



Sierra is the world's first multidirectional power converter. This solution offers many new features within a unique module!

📞 Telecom
🏢 Datacom
🚆 Mass transport
🏭 Industry
⚡ Power Utilities
🌿 Renewable

AC In
230 Vac

DC In
48 Vdc

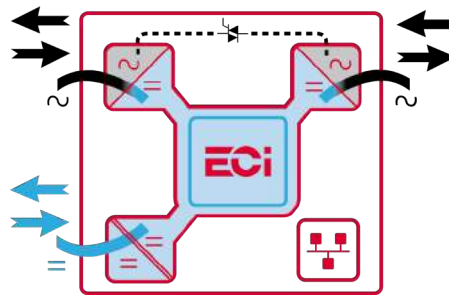
AC Out
230 Vac

DC Out
48 Vdc

Power
3 kVA
2.4 kW

3-450 kVA

Power Routing is our new **product range** including multidirectional power converters. This range has been designed to offer our customers the most compact (only one module), flexible (do what you want) and modular solution for **critical power backup** applications and **energy management**.



This new technology allows you to **route power as you like**; we manage the power conversion for you. Only the sky is the limit!

Just some of the new possibilities include: **feeding** and **securing** both **AC & DC loads**, **charging batteries**, **shaving peak** consumption, **balancing phase consumption** (for three-phase infrastructures), performing constant power battery tests, re-injecting power into the (micro) **grid** and many more!

This new CE+T Power solution increases **your power resilience** (robust power backup and protection against grid disturbances) while **saving you money** (energy bills and infrastructure design) and space.

Grid re-injection

AC & DC

Charge & Test

Peak shaving

3P balancing

Sierra is the first building block available in the new range. This new power converter has three ports, all offering bidirectionality. The module can provide **3 kVA / 2.4 kW** on any port or aggregate power to multiple ports at the same time. This Sierra version is designed for **48 Vdc** and **230 Vac** voltage levels.

The Sierra module comes with a communication port, a power boost and Inview, our new intelligent controller. Beyond being IoT ready, this outstanding human machine interface integrates a Battery Management System that can manage various chemistries. Systems can be designed for **single** or **three-phases** infrastructures providing power from **2.4 to 75 kW** in AC and/or DC.

Illustrations are non-binding and may include customized fittings.

Sierra 3 kVA 48VDC / 230VAC

General	
Operating T° and relative humidity	-20°C to +65°C* and 5 to 95% non-condensing
Storage T° and relative humidity	-40°C to +85°C and 0 to 95% non-condensing
Power	
AC Input Data	
Nominal voltage line to neutral (range)	230 Vac (150 - 265 Vac) Derating from 185 to 150 Vac
Nominal current at 230 Vac	11.7 A
Frequency (Synchronization range)	50 Hz (47 - 53 Hz) or 60 Hz (57 - 63 Hz)
Power factor / THD	> 0.99 above 50% load / < 3%
DC Input Data	
Nominal voltage (range)	48 Vdc (40 - 60 Vdc)
Nominal current at 48 Vdc	54.4 A
Maximum current (for 15 seconds)	67.9 A
AC Output Data	
Nominal voltage (selectable)	230 Vac (200 - 240 Vac)
Frequency (inverter mode)	50 Hz or 60 Hz depending on AC input
Maximum power permanent / overload (15 sec)	2.4 kW (3 kVA) / 3 kW (3.75 kVA)
Maximum current permanent / overload (15 sec)	13 A / 16 A
Voltage THD	< 1.5% resistive load
Voltage stability	±1% from 10 to 100% load
Current short circuit with AC in / on DC battery	109 Arms for 20 ms / 22.5 A for 15 seconds
Efficiency AC to AC (EPC) / DC to AC	> 96% / > 93.7%
DC Output Data	
Nominal voltage (range)	53.5 Vdc (44 - 60 Vdc)
Maximum power	2.4 kW**
Maximum current at 48 Vdc	50 A
Reverse polarity protection	YES
Efficiency AC to DC	> 93.7%
Safety & EMC	
Electrical Safety	EN60950-EN62040-1
EMC	EN300386V1.6.1 / EN61000-1-2-3-4
Environment	ETSI 300119:2-1 class1.2 :2-2 class2.3 & 2-3 class 3.2
Dielectric isolation DC / AC	4300 V

* Derating from 40°C to 65°C.

** AC output load has higher priority. If AC load is 1 kW, DC power maximum is around 1.6 kW, depending on AC input voltage.

