

# TSI MEDIA 48/120

## Triple port inverter platform without single point of failure



Parallelable, rack-mounted inverter systems provide a pure AC sine wave output at 120V or 240Vac, 60 or 50Hz, with a THD <3% for any kind of load. Utilizing 48Vdc input, these high density systems range from 1500VA to 6000VA and are mountable in either a 19in open relay rack or conventional box bays.

The TSI sets the standard for True Redundant Systems:

- Hot Swappable means of disconnect
- Distributed Static Transfer Switch (STS) function – removes system **Single Point of Failure**
- Parallelable for redundancy and increased reliability
- Automatic load sharing when paralleled
- System sound handling of internal or load generated short circuits

Unlike traditional inverters, the TSI features an AC-AC conversion that double filters and isolates the AC input. When operated in this “**Enhanced Power Conversion**” (EPC) mode, your overall efficiency is increased to 94% without compromise to the quality and stability of the output wave form. Unlike hard transfers between energy input sources the TSI “soft-switching” method is disturbance free. The TSI delivers pure power to your critical load despite normal disturbances such as harmonics, surges, glitches, voltage fluctuations, etc.. Pure sinusoidal output current delivered even in with non-linear load conditions.

Pure sine wave at the output and ideal power factor at the input without drawing any energy from your DC supply source

Your future power demands are likely to be unknown and unpredictable. You get TOTAL MODULARITY with the TSI since there is no need to size a single static switch for the future power demand of the system. With the TSI you can configure your system as you gradually increase its capacity in line with your increasing load demands. No need to oversize or overspend on your initial purchase.

Compact in size, these inverters enable you to deliver maximum power in limited space. Its massive power density provides up to 3000VA in a 2U package or 6000VA in a 4U. This package includes the space savings of built-in STS function, DC and AC distribution and output PDU. These modules can be configured with standard Nema or Twist Lock receptacles allowing for simple application and installation of the TSI-MEDIA platform systems without any need for additional hardware.

These parallelable, rack-mounted inverters provide a pure sine wave 120Vac or 240Vac, 60Hz (or 50Hz), from 48Vdc, with THD <3% for any kind of load. The output range is from 1500VA to 6000VA with extreme density.

These inverters can be mounted in 19-inch open relay racks or box bays.

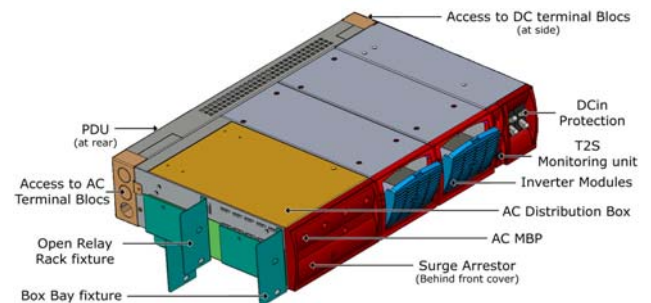
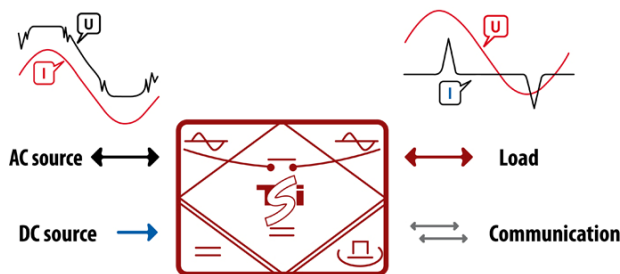


Fig: TSI-MEDIA platform 3000VA

Specifications can change without notice. New data will be updated on our Web site:

<http://www.cetamerica.com/> or <http://www.cet.be/>

The present equipment is protected by several international patents, trademarks and copyrights.

**TSI MEDIA 48/120**

**Technical features**

Version 02

**GENERAL**

EMC (immunity)	IEC 1000-4	
EMC (emission)	FCC PART 15	
Safety	UL 1950	
Cooling	Forced	
MTBF	>200 000 hrs	
Efficiency (MAX)	On Line	90%
	Enhanced Power Conversion	93%
Dielectric strength DC/AC (@ 0,6mA)	2830Vdc	
True Redundant Systems	Compliant	
3 disconnection levels on AC <sub>out</sub> and DC <sub>in</sub> power ports		
4 disconnection levels on AC <sub>in</sub> port		
RoHS	Compliant	
	Terminal block	
Connection I/O	Or NEMA receptacle	Or Twist Locks
	Or combo AC output receptacles	
Protected against inversion of polarity		
Self adaptive to wide operating conditions and comprehensive table of troubleshooting codes		

**AC OUTPUT POWER**

Nominal Output power (**)	n x 1500 VA	
Output power (resistive load) (**)	n x 1200W	
Short time overload capacity	150% 15 second	
Load power factor	Full power rating from 0 inductive to 0 capacitive	
Internal temperature management and cut off		

**DC INPUT SPECIFICATIONS**

Nominal voltage (DC)	48 V	
Voltage range (DC)	40 - 60 V	
Nominal current (at 40Vdc) (**)	n x 34 A	
Maximum input current (for 5 sec.) (**)	n x 42 A	
Voltage ripple	< 2mV	
Input voltage boundaries user selectable		

**AC INPUT SPECIFICATIONS**

Nominal voltage (AC)	120V 1P or 2P	
Voltage range (AC) (each phase)	83 – 140 V	
Conformity range	Adjustable	
Power Factor	>99%	
Frequency range (selectable)	50 - 60 Hz	
Synchronization range	47 – 53 Hz / 57 – 63 Hz	

**AC OUTPUT SPECIFICATIONS**

Nominal voltage (AC)	120V or 240 V	
(Single or dual phase selectable at order)		
Voltage range (AC) (adjustable)	90 – 130 V	
Voltage accuracy	2 %	
Frequency	50 – 60 Hz	
Frequency accuracy	0.03 %	
Total harmonic distortion (resistive load)	<3 %	
Load impact recovery time	0.4 ms	
Turn on delay	30 s	
Nominal current (**)	n x 13 A	
Protected against reverse current		
Crest factor at nominal power	2.2	
With short circuit management and protection		
Short circuit clear up capacity	10 x I <sub>n</sub> for 20msec	
Available while Mains is available at AC input port		
With magnitude control and management		

**TRANSFER PERFORMANCE**

Total transient voltage duration (max)	0 s	
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**ENVIRONMENT**

Altitude above sea	<1500m	
Ambient temperature (**)	n x 1500VA -20 to 50 °C	
	P <sub>max</sub> at 100% LOAD	
	Derating up to 65°C	
Storage temperature	-40 to 70 °C	
Relative humidity	95% , non condensing	

**SIGNALING & SUPERVISION**

Display	Synoptic LED	
Alarms output	Dry contacts on shelf	
Supervision	Use optional devices	

**WEIGHT & DIMENSIONS**

Width	19" Open relay rack and box bay compatible	
Depth	12.5-inch - 300 mm	
Height	1500/3000VA → 2 U	
Weight	2.4 Kg	
Material (casing)	Coated steel	

(\*) Operation within lower voltage networks leads to derating of power performances

(\*\*) "n" stands for Number of Modules in parallel

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