

# Power

## INEX System

### 48V Modular Inverter System



- Versatile modular design provides flexibility for different power applications
- Expandable capacity up to 18KVA with N+1 redundancy configuration
- “All master” dynamic mechanism eliminates single point failure to optimize reliability
- Hot-swappable operation allows module addition or removal without powering down
- High power density and high efficiency

The INEX inverter series is an integrated telecommunications power system, including inverter, static switch, LCD display controller, and interface modules. With a versatile “building block” design and N+1 redundant configuration, the INEX inverter system facilitates complex telecommunications and industrial power demands, and provides ultimate flexibility for your current and future power requirements.

N+1 parallel redundancy allows power capacity expandable up to 18KVA. INEX “all master” dynamic mechanism automatically shares and re-organizes critical loads to prevent interruption should any inverter module fail. The DSP-microprocessing controller gives real-time system status through a comprehensive LCD display, and allows programmable settings through the display panel. With a communication interface module installed, you can further control and monitor the system remotely.

## Inverter Module

The INEX inverter module provides pure sine wave AC power output for critical telecommunications equipment. Adopting N+1 redundancy design, the INEX inverter can operate up to 12 units in parallel. The INEX inverter module is specially designed with a compact size of maximized power density that can reach up to 5.57W/inch<sup>3</sup> for INEX 1000 and 8.36W/inch<sup>3</sup> for INEX1500. A 1U height design allows the module to be installed onto a standard ETSI 300mm rack. The INEX module is a revolutionary telecom power solution in terms of maximum flexibility and reliability.



- Pure sine wave
- Hot-swap replacement in shelf
- High efficiency >88%
- DSP design for higher system reliability
- Lower audible noise <55dBA
- Smart fan speed control
- N+1 redundancy system, load sharing difference < 5%
- -48VDC Telecom system application
- Wide operation temperature range, -20 to 70°C

## STS Module

The INEX STS (Static Transfer Switch) module increases system reliability by automatic power transfer between the inverter output and the AC mains. By setting up the priority of operation mode, users can change the system status of “on line mode” or “off line mode”. The on line mode will keep the input power provided by the inverter line and when the inverter fails, the line will switch to AC utility line. In off line mode, the system power is always connected to the AC utility line and will switch to inverter power line when AC utility fails. The transfer time is less than a quarter cycle which prevents the power interruption. The reliable performance of INEX STS module will provide the maximum protection to the connected telecommunication equipment against possible damage caused by the system power failure.



- Universal input range
- Back-feed protection
- Redundant fan design
- Operation Priority Setup of transfer by setting in Control Module
- Fast transfer time, typically less than 1/4 cycle
- Wide operation temperature range, -20 to 70°C
- Lower audible noise <55dBA
- No-cross connect
- Optional maintenance bypass switch function

## Controller Module

The INEX controller module allows users to monitor the system status in real time. Its superior design enables users to manage the inverter and STS module status including voltage, current, frequency, capacity and temperature. With a user-friendly interface design, users can easily manage the inverter and STS module settings including voltage, frequency, redundancy (for inverter module), and priority (STS module). The controller module can also record the alarm history which can help to understand the operating status while maintaining the system or making further adjustments to improve system performance.



- CAN Bus protocol for module communication
- Relay contact output for customized alarms
- Hot swappable design
- Real time clock embedded
- Comprehensive LCD & LED for status display
- Audible alarm function

## INEX MBSDU

The INEX MBSDU maintenance bypass switch plus AC distribution unit allows user to perform maintenance service to system without shutdown. The integrated AC distribution manages output power connections with NEMA or IEC outlets and bulk output terminals with breaker protection.



NEMA panel being shown

### MBSDU NEMA panel

- MBS switch 50A capacity
- 4 x 15A branch breakers with 5-15R NEMA outlets
- 2 x 20A branch breakers with 5-20R T-Blade NEMA outlets
- 2 x 100A input and output main breakers
- AC bulk input and output termination
- 2RU height, 19" panel 120VAC

### MBSDU IEC panel

- MBS switch 50A capacity
- 4 x 20A branch breakers with 2 x C13 IEC sockets per breaker
- 2 x 100A input and output main breakers
- AC bulk input and output termination
- 2RU height, 19" panel 230VAC

## Communication Interface

The communication interface includes several options for wider applications which facilitates the remote managing to the system. The standard ports include relay contacts, RS-232, RS-485 and USB. Relay contacts provide five programmable settings to display customized information. RS-232 & USB ports provide the serial connection to the PC for software monitoring. RS-485 provides a long distance connection for direct monitoring. The communication interface provides powerful monitoring and management solutions to the system manager.



- Relay contacts
- RS-232
- RS-485
- USB

## WinPower Monitoring Software

WinPower is a monitoring software which supports either a stand alone computer or network connected computers.

- Real time monitoring of each module in the inverter system
- Panoramic views of all the related information; utility power, system status and STS status
- Auto search function with any inverter power modules in LAN.
- Password security protection
- Comprehensive installation (and uninstall) process



