

STM250 Modular Inverter System

The STM series comprises of an integrated power system with inverter, monitor and static transfer switch functionality. This modular inverter is a redundant inverter which can be composed into an N+1 redundancy system. In the case of a master fault, the digital control rapidly and automatically switches to a new master, leaving the load uninterrupted.

The hot swappable design makes maintenance and expansion of the system simple. The inverter has sinusoidal output as well as stable output voltage in static and dynamic conditions.

Some key features include:

- Pure Sine wave output < 3% THD
- Hot plug design
- Up to 90% efficiency
- EMI/EMC
- Complete protection
- RS232 or RS485 communication port
- DC-AC isolation improving system security
- N+1 redundant configuration with active current sharing technology
- DC/AC isolation improving system security
- Integrated monitor and static transfer switch
- Working mode selectable (AC or DC priority)
- Selectable voltage 110V_{AC} or 230V_{AC}
- Built-in SNMP card – optional



The 19" 3RU power distribution block (PDB) designed for use with the STM250 inverter system includes a maintenance bypass switch, input surge protection device, battery switch and switched AC outputs.



Main features include: DC input breaker, AC input breaker, AC input SPD (Class C 20kA), 6 x switched outputs with IEC60320-C14 sockets (10A max, each), 1 x bulk AC output (32A) and maintenance bypass switch (40A, make before break, 4ms transfer time).

APS *STM250 Modular Inverter System*

Product Specifications

Model	TM250A	TM251	TM252	Monitor & Switch Module
Input	Nominal Voltage	24V _{DC} / 48V _{DC} / 110V _{DC} / 220V _{DC} / 240V _{DC}		
	Frequency Range	-		
	Operating Range	-18 – 25%		
Output	Output Power	1kVA / 1.5kVA		
	THD	< 3% (Linear load) / < 5% (Non-linear load)		
	Output Frequency	50/60Hz ± 0.1%		
	Wave Form	Pure Sine wave		
	Power Factor	0.8		
	Nominal Output	110V _{AC} / 120V _{AC} / 220V _{AC} / 230V _{AC} / 240V _{AC}		
	Voltage Variation	< 2%		
	Crest Factor	3:1		
	Overload	150% for 10sec OR 125% for 10min		
	Efficiency	≤ 90%		
	Dynamic Response Time	< 20ms		
		Transfer time < ¼ cycle		
	Physical & Environment	Dimensions	2RU x 3RU	2RU x 3RU
Weight Kg (lb)		4 (8.8)	4 (8.8)	3 (6.6)
LED Display		Running, Failure, Load percentage, Bypass, Battery, Inverter		
LCD Display		-		
Alarm		-		
Interface		-		
Ambient Operation		-10 – 50°C (14 – 122°F)		
Isolation		AC/DC: 2000V _{RMS} DC/Ground: 2000V _{RMS} AC/Ground: 2000V _{RMS}		
Storage Conditions		-40 – 85°C (-40 – 185°F)		
Compliance	Safety	EN 60950-1		
	Emission	EN 55022		
	Immunity	EN 55022		