

EcoVAR STATCOM



The EcoVAR is a Low Voltage STATic COMPensator (STATCOM) that helps utilities manage the voltage on LV Networks.

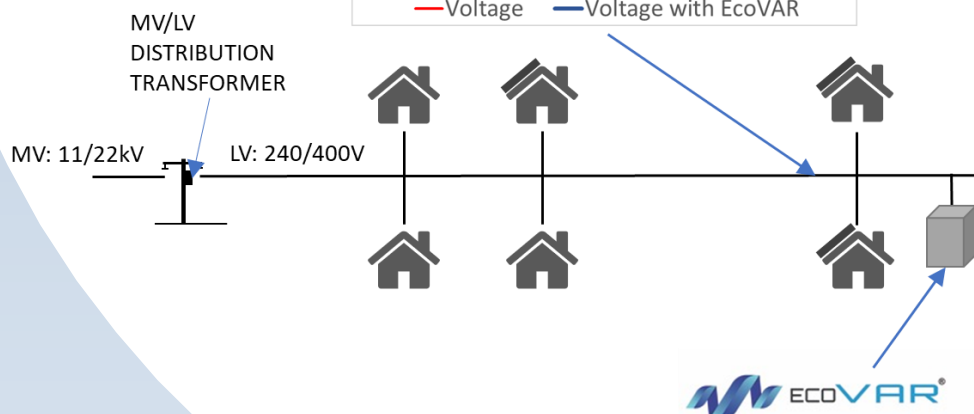
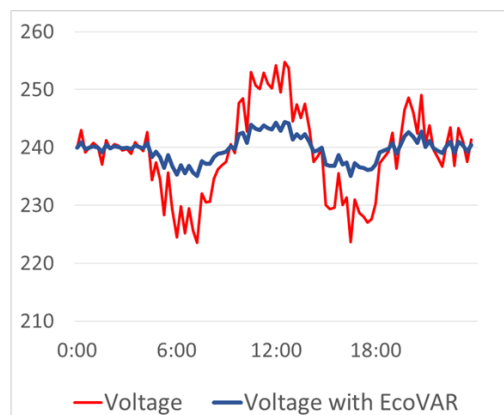
When the voltage is high (typically when PV output is high and loads are low) the EcoVAR sinks inductive reactive power to reduce the voltage.

When the voltage is low (typically during peak load periods) the EcoVAR sources capacitive reactive power to boost the voltage.

Thus the LV network voltage profile is flattened and the voltage swing reduced.

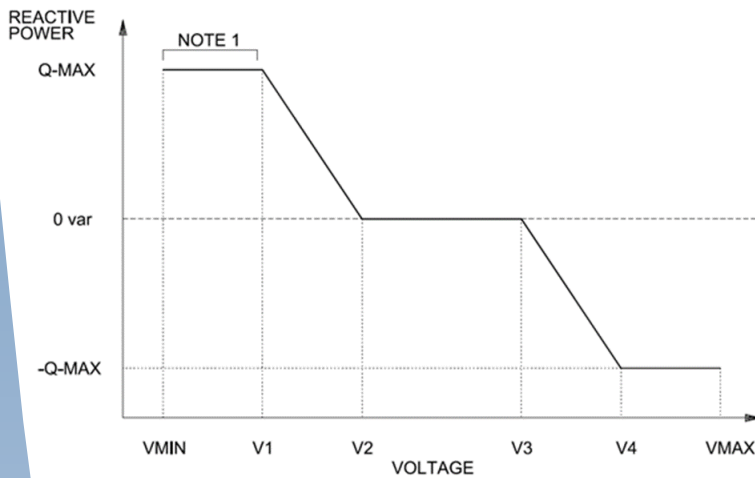
Both steady state and transient voltages are improved.

The EcoVAR can also act as an active harmonic filter to attenuate harmonics on the grid.



Note: Voltage improvement achieved depends on network inductance.

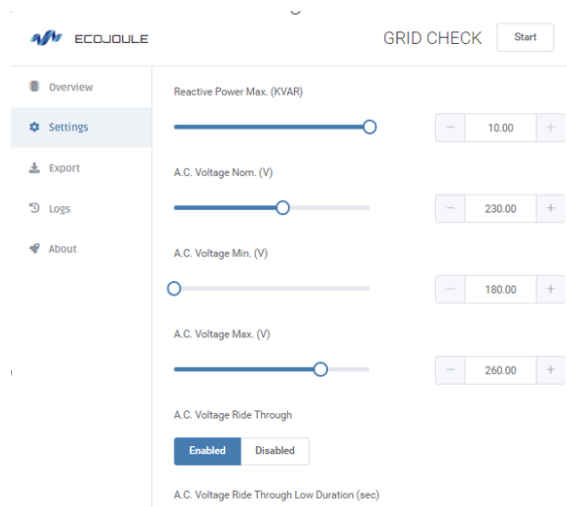
ECOVAR FUNCTIONAL HIGHLIGHTS



- Steady state droop control as per AS4777.2:2015.
- Controlled dynamic response results in stable performance and ability to parallel multiple units.
- Active harmonic filtering up to the 21st harmonic.
- Ultra low loss power electronics design achieves > 98.5% efficiency (losses half that of standard power converters).
- On-board Linux computer provides unmatched flexibility. Custom Apps can easily be added to suit customers' requirements.

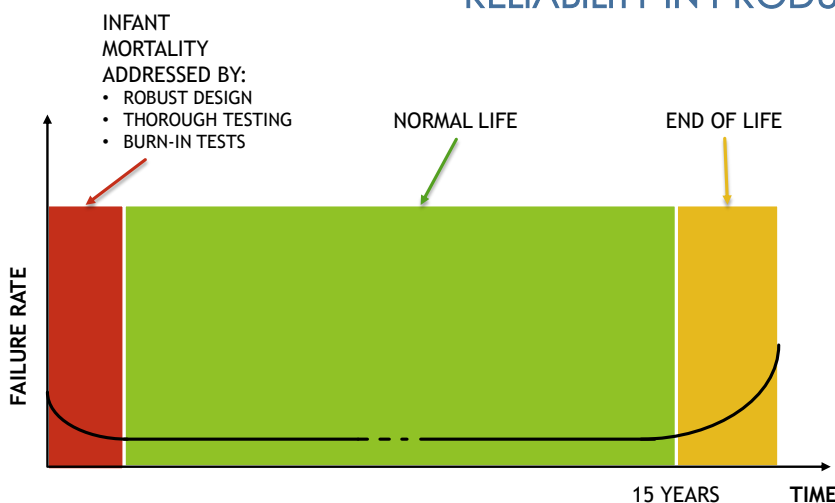
DATA LOGGING AND MANAGEMENT

- Extensive data logging with on-board storage expandable up to 64GB.
- Remote download with smart data manager.
- DNP3 communications protocol supported for communication with utility SCADA system.
- Intuitive engineering access tool for configuration and management supported on multiple platforms (PC, tablet, smartphone).



Intuitive Engineering Access Tool

RELIABILITY IN PRODUCT DNA



- Reliability designed in from start.
- No heatsink fans.
- 15 year design life
- Top quality componentry.
- Thorough testing.
- Production control.
- Burn-in tests.

SIMPLE INSTALLATION & POLE MOUNTING ARRANGEMENT



A simple mounting arrangement for both single and three phase units reduces installation time. Mounting can be with pole bolts or pole bands.

TECHNICAL SPECIFICATIONS

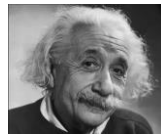
Specification	10kVA Single Phase	30kVA Three Phase
Steady state Operating Voltage Range	180 - 260V	312 - 450V
Nominal frequency	50Hz**	
Continuous Rating	10kVA	30kVA
Ambient temperature	-15°C to 50°C	
Maximum Solar Loading	1100 W/m ²	
Heatsink Cooling	Natural Convection	
Efficiency	>98.50%	
Harmonics	<4% at full load	
Active Harmonic Filtering	Active harmonic filtering of four harmonics up to the 21 st harmonic	
Output switching frequency	48kHz	
Audible noise	<50dBA at 10m	
Communications	Ethernet interface to Cellular Modem, RS485, Wifi, CAN DNP3 & Modbus protocol supported	
Anti-islanding	Passive as per AS/NZS 4777	
Mechanical Protection	IP65	
Mounting	Pole mounted	
Dimensions (H x W x D mm)	800 x 450 x 275	800 x 1350 x 275
Weight	40kg	120kg
Standards Compliance	AS/NZS 4777, AS 62103, AS/NZS 61000.3.5, AS/NZS 61000.3.12, AS/NZS 60529:2004	

INDUSTRY LEADING POWER ELECTRONICS DESIGN

EcoJoule Energy Pty Ltd was established to provide high quality, reliable and cost effective power electronics solutions to the electricity utility industry. Its founders bring together industry leading expertise and experience in power electronics, software and power systems design having spent many years in senior R&D positions for major multinational companies. We merge the design quality and discipline of a multinational with the flexibility and agility of a technology company.

We believe that power electronics based devices will help to transform the electricity grid into a flexible, intelligent and sustainable system able to provide lower cost, more environmentally friendly power services to consumers.

EcoJoule Energy Pty Ltd is based in Brisbane, Australia and is 100% privately held. Our motto of "Simply Smart Power Solutions" derives from our aim to merge smart design with simplicity.



*"Everything should be made as simple as possible,
but no simpler" Albert Einstein*

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