

DC to AC Inverters



Engineered for optimum reliability

Whether you are operating traditional voice telephony or internet/data traffic, MGE understands the concept of critical power. That's why more telecom providers use MGE's inverter for critical DC/AC applications than any other inverter company.

Hot swap capability

The inverter module can be removed quickly, without a loss of power to the critical load when an alternate AC source is available. This capability increases the availability of power to the critical loads.

Dual PWM technology

Dual Pulse Width Modulation (PWM) technology with an isolated boost converter and high frequency switching provides excellent isolation between AC to DC for maximum efficiency and very low audible noise.

Universal flexibility

Designed for various field selectable voltages and frequencies, the TOPAZ S3 has true international compatibility.

Topaz S3 500VA and 1000VA

*The perfect solution for
telecommunications and
data processing*

Advanced Features

- ▶ Advanced microprocessor controller & status monitoring
- ▶ Hot swap capability
- ▶ Global voltage/ frequency capability
- ▶ Cascade redundant configuration
- ▶ 125% rated load continuous
- ▶ Front access & modular design
- ▶ Rack-mounted into a standard 19", 23", or 25" rack
- ▶ Less than 3 minutes Mean Time To Repair (MTTR)
- ▶ Meets UL, cUL, CE, and TUV requirements
- ▶ Energy saving mode (on-line/standby selectable)

M G E
UPS SYSTEMS

THE UNINTERRUPTIBLE POWER PROVIDER

The **S3** has established a track record of reliability making it the industry standard for telecom environments. In addition to its hot swap capability and global voltage/frequency capabilities, the **S3** boasts the following unique features:

- ▶ Limits low ripple current noise on the DC bus to exceptionally low levels (<30 dBRNC) to eliminate micro cycling of the battery bank.
- ▶ Added filtering to regulate both conducted and radiated EMI to eliminate disruptive noise interference in nearby equipment.
- ▶ Extremely robust operating tolerances allowing the S3 to withstand surges and faults without damaging the inverter.
- ▶ A draw out receiver cabinet with integrated static transfer switch as a standard feature allowing the inverter to be extracted and replaced without interruption to the critical load. This feature dramatically increases the availability of the S3 and lowers the MTTR.

In addition to its industry leading performance and value-added features, the **S3's** modular design is streamlined to fit into a 50% smaller cabinet without any compromise in quality, opening valuable rack space for additional equipment.

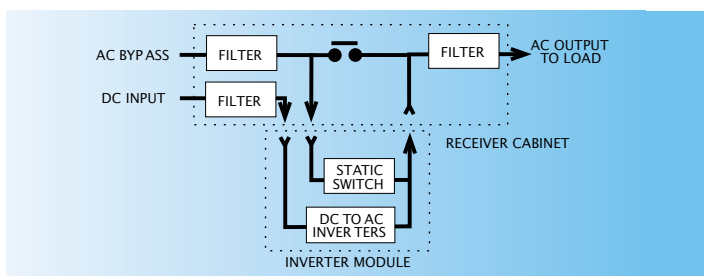


Figure B: Single line diagram with static switch option

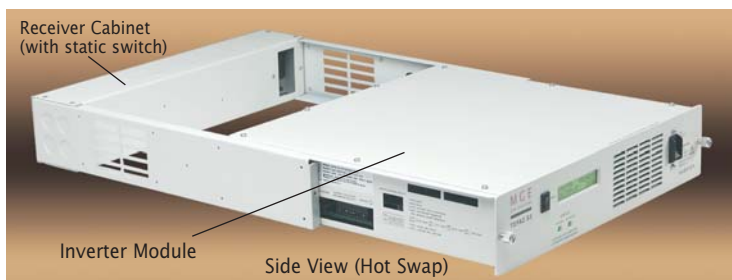
Characteristics	Topaz S3
Input voltage	-42 to -57 VDC
Output voltage	100/110/115/120/200/ 220/230/240 VAC (selectable)
Output waveform	Sinewave
Frequency	50/60 Hz (selectable)
Frequency (stability)	±0.02% maximum
Technologies	Dual PWM On-line/standby (selectable)
Efficiency	85% typical, 97% (standby)
Output power factor	0.6 to 0.84 lagging or leading
Total harmonic distortion	2% max for linear load <3% for non-linear load From 0 to 100% load
Transfer time (with static switch)	Less than 2 msec
Overload capacity	up to 125% VA/W continuous 125% to 150% - 1800 cycles 150% to 220% - 24 cycles 220% to 300% - 4 cycles
Audible noise	<55 dBA @ 4' typical
DC noise feedback	< 30 dbrnc
Standards	
Operating temperature	-10° C to + 50° C
Storage temperature	-40° C to + 75° C
Operating altitude	Up to 10,000 feet above sea level
Safety agency	UL, cUL, TUV, CE, FCC Class A
Warranty	One year warranty

Options	500VA & 1kVA
Receptacles	
(4) NEMA 5-15R	6310R-91
(4) IEC-320	6310R-92
Support Bracket Kit for 19" rack unit (recommended when using forward mounted brackets)	
	6310B-N4
Bracket for 23"/25" rack mount:	6310B-92
Communication interface kit (RS232)	
Spares kit (63xxx-9x-SK1)	

TOPAZ S3 Product family

Power Rating VA/W	Input Voltage	Input Current Max.	Dimensions (In/cm) H x W x D	Approx Weight (lb/kg)	With Status Monitor (LEDs only)	With Static Transfer Switch & LCD display option	BTU/hr
500VA/420W	-48 VDC	16A	3.5/8.9 x 17/43.2 x 19/48.26	34/15.4	63054-92	63054-94	315
1kVA/840W	-48 VDC	30A	3.5/8.9 x 17/43.2 x 19/48.26	34/15.4	63104-92	63104-94	587

Note: Brackets are provided for 19"/23" rack mounting



MGE UPS SYSTEMS

Manufacturers of:

- ▶ Single and Three Phase UPSs
- ▶ Inverters
- ▶ Power Conditioners
- ▶ Power Distribution Units
- ▶ Isolation Transformers
- ▶ Power Management Software



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