

SIERRA XC 10 / 16

FANLESS AC DC CONVERTERS

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www.cet-power.com



Belgium, Luxembourg, China, India,
United States, United Kingdom, France,
Germany, United Arab Emirates, Russia,
Malaysia, Australia.



Partner Forum 2022

CUSTOMER PAIN

Context



- What is common ?
- What are the Expectation when installing in such conditions ?



Pain

- ❑ **Massive deployment of active equipment**

- ✓ Need power
- ✓ AC or DC or both ?

- ❑ **Not ideally located**

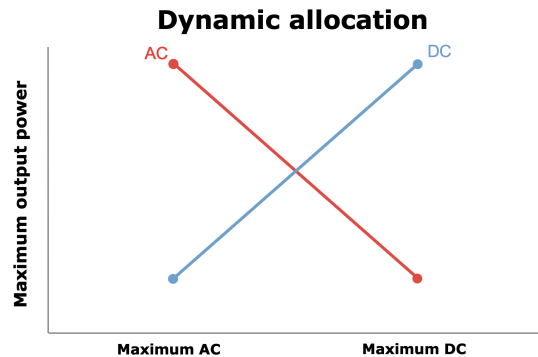
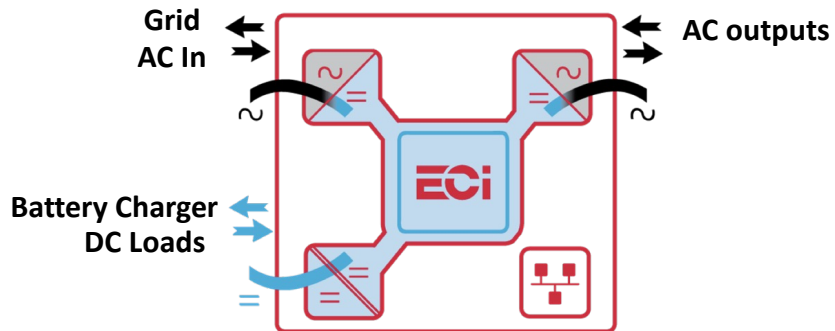
- ✓ pole, wall, outdoor or rack mounted
- ✓ on board vehicle (broadcast telecom, train)
- ✓ ship, off shore,....
- ✓ Difficult access area
- ✓ Residential

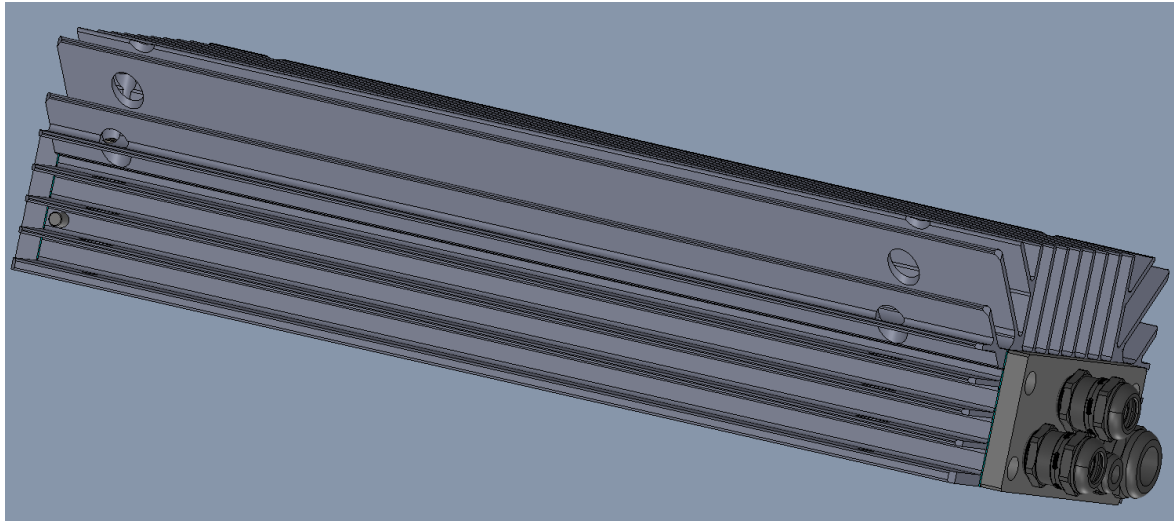
- ❑ **Severe climatic conditions**

- ✓ T°, RH, Corrosive, Dust,

GENERAL FEATURES

- **Fan Less Converter**
- **Three ports Fully bidirectional**
- Ideal solution to secure **AC** and **DC** loads and charge **batteries**
- Dynamic allocation of output power
- Sierra XC 16 (1,6KW) and Sierra XC 10 (1KW)
- Compatible with Inview XC Supervisor

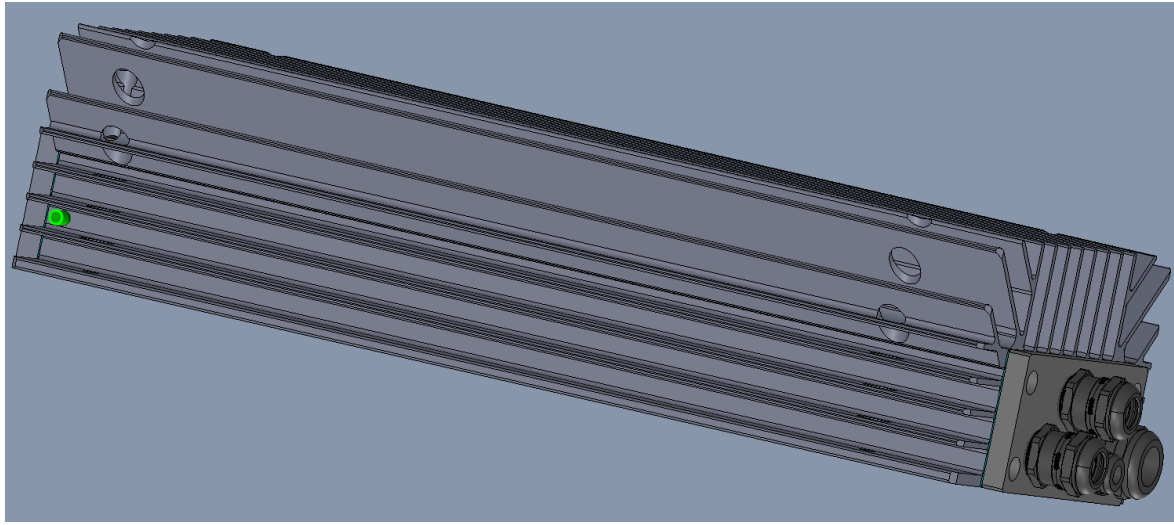




ON

OFF

SIERRA XC 10 CONVERTER

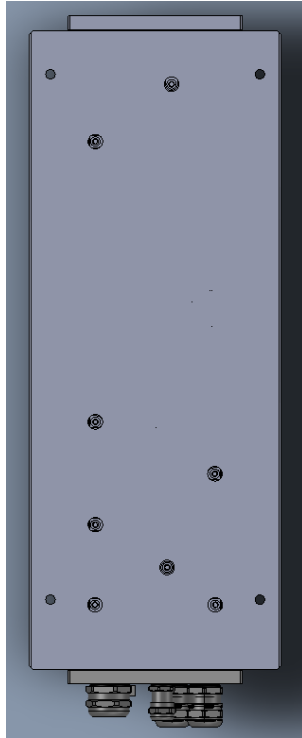
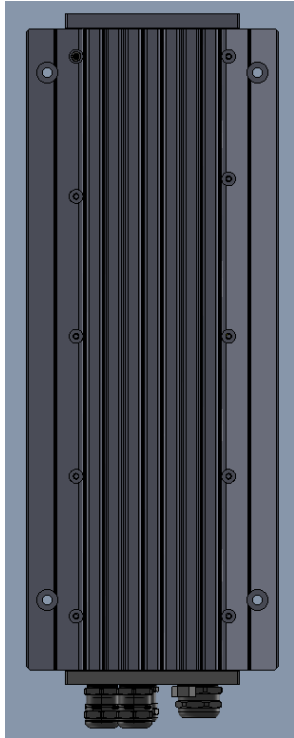


ON

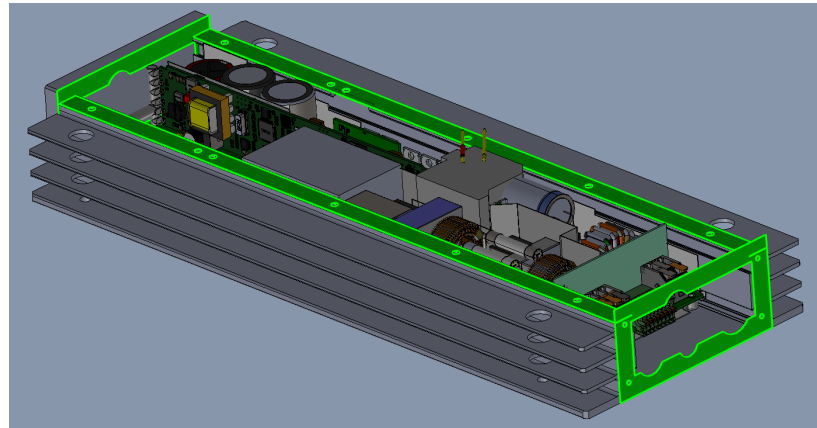
OFF

SIERRA XC 10 CONVERTER

SIERRA XC 10 SOLUTION FEATURES

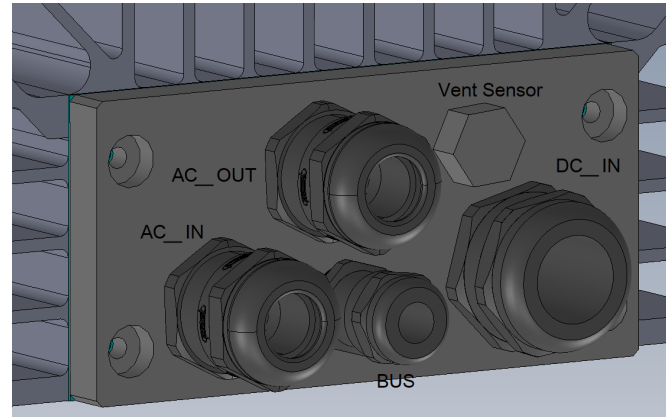
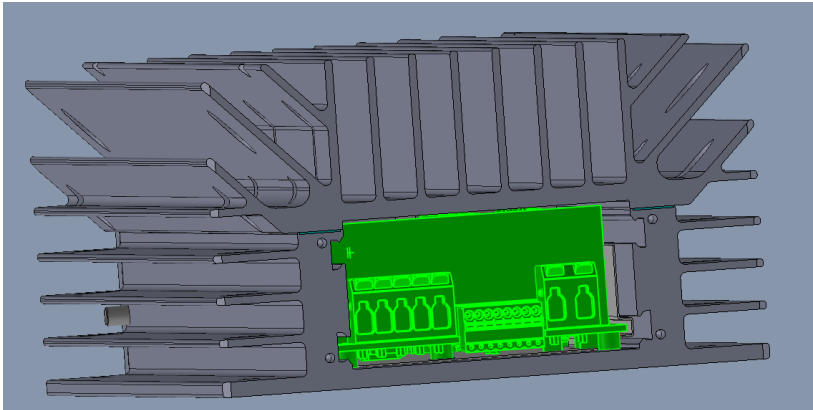
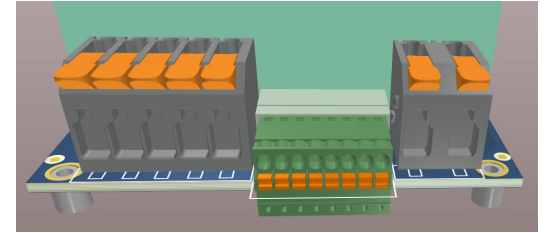


- Enclosure : Aluminium Naturally Anodised
- Outdoor Pole or Wall mounted
- Outdoor Cabinet integration
- IP Rating : IP65
- Dimension : 382mmx145mmx85mm
- Weight : 4,65 Kg




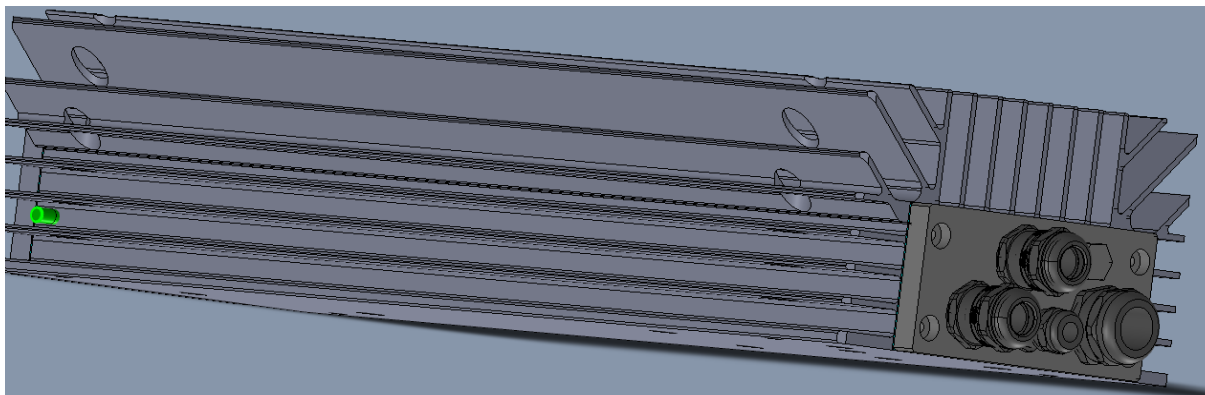
INPUT FEATURES

- AC input 150-270VAC 50Hz with derating under 185Vac
- DC input Range 40-60VDC
- Operating T° range -40 to +70°C
- Maximum power up to 50°C and derating above
- Easy Customer Connections



OUTPUT FEATURES

- 1kW maximum output power AC+DC
- AC Output Voltage 220/230/240Vac @ 50Hz or 60Hz
- DC Output 40VDC to 60VDC
- Efficiency more then 96% in AC-AC mode and up 94% in DC/AC mode
- LED Tricolor for Signalisation 

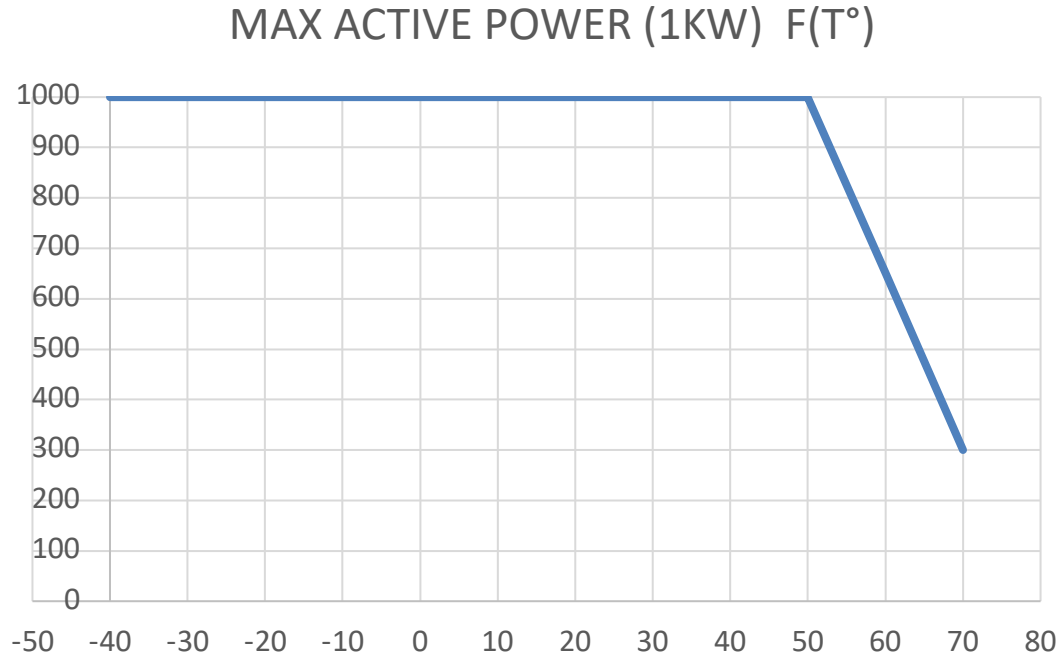


OPERATING MODE

- DC → AC
 - REG mode
 - Single inverter AC output without AC input connected
- AC → AC
 - EPC mode
 - AC input connected not battery charging
- AC → AC + DC loads
 - Sierra UPS mode

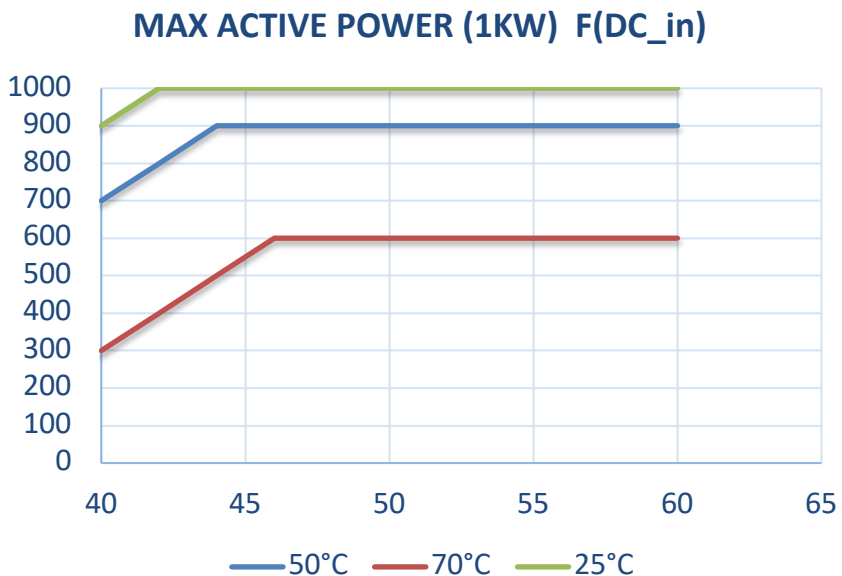
DERATING CURVES

Derating Curve @ 48VDC : Power = f(Temperature)

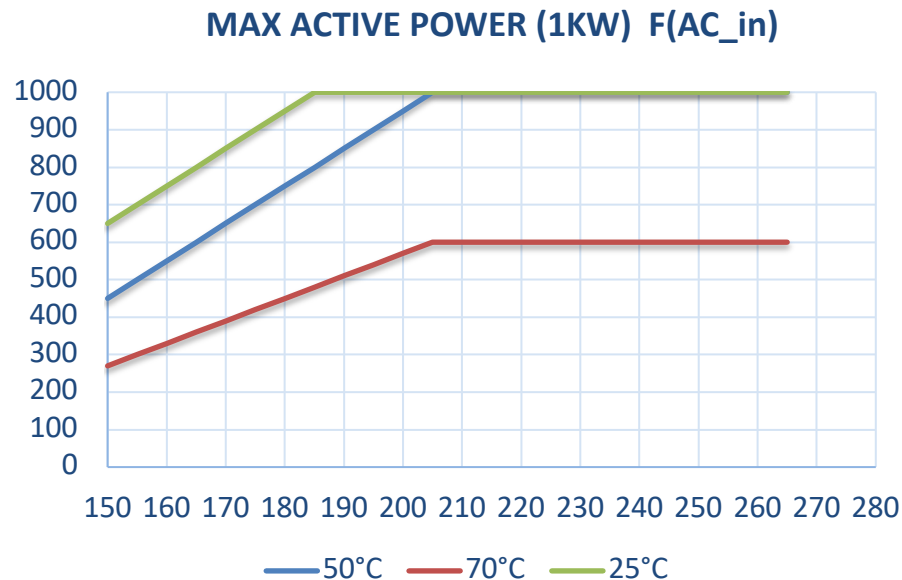


DERATING CURVES

Derating Curve : Power = f(DC_IN)

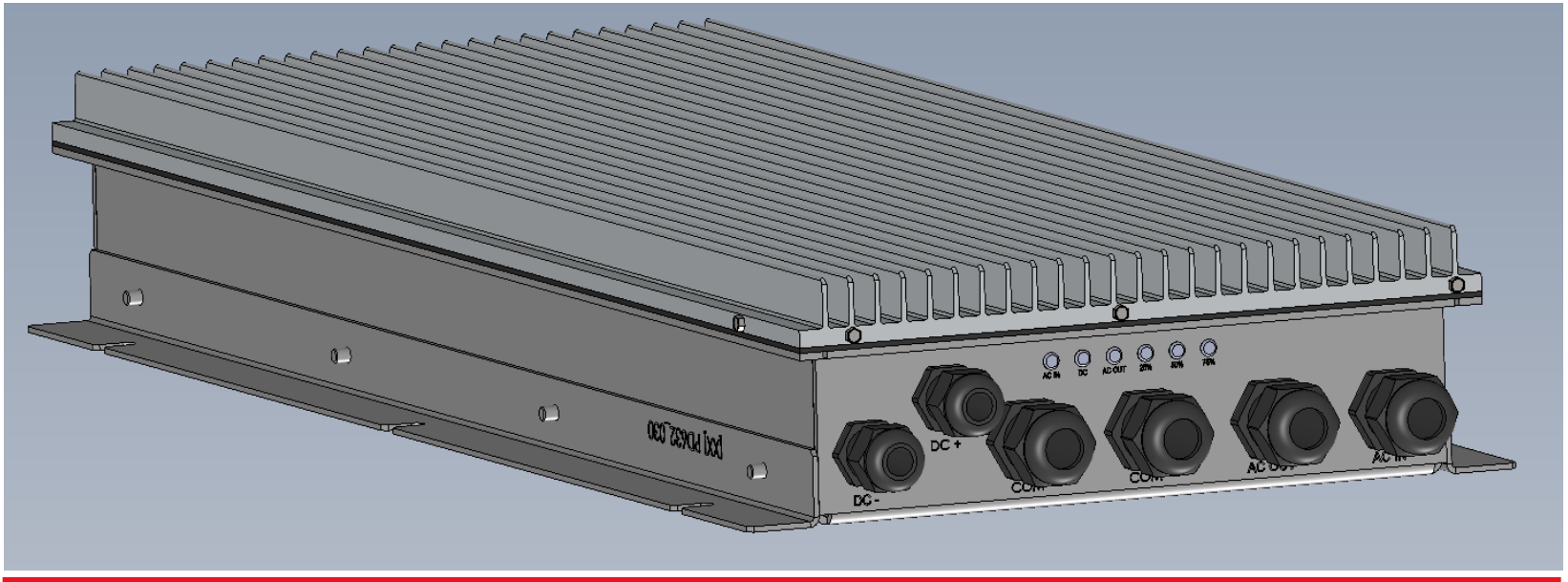


Derating Curve : Power = f(AC_IN)



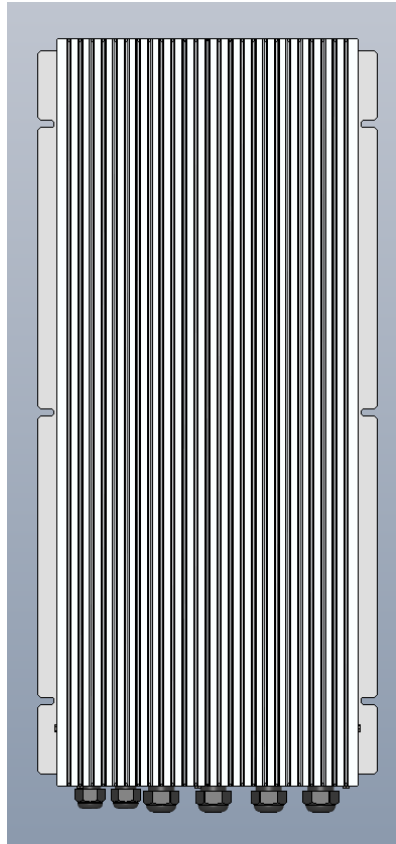
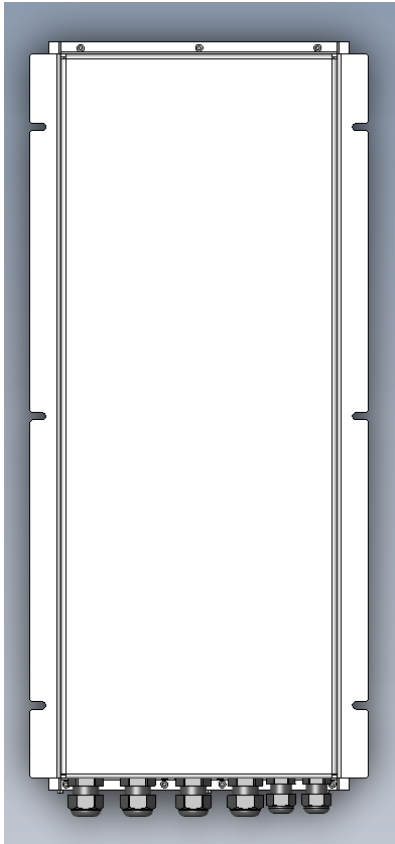
SIERRA XC 16





SIERRA XC 16 CONVERTER

SIERRA XC 16 SOLUTION FEATURES



- Outdoor Pole or Wall mounted
- Outdoor Cabinet integration
- IP Rating : IP65
- Enclosure : Aluminium Hard-coat Anodised

SIERRA XC 16 SOLUTION FEATURES

What's inside

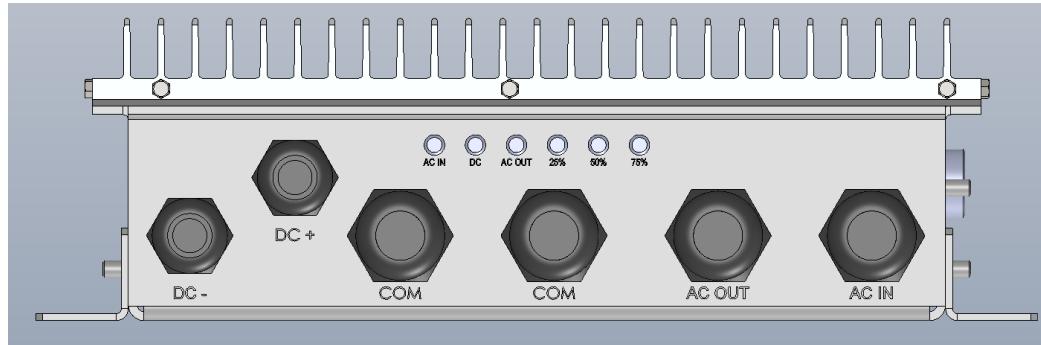
- EMC filter integrated compliant CLASS B
- Auxiliary supply and all magnetics components redesigned to reduce losses.
- One big external heatsink for passive dissipation
- Magnetics & Power semiconductors thermally connected to the external heatsink

INPUT FEATURES

- AC input 90-265VAC @ 50Hz or 60Hz
- DC input Ranges
 - 24V : 16-32 VDC
 - 48V : 40-60 VDC
- Operating T° range -40°C to +65°C
- Maximum power up to 50°C and derating above

OUTPUT FEATURES

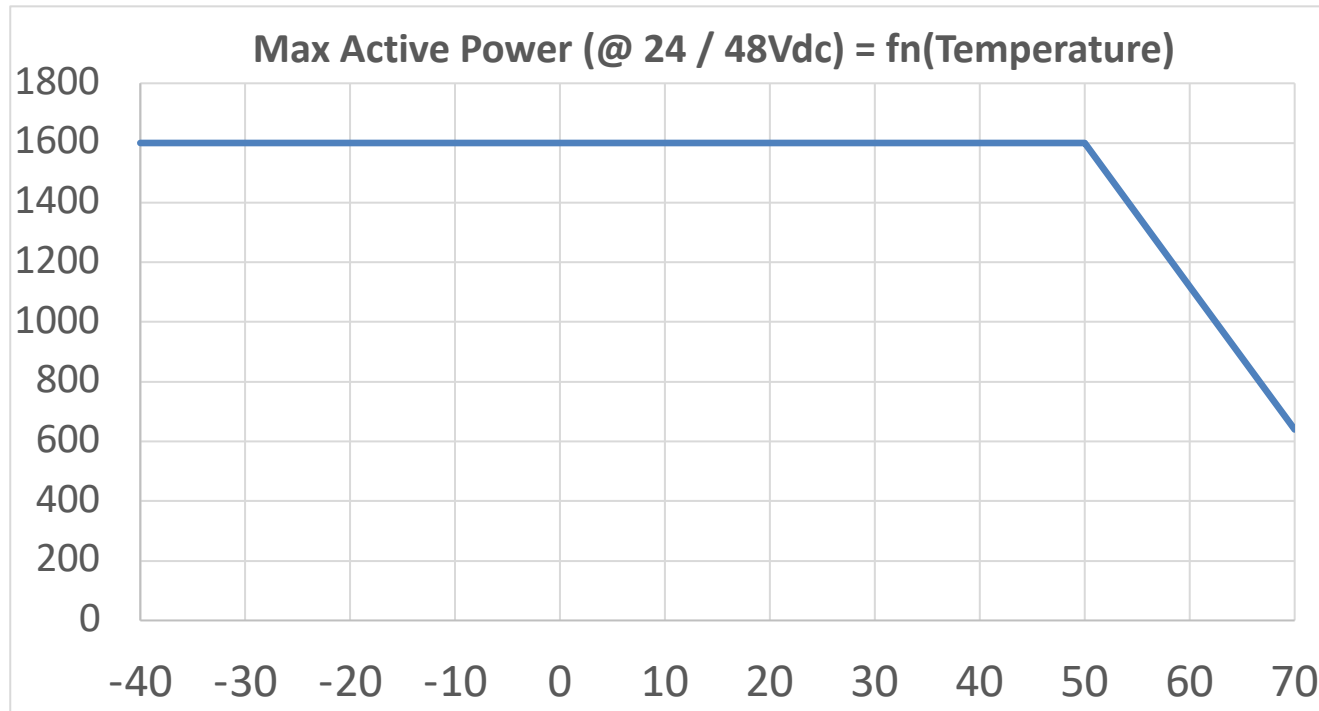
- 1.6 kW maximum output power AC+DC
- AC Output Voltage 100Vac to 240 Vac 50Hz or 60Hz
- DC Output
 - 24V : 16-32 VDC
 - 48V : 40-60 VDC
- Efficiency up to 96% AC to AC
- 6 LEDs for Signalisation
- Dimension : 650mmx 300mm x 90mm
- Weight : 12,5Kg



DERATING

Derating curves : TEMP

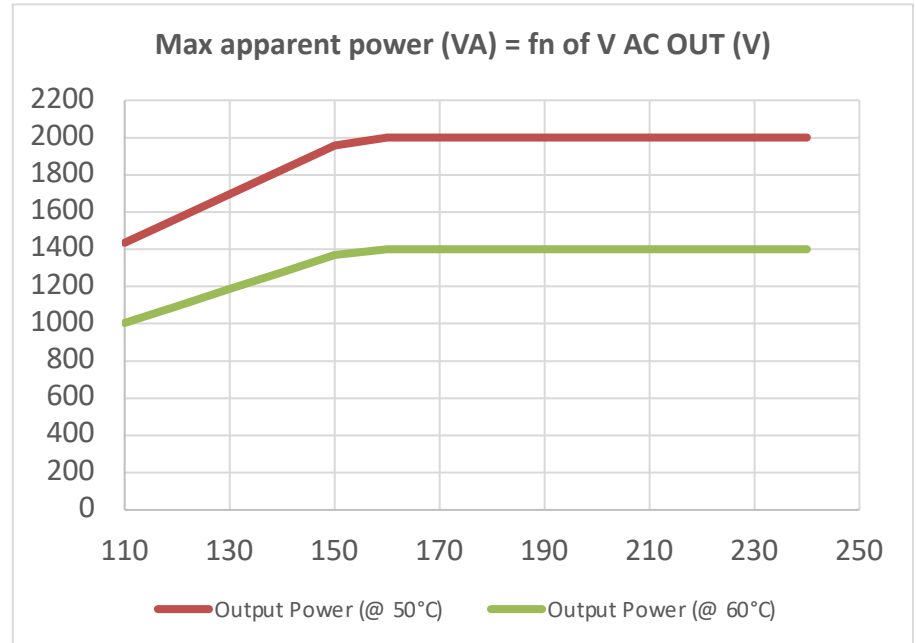
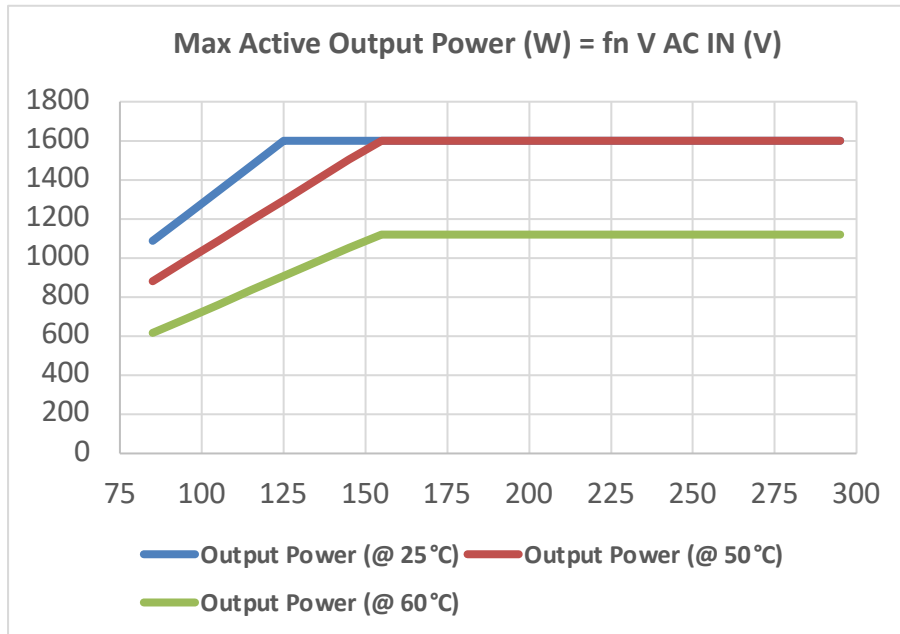
Apparent power : 2kVA



DERATING

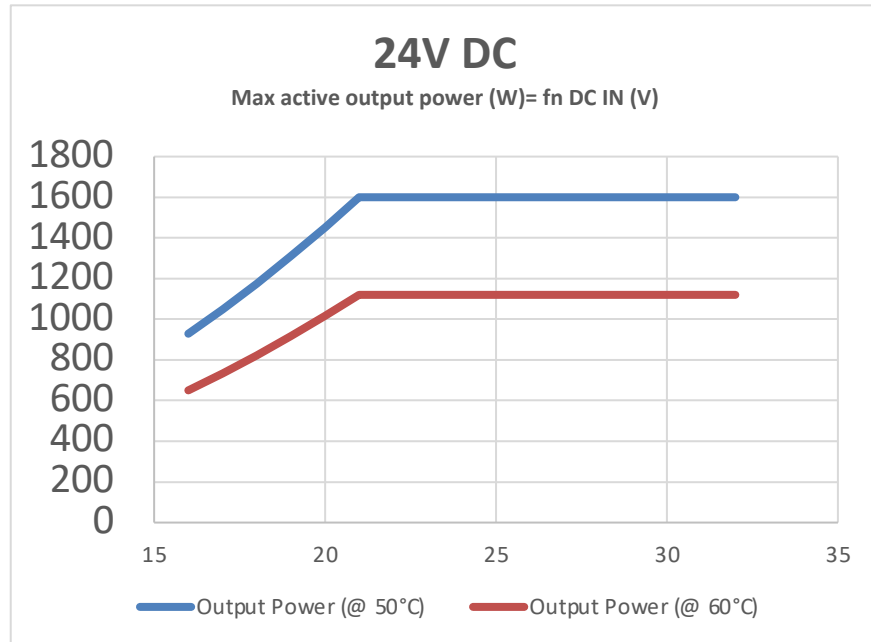
Derating curves : AC

Apparent power : 2kVA

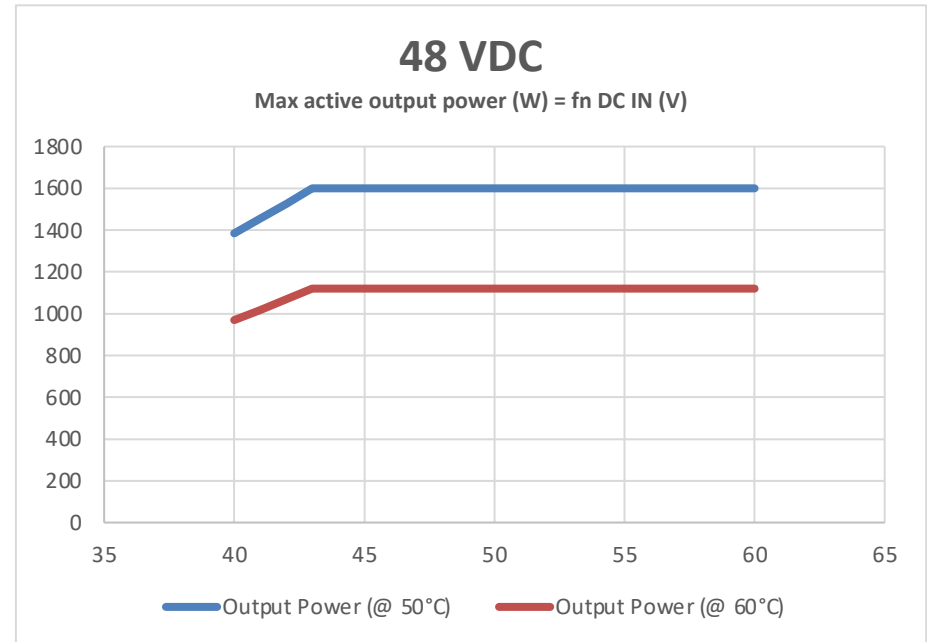


DERATING

Derating curves : DC

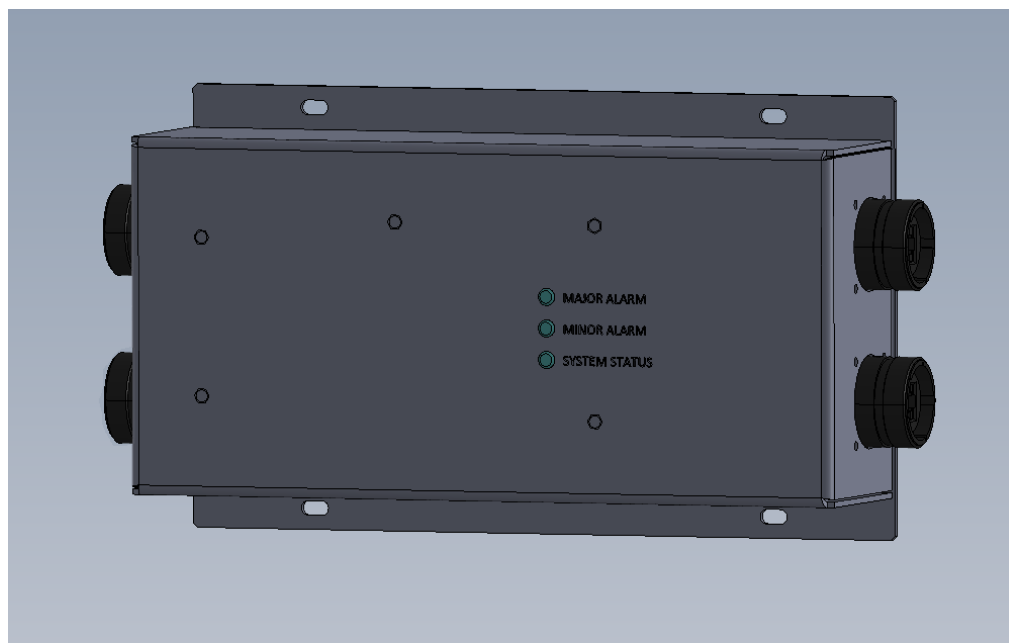


Apparent power : 2kVA



OPERATING MODE

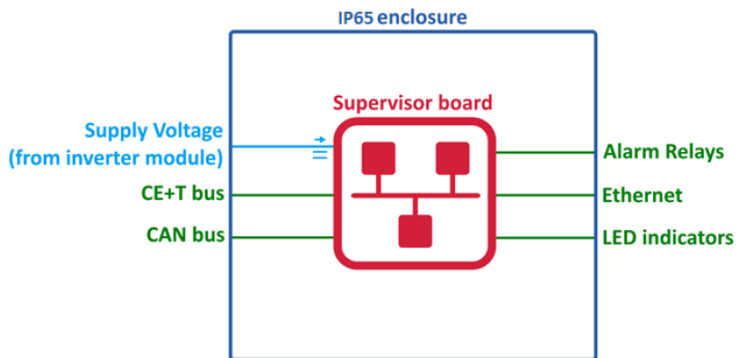
- DC → AC : REG mode : Single inverter AC output without AC input connected
- AC → AC : EPC mode : AC input connected not battery charging
- AC → AC + DC loads : Sierra UPS mode



INVIEW S XC SUPERVISOR

Supervisor FEATURES

- Outdoor Pole, Wall or DIN mounted
- Outdoor Cabinet integration
- IP Rating : IP65
- Enclosure : Aluminium Powder coated RAL7035
- No additional power supply needed
- Alarm relays, 3 LEDs



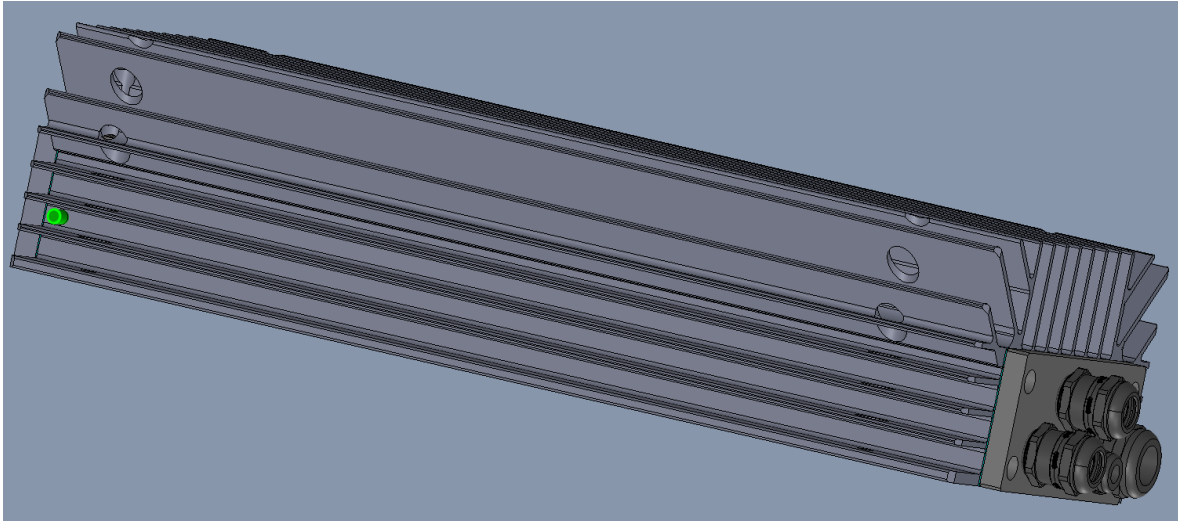
- MAJOR ALARM
- MINOR ALARM
- SYSTEM STATUS

Supervisor Features

Solutions	Inview S XC
Versions	
Basic web interface	-
Advanced web-based user interface	✓
Email alert & notification	✓ (SNMP or SMTP)
Custom alarms & notifications	✓
Translation	✓
Real-time monitoring	✓
Events log file	✓
Custom data recording	✓*
Digital input mapping	✓
Alarm relay mapping	✓
Modbus	RS485** & TCP (R/W*)
SNMP	V1, V2c & V3 (R/W*)
HTTP based API	✓
Unidirectional data transfer (MQTT)	✓
Encryption	HTTPS* or SSL/TLS*

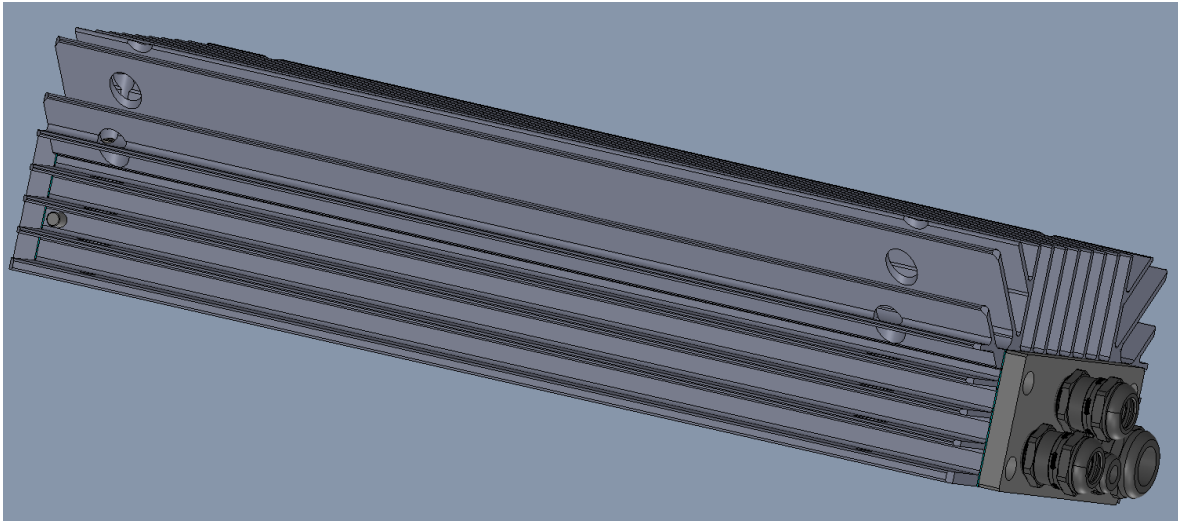
- Enhanced Monitoring & Control based on Inview S
- Operating T° range -40°C to +70°C /IP65
- Web-based user interface, responsive and user-friendly
- Email alert & notification
- Real-time monitoring
- Easy integration with 3rd party device (Modbus, SNMP and HTTP)
- Built-in battery management





OFF

ON



OFF

ON



IS SILENT

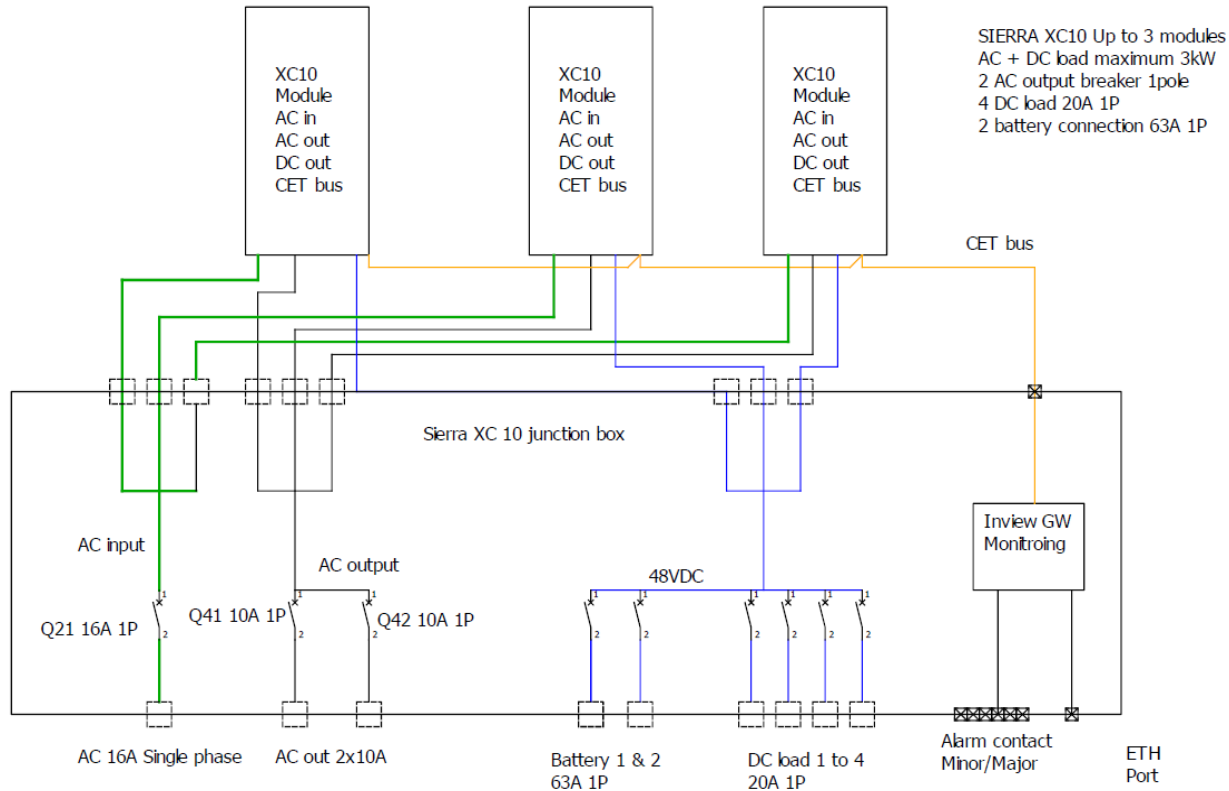
Applications



**Mining, Off shore, Military, Telecom 5G, Rail, Oil&Gas, Marine, On board
AC Loads 230V or 120Vac (XC16), DC loads 24V,48V, and battery management**



Applications



Thank you
for your attention

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