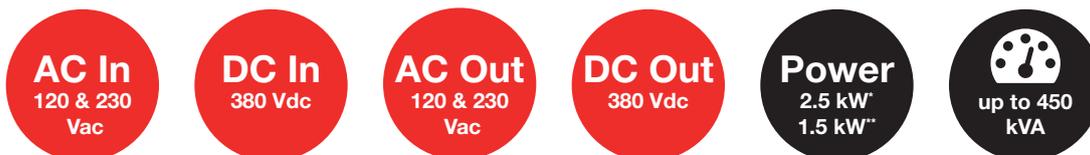


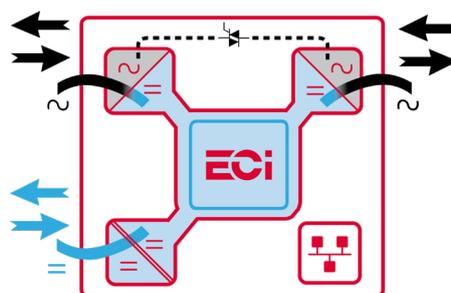


Sierra is the world's first multidirectional power converter.
This solution offers many new features within a unique module!

 Telecom
  Datacom
  Mass transport
  Industry
  Power Utilities
  Renewable



Power Routing is our new **product range** including multi directional 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.



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 / 2.5 kW** on any port or aggregate power to multiple ports at the same time. This Sierra version is designed for **380 Vdc** and available in **230** and **120 Vac**.

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 **2.5 to 75 kW** in AC and/or DC.

* - 230 Vac input
** - 120 Vac input

Illustrations are non-binding and may include customized fittings.

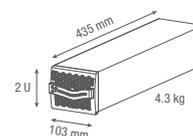
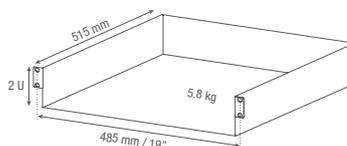
Sierra 25 - 380 Vdc

General	
Part Number	T721D70201
Cooling	Fan forced cooling
MTBF	240 000 hrs (MIL-2171F)
Dielectric strength DC/AC	2100 Vdc
RoHS	Compliant
Operating T° / Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-3 Class 3.1 -20°C to 65°C, power de-rating from 40°C to 65°C / Max RH 95% for 96 hours per year
Storage T° / Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-1 Class 1.2 -40°C to 70°C / Max RH 95% for 96 hours per year
Public transport T°/Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-2 Class 3.1 -40°C to 70°C / Max RH 95% for 96 hours per year
Material (casing)	Zinc coated steel
Power	
AC Input Data	
Nominal voltage / Current	120 Vac /13 A and 230 Vac /11.7 A
Voltage range	90 - 295 Vac (De-rating in 120 Vac to 1.5 kW)
Brownout	1500 VA / 1500 W @120 VAC, 2500 VA / 2500 W @190 VAC, 3000 VA / 2500 W @ 230 VAC
Power factor / THD	> 0.99 / < 3%
Frequency (Synchronization range)	50 Hz (47 - 53 Hz) or 60 Hz (57 - 63 Hz)
DC Input Data	
Nominal voltage (range)	336 Vdc (200 - 430 Vdc) ¹
Nominal current (at 336 Vdc nominal and 2500 W power)	8.9 A
Maximum input current (for 15 seconds) / voltage ripple	9.9 A / < 250 mV RMS
AC Output Data	
Efficiency AC to AC (EPC) / DC to AC / AC to DC	> 96% / > 94.5% / > 94.5%
Nominal voltage ² (User selectable)	120 / 208 / 220 / 230 / 240 Vac
Frequency / frequency accuracy	50 or 60 Hz / 0.03%
Nominal Output power	3000 VA / 2500 W @ 230 Vac, 1800 VA / 1500 W @ 120 Vac (at AC full load, still 200 W available for DC output)
Short time overload capacity	125% (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	12.5 A @ 120 Vac and 13 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	109 Arms for 20 ms / 34 Arms for 20 ms
Short circuit current after > 20 ms	22.5 A for 15 seconds
AC output voltage stability	±1% from 10% to 100% load
DC Output Data	
Nominal voltage (range)	336 Vdc (310 - 430 Vdc)
Maximum power	2500 W @ 230 Vac and 1500 W @ 120 Vac ³
Maximum current at 380 Vdc	7 A
Reverse polarity protection	YES
Efficiency AC to DC	> 94.5%
Max. Voltage interruption / total transient voltage duration (max)	0 sec / 0 sec
Signaling & Supervision	
Display	Synoptic LED
Supervision / Part number	Inview ranges: Inview S - T302004100 and Inview GW - T602004000
Remote on / off	On rear terminal of the shelf through Inview
Battery Monitoring / Part number	MBB (Measure Box Battery) - 6 dry contacts and 8 digital Inputs / T302006000
Safety & EMC	
Electrical Safety	EN60950-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

¹ De-rating below 270 Vdc

² Operation within lower voltage networks leads to de-rating of power performances.

³ AC output load is the highest priority. Even if AC output is fully loaded, still 200 W is available for DC output.



Sierra 25 - 380 Vdc - Datasheet v1.0 Specifications can change without notice. New data will be updated on our website: www.cet-power.com.

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