

STM250 Series

Modular Inverter System



- Versatile modular design
- 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

STM250 series is a rack mount inverter system housing up to four inverter modules and a monitor module with built-in ATS (Automatic Transfer Switch). The versatile modular design with hot swappable modules and no single point of failure is increasing system reliability. Real time system parameters are displayed on the monitor LCD screen.

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

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