

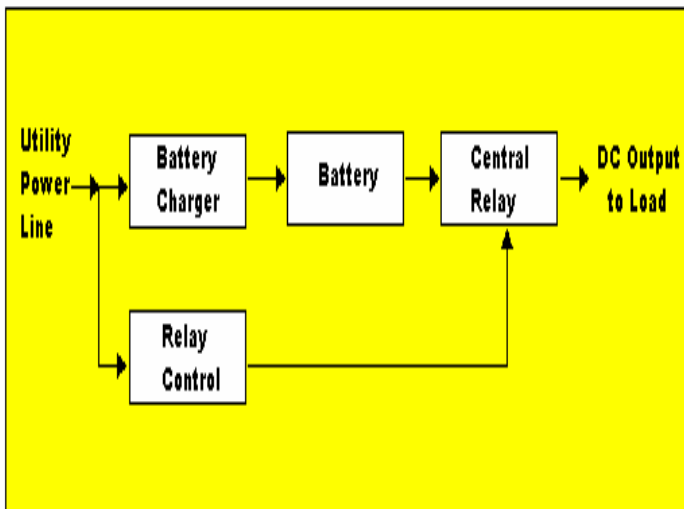
The Inverter Systems, Inc. ISI-DC Series offers a cost effective alternative to self contained battery emergency/ fluorescent power pack emergency lighting schemes and smaller AC inverters by providing a central DC power supply with which to feed incandescent lamps or fluorescent DC inverter modules enabling ease of monitoring and maintenance.

The ISI-DC is available in a wide range of capacities in 12, 24, 36, 48 and 120V DC output loads. Additionally, these systems are suited to other emergency loads such as burglar and fire alarm systems which require a "normally off" DC backup power supply. Standard systems are engineered to provide up to 90 minutes of standby DC emergency power in accordance with the requirements of U.L. 924 (other run times also available).



### OPERATION

In the normal standby mode the utility AC maintains supply to the system's isolation transformer, battery charger and central relays; no output is derived at the DC load. In the event of a utility supply failure or brownout condition the system's relay sensors automatically connects the DC load to the battery bank, providing the rated DC load for the required duration. Upon restoration of the utility supply the system automatically returns to the normal standby mode and restores the battery to full charge.



All specifications subject to change without notice.

### STANDARD FEATURES:

- Available in 12, 24, 36, 48 & 120 volt DC output from 500 to 10,000 watts
- Modular design provides electronic assemblies mounted on removable modules for ease of maintenance
- Transfer time to full DC load 100ms
- Precision multi-rated battery charger with automatic 90 day equalization feature maintains batteries at maximum capacity; internal LED indicators for charger status
- 24 hour recharge for extended battery life
- Metering and controls include: battery DC voltmeter, input AC voltmeter, utility power indicator, high charge indicator, battery charge ammeter with system test switch
- Heavy gauge steel cabinets with filtered air louvers, key locks and removable hinged front opening doors for ease of access and maintenance
- System cooling by natural convection means
- Maintenance free sealed lead calcium batteries standard, wet nickel cadmium batteries optional
- Engineered for standard 90 minute emergency operation, (extended run times available)
- Suitable for extreme temperature from 0° - 40° C (continuous operation at high or low ambient temperatures may affect battery capacity and life; see battery warranty sheet for details)
- Choice of full or zoned load switching

| Model #<br>Capacity/VA<br>Rating | Output<br>Watt<br>Rating | Output<br>Voltage<br>VDC | Max. Utility<br>Input Current<br>@120VAC/277VAC |     | Heat<br>Loss<br>BTU's | Cabinet Dimensions<br>(Inches) |          |          | System<br>Weight<br>(lbs.) | Battery<br>Voltage<br>VDC | Battery<br>Run<br>Time<br>Minutes | Shipping<br>Weight<br>(lbs.) |
|----------------------------------|--------------------------|--------------------------|---|-----|-----------------------|--------------------------------|----------|----------|----------------------------|---------------------------|-----------------------------------|------------------------------|
|                                  |                          |                          |   |     |                       | W<br>(A)                       | H<br>(B) | D<br>(C) |                            |                           |                                   |                              |
| ISI-DC-12-500                    | 500                      | 12                       | 2   | 1   | 44                    | 32                             | 33       | 12       | 180                        | 12                        | 90                                | 255                          |
| ISI-DC-12-1000                   | 1000                     | 12                       | 2   | 1   | 44                    | 32                             | 33       | 12       | 256                        | 12                        | 90                                | 331                          |
| ISI-DC-12-1500                   | 1500                     | 12                       | 3   | 1.5 | 88                    | 42                             | 38       | 12       | 330                        | 12                        | 90                                | 405                          |
| ISI-DC-12-2000                   | 2000                     | 12                       | 3   | 1.5 | 88                    | 42                             | 38       | 12       | 438                        | 12                        | 90                                | 513                          |
| ISI-DC-24-1000                   | 1000                     | 24                       | 3   | 1.5 | 88                    | 32                             | 33       | 12       | 256                        | 24                        | 90                                | 331                          |
| ISI-DC-24-2000                   | 2000                     | 24                       | 3   | 1.5 | 88                    | 42                             | 38       | 12       | 438                        | 24                        | 90                                | 513                          |
| ISI-DC-24-3000                   | 3000                     | 24                       | 5   | 2.2 | 175                   | 42                             | 50       | 12       | 582                        | 24                        | 90                                | 657                          |
| ISI-DC-24-4000                   | 4000                     | 24                       | 5   | 2.2 | 175                   | 42                             | 50       | 12       | 692                        | 24                        | 90                                | 767                          |
| ISI-DC-36-1500                   | 1500                     | 36                       | 4   | 2   | 132                   | 42                             | 38       | 12       | 330                        | 36                        | 90                                | 405                          |
| ISI-DC-36-3000                   | 3000                     | 36                       | 4   | 2   | 132                   | 42                             | 50       | 12       | 574                        | 36                        | 90                                | 6498                         |
| ISI-DC-36-4500                   | 4500                     | 36                       | 8   | 3.5 | 264                   | 42                             | 50       | 12       | 802                        | 36                        | 90                                | 877                          |
| ISI-DC-36-6000                   | 6000                     | 36                       | 8   | 3.5 | 264                   | 42                             | 62       | 12       | 1028                       | 36                        | 90                                | 1103                         |
| ISI-DC-48-2000                   | 2000                     | 48                       | 5   | 2.2 | 175                   | 42                             | 50       | 12       | 438                        | 48                        | 90                                | 513                          |
| ISI-DC-48-4000                   | 4000                     | 48                       | 5   | 2.2 | 175                   | 42                             | 50       | 12       | 718                        | 48                        | 90                                | 793                          |
| ISI-DC-48-6000                   | 6000                     | 48                       | 10  | 4.5 | 350                   | 42                             | 62       | 12       | 1083                       | 48                        | 90                                | 1158                         |
| ISI-DC-48-8000                   | 8000                     | 48                       | 10  | 4.5 | 350                   | 42                             | 50       | 19       | 1303                       | 48                        | 90                                | 1378                         |
| ISI-DC-120-5000                  | 5000                     | 120                      | 12  | 5.5 | 430                   | 42                             | 50       | 19       | 943                        | 120                       | 90                                | 1018                         |
| ISI-DC-120-10000                 | 10000                    | 120                      | 12  | 5.5 | 430                   | 42                             | 70       | 19       | 1725                       | 120                       | 90                                | 1800                         |

### SPECIFICATIONS:

- The emergency lighting standby power system shall be a non-maintained off-line DC central power system suitable for incandescent lamps and fluorescent slave inverter module operation. In the event of a power outage the system shall provide the rated load and output DC voltage for 90 minutes duration.
- The entire system shall be of a modular construction with removable electronic modules for ease of installation and maintenance. Cabinets shall be constructed of code gauge steel with removable key locked hinged doors and finished in an acid resistant enamel with a modified vinyl undercoat.
- The DC system output voltage range shall be: Lead acid batteries=2.3V max., 1.75V min. nominal 2 volts per cell; Nickel cadmium batteries=1.55V max., 1.05V min., nominal 1.2 volts per cell.
- The nominal output voltage shall be (12,24,36,48 or 120) VDC "normally off" two wire.
- The AC input voltage shall be (120 or 277V single phase two wire plus ground).
- Battery charger shall be solid-state and of a dual rate design featuring a 90 day boost equalization charge, continuous trickle float charge with integral green, yellow and dual red LED mode indicators, automatic low battery voltage cut-off and reset upon utility return.
- The charger shall fully recharge the batteries within the requirements of U.L. 924 specifications.
- The system's batteries shall be of the (sealed maintenance free lead acid) or (wet vented nickel cadmium) type.
- Options: Refer to Option Selection Chart for descriptions and nomenclature. Popular options are: Start-up Service, Digital Metering, Diagnostic Alarms and Monitoring, Fused output circuits, Battery Exerciser and Charger Failure Alarm
- The system shall be an Inverter Systems model No. \_\_\_\_\_ as manufactured and warranted by Inverter Systems, Inc. (for copy of detailed specification format - consult factory)

### ORDERING GUIDE:

When ordering an ISI-DC Central emergency system, use:

ISI-DC - 12 - 500 - 120 - SB - OPTIONS  
1 2 3 4 5 6

- Model Series** ISI-DC
- Output Voltage VDC** 12, 24, 36, 48 or 120
- Output Watt Rating** 500 to 10000  
(Select from table above)
- Input Voltage** 120V 2 wire plus ground 120  
277V 2 wire plus ground 277  
Other voltages (specify) ( )
- Battery Type** Maintenance free sealed lead acid SB  
Wet nickel cadmium NC
- Options** Select requirements from Options Guide,  
Popular options are:  
Start-up Service SUS  
Charge Failure Alarm CFA  
Output Monitor Alarm OMA  
Diagnostic Microprocessor & Testing STDIAG  
(For additional options refer to Options Guide.)

### WARRANTY:

#### Electronics Assembly

Inverter Systems, Inc. warrants the ISI-DC electronics assembly (except batteries) against defects in material and workmanship for a period of one year from date of shipment. Inverter Systems, Inc. will either repair or replace any properly installed ISI-DC system which fails under normal operating conditions provided that it is returned to the factory, transportation prepaid, and our inspection determines it to be defective under the terms of this warranty.

The warranty covers only equipment other than batteries manufactured by Inverter Systems, Inc. and does not extend to transportation, installation or replacement charges, nor does it apply to any other equipment of another manufacturer used in conjunction with ISI equipment. No other warranty expressed or implied exists beyond that included in this statement.

#### Battery Warranty

Sealed lead calcium batteries carry a 1 year full, 9 year pro-rated limited warranty. Wet nickel cadmium batteries carry a 1 year full, 10 year pro-rated limited warranty.

Important note: Battery warranty is limited to certain environmental, operational and installation limitations (refer to detailed Battery Warranty Terms and Conditions).

