



MIPS-75 Inverter System

20KVA to 75KVA- 48V 120/240/208Vac

TSI MIPS



Operation Mode

The TSI Enhanced Power Conversion mode develops a high quality AC by drawing power simultaneously from the AC mains and DC sources and presents a regenerated AC for critical application. Since the system draws power from each source simultaneously, output power is guaranteed as long as one input source is available.

Optional output protection and distribution may be provided.

The System

The MIPS system provides convenient access for connecting the AC input, DC input, and AC output wiring.

All configurations are integrated in a framed enclosure 600mm(W) x 600mm(D) x 2100mm(H) (24in x 24in x 84in).

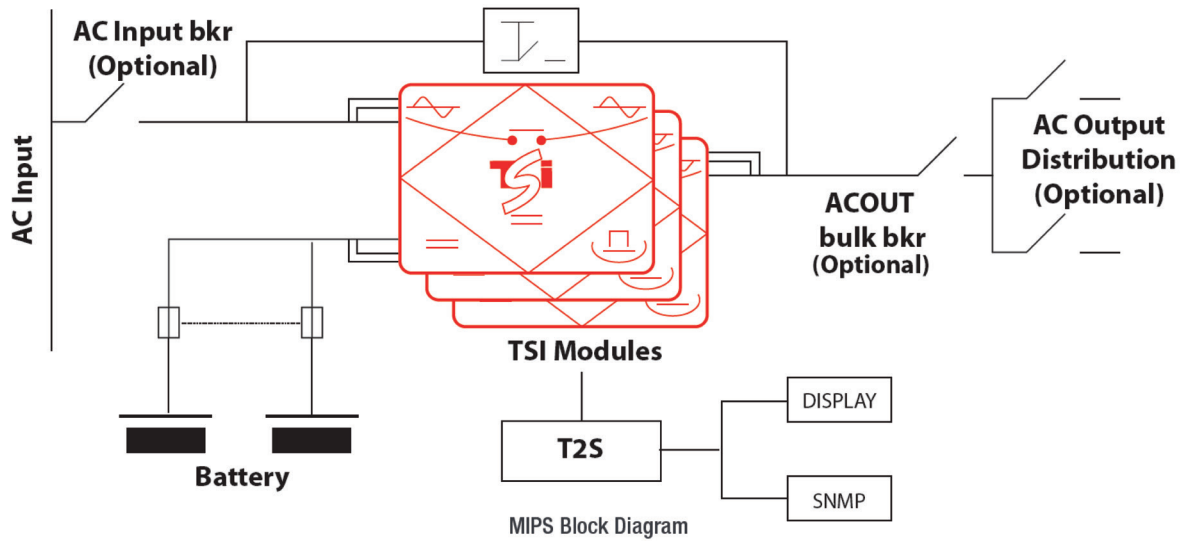
Optional:

- AC input breaker supplementary
- AC output breaker supplementary
- AC input surge suppression

Advantages

- Telecom central office, IS data centers, Head-ends, Hubs, and MTSO applications
- Streamlined and Modular system
- Scalable up to 75KVA

Manual By-pass Switch



GENERAL	
EMC (immunity)	EN 61000-4
EMC (emission)	EN 55022 (Class A)
Safety	UL1778 Listed
Cooling	Forced
Isolation	Doubled
MTBF	240000 hrs
Efficiency (Typical)	
Enhanced Power Conversion	94%
On Line	90%
Dielectric strength DC/AC	4300Vdc
True Redundant Systems	Compliant
3 disconnection levels on ACout and DCin power ports	
4 disconnection levels on ACin port	
RoHS	Compliant
Connection I/O	Terminal block
Protected against inversion of polarity	

DC INPUT SPECIFICATIONS	
Nominal voltage (DC)	48V
Voltage range (DC)	40 - 60V
Nominal current (at 40Vdc)	1680A
Maximum input current (15s)	2520A
Voltage ripple	<2mV

AC INPUT SPECIFICATIONS	
Nominal voltage (AC)	120/240/3 x 208V
Voltage range (AC)	83-140Vac
Conformity range	Adjustable
Power Factor	>99%
Frequency range (selectable)	50 - 60Hz
Synchronization range	47 - 53Hz 57 - 63Hz

AC OUTPUT POWER	
Nominal Output power	75KVA
Output power (resistive load)	60kW
Short time overload capacity (15s)	150%
Permanent overload capacity	110%
Admissible load power factor	
Full power rating form 0 inductive to 0 capacitive	

AC OUTPUT SPECIFICATIONS	
Nominal voltage (AC)	120/240/3 x 208V
Voltage range (AC)	90 - 130V
Voltage accuracy	+/- 1%
Frequency	50 - 60Hz
Frequency accuracy	+/- 0.1%
Load impact recovery time	0.4ms
Turn on delay	40s
Nominal current	208A/Phase A
Protected against reverse current	
Crest factor at nominal power	3.1 In
With short circuit management and protection	
Short circuit clear up capacity	10 x In for 20msec

TRANSFER PERFORMANCES

Maximum voltage interruption	0s
Total transient voltage duration (max)	0s

ENVIRONMENT

Altitude above sea without derating	<1500m
Derating slope upper than 1500m	0.8% by 100m
Ambient temperature	-20 to 40° C
Storage temperature	-40 to 70° C
Relative humidity	95%, non condensing

SIGNALING & SUPERVISION

Display	LED + LCD
Alarms output	Dry contacts
Monitoring	via T2S controller

WEIGHT & DIMENSIONS







Width	24"
Depth	24"
Height	84"
Weight (net)	Approx 840 lbs (380kg)
Material (casing)	Coated steel

Model List







MODEL PART#	MAX APPARENT POWER	MAX REAL POWER	AC INPUT & OUTPUT VOLTAGE
MIPS - 48 - 3 - 75	75KVA	60kW	120/208,3 Φ
MIPS - 48 - 3 - 60	60KVA	48kW	120/208,3 Φ
MIPS - 48 - 3 - 30	30KVA	24kW	120/208,3 Φ
MIPS - 48 - 2 - 50	50KVA	40kW	120/208 or 120/240, 2 Φ
MIPS - 48 - 2 - 40	40KVA	32kW	120/208 or 120/240, 2 Φ
MIPS - 48 - 2 - 20	20KVA	16kW	120/208 or 120/240, 2 Φ

Step 1: Select Inverter System


MIPS Inverter System 240/120V Single Phase 2 pole L, L, N

SYSTEM RATING	DC INPUT	COMCODES	DISPLAY AND IP CONNECTION	AC INPUT	DESCRIPTION
 20KVA	 2-250amp breakers	450048787	Touch Screen display with TCP-IP SNMP and Modbus	Supplemental breaker rated for 110amp, two pole	20KVA Max, Min 2.5KVA, Cabinet Enclosure, DC individual protection for modules, Internal maintenance bypass. Surge Arrestors built-in by default (Class II type) * Two shelves with up to (8) 2.5KVA inverter modules Note: Number of modules must be even with same number in each phase
		Note: If inverter is being installed with an external wrap around bypass, then refer to step 4 of the ordering guide.			
 40KVA	 2-500amp breakers	450048788	Touch Screen display with TCP-IP SNMP and Modbus	Supplemental breaker rated for 225amp, two pole	40KVA Max, Min 2.5KVA, Cabinet Enclosure, DC individual protection for modules, Internal maintenance bypass. Surge Arrestors built-in by default (Class II type) * Four shelves with up to (16) 2.5KVA inverter modules Note: Number of modules must be even with same number in each phase
		Note: If inverter is being installed with an external wrap around bypass, then refer to step 4 of the ordering guide.			
 50KVA	 2-600amp breakers	450048791	Touch Screen display with TCP-IP SNMP and Modbus	Supplemental breaker rated for 250amp, two pole	50KVA Max, Min 2.5KVA, Cabinet Enclosure, DC individual protection for modules, Internal maintenance bypass. Surge Arrestors built-in by default (Class II type) * Six shelves with up to (20) 2.5KVA inverter modules Note: Number of modules must be even with same number in each phase
		Note: If inverter is being installed with an external wrap around bypass, then refer to step 4 of the ordering guide.			


MIPS Inverter System 208/120 Phase 3 pole L, L, L, N

SYSTEM RATING	DC INPUT	COMCODES	DISPLAY AND IP CONNECTION	AC INPUT	DESCRIPTION
 30KVA	 3-250 amp breakers	450048792	Touch Screen display with TCP-IP SNMP and Modbus	Supplemental breaker rated for 110amp, three pole	30KVA Max, Min 2.5KVA, Cabinet Enclosure, DC individual protection for modules, Internal maintenance bypass. Surge Arrestors built-in by default (Class II type) * Three shelves with up to (12) 2.5KVA inverter modules Note: Number of modules must be even with same number in each phase
		Note: If inverter is being installed with an external wrap around bypass, then refer to step 4 of the ordering guide.			
 60KVA	 3-500amp breakers	450048789	Touch Screen display with TCP-IP SNMP and Modbus	Supplemental breaker rated for 225amp, three pole	60KVA Max, Min 2.5KVA, Cabinet Enclosure, DC individual protection for modules, Internal maintenance bypass. Surge Arrestors built-in by default (Class II type) * Six shelves with up to (24) 2.5KVA inverter modules Note: Number of modules must be even with same number in each phase
		Note: If inverter is being installed with an external wrap around bypass, then refer to step 4 of the ordering guide.			
 75KVA	 3-600amp breakers	450048790	Touch Screen display with TCP-IP SNMP and Modbus	Supplemental breaker rated for 250amp, three pole	75KVA Max, Min 2.5KVA, Cabinet Enclosure, DC individual protection for modules, Internal maintenance bypass. Surge Arrestors built-in by default (Class II type) * Nine shelves with up to (30) 2.5KVA inverter modules Note: Number of modules must be even with same number in each phase
		Note: If inverter is being installed with an external wrap around bypass, then refer to step 4 of the ordering guide.			

Step 2: Select Inverter Module

OUTPUT	ORDERING CODE	DESCRIPTION	PHOTO
120V 2.5KA	450041032	TSI-EPC - 48Vdc - 120Vac - Module BRAVO	
	450043822	TSI-Blank Module BRAVO [DUMMY MODULE]	
	450041033	BLANK BRAVO & MEDIA [PD402_258]	

Step 3: Optional Door

ORDERING CODE	DESCRIPTION	PHOTO
450044287	TSI-EPC - 48Vdc - 120Vac - Module BRAVO	

Step 4: Optional External Wrap Around Bypass

208/240Vac Wall Mount Maintenance Bypass Panels Single Phase 2 Pole with Neutral L1, L2, N

KVA	ORDERING CODE	BYPASS BREAKER QTY	UIB	MIB/MBB	VOLTAGE	DIMENSIONS	WEIGHT	AIC
20	450044316	3	110A	110A	208/240Vac	30"W x 10"D x 36"H	110 Lbs	22K
20	450044317	3	110A	110A	208/240Vac	30"W x 10"D x 36"H	110 Lbs	65K
40	450044320	3	225A	225A	208/240Vac	30"W x 10"D x 36"H	110 Lbs	22K
40	450044321	3	225A	225A	208/240Vac	30"W x 10"D x 36"H	110 Lbs	65K
50	450044322	3	250A	250A	208/240Vac	30"W x 11"D x 42"H	125 Lbs	65K

208Vac Wall Mount Maintenance Bypass Panels 3 Phase

KVA	ORDERING CODE	BYPASS BREAKER QTY	UIB	MIB/MBB	VOLTAGE	DIMENSIONS	WEIGHT	AIC
30	450044307	3	110A	110A	208Vac	30"W x 10"D x 36"H	110 Lbs	22K
30	450044308	3	110A	110A	208Vac	30"W x 10"D x 36"H	110 Lbs	65K
60	450044311	3	225A	225A	208Vac	30"W x 10"D x 36"H	110 Lbs	22K
60	450044312	3	225A	225A	208Vac	30"W x 10"D x 36"H	110 Lbs	65K
75	450044313	3	250A	250A	208Vac	30"W x 11"D x 42"H	125 Lbs	65K

Includes Kirk-Key Locks with 24VAC SKRU
Listed to UL891
Color: Black

