Sierra XC 10 - 48/230

Designed for eXtreme Conditions, Sierra is the world's first multidirectional power converter, bundling numerous features within its unique design!

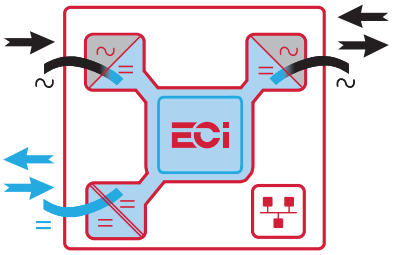
Telecom | Datacom | Mass transport | Industry | Power Utilities | Renewable

AC In 230 Vac | **DC In** 48 Vdc | **AC Out** 230 Vac | **DC Out** 48 Vdc | **Power** (AC + DC) 1 kW | up to 3 kW *

* Using 3 modules and a junction kit

Optimized Power Allocation

The Sierra XC 10 - 48/230 stands out with its **three ports (AC/AC/DC)**, efficiently **secures AC and DC loads while charging batteries**. Allocating a total power of 1 kW between AC and DC port, with a maximum of 0.8 kW per port, it ensures **dynamic power distribution** based on power needs.

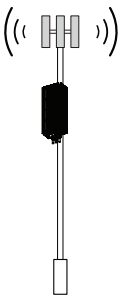


Resilience in Harsh Conditions

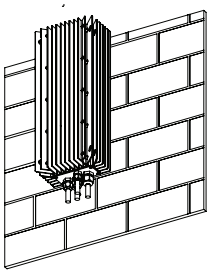
Engineered to endure **extreme environments**, this converter boasts an **IP65 rating**, guaranteeing robustness against earthquakes, vibrations, shocks, high temperatures, humidity, water projection, and corrosive atmospheres. Its durability makes it an ideal choice for **diverse applications**, including telecom antennas, security cameras, and onboard installations.

Versatile Installation and Streamlined Maintenance

Operating **fanlessly for quiet performance**, the Sierra XC 10 - 48/230 not only simplifies maintenance but also ensures a quieter operational environment. Additionally, its **pole or wall-mountable** design provides flexible installation options, catering to various installation needs. Moreover, its scalable nature enables **parallelization of up to 3 modules**, providing adaptability to diverse power demands. This flexibility allows for effortless expansion when necessary, making it an ideal choice for evolving power needs.



Pole mount



Wall mount

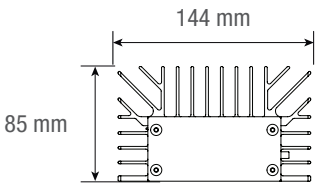
Key features:

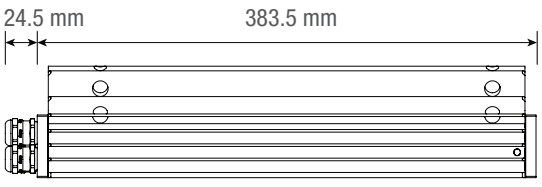
- Secure AC & DC loads
- From 1 to 3 kW
- Harsh Environement (IP65 / NEMA 4)
- Onboard and Outdoor applications
- Compact design for easy installation and operation
- Pole- or wall-mounted
- Fanless for quiet operation and maintenance optimization
- Parallelizable for enhanced scalability

Illustrations are non-binding and may include customized fittings.

Sierra XC 10 - 48/230

General	
Part Number	T731730101
Cooling / Ingress protection	Natural convection / IP65-NEMA 4
MTBF	200 000 Hrs (MIL-217-F at 30°C and 80% load)
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 / Power (AC+DC)	230 Vac / Max 4.4 Amps / 1 kW
Voltage range (AC)	150 - 270 Vac (derating below 185 Vac)
Brownout	800 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 800 W output)	17.92 A
Maximum input current (for 15 second) / voltage ripple	26.9 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	1000 VA / 800 W (at 800 W AC load, 200 W is still available for the 48V DC output)
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)	< 1%
Load impact recovery time (10% - 90%)	≤ 0.4 ms
Nominal current	4.34 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	38.88 A for 20 ms (Peak)
Short circuit current after >20 ms	12.48 A for 15 seconds (Peak)
AC output voltage stability	±1% from 10% to 100% load
DC Output Data	
Nominal voltage (range)	53.5 Vdc (44 - 60 Vdc)
Maximum power	800 W
Maximum current at 48 Vdc	17.92 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 / Controller	LED / Inview GW (T602004000), Inview S (T602004100) and Inview X (T602004200) for indoor, and Inview XC-IP65 (T602004140) controller for outdoor.
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: ~ 5 kg

The present equipment is protected by several international patents, trademarks and copyrights.

Contact us: www.cet-power.com | **Follow us on social media:**