





Designed for eXtreme Conditions, 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



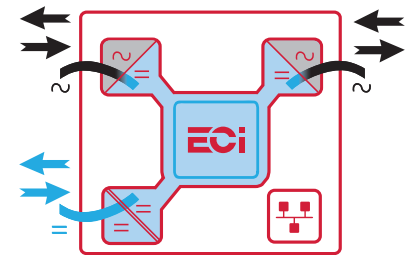
* Using 3 modules and a junction kit

Designed to Withstand!

Built for **harsh environments**, Sierra XC 10 fears nothing: earthquake, vibration, shock, high temperature, humidity, water projection, dust, corrosive atmosphere, biologic and chemical contamination. The product is delivered in an IP65 enclosure **and is compliant with military specifications (Mil-std 810 and 461)**.

Technology

The **three fully bidirectional ports (AC/AC/DC)** built into each module can all function as **input** and **output**. This means you can use it to **secure AC & DC loads** and charge the **batteries** at the same time. The internal DC energy buffer dynamically distribute the power between AC and DC according to the needs. No configuration is required.



To do what?

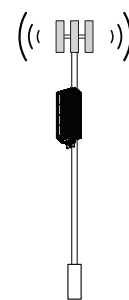
This unique power converter can be used to power any type of load anywhere:

- **Outdoor (pole or wall mounted):**
 - Telecom antenna
 - Traffic lighting
 - Security camera / CCTV
 - Offshore wind farms
- **Onboard:**
 - Outside broadcast
 - Transport (train, boats, etc.)
 - Military

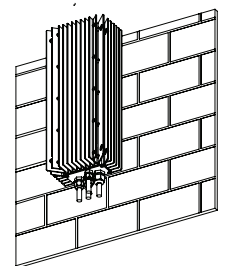
Just to name a few. For any kind of application in extreme conditions, Sierra XC is your partner of choice.

How it works?

At the heart of each module, there is a **DC energy buffer**. It uses the energy that comes, whatever its source, to feed what needs it. The total output power is **shared live** between the loads and the batteries. It's that simple! No configuration is required, you are totally autonomous.



Pole mount



Wall mount

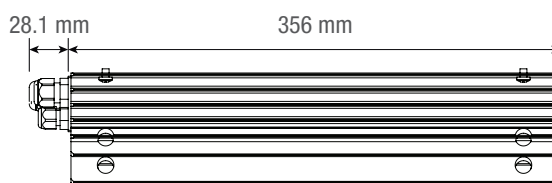
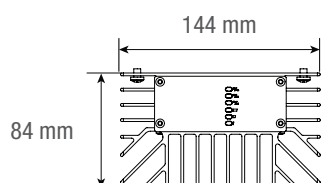
Key features:

- Secure AC & DC loads
- From 1 to 3 kW
- Harsh Environment (IP65 / NEMA 4)
- Onboard and Outdoor applications
- Compact, easy to install and operate

Illustrations are non-binding and may include customized fittings.

Sierra XC 10 - 48/230

General	
Part Number	T712730201
Cooling	Natural convection
MTBF	200 000 hrs (MIL-2171F)
Dielectric strength DC/AC	4300 Vdc
RoHS / Material (casing)	Compliant / Aluminium
Operating T° / Relative Humidity	Compliant to ETSI 300-019-1-4 class 4.1E -40°C to +70°C derating above 50°C / 0-100%
Storage T° / Relative Humidity	Compliant to ETSI 300-019-2-4 class 4.1E -40°C to +70°C / 0 to 100%
Shock & Vibration	Design for on board vehicles and ship
Altitude above sea without de-rating of power	< 1500 m / derating > 1500 m – 0.8 % per 100 m / max 4000 m
Power	
AC Input Data	
Nominal voltage (AC) / Current	230 Vac / Max 5.4 Amps
Voltage range (AC)	150 - 265 Vac (derating below 195Vac)
Brownout	1000 W at 185 Vac linear decreasing
Power factor / THD	> 99% / < 3%
Frequency range (selectable) / synchronization range	50 Hz (range 47 – 53 Hz) / 60 Hz (range 57 – 63 Hz)
DC Input Data	
DC voltage: Nominal / range	48 Vdc / (40-60V)
Nominal current (at 48 Vdc and 900 W output)	20 A
Maximum input current (for 15 second) / voltage ripple	31 A / < 10 mV RMS
AC Output Data	
Efficiency AC to AC (EPC) / DC to AC / AC to DC	96% / > 93% / > 93%
Nominal voltage AC (Adjustable)	230 Vac (200 - 240 Vac)
Frequency / frequency accuracy	50 or 60 Hz / 0.03%
Nominal Output power	1200 VA / 1000 W @ 230 Vac
Short time overload capacity	150% (15 seconds)
Admissible load power factor	Full power rating from 0 inductive to 0 capacitive
Total harmonic distortion (resistive load)	< 3%
Load impact recovery time (10% - 90%)	≤ 0.4 ms
Nominal current	5.4 A @ 230 Vac
Crest factor at nominal power	3 : 1 for load P.F. ≤ 0.7
Short circuit clear up capacity at AC input / On battery	21 A for 20 ms
Short circuit current after >20 ms	8.1 A for 15 seconds
AC output voltage stability	±1% from 10% to 100% load
DC Output Data	
Nominal voltage (range)	53.5 Vdc (44 - 60 Vdc)
Maximum power	1000 W with 230 Vac input voltage
Maximum current at 48 Vdc	20 A
Reverse polarity protection	YES
Efficiency AC to DC	> 93%
In Transfer Performance	
Max. Voltage interruption / total transient voltage duration (max)	0 sec / 0 sec
Signaling & Supervision	
Display	Synoptic LED
Safety & EMC	
Safety	EN62040-1
EMC	EN 61000-4-2 / EN 61000-4-3 / EN 61000-4-4 / EN 61000-4-5 / EN 61000-4-6 / EN 61000-4-8 ETSI EN 300386 v1.9.1



Weight: ~ 4 kg

Sierra XC 10 - 48/230 - Datasheet - v1.0 Specifications can change without notice. New data will be updated on our website: www.cet-power.com.
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 www.cet-power.com

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