

TEBEVERT DSP-120 MODULAR 1-30 kVA INVERTER SYSTEM

The DSP-120 has been designed to provide reliable, high quality AC power for critical telecom loads. It is packaged as a highly scalable, compact system for 23" rack-mount applications. 1kVA and 2.5kVA plug-in inverter modules are available in a horizontal stacking configuration but, they are not interchangeable. A high speed Static Bypass Switch (SBS) is available as an optional plug-in module in the 23" system. The Maintenance Bypass Switch (MBS) is located behind a removable front panel in the 23" shelf to allow manual transfer of loads to back-up AC.



**5 kVA /12 kVA 23" 6 RU System
with SBS and MBS**

Single shelf 6RU (10.5") high DSP-120 23" systems can provide up to 5kVA (1kVA modules) and 12.5kVA (2.5kVA modules) capacity with 6/15kVA rated SBS. Without an SBS, a second expansion shelf can be added below for up to 12kVA (1kVA modules) or up to 30kVA (2.5kVA modules). An external power junction box is available as an accessory.

The modules operate on-line, sharing the load in parallel, allowing the system to be configured for redundancy to ensure optimum availability for critical loads. If redundancy is configured and a module fails, it is automatically disconnected from the output bus and the remaining modules pick up the load. Since modules are "Hot-pluggable", a faulty module can be swapped out without interrupting power to the load.

Key Features

- Hot-pluggable Static Bypass Switch (SBS) And Inverter Modules
- Supports High Inrush Current Loads
- High Efficiency Operation, Lowers Operating Costs
- Sine Wave Output, Low Harmonic Distortion
- 5 or 6 Inverter Modules Can Be Paralleled In Each Sub-rack Depending Upon Configuration
- No Single Points Of Failure
- User Friendly Graphical (Menu Driven) Display Of Operating Mode Included With Static Bypass Switch (SBS)
- Optional—AC Load Distribution Circuit Breaker Panel
- Optional—Remote Monitoring With TCP/IP And SNMP

Technical Specifications

		1kVA	2.5kVA
SYSTEM	Inverter Module Power Rating		
	Maximum System Capacity	1 to 5kVA (6kVA w/o SBS)	2.5 to 12.5kVA (15kVA w/o SBS)
	Maximum Modules Per System	6	
	Maximum Cabinets	Not Applicable	
	Overload Capability	110% continuous, 120% for 1 minute, and 200% for 4 seconds	
	Static Bypass Switch (SBS)	1 Phase 120VAC (L, N, and G)	
	SBS Priority	Inverter or AC Mains	
	SBS Transfer Time	2ms typical (<4ms including detection time)	
	SBS Overload Capability	500% for 100ms	
	SBS Transfer Criteria	Overload, Modules Over Temperature, Short Circuit On Output, Low DC Voltage, Manual Initiation, and Output AC Voltage Out Of Range	
	Remote Alarming	(1) Form-C Inverter Fault and (1) Form-C Static Switch Fault	
AC OUTPUT	Metering	Graphic Display, Power Flow diagram, and LED's	
	Indicators	On, Output present, DC Input OK, Inverter fault, Parallel Operation, Overload, and Bar Graph for Output Power	
	AC Output Voltage	120VAC	
	AC Output Current/module	8.33A (0.8 leading), 6.67 A (Unity pf)	20.83A (0.8 leading), 16.67 A (Unity pf)
	AC Output Frequency	60Hz (default) or 50Hz	
	Maximum Allowable Phase Imbalance	Not Applicable	
	Load Power Factor Range	0.7 lagging to 0.8 leading	
	Output Regulation	+/-5% for all combinations of line, load and temperature	
DC INPUT	Distortion	< 3% @ 100% rated linear load	
	DC Input Voltage	40.8 to 60VDC	
	DC Input Current	19A nominal / 22.5A maximum	47A nominal / 55A maximum
	DC Inrush Current	Soft Start Limited	
OPERATING CONDITIONS	Efficiency	> 89%	
	Operating Temperature Range	32° to +104°F (0° to +40°C); 32° to +131°F (0° to +55°C) with linear de-rating of 100% to 60% output at a rate of 2.5% P _N /°C	
	Operating Humidity Range	0-95% non-condensing	
	Heat Output Per Module	338 BTUs per hour @ 100% load	845 BTUs per hour @ 100% load
	Cooling	Temperature Controlled Fans	
PHYSICAL & STANDARDS	Elevation	<10,000 ft. (3048 m) without de-rating	
	Frame Dimensions	12.25"x23"x19.8" (311x584x502mm)	10.5"x23"x23" (267x584x584mm)
	Frame Weight	45 lbs. (20.41Kg)	75 lbs. (34.01Kg)
	Module Dimensions	9.37"x2.66"x13.9" (238x67.6x353mm)	9.37"x2.66"x18.23" (238x67.6x463mm)
	Module Weight	11.02 lbs. (5Kg)	17.63 lbs. (8Kg)
	Module Mounting	Hot Pluggable	
	Safety	UL60950	
Electrostatic Discharge Immunity	EN61000-4-2		

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