



## Moduflex<sup>+</sup>

### Hybrid Power Core

### 24kW Rectifier + 12.8KW Solar

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

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

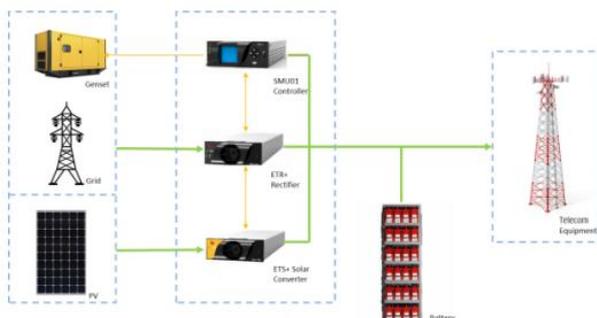
## RODUCT DESCRIPTION

### 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	SPC21209S.1XX
<b>INPUT SPECIFICATIONS</b>	24kW + 12.8kW
Mains Input	1-Phase 230Vac; 3-Phase 400Vac+N (Y)
Power Factor	≥ 0.99
Frequency	45Hz to 66Hz
THD	< 5% (50% to 100% load)
Input Protections	Soft Start
	Surge Protection
	Overvoltage Protection
<b>PV Input</b>	
Solar Input	85Vdc to 430Vdc
Input from Solar Array	4 x Connectors (20A)
Input Isolation	4 x 25A 2P MCB
Surge Protection	Included
<b>OUTPUT SPECIFICATIONS</b>	
Nominal Output Voltage	48.0Vdc
Output Power	24kW Rectifier + 12.8kW Solar
Peak Efficiency	97%
<b>BATTERY DISTRIBUTION</b>	
Battery Low Voltage Disconnect	BLVD @ 500A
Battery Distribution	4 x 27mm width 80A-125A 1P MCB (Configurable)
<b>LOAD DISTRIBUTION</b>	
Load Low Voltage Disconnect	LLVD is optional
Load Distribution	12 x 18mm width 6A-63A 1P MCB (Configurable)
<b>CONTROLLER and RECTIFIER TYPE</b>	
Rectifier Module	ETR <sup>+</sup> 2048/3048 Rectifier and ETS <sup>+</sup> 3248 Solar Converter modules
Controller Module	SMU01 (refer to datasheet)
<b>ENVIRONMENTAL</b>	
Operating Temperature Range	-20°C to +75°C (de-rates above 55°C)
Storage Temperature Range	-40°C to +85°C
Relative Humidity	Operating: 5% to 95% RH non-condensing
	Storage: 0% to 99% RH non-condensing
Acoustic Noise	≤58dB @ full load, 40°C
<b>PHYSICAL</b>	
Dimensions WxDxH	482 x 390 x 400 (mm) (9U)
Net Weight	~25kg (excluding Rectifier and Solar Converter modules)
<b>DESIGN STANDARDS</b>	
Electrical Safety	EN/IEC62368-1, EN/IEC62109-1
EMC	ETSI EN 300 386 V2.1.1, EN61000-6-1/-2/-3/-4