



TELECOM



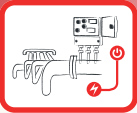
DATACOM



MASS TRANSIT



OIL & GAS



POWER UTILITIES



# MODULAR INVERTER SYSTEM

INPUT 48 Vdc  
OUTPUT 120 Vac  
or 120/240 Vac  
or 120/208 Vac

## DESCRIPTION

The MPC is a readymade inverter package designed to provide a pure sine wave AC supply as a complement to any existing DC power solution.

Compact, friendly Plug & Play installation, self standing open relay rack ideal for low MTTR applications in power room. It can be used either to piggyback DC power sources or as fully integrated AC power center with built-in in and out protections. Thanks to TSI specifics it provides outstanding power conditioning and high end availability.

## APPLICATIONS

Convenient for any Mission Critical Applications. A must when any glitch matters.

The solution to power up demanding AC loads at low OPEX from a combination of AC and DC sources present on site.

It reveals its full worth in harsh electrical environments and for long autonomy requirements. It handles any type of AC load including laser printers, compressors and induction motors.

Typical applications include aggregation network infrastructure components (MGW, RNC, SSP, PTP-RL, IP/Router...); HVAC equipments, small datacenter...

## MAIN FEATURES

- » Permanent AC to AC double conversion
- » Great disturbance rejection rate
- » Redundant AC & DC input sources
- » Source changover not visible by the load
- » Highly efficient energy conversion
- » Preserve battery life expectancy
- » Compact footprint
- » Offers space for AC distribution or integration with 3rd party equipments
- » Operates until 65°C (de-rating may apply)
- » Can be provided with 120Vac, 120/240 Vac and 120/208 Vac system configurations

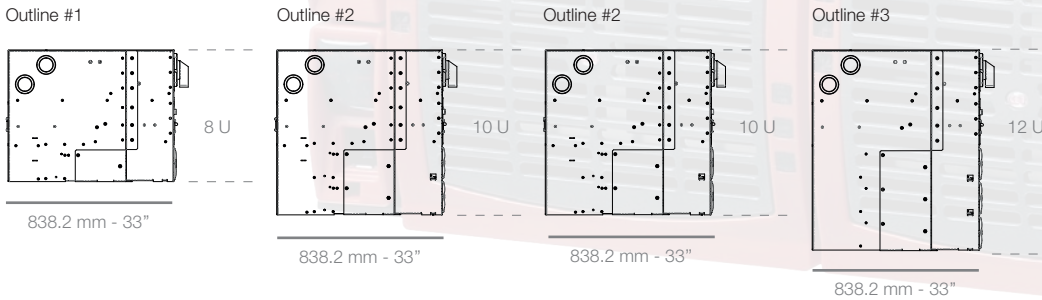


<b>GENERAL</b>	
Applicable standards	IEC 61000-4 / FCC part 15 / cULus 1778 Listed / ROHS
MTBF (each module)	240,000 hrs
Efficiency (Typical): Enhanced Power Conversion / On Line	95% / 91%
Dielectric strength DC/AC	4,300 Vdc
True Redundant Systems 3 Disconnection levels on AC out and DC in power ports 4 disconnection levels on AC in port"	Compliant
Vibration	GR63 office vibration 0 to 100 hz - 0,1g Transport vibration 5 - 100 Hz 0,5 g 100 to 500 hz-1,5 g Drop test
Altitude above sea	< 1500 m; no derating >1500 m; 0.8 % / 100 m derating
Operating temperature (Ambient & measured @ air inlet)	-20 to 40 °C; -4°F to 104°F for rated power <sup>(7)</sup> 40 °C to 65°C with 2%/°C derating <sup>(1)</sup> 104°F to 149°F with 1%/°F derating <sup>(1)</sup>
Ambient / storage temperature / relative humidity	-40 to 70 °C -40°F to 158°F
Relative humidity	95%, non-condensing
Operating ambience / Ingress Protection	Free from dust and corrosive materials / NEMA 1
Material (casing)	Coated steel-ALU ZINC
<b>DC INPUT SPECIFICATIONS</b>	
Nominal voltage (DC) / Voltage range	48 V / (40 - 58 V)
Voltage ripple	<2 mV Psopho
Input voltage boundaries	Adjustable from 40 V to 57 V
DC input protections	No1 60 A MCB per module
<b>AC INPUT SPECIFICATIONS</b>	
Voltage range (AC) (Full power rating)	104 – 140 Vac
Brownout range and behavior	80 – 104 Vac use DC source contribution if need be (can be disabled)
Conformity range before transfer to DC	Adjustable from 80 to 138 Vac
Power factor	>99%
Frequency range (selectable) / synchronization range	50 – 60 Hz / 47 – 53 Hz or 57 – 63 Hz
<b>AC OUTPUT SPECIFICATIONS</b>	
Admissible load power factor	Full VA power rating from 0 inductive to 0 capacitive Limited to W power rating from Pf 0,8 to 1
Frequency / frequency accuracy	50 - 60 Hz / 0.03 %
Total harmonic distortion (resistive load)	<1.5%
Load impact recovery time	0.4 ms
Turn on delay	30 s
Short duration overload capacity	150% - 15 second
Long duration overload capacity	110% permanent
Crest factor at nominal power With short circuit management and protection	3.1
Short circuit clear up capacity <sup>(8)</sup>	10 x I <sub>n</sub> for 20 ms
Short circuit clear up capacity when AC is not present	1.5 x I <sub>n</sub> for 15 second
<b>ENERGY SOURCE CHANGEOVER</b>	
Total transient voltage duration (max) (as seen from the load)	0 s (and no glitch)
Maintenance Bypass (MBP)	Yes
<b>SIGNALING &amp; SUPERVISION</b>	
Display	LED w/module status and power bargraph or optional 7" touchscreen + CANDIS Display <sup>(2)</sup>
Alarms output / supervision	No3 Dry Contacts (Maj, Min, User adjustable)
Remote Monitoring	TCP-IP with SNMP V1
Remote on / off	via T2S controller

TSI MPC – Datasheet v1.2 Specifications can change without notice. New data will be updated on our Web site: [www.cet-power.com](http://www.cet-power.com). The present equipment is protected by several international patents, trademarks and copyrights.

	MPC-1-6-xx-04	MPC-1-12-xx-08	MPC-2-12-xx-08	MPC-3-18-xx-12
<b>GENERAL</b>				
Nominal voltage (AC) Input & Output	120 Vac L-N	120 Vac L-N	120 Vac L-N 240 Vac L-L	120 Vac L-N 208 Vac L-L
Nominal Output power (VA) / (W) (when fully populated)	6 kVA / 4.8 kW	12 kVA / 9.6 kW	12 kVA / 9.6 kW	18 kVA / 14.4 kW
<b>AC OUTPUT CONNECTIONS</b>				
AC output connection / protection <sup>(6)</sup>	Terminal block 70 A Branch Circuit Protection	Terminal block 100 A Supplementary Protection	Terminal block 70 A 2pole Branch Circuit Protection	Terminal block 70 A 3pole Branch Circuit Protection
Nominal AC output current. Protected against reverse current	50 A	100 A	50 A per phase	50 A per phase
Short circuit current after clear up capacity	75 A	150 A	75 A per phase	75 A per phase
<b>DC INPUT CONNECTIONS</b>				
DC input connection <sup>(6)</sup> <sup>(8)</sup>	Copper plate featured to receive double lug cable shoe Common feed or one feed per row of modules			
Nominal DC current (at floating voltage and 1200 W per module output)				
Common feed	99 A	198 A	198 A	296 A
Two feed	N/A	99 A per feed	99 A per feed	N/A
Three feed	N/A	N/A	N/A	99 A per feed
Internal DC input protections	150 A (No1 per row of module)	2 x 150 A (No1 per row of module)	2 x 150 A (No1 per row of module)	3 x 150 A (No1 per row of module)
<b>AC INPUT CONNECTIONS</b>				
AC input connection / protection <sup>(6)</sup>	Terminal block / 70 A Supplementary Protection	Terminal block / 2 x 70 A Supplementary Protection	Terminal block / 2 x 70 A Supplementary Protection	Terminal block / 3 x 70 A Supplementary Protection
Nominal AC input current <sup>(6)</sup> (at 120 Vac and 1200 W per module output)	50 A	100 A	50 A per phase	50 A per phase
<b>SELECTABLE OPTIONS</b>				
Embed Manual Bypass				
7 inch touchscreen				

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- 1 Operation beyond 40°C (104°F) and derating are not UL certified
- 2 Specific execution can be provided on request
- 3 While the boost function is enabled and AC source present
- 4
- 5 Inverter module current consumption only. Use output current for circuit sizing while MBP is present,
- 6 Refer to specific document for NEC compliance for external protections and cable sizing
- 7 Internal temperature management and switch off
- 8 DC cable size not NEC compliant for infrastructure connection. Used for system internal wiring only.