derating details.

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*Fig 3 – Simplified Installation Wiring for Solar Energy Export alternatives.*

Fig 3(a) – 100% Solar Energy Harvest and Export without Overvoltage Lockout (OVLO) from Grid.

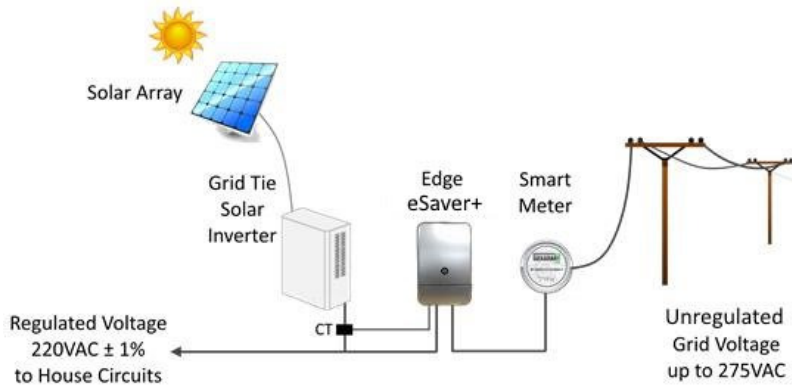


Fig 3(b) – Standard Solar Installation with Overvoltage Lockout (OVLO) from Grid.

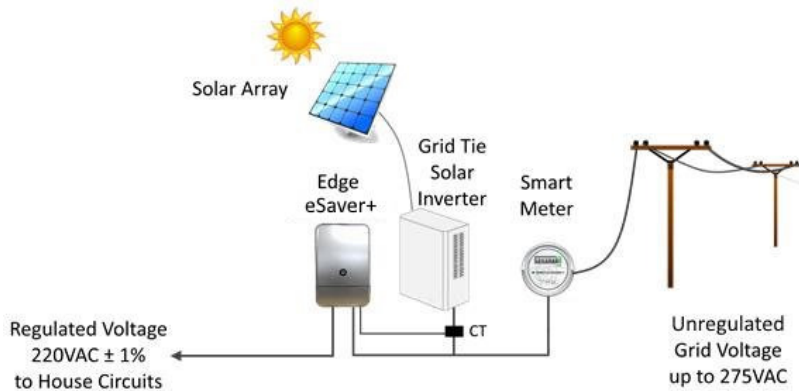
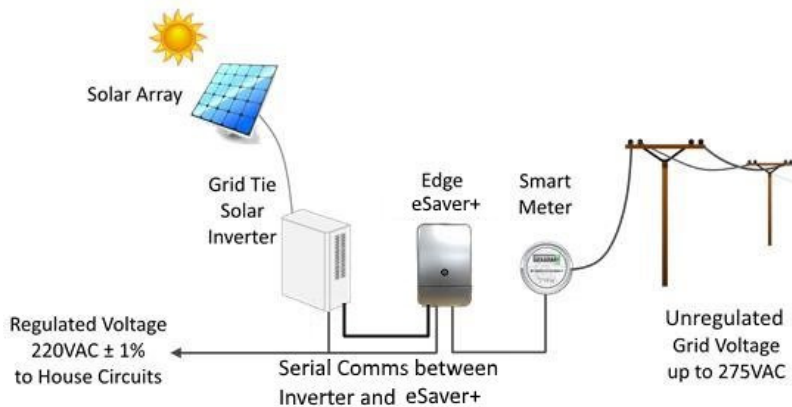


Fig 3(c) – Solar Installation and Export Control with a Smart Solar Inverter



**Contact**  
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