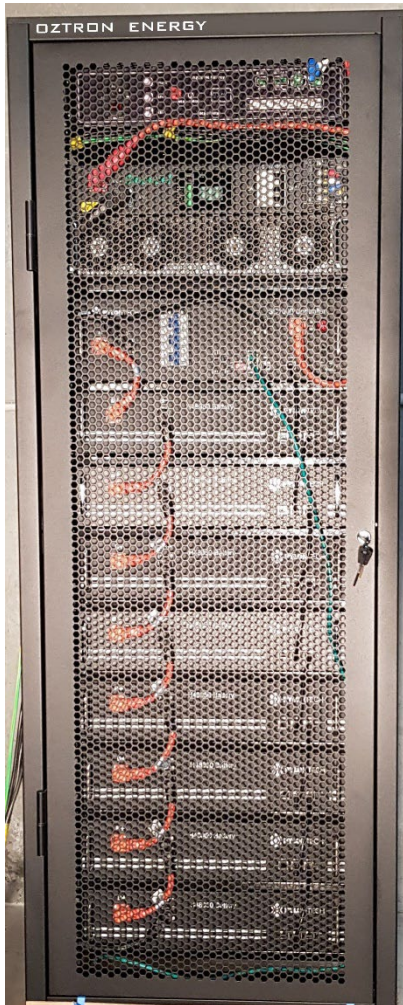


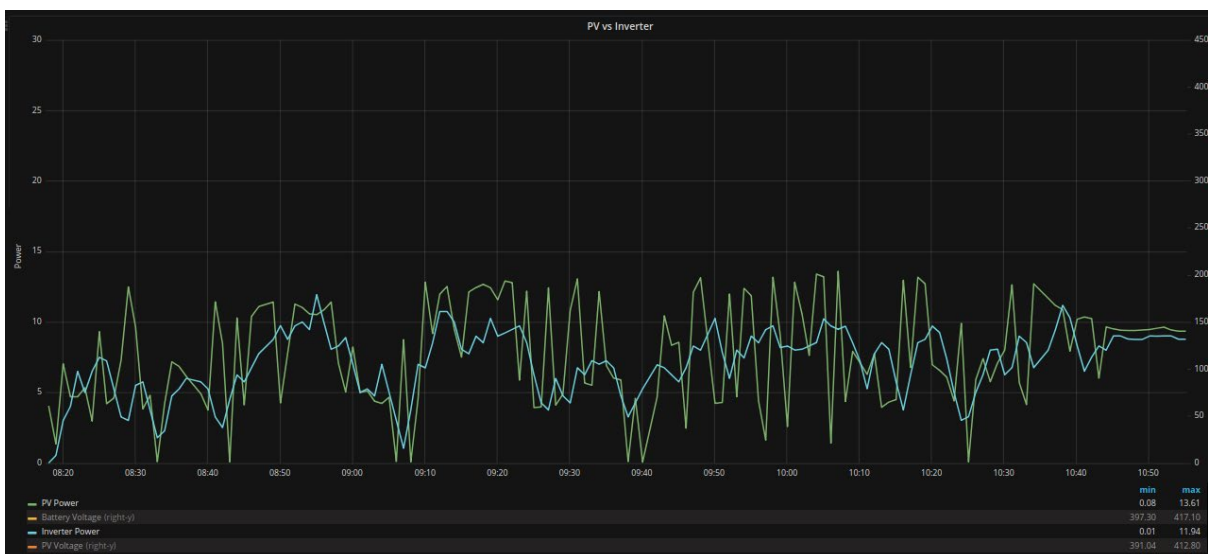
Renewable Energy Smoothing System (Solar Smoother) with Storage

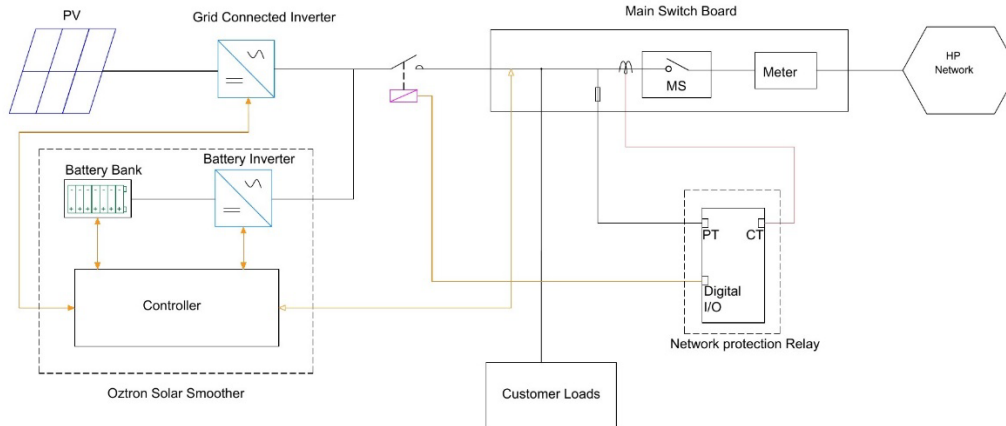


OZTRON Solar Smoother reduces the fluctuations of AC electricity output from Renewable Energy installations. It is fully compliant with **Horizon Power Low Voltage EG Connection Technical Requirements**, Standards Number: **HPC-9DJ-13-0002-2019** and **Ergon Energy STNW1174** and **STNW1175**. It includes battery storage for zero wastage and added economy.

Size from **30kVA to 1000kVA**

- Smoothing, Storage and FIM in one unit
- No curtailment of PV output
- Smoothing at the point of connection
- AC Coupled
- Can be used with any PV and/or wind grid-connected installation
- Fully rated and self-contained
- Generously sized Lithium battery for long life
- Automatic self-test with reporting
- 3 phase bi-directional inverter
- Remote Monitoring with software updates
- Modular construction, Small footprint
- Units can be connected in parallel for higher capacity





Specifications

Model	SS30-3A	SS30-3AX
Continuous Rated Capacity	30kVA	30kVA
Recommended PV Inverter Capacity	30kVA	30kVA
AC Voltage range, 3 ϕ	329 to 459 V	329 to 459 V
AC Frequency range,	46.5 to 53 Hz	46.5 to 53 Hz
Ramp-up rate 0% to 100%	360 sec, 300 sec for Queensland	60 minutes
Ramp-down rate 100% to 0%	720 sec, 600 sec for Queensland	120 minutes
Battery Nominal Voltage	384V	576V
Usable autonomy at 50% rated load	60 minutes	120 minutes
Local Display (Queensland Model)	7" colour LCD	
Size (W x D x H), mm	600 x 600 x 1775	600 x 600 x 2350
Weight, kg	368	550
Protection Grade	IP20	
Operating Temperature, °C	0°C to 50°C	
Communications	TCP/IP, Optional 3G/4G, SunSpec compliant	
Certification	AS4777, VDE 4105, IEC62477, IEC61000, TUV, CE, CEC	

Product Range

GMU Standard ramp rate	SS30-3A	SS60-3A	SS90-3A	SS120-3A
Output Power max, kVA	30	60	90	120

The above units provide 45 minutes of back up at 50% power.

GMU Extended ramp rate	SS30-3AX	SS60-3AX	SS90-3AX	SS120-3AX
Output Power max, kVA	30	60	90	120

The above units provide 90 minutes of back up at 50% power.

Longer back up times are available.

Extended Range systems are required for areas with no hosting capacity available.

Larger systems, up to 1000kVA, are available.

Recommended PV Inverters: Fronius Symo, SMA Tripower (PowerFactory models available)

Advanced Features

- Feed-in Management compliant with Horizon specifications
- Compatible with DERMS used by Network Operators
- Full PV energy is available. Very low insertion loss
- Combination of Battery Storage and Smoothing. Storage capacity can be increased
- Optimized battery storage management
- Digsilent PowerFactory model available
- Battery State of Charge and Health monitoring
- Remotely monitored and managed

Options and Variations

- Higher protection grade and outdoor type enclosures
- Extended ramp-down version, 60 minute Ramp up, 120 minute Ramp down
- Ramp rate maintained at the point of connection, compensates for load fluctuations
- Queensland model compliant with Ergon Energy specifications STNW1170, STNW1174 and STNW1175
- Larger systems are built using multiple modules
- Larger battery bank for demand shifting
- Emergency back-up power
- Other communication protocols
- Can be supplied in transportable shipping containers
- Ready for Microgrid integration, Demand Response, Virtual Power Plant

Enclosure Options

1. IP21 rack cabinet for switch rooms and indoor location
2. IP54 outdoor enclosure
3. Transportable kiosk for large systems

Central Protection

Central Network Protection board, compliant with Horizon and Ergon specifications, are available. These are required for all installations greater than 30kVA. This is to be located near the Main Distribution Board.

A Fail-Safe Wireless Controller is available for situations where the PV Distribution Board is located far from the Protection Relay. This avoids laying of long control cables.

Our Services for Horizon Power and Ergon Energy approval

- AC and DC side design
- Drawings and documentation
- NPER, RPEQ Certification
- Factory Acceptance Test, Witness Test
- Commissioning
- Reporting