

## **Hybrid Power Core** **12kW Rectifier + 12.8KW Solar**

### PRODUCT DESCRIPTION

The Moduflex+ Hybrid series is designed using Enetek's high efficiency switch-mode rectifier modules and solar converter modules, allowing both grid/genset inputs as well as PV input. Coupled with the intelligent controller, the powercore comes complete with the respective load and battery distribution, AC incoming as well as surge protection. The solution can be customized accordingly to specific requirements.

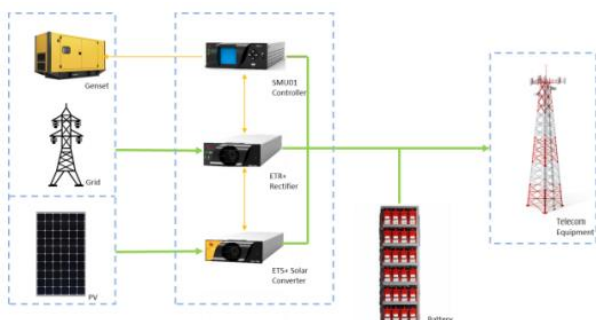
The user friendly SMU01 controller, coupled with its compact size and simple-to-operate interface, is highly adaptable and provides the monitoring and management of the system solution.

### APPLICATIONS

- Remote Sites
- Macro cell BTS
- Microwave
- LTE / WiMax
- FTTX
- Broadband Access
- Optical Fibre Transmission System

### KEY FEATURES

- **Wide MPPT Range**  
To optimize solar power conversion
- **Wide Temperature Range**  
Applications in harsh environment
- **Modular and Scalable Design**  
Hot pluggable replacement or expansion
- **Highly Efficient @ >97%**  
Reduces losses and lowers Operating cost
- **PV Input Ground Fault Detection**  
Optional PV Input Ground Fault Detection
- **Excellent EMC Performance**  
Lower interference and excellent susceptibility
- **Compliant with Global Standards**  
Delivers quality, performance and reliability



## TECHNICAL SPECIFICATIONS

MODEL		Moduflex+ HYBRID
INPUT SPECIFICATIONS		12kW + 12.8kW
Mains Input		1-Phase 230Vac; 3-Phase 400Vac+N (Y)
Power Factor		≥ 0.99
Frequency		45Hz to 65Hz
THD		< 5% (50% to 100% load)
Input Protections		Soft Start
		Surge Protection
		Overvoltage Protection
PV Input		
Solar Input		85Vdc to 430Vdc
Input from Solar Array		4 x Connectors (20A)
Input Isolation		4 x 25A 2P MCB
Surge Protection		Included
OUTPUT SPECIFICATIONS		
Nominal Output Voltage		48.0Vdc
Output Power		12kW Rectifier + 12.8kW Solar
Peak Efficiency		97%
BATTERY DISTRIBUTION		
Battery Low Voltage Disconnect		BLVD @ 300A
Battery Distribution		4 x 27mm width 80A-125A 1P MCB (Configurable)
LOAD DISTRIBUTION		
Load Low Voltage Disconnect		LLVD is optional
Load Distribution		12 x 18mm width 6A-63A 1P MCB (Configurable)
CONTROLLER and RECTIFIER TYPE		
Rectifier Module		ETR <sup>+</sup> Rectifier and ETS <sup>+</sup> Solar Converter modules
Controller Module		SMU01 (refer to datasheet)
ENVIRONMENTAL		
Operating Temperature Range		-20°C to +75°C (de-rates above 55°C)
Storage Temperature Range		-40°C to +70°C
Relative Humidity		Operating: 5% to 98% RH non-condensing
		Storage: 0% to 98% RH non-condensing
Acoustic Noise		<58dB @ full load, 40°C
PHYSICAL		
Dimensions WxDxH		482 x 390 x 355 (mm) (8U)
Net Weight		~23kg (excluding Rectifier and Solar Converter modules)
DESIGN STANDARDS		
Electrical Safety		EN/IEC62368-1
EMC		EN55022/CISPR22 Class B, EN61000-4-2/-3/-4/-5/-11

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Australia & New Zealand



**Powerbox Australia Pty Ltd**

Sydney Head Office  
4 Beaumont Road,  
Mt Kuring-Gai, NSW 2080  
Australia



1800 251 380



[sales@powerbox.com.au](mailto:sales@powerbox.com.au)



[powerbox.com.au](http://powerbox.com.au)

**Powerbox Pacific Ltd**

New Zealand Sales Office  
1a Henry Rose Place,  
Albany, Auckland  
New Zealand 0632



09 4158 320



[sales@powerbox.co.nz](mailto:sales@powerbox.co.nz)



[powerbox.co.nz](http://powerbox.co.nz)