

FAST TRANSFER  
**EXT** OUTDOOR RATING  
**NEMA 3R**  
 DRIP TIGHT



MODEL NO: \_\_\_\_\_  
 TYPE: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_  
 COMMENTS: \_\_\_\_\_

**LOAD CAPABILITY**  
 3.0KVA - 8.0KVA

**LOAD TYPES**  
 All Lighting Load Types

**Product Advantages**

- **Single-Phase emergency system with exceptional 97% power efficiency**
- **NEMA 3R steel cabinet rated for outdoor installation applications**
- **Fast 2 millisecond transfer time allows for uninterrupted operation of all lighting load types**
- **Provides full light output in the emergency mode**
- **Conducts required monthly and annual tests for operational readiness and logs test, event, and alarm data**

**Features**

- PWM/IGBT inverter design for optimal switching speed
- Micro-processor controlled, temperature compensating charger
- Valve Regulated Lead Acid (VRLA) batteries provide long life and are maintenance free
- Low Battery Voltage Disconnect protects batteries against deep discharge
- Includes Input Circuit Breaker and Battery Fuse Protection
- Output Circuit Breaker options available
- User Programmable / Password Protected Interface
- Touchpad interface and LCD display screen
- Includes RS232 Serial Communications port
- Locking NEMA 3R steel cabinet design with white finish
- Includes Seismic Bracing as standard
- Temperature-controlled forced air cooling with no filter requirement
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- Covered by IOTA's standard 1-Year Warranty on all electronic components and 5-year pro-rated warranty on batteries.
- Factory Startup, On-Site Training, and Preventative Maintenance available

**DESCRIPTION**

The IOTA **IIS EXT Series** Inverter is a UL Listed single-phase sine wave output inverter designed to provide power to designated emergency lighting fixtures in the event of a loss of normal power. In a power loss situation, the IOTA **IIS EXT** will supply **3.0KVA to 8.0KVA** of emergency power from the battery supply at **2ms transfer time**. The IOTA **IIS EXT** works in conjunction with any lighting load type and is capable of running normally-on or normally-off designated circuits in the emergency mode. The **IIS EXT** is ideal for providing emergency power to extensive 120V/277V lighting arrangements that utilize multiple lamp and fixture types. The **IIS EXT** conducts monthly and annual tests for operation readiness and logs the test results for reference as needed. The **IIS EXT** features a durable front-access NEMA 3R steel cabinet design **suitable for outdoor use** and is backed with a standard 1-year warranty.

**SPECIFICATIONS**

Input Voltage .....	120/208/240/277VAC Single-Phase
Output Voltage .....	120/277VAC Single-Phase
Frequency .....	60Hz*
Output Power .....	3.0KVA - 8.0KVA
Transfer Time .....	2 milliseconds
Emergency Operation .....	90 minutes
Load Power Factor Range .....	.5 lagging to .5 leading
THD (input/output) .....	<5% / <3%
Input Power Walk-in .....	Limiting inrush current to <125%, 10 times for 1 line cycle
Synchronizing Slew Rate .....	1Hz per second nominal
System Short Circuit .....	65 KAIC
Static Voltage .....	+/- 2% (Load current change), +/- 12.5% (Battery discharge)
Dynamic Voltage .....	+/- 2% (+/- 25% load step change) +/- 3% (+/- 50% load step change) recovery within 3 cycles
Inverter Overload Threshold .....	280% for 12 line cycles, 115% for 10 minutes
Crest Factor .....	2.8
Operating Temp .....	10° to 40° C
Storage Temp (electronics only) .....	-20° to 70° C
Relative Humidity .....	< 95%
Battery .....	Maintenance-free Valve Regulated Lead Acid (VRLA)
Audible Noise (standby mode) .....	45 dba @ 1m
Certifications .....	UL 924 Listed

\*Input +/- 3%, Output in emergency +/- 0.05Hz



## ORDERING GUIDE

### MODEL NAME

Output Wattage <sup>1</sup>		AC Input	AC Output
<b>IIS</b>	<b>EXT</b>		
<b>3000</b>	(3.0 KW / KVA)	<b>120IN</b>	<b>120OUT</b>
<b>4000</b>	(4.0 KW / KVA)		<b>120/277OUT</b>
<b>5000</b>	(5.0 KW / KVA)	<b>208IN</b>	<b>120OUT</b>
<b>6500</b>	(6.5 KW / KVA)	<b>240IN</b>	<b>120OUT</b>
<b>8000</b>	(8.0 KW / KVA)	<b>277IN</b>	<b>120OUT</b> <b>277OUT</b> <b>120/277OUT</b>

Example Model: IIS3P 5000 120IN 120OUT BACNET

<sup>1</sup> Derate for applications >10,000 ft. elevation

<sup>2</sup> 120 Minute runtime may require larger cabinet. Option not available on 8.0K or > models.

<sup>3</sup> Includes Extended Two-Year Warranty.

<sup>4</sup> Requires Factory Start Up option.

<sup>5</sup> External Bypass cannot be used with branch circuit options.

<sup>6</sup> Provides additional operation to -20°C. Unit is not UL Listed to extended operating temperature.

### ADDITIONAL OPTIONS

Emergency Runtime<sup>2</sup>

[blank] - 90 minutes

120M - 120 minutes

Check any that apply

[blank] - none

- MDC - Status Monitoring Dry Form C Contacts
- MDCP - Status Monitoring Contacts w/ Remote Panel
- RAP - Remote Summary Alarm Panel
- IDC - Inverter on Dry Form C Contact
- FASTCHG - Fast Charge
- BLOCK(#) - Breaker Locks, (#) = qty 1-24
- EXTPASS - External Maintenance Bypass ("make before break")<sup>5</sup>
- OTDELAY - Output Transfer Delay
- VRLA10 - Long Life VRLA batteries (10-yr)
- BACNET - BACnet (MS/TP Only)
- BACIP - BACnet (over ethernet) ASHRAE 135 compliant interface
- MODBUSRTU - RTU protocol for BAS, SCADA (serial)
- MODBUSIP - TCP/IP protocol for BAS, SCADA (RJ45)
- HEATER - Battery Heater for Additional Temperature Protection<sup>6</sup>
- SNMP - Serial to Ethernet Adaptor
- STAINLESS - Stainless Steel Enclosure
- ZM(#) - Zone Monitoring, (#) = qty
- FSREG(#) - Factory Start Up<sup>3</sup>, (#) is the assigned installation zone (1-18)
- TREG(#) - On Site Training<sup>4</sup>, (#) is the assigned installation zone (1-18)
- PM(A or B)5REG(#) - 5-Year Preventative Maintenance<sup>4</sup>, (A) for annual plan, (B) for bi-annual plan, (#) is the assigned installation zone (1-18)
- BATINST - Battery Installation by Factory Certified Technician<sup>4</sup>
- 5YR - Extended Five-Year Warranty<sup>4</sup>

Output Breaker "A"

### DIMENSIONS / WEIGHT

Inverter Model	Width/Height/Depth (inches)	Electronics Weight	# of Batteries (90 min)	Battery Weight	Total Combined Weight
IIS EXT 3000	48" x 76" x 30"	805 lbs	10	740 lbs	1545 lbs
IIS EXT 4000	48" x 76" x 30"	805 lbs	12	888 lbs	1693 lbs
IIS EXT 5000	48" x 76" x 30"	805 lbs	15	1184 lbs	1989 lbs
IIS EXT 6500	48" x 76" x 30"	805 lbs	20	1480 lbs	2285 lbs
IIS EXT 8000	48" x 76" x 30"	805 lbs	24	1776 lbs	2581 lbs

### RECOMMENDED ACCESSORIES

These ALCR items are ordered separately to be used in conjunction with the loads connected to the IIS inverter supply. ALCRs eliminate the power consumption from 24/7 "Always On" fixtures while enabling occupants to regain local fixture control without impacting required emergency performance.

#### ETS DR

The ETS DR is a fixture-level ALCR that shunts power around local controls, allowing the inverter supply to operate the fixture regardless of ON/OFF control setting. Includes the DR dimming relay to also bypass any present 0-10V dimming signal, forcing the fixture to operate at full brightness.

#### ETS 20

Circuit-level ALCR that shunts power around the local control operating multiple fixtures on a designated circuit, allowing the inverter supply to operate the fixture regardless of ON/OFF control setting.

#### ETS 20 DR

Same ACLR function as the ETS 20. Includes dual dimming relay for bypassing up to two different 0-10V dimming signals, forcing the fixtures to operate at full brightness.

#### Warranty: 1-Year Limited Warranty

Complete warranty terms located at

[www.acuitybrands.com/CustomResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomResources/Terms_and_conditions.aspx)

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### Breaker Package Worksheet

#### QTY maximums

Max. breaker positions is 14 (see below).

14 unsupervised, 8 supervised

Note that 2-pole breakers will require 2 breaker positions.

If all breakers are the same type, complete "Output Breaker A" section

QTY	Pole/Voltage	Amps	Type**	Output Trip Alarms
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
OB(#) - (#) = qty	1P120 - 1 pole 120V 1P277 - 1 pole 277V 2P208 - 2 pole 208V 2P240 - 2 pole 240V	10AMP - 10A Breaker 16AMP - 16A Breaker 20AMP - 20A Breaker 25AMP - 25A Breaker 32AMP - 32A Breaker 40AMP - 40A Breaker 50AMP - 50A Breaker 63AMP - 63A Breaker	ON - Normally On OFF - Normally Off	OTA(#) - (#) is qty

If requiring 2 types of breakers, identify the second type in the "Output Breaker B" section:

QTY	Pole/Voltage	Amps	Type**	Output Trip Alarms
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
BOB(#) - (#) = qty	B1P120 - 1 pole 120V B1P277 - 1 pole 277V B2P208 - 2 pole 208V B2P240 - 2 pole 240V	B10AMP - 10A Breaker B16AMP - 16A Breaker B20AMP - 20A Breaker B25AMP - 25A Breaker B32AMP - 32A Breaker B40AMP - 40A Breaker B50AMP - 50A Breaker B63AMP - 63A Breaker	BON - Normally On BOFF - Normally Off	BOTA(#) - (#) is qty

If requiring 3 or more types of breakers, then IOTA will assign a Breaker Package number for ALL of the breakers combined. Do not complete Output Breaker A or B sections; instead, identify all of the desired breakers in the worksheet below:

QTY	Pole/Voltage	Amps	Type**	Output Trip Alarms

\*\*Normally Off loads cannot exceed 20% of total KVA rating with a combination of HID loads.