

Powering the future

ATM250 Series Modular Inverter System



- » Versatile modular design
- » Parallel synchronized operation
- » Hot swappable modules
- » True sine wave output with THD < 3%
- » Galvanic isolation
- » Serial interface RS232 or RS485
- » Monitor module and ATS with selectable operating mode

The ATM250-48 inverter series is a rack mount system housing up to four inverter modules and a monitor module with built in Automatic Transfer Switch (ATS). The versatile modular design with hot swappable modules eliminates single point failure, increasing reliability.

The monitor gives real-time system status through a LCD display and the built-in ATS provides automatic load transfer to the mains if the inverter power is lost for any reasons and returns to normal operation when conditions are restored.

Technical Specifications

Electrical

- Nominal input voltage: 24Vdc, 48Vdc, 110Vdc, 220Vdc, 240Vdc
- Operating input voltage range: 20-30Vdc (24Vdc), 40-60Vdc (48Vdc), 93-143Vdc (110Vdc), 186-286Vdc (220Vdc), 198-302Vdc (240Vdc)
- Nominal output frequency: 50/60Hz \pm 0,1%
- Output power: 1kVA, 1.5kVA or 2kVA / inverter module, max. 4 modules/shelf*
- Power factor: > 0.8
- Efficiency: 87%
- Output nominal voltage: 110/115/120Vac, 220/230/240Vac
- Voltage regulation: \pm 2%
- Crest factor: 3:1
- Dynamic response time: < 20ms
- Isolation:
 - AC - DC: 2000Vrms
 - DC - Ground: 2000Vrms
 - AC - Ground: 2000Vrms
- THD: < 3% linear load, < 5% non linear load
- Overload: 150% - 1 min, 125% - 10 min
- MTBF: >100.000 hours

* The 24Vdc input inverter is available only in 1kVA version.

Automatic Transfer Switch

- AC voltage range: -25% to +20% Nominal Vin
- Frequency range: 45 to 65Hz
- Operating modes: online (load supplied by inverter) and offline (load supplied by AC mains)
- Transfer time: 5-8ms

User interface

- LCD display with 2 x 16 characters
- Inverter module LED indicators: Fault, Load level
- Dry contacts: Overload, Line Fail, Low DC Voltage, Inverter Fault
- Serial port RS232 or RS485
- Internal speaker for audible alarms
- Optional Ethernet interface with web monitoring software

Environmental

- Operating temperature: -10 to +50°C, with linear power derating above 40°C
- Storage temperature: -40 to +85°C
- Humidity: 0 to 95% RH non-condensing
- Altitude: -500 to +2800m
- Cooling: Forced air
- Ingress protection rating: IP20

Physical dimensions

- Shelf 19" 3U / W443.5 x H133.5 x D498.9 mm, 7kg
- Inverter module: 4kg
- Monitor module: 3kg

Protection

- Reversed polarity
- Over-temperature
- Overload
- Output shortcircuit
- DC (Battery) overvoltage
- DC (Battery) undervoltage
- Bypass overvoltage
- Bypass undervoltage

Agency Compliance

Safety

- EN 60950-1, CE Marked to LVD 2006/95/EC

Emissions

- EN55022
- EN61000-3-2
- EN61000-3-3
- EN55024

Immunity

- EN 61000