IOTA

IIS SERIES INVERTER SOLUTIONS
FOR LED, FLUORESCENT, INCANDESCENT, AND HID LOADS
Hospitality and restaurant applications can utilize existing decorative fixtures for emergency lighting in place of unattractive wall-mount fixtures. In addition, the IIS Inverter will operate LED fixtures on the emergency circuit regardless of voltage or wattage.

DECORATIVE FIXTURES

High bay fixtures can take advantage of the IIS Inverter’s full light output...Use the ‘no break’ capability of the IIS-350-U to keep HID fixtures operating, or use the IIS-375-I to operate up to (6) 54W T5 lamps.

HIGH BAY APPLICATIONS

The IIS Inverter can operate multiple fixtures in a building’s stairwell and can be wired to bypass dimmers or occupancy sensors...keeping your egress corridors lit without sacrificing your facility’s energy-saving controls.

STAIRWELLS
IIS SERIES
UNIT INVERTER SYSTEMS

IIS Series Inverters combine IOTA’s extensive experience in innovative emergency lighting technology with durable and reliable inverter system design. The IIS Series delivers maximum illumination for LED, fluorescent, incandescent, and HID loads from one convenient supply in egress applications that other emergency options can’t match...

HIGH ATRIUM CEILINGS
The IIS inverter is perfect for vaulted or high atrium ceilings in lobbies, foyers and other critical points of egress.

OUTDOOR EGRESS
The IIS Inverter installs within the interior and is unaffected by exterior conditions. Illuminate walkways, handrails, steplights, or bollards remotely up to 1000 feet.

FEATURES INCLUDE...
- UL 924 Listed
- Valve Regulated Lead Acid (VRLA) Battery provides long life and is maintenance-free
- Line Voltage allows for remote mounting of emergency fixtures at distances of 1000 feet
- Low Voltage Disconnect and Line Latch Protection Features
- Meets or exceeds all National Electrical Code and Life Safety Emergency Lighting Requirements
- Durable Steel Design with Powder-Coat Finish
- Three-Year Warranty with Seven-Year Pro Rata Battery Warranty.
IOTA’s **IIS-125** inverters are UL Listed stand-alone simulated sine wave output inverters designed to provide power to designated emergency lighting fixtures. In a power loss situation, the **IIS-125** will supply 125W of power from the onboard battery supply. **IIS-125** inverters work in conjunction with incandescent, LED, and fluorescent lamp and fixture types and will automatically run switched, normally-on, or normally-off designated emergency fixtures. The **IIS-125** is available in two mounting styles: a ceiling grid configuration (**IIS-125-CG**) and a surface mount design (**IIS-125-SM**). IOTA’s 125W inverter models come with a three-year warranty and seven-year pro-rata battery warranty.

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>(Dual) 120/277V, 60Hz</td>
</tr>
<tr>
<td>Input Rating (bulk)</td>
<td>150 Watts</td>
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<tr>
<td>Output Voltage</td>
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<tr>
<td>Output Power</td>
<td>125 Watts</td>
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<td>at .9 leading to .9 lagging PF</td>
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<tr>
<td>Lamps Operated</td>
<td>LED, Fluorescent, Incandescent</td>
</tr>
<tr>
<td>Transfer Time</td>
<td>less than 50 milliseconds</td>
</tr>
<tr>
<td>Emergency Operation</td>
<td>90 minutes</td>
</tr>
<tr>
<td>Voltage Regulation (emergency)</td>
<td>+/- 10%</td>
</tr>
<tr>
<td>Frequency Regulation (emergency)</td>
<td>+/- 3%</td>
</tr>
<tr>
<td>Load Power Factor Range</td>
<td>.9 leading to .9 lagging</td>
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<tr>
<td>Operating Temp</td>
<td>20° to 30° C</td>
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<tr>
<td>Battery</td>
<td>Valve Regulated Lead Acid (VRLA)</td>
</tr>
<tr>
<td>Weight (IIS-125-CG)</td>
<td>42.5 lbs.</td>
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<td>Weight (IIS-125-SM)</td>
<td>46.0 lbs.</td>
</tr>
<tr>
<td>Approval</td>
<td>UL 924 Listed</td>
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</table>

**FEATURES**

- Emergency lighting supplied from one convenient source
- Operates incandescent, LED, and fluorescent fixtures including fixtures with dimmable fluorescent ballasts
- Two available mounting options
- Includes momentary contact test switch, yellow ready indicator, green inverter-on indicator, and red charging indicator
- Dual voltage 120/277 60Hz
- Replaceable output fuse protection
- High efficiency modified sine wave inverter
- Variable-rate, temperature-compensated charger
- Valve Regulated Lead Acid (VRLA) battery provides long-life and is maintenance free
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Low Battery Voltage Disconnect
- Line Latch Protection
- Allows for operation of switched fixtures
- Dimming Relay option for dimming control applications
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- Durable 18 gauge steel housing design with white semi-gloss powder-coat paint finish
- 3/7 Pro-Rata Warranty
ORDERING GUIDE

Use the Ordering Guide below to determine the Catalog # of the model required for your application.

IIS-125-CG and IIS-125-SM

**DIMENSIONS**

**Ceiling Grid** model mounts across the 2-feet T-bars of a grid ceiling. Support wires are connected to the mounting tabs at the top of the unit and secured to the building framework. Knock-outs are located on one end of the unit for connecting conduit containing the AC supply and fixture leads. A 1.25 inch flange on either side provides support for the re-sized ceiling tile.

**Surface Mount** model installs directly to the wall. Keyhole slots at the back of the unit are spaced for secure mounting to the wall’s unistrut or studs. Knockouts provide rear or side access for connection of wiring conduit. An additional hole is provided to prevent inadvertent lifting of the unit from the keyholes.

**WIRING**

The IIS Inverter utilizes two sets of input leads: one to provide unswitched power to the inverter system and a second to serve as a normal power input to the lighting load. Any switch for the designated emergency circuit will be present on the Normal Power Input leads. For Emergency Operation Only applications, the Normal Input leads are not needed and would remain disconnected and capped.

The dimming relay leads allow for a dimming signal to operate the luminaires in the desired, dimmed state during normal operation. The IIS inverter will then bypass the dimming control to operate fixtures at full light output in the event of a loss of normal AC power. Additionally, if desired, the dimming leads can be wired to operate the luminaires at a reduced lumen output setting based on the dimmable driver(s) being used during emergency operation. Refer to Page 14 for details.
The IOTA IIS-375-I is a UL Listed stand-alone sine wave output inverter designed to provide power to designated emergency lighting fixtures. In a power loss situation, the IOTA IIS-375-I will supply 375W of power from the onboard battery supply. The IOTA IIS-375-I works in conjunction with incandescent and fluorescent lamp and fixture types and will automatically run switched, normally-on, or normally-off designated emergency fixtures. The IIS-375-I features a surface mount housing and comes with a three-year warranty and seven-year pro-rata battery warranty.

### TECHNICAL SPECIFICATIONS

- **Input Voltage**: (Dual) 120/277V, 60Hz
- **Input Rating (bulk)**: 500 Watts
- **Output Voltage**: (Dual) 120/277V, 60Hz
- **Output Power**: 375 Watts at .9 leading to .9 lagging PF
- **Lamps Operated**: Fluorescent, Incandescent
- **Transfer Time**: less than 50 milliseconds
- **Emergency Operation**: 90 minutes
- **Voltage Regulation (emergency)**: +/- 2% @ 15% to 110% load
- **Frequency Regulation (emergency)**: +/- .5%
- **Load Power Factor Range**: .9 leading to .9 lagging
- **Operating Temp**: 20° to 30° C
- **Battery**: Valve Regulated Lead Acid (VRLA)
- **Weight**: 114 lbs.
- **Approval**: UL 924 Listed

### FEATURES

- Emergency lighting supplied from one convenient source
- Pure sine wave output
- Operates incandescent and fluorescent fixtures including fixtures with dimmable fluorescent ballasts
- Includes momentary contact test switch, yellow ready indicator, green inverter-on indicator, and red charging indicator
- Dual voltage 120/277 60Hz
- High efficiency pure sine wave inverter
- Variable-rate, temperature-compensated charger
- Valve Regulated Lead Acid (VRLA) battery provides long-life and is maintenance free
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Resettable output circuit breaker provides protection against circuit overload
- Low Battery Voltage Disconnect
- Line Latch Protection
- Allows for operation of switched fixtures
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- Durable 16 gauge steel housing design with white semi-gloss powder-coat paint finish
- 3/7 Pro-Rata Warranty
ORDERING GUIDE

IIS-375-I

Surface Mount design for surface or shelf mounting. Keyhole slots at the back of the unit are spaced for secure mounting to the wall's unistrut or studs. After AC supply and fixture leads are routed to the wall location, the IIS-375-I is secured to the wall unistrut or studs. Dual knockouts are present on the sides of the unit for separate input and output conduits external to the wall if needed. An additional hole is provided to prevent inadvertent lifting of the unit from the keyholes. Always consult local codes for structural requirements when mounting the unit.

DIMENSIONS

WIRING

The IIS Inverter utilizes two sets of input leads: one to provide unswitched power to the inverter system and a second to serve as a normal power input to the lighting load. Any switch for the designated emergency circuit will be present on the Normal Power Input leads. For Emergency Operation Only applications, the Normal Input leads are not needed and would remain disconnected and capped.

The internal circuit breaker protects the inverter from overload on the output side of the unit. Internally, the appropriate voltage lead is selected for connection to the line side of the circuit breaker and the designated emergency load connects to the single Yellow/Violet 120/277V hot lead.
IOTA IIS-375-LED

The IOTA IIS-375-LED is a UL Listed stand-alone sine wave output inverter designed to provide power to designated emergency lighting fixtures. In a power loss situation, the IOTA IIS-375-LED will supply 375W of power from the onboard battery supply. The IOTA IIS-375-LED is designed specifically for LED applications and will prevent shutdown caused by in-rush currents of LED drivers. The IIS-375-LED will automatically run switched, normally-on, or normally-off designated emergency fixtures. The IIS-375-LED features a surface mount housing and comes with a three-year warranty and seven-year pro-rata battery warranty.

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>(Dual) 120/277V, 60Hz</td>
</tr>
<tr>
<td>Input Rating (bulk)</td>
<td>500 Watts</td>
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<tr>
<td>Output Voltage</td>
<td>(Dual) 120/277V, 60Hz</td>
</tr>
<tr>
<td>Output Power</td>
<td>375 Watts</td>
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<tr>
<td>at .9 leading to .9 lagging PF</td>
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<tr>
<td>Lamps Operated</td>
<td>LED</td>
</tr>
<tr>
<td>Transfer Time</td>
<td>less than 50 milliseconds</td>
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<tr>
<td>Emergency Operation</td>
<td>90 minutes</td>
</tr>
<tr>
<td>Voltage Regulation (emergency)</td>
<td>+/- 2% @ 15% to 110% load</td>
</tr>
<tr>
<td>Frequency Regulation (emergency)</td>
<td>+/- .5%</td>
</tr>
<tr>
<td>Load Power Factor Range</td>
<td>.9 leading to .9 lagging</td>
</tr>
<tr>
<td>Operating Temp</td>
<td>20° to 30° C</td>
</tr>
<tr>
<td>Battery</td>
<td>Valve Regulated Lead Acid (VRLA)</td>
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<tr>
<td>Weight</td>
<td>114 lbs.</td>
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<td>Approval</td>
<td>UL 924 Listed</td>
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<tr>
<td>Approval</td>
<td>UL 924 Listed</td>
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</tbody>
</table>

Features:

- Emergency lighting supplied from one convenient source
- Pure sine wave output
- Designed to operate multiple LED fixtures, including dimmable LED drivers, and accommodate varying in-rush requirements.
- Includes momentary contact test switch, yellow ready indicator, green inverter-on indicator, and red charging indicator
- Dual voltage 120/277 60Hz
- High efficiency pure sine wave inverter
- Variable-rate, temperature-compensated charger
- Valve Regulated Lead Acid (VRLA) battery provides long-life and is maintenance free
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Resettable output circuit breaker provides protection against circuit overload
- Low Battery Voltage Disconnect
- Line Latch Protection
- Allows for operation of switched fixtures
- Dimming Relay option for dimming control applications
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- Durable 16 gauge steel housing design with white semi-gloss powder-coat paint finish
- 3/7 Pro-Rata Warranty
ORDERING GUIDE
Use the Ordering Guide below to determine the Catalog # of the model required for your application.

IIS-375-LED

Surface Mount design for surface or shelf mounting. Keyhole slots at the back of the unit are spaced for secure mounting to the wall’s unistrut or studs. After AC supply and fixture leads are routed to the wall location, the IIS-375-LED is secured to the wall unistrut or studs. Dual knockouts are present on the sides of the unit for separate input and output conduits external to the wall if needed. An additional hole is provided to prevent inadvertent lifting of the unit from the keyholes. Always consult local codes for structural requirements when mounting the unit.

DIMENSIONS

WIRING

The IIS Inverter utilizes two sets of input leads: one to provide unswitched power to the inverter system and a second to serve as a normal power input to the lighting load. Any switch for the designated emergency circuit will be present on the Normal Power Input leads. For Emergency Operation Only applications, the Normal Input leads are not needed and would remain disconnected and capped.

The internal circuit breaker protects the inverter from overload on the output side of the unit. Internally, the appropriate voltage lead is selected for connection to the line side of the circuit breaker and the designated emergency load connects to the single Yellow/Violet 120/277V hot lead.

The dimming relay leads allow for a dimming signal to operate the luminaires in the desired, dimmed state during normal operation. The IIS inverter will then bypass the dimming control to operate fixtures at full light output in the event of a loss of normal AC power. Additionally, if desired, the dimming leads can be wired to operate the luminaires at a reduced lumen output setting based on the dimmable driver(s) being used during emergency operation. Refer to Page 14 for details.

(Blank) No Dimming Relay option.
The IOTA IIS-550-I is a UL Listed stand-alone sine wave output inverter designed to provide power to designated emergency lighting fixtures. In a power loss situation, the IOTA IIS-550-I will supply 550W of power from the onboard battery supply. The IOTA IIS-550-I works in conjunction with incandescent, LED, and fluorescent lamp and fixture types and will automatically run switched, normally-on, or normally-off designated emergency fixtures. The IIS-550-I features a surface mount housing and comes with a three-year warranty and seven-year pro-rata battery warranty.

**TECHNICAL SPECIFICATIONS**

- **Input Voltage**: (Dual) 120/277V, 60Hz
- **Input Rating (bulk)**: 675 Watts
- **Output Voltage**: (Dual) 120/277V, 60Hz
- **Output Power**: 550 Watts at .9 leading to .9 lagging PF
- **Lamps Operated**: LED, Fluorescent, Incandescent
- **Transfer Time**: less than 50 milliseconds
- **Emergency Operation**: 90 minutes
- **Voltage Regulation (emergency)**: +/- 2% @ 15% to 110% load
- **Frequency Regulation (emergency)**: +/- .5%
- **Load Power Factor Range**: .9 leading to .9 lagging
- **Operating Temp**: 20° to 30° C
- **Battery**: Valve Regulated Lead Acid (VRLA)
- **Weight**: 145 lbs.
- **Approval**: UL 924 Listed

**OPERATES:**

- **FLUORESCENT**
- **LED**
- **INCANDESCENT**

**FEATURES**

- Emergency lighting supplied from one convenient source
- Pure sine wave output
- Operates incandescent, LED, and fluorescent fixtures including fixtures with dimmable fluorescent ballasts or LED drivers
- Includes momentary contact test switch, yellow ready indicator, green inverter-on indicator, and red charging indicator
- Dual voltage 120/277 60Hz
- High efficiency pure sine wave inverter
- Variable-rate, temperature-compensated charger
- Valve Regulated Lead Acid (VRLA) battery provides long-life and is maintenance free
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Resettable output circuit breaker provides protection against circuit overload
- Low Battery Voltage Disconnect
- Line Latch Protection
- Allows for operation of switched fixtures
- Dimming Relay option for dimming control applications
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- Durable 16 gauge steel housing design with white semi-gloss powder-coat paint finish
- 3/7 Pro-Rata Warranty
ORDERING GUIDE
Use the Ordering Guide below to determine the Catalog # of the model required for your application.

IIS-550-I-

Surface Mount design for surface or shelf mounting. Keyhole slots at the back of the unit are spaced for secure mounting to the wall’s unistrut or studs. After AC supply and fixture leads are routed to the wall location, the IIS-550-I is secured to the wall unistrut or studs. Dual knockouts are present on the sides of the unit for separate input and output conduits external to the wall if needed. An additional hole is provided to prevent inadvertent lifting of the unit from the keyholes. Always consult local codes for structural requirements when mounting the unit.

DIMENSIONS

WIRING

The IIS Inverter utilizes two sets of input leads: one to provide unswitched power to the inverter system and a second to serve as a normal power input to the lighting load. Any switch for the designated emergency circuit will be present on the Normal Power Input leads. For Emergency Operation Only applications, the Normal Input leads are not needed and would remain disconnected and capped.

The internal circuit breaker protects the inverter from overload on the output side of the unit. Internally, the appropriate voltage lead is selected for connection to the line side of the circuit breaker and the designated emergency load connects to the single Yellow/Violet 120/277V hot lead.

The dimming relay leads allow for a dimming signal to operate the luminaires in the desired, dimmed state during normal operation. The IIS inverter will then bypass the dimming control to operate fixtures at full light output in the event of a loss of normal AC power. Additionally, if desired, the dimming leads can be wired to operate the luminaires at a reduced lumen output setting based on the dimmable driver(s) being used during emergency operation. Refer to Page 14 for details.
The IOTA Uninterruptible IIS-350-U is a UL Listed stand-alone sine wave output inverter designed to provide power to designated emergency lighting fixtures. In a power loss situation, the IOTA IIS-350-U will supply 350W of power from the onboard battery supply. The double-conversion design of the IIS-350-U delivers power with no interruption to the load, allowing 'no-break' operation of HID, incandescent, LED, and fluorescent lamp and ballast combinations. The IIS-350-UM multi-tap model is available for load voltage applications of 120/208/240/277 volts. The IIS-350-U is available in a surface mount housing and comes with a three-year warranty and seven-year pro rata battery warranty.

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
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<tbody>
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<td>Input Voltage</td>
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<td>Input Rating (bulk)</td>
<td>750 Watts at .65 lagging PF</td>
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<td>Output Voltage (IIS-350-U)</td>
<td>120 Volts, 60Hz</td>
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<td>Output Voltage (IIS-350-UM)</td>
<td>120/208/240/277 Volts, 60 Hz</td>
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<td>Output Power</td>
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<td>Lamps Operated</td>
<td>HID, LED, Fluorescent, Incandescent</td>
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<td>Voltage Regulation (emergency)</td>
<td>+/- 2% @ 15% to 110% load</td>
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<tr>
<td>Frequency Regulation (emergency)</td>
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<tr>
<td>Load Power Factor Range</td>
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</tr>
<tr>
<td>Operating Temp</td>
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<tr>
<td>Battery</td>
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<tr>
<td>Weight</td>
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<td>Approval</td>
<td>UL 924 Listed</td>
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OPERATES:
- HID
- FLUORESCENT
- LED
- INCANDESCENT

FEATURES

- Uninterruptible sine wave output
- Operates HID, LED, fluorescent, and incandescent fixtures
- Emergency lighting supplied from one convenient source
- Includes momentary contact test switch, yellow ready indicator, green inverter-on indicator, and red alarm indicator
- High efficiency pure sine wave inverter
- Variable-rate, temperature-compensated charger
- Valve Regulated Lead Acid (VRLA) battery provides long-life and is maintenance free
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Low Battery Voltage Disconnect
- Line Latch Protection
- Electronic overload protection
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- Durable 16 gauge steel housing design with white semi-gloss powder-coat paint finish
- 3/7 Pro-Rata Warranty

The IIS-350-U may be used in conjunction with the IOTA ETS Emergency Transfer Switch for some switched LED, fluorescent, and incandescent applications. Visit www.iotaengineering.com for further information.
ORDERING GUIDE
Use the Ordering Guide below to determine the Catalog # of the model required for your application.

IIS-350 -

Surface Mount design for surface or shelf mounting. Keyhole slots at the back of the unit are spaced for secure mounting to the wall’s unistrut or studs. After AC supply and fixture leads are routed to the wall location, the IIS-350 is secured to the wall unistrut or studs. Dual knockouts are present on the sides of the unit for separate input and output conduits external to the wall if needed. An additional hole is provided to prevent inadvertent lifting of the unit from the keyholes. Always consult local codes for structural requirements when mounting the unit.

DIMENSIONS

WIRING

IIS-350-U

PRIMARY UNSWITCHED AC INPUT

BLACK (120V)
WHITE
GROUND WIRE
GREEN

IIS SERIES UNIT INVERTER

VIOLET (120V)
GRAY (NEUTRAL)

120V LIGHTING LOAD
HID LED FLUORESCENT INCANDESCENT

OUTPUT LEADS

IIS-350-UM

PRIMARY UNSWITCHED AC INPUT

BLACK (120V)
WHITE
GROUND WIRE
GREEN

IIS SERIES UNIT INVERTER (MULTI-TAP)

YELLOW (277V)
BLUE (240V)
RED (208V)
VIOLET (120V)
GRAY (NEUTRAL)

LIGHTING LOAD
HID LED FLUORESCENT INCANDESCENT
The “DR” Dimming Relay Option provides additional capability when used with dimming controls. The DR option can be used as either a Dimmer Bypass or to accommodate an EM Dimming Signal. Refer to the descriptions and diagrams below for application details. The Dimming Relay is available as an additional option on select IIS Inverter Models (IIS-125, IIS-375-LED, and IIS-550-I). Add the “-DR” suffix to specify the Dimming Relay feature.

**Application 1 - Dimmer Bypass**
The Dimming Relay contacts provide electrical continuity during normal power conditions allowing your dimming signal to operate the luminaire in the desired, dimmed state. When the inverter transfers into the emergency mode, the dimming relay contacts electrically open the 0-10 dimming reference signal forcing the luminaire to operate at full lumen output regardless of dimmer setting (IIS-125 Diagram shown).

**Application 2 - EM Dimming Signal**
The Dimming Relay contacts are electrically open during normal power conditions allowing your dimming signal to operate the luminaire in the desired, dimmed state. When the inverter transfers into the emergency mode, the dimming relay contacts electrically short the 0-10 dimming reference signal forcing the luminaire to operate at a reduced lumen output setting based on the dimmable driver being used. Verify operating results of the luminaire with the 0-10 volt reference signal shorted to assure the application and mounting height produce code-compliant egress lighting (IIS-125 Diagram shown).
**Double Conversion** - Double-conversion systems provide current to both the inverter and battery simultaneously. The load is operated from the inverter at all times. When AC power is lost, the inverter continues to operate the load from the battery without interruption. The IIS-350-U and IIS-350-UM utilize double-conversion to provide the load with uninterrupted power, preventing arc loss in HID lamps. Fig. A

**Inrush Current** - The maximum, instantaneous input current drawn from electrical devices when first turned on. Where inverters are concerned, the design must be capable of handling the draw on the circuit without triggering overcurrent protection features.

**Leading to Lagging** - Leading to Lagging is a measurement of the phase difference between two sinusoidal waves. The phase difference varies depending on the load. The IIS-125, IIS-375-I, and IIS-350-U Inverters are designed for operating loads with a .9 leading to .9 lagging power factor (PF), and IIS-375-LED and IIS-550-I operate loads with .8 leading to .8 lagging PF. Fig. B

**Low Battery Voltage Disconnect** - The Low Battery Voltage Disconnect is a safeguard that disconnects the battery when battery voltage drops to an insufficient level. Disconnecting the battery prevents damage that could occur to the inverter equipment from a low voltage condition.

**Line-Latch Protection** - The Line-Latch protection feature prevents the battery from prematurely resuming operation after Low Battery Voltage Disconnect. To prevent deep discharge, the battery will not resume emergency operation until AC power has been restored and charged the battery to sufficient levels.

**Modified Sine Wave** - A modified sine wave (sometimes referred to as a ‘simulated’ sine wave) is an AC current that is not a pure sine wave. Modified sine waves have some load limitations in regard to electronic equipment. Lighting loads, however, are typically unaffected by modified sine wave current. Fig. C

**Pure Sine Wave** - A pure sine wave is indicative of normal AC voltage. There are no load limitations with pure sine wave output. Fig. D

**Uninterruptible** - An uninterruptible inverter switches power from the normal AC supply to the emergency supply without interruption to the load. HID fixtures require uninterrupted power supplies in order to maintain the electrical arc that lights the lamp. Should power be interrupted to the HID fixture, the lamp will extinguish and require several minutes before returning to adequate illumination levels.

**VRLA (Valve Regulated Lead Acid) Battery** - A VRLA battery is a sealed maintenance-free lead-acid battery. The valve design keeps the battery sealed while allowing the venting of gasses that may be generated by over-charging.
All IOTA products receive 100% quality inspection before shipment to insure proper and satisfactory operation. When operated under normal conditions, IOTA inverter products will provide years of dependable service. Our IIS Series Products are backed by a 3/7 year warranty. The unit is covered by a complete 3-year warranty against defects in material or workmanship, and a 7-year pro-rata battery warranty. If within the duration of the warranty, the product fails to perform satisfactorily within specified limits, IOTA Engineering will test and inspect the product, and repair or replace any IOTA product found to be defective in materials or workmanship free of charge.

For additional information on IOTA’s IIS Series Unit Inverters and other emergency lighting solutions, visit us at www.iotaengineering.com. Our website features the latest up-to-date information for comparing models, specifying products, or assisting with installation. Our on-line Technical Library puts you one click away from IOTA Specification Sheets and Installation Manuals, in addition to helpful wiring diagrams and application notes – all in PDF format for easy printing. Also, check out our What’s New section to stay current on the latest in product offerings and design enhancements for your emergency lighting options. Need some additional assistance? You can easily contact your Customer Service Representative via e-mail by visiting our IOTA Contacts page. Bookmark us at www.iotaengineering.com!