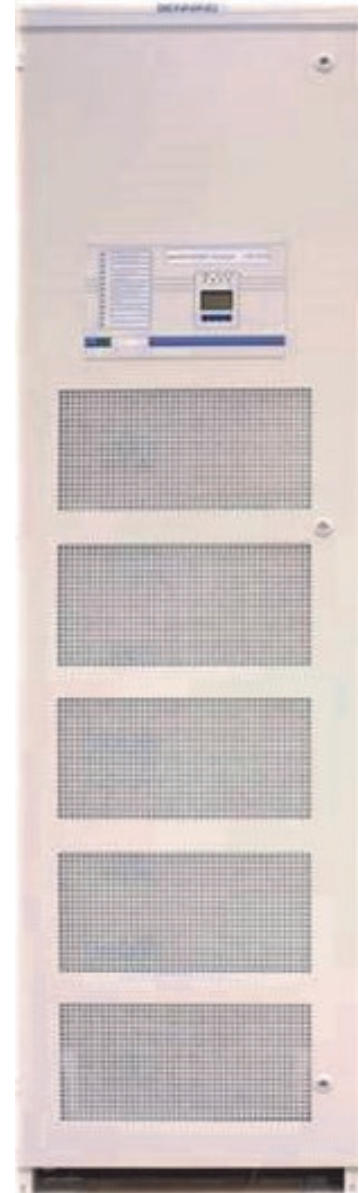


Invertronic 3 Phase Inverter 40KVA - 480VAC Input/208VAC Output

Benning is proud to introduce the **Invertronic Modular 40KVA, 480VAC Inverter System**, which is a high power, modular true three phase system for critical AC power applications. The Invertronic Inverter system utilizes a -48VDC input with 480VAC bypass and a 208VAC, 60Hz output. Providing a solution for sites with 480VAC commercial power. This provides an excellent solution for commercial sites replacing older UPS equipment using 480VAC input voltages. The Invertronic can use the existing DC battery plant with typical longer battery reserve time for critical AC loads.

This version of the Invertronic continues to use the proven topology whereby each inverter module has an integrated Static Bypass Switch (SBS). Secure data bus communications between modules provides for a coordinated transfer to back-up AC in the unlikely event of system failure or overload. Redundancy is determined dynamically, based on measurement of actual present load. A transfer to back-up will take place when the system determines that its capacity has been exceeded either due to a non-redundant module failure or due to excess load being added on the output.

The **Invertronic Modular 40KVA, 480VAC in Inverter System** provides the proven advantages of the Invertronic Inverter system with the ability to use 480VAC in a small foot print for critical power protection.



Key Features

- Hot swap 10kVA modules each with built-in SBS for the ultimate in scalability (40kVA systems in single cabinet; step-down transformer located at the bottom of the cabinet)
- Employs 4th Generation DSP Technology for outstanding dynamic step load response and maintenance of high quality, low distortion sine wave output into non-linear loads
- Integrated Manual Bypass Switch in cabinet
- Front Door-mounted Graphical Display of Operating Mode & System Parameters
- Remote Monitoring via Network HTML and SNMP
- Small footprint 24" w x 31.5" d x 84" h

ISO 9001

BUREAU VERITAS
Certification

No. 08000259



Technical Specifications



| | | |
|------------|-----------------------------------|---|
| SYSTEM | AC Bypass | 480VAC input |
| | SBS Priority | Inverter Priority Only; Offline mode not possible |
| | Transfer Time | SBS is make-before-break; 2ms typical 6ms maximum |
| | SBS Overload Capability | 1000% for 8ms |
| | SBS Transfer Criteria | Overload modules over temperature, short circuit on output, low DC voltage, manual initiation, output AC volts out of range |
| | External Alarming | 10 Outputs include: Major, Minor, Mains fail, DC fail and Inverter fail |
| | Metering | Phase voltages, currents, Kw, Kva and Kvar |
| | Indicators | 13 Programmable LEDs on front door display panel |
| AC OUT | Inverter Module Rating | 10kVA / 8kW at 0.8 power factor inductive |
| | Maximum System Capacity | 40kVA / 32kW at 0.8 power factor inductive |
| | Maximum Modules Per Cabinet | 4 |
| | AC Output Volts | 208VAC 3 phase, 4 wire, Y connected |
| | AC Output Amps | 27.8A per phase at full load / 200A breaker |
| | AC Output Frequency | 60Hz +/- .01% on internal crystal; tolerance is programmable when synchronized to commercial AC bypass |
| | Maximum Allowable Phase Imbalance | 100% up to full load per phase current rating |
| | Load Power Factor Range | 0.7 lagging (inductive) to 0.8 leading (capacitive) standard UPS de-rating |
| | Output Regulation | Static: +/- 1%; Dynamic: +/-5% max with 100% step load change settling time: <10 msec |
| | Efficiency | 86.4% @ full load; 88.7% @ 50% load |
| | Crest Factor Accommodated | 3.0 / 1 |
| | Distortion | <2% THD into a linear load; pure sine wave output |
| | Overload Capability | 125% for 10 minutes; 200% for 4 seconds |
| DC IN | Input Voltage | Nominal: 48VDC Operating Range 42-60VDC |
| | Input Current | Maximum: 228A at 42VDC at full load Nominal: 138A at 54VDC at 80% load (recommended DC source 300A) |
| | Inrush Current | Soft-start circuit limits inrush to <25% of full load current |
| | Reflected Noise on DC Input | <2mV psophometric |
| MECHANICAL | Module Weight & Dimensions | 99lbs. (45kg); 19.9" x 17.7" x 8.75" (5RU) (505 x 450 x 222 mm) |
| | Cabinet Weight & Dimensions | 528lbs. (240kg); 23.5" W x 31.5" D x 84" H (600 x 800 x 2134 mm) |
| | Heat Output | <4,300 BTUs / hour / module, full load @ 54VDC input |
| | Operating Temperature Range | 0-40°C |
| | Operating Humidity Range | 0-95% relative humidity, non-condensing |
| | Elevation | Fully rated to 1000M, de-rated thereafter |
| DESIGN | Safety | EN 60950, UL 1778, cUL 60950 |
| | Design | NEBS Level 3 Certified Zone 4 cabinets available |
| | EMI Emissions | EN 62040-2 classification C3, FCC Class A |
| | EMI Immunity | EN 61000-4-4, EN 61000-4-5 |
| | Electrostatic Discharge Immunity | EN 61000-4-2, (level: 4kV contact, 8kV air discharge) |

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