



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

**LOAD CAPABILITY**  
 4.0KVA - 10KVA

**LOAD TYPES**  
 All Lighting Load Types

**Product Advantages**

- **3-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
- 120/208 or 277/480 Voltage Options
- 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
- Internal Maintenance Bypass allows for maintenance without interference of normal operation.
- 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 pro-rated warranty on batteries.
- Factory Startup, On-Site Training, and Preventative Maintenance available

IIS3P EXT INVERTERS

**DESCRIPTION**

The IOTA **IIS3P EXT Series** Inverter is a UL Listed 3-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 **IIS3P EXT** will supply **4.0KVA to 10KVA** of emergency power from the battery supply at **2ms transfer time**. The IOTA **IIS3P 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 **IIS3P EXT** is ideal for providing emergency power to extensive 120V, 208V, 277V, or 480V lighting arrangements that utilize multiple lamp and fixture types. The **IIS3P EXT** conducts monthly and annual tests for operation readiness and logs the test results for reference as needed. The **IIS3P EXT** features a durable front-access NEMA 3R steel cabinet design **suited for outdoor use** and is backed with a standard 1-year warranty.

**SPECIFICATIONS**

Input Voltage .....	120/208VAC or 277/480VAC 3-Phase 4-wire (Wye configuration)
Output Voltage .....	120/208VAC or 277/480VAC 3-Phase 4-wire (Wye configuration)
Frequency .....	60Hz*
Output Power .....	4.0KVA - 10.0KVA
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



# IIS3P EXT SERIES

4.0KVA-10.0KVA 3-PHASE OUTDOOR INVERTER SYSTEMS

## ORDERING GUIDE

### MODEL NAME

	Output Wattage <sup>1</sup>	AC Input	AC Output
<input type="radio"/> IIS3P	<input type="radio"/> EXT	<input type="text"/>	<input type="text"/>
<b>4000</b>	(4.0 KW / KVA)	<b>120/208IN</b>	<b>120/208OUT</b>
<b>5000</b>	(5.0 KW / KVA)	<b>277/480IN</b>	<b>277/480OUT</b>
<b>6500</b>	(6.5 KW / KVA)		
<b>8000</b>	(8.0 KW / KVA)		
<b>10000</b>	(10.0 KW / KVA)		

**Input and Output must match.**  
Input and Output is 3-phase 4-wire Wye only.

Example Model: IIS3P EXT 5000 120/208IN 120/208OUT VRLA10

<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> A "make-before-break" BYPASS is included in IIS3P models. Select the BYPASSBBM option when "break-before-make" is desired.

<sup>7</sup> Provides additional operation to -20°C. Unit is not UL Listed to extended operating temperature.

### DIMENSIONS / WEIGHT

Inverter Model	Width/Height/Depth (inches)	Electronics Weight	# of Batteries (90 min)	Battery Weight	Total Combined Weight
IIS3P EXT 4000	48" x 76" x 30"	995 lbs	12	888 lbs	1883 lbs
IIS3P EXT 5000	48" x 76" x 30"	995 lbs	15	1110 lbs	2105 lbs
IIS3P EXT 6500	48" x 76" x 30"	995 lbs	20	1480 lbs	2475 lbs
IIS3P EXT 8000	48" x 76" x 30"	1099 lbs	24	1776 lbs	2875 lbs
IIS3P EXT 10000	48" x 76" x 30"	1099 lbs	24	1776 lbs	2875 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 ALCR 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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### ADDITIONAL OPTIONS

Emergency Runtime <sup>2</sup>	<input type="text"/>	<input type="radio"/> MDC - Status Monitoring Dry Form C Contacts	Output Breaker "A"
		<input type="radio"/> MDPC - Status Monitoring Contacts w/ Remote Panel	<input type="radio"/>
<i>[blank]</i> - 90 minutes		<input type="radio"/> RAP - Remote Summary Alarm Panel	<input type="radio"/>
<b>120M</b> - 120 minutes		<input type="radio"/> IDC - Inverter on Dry Form C Contact	<input type="radio"/>
		<input type="radio"/> FASTCHG - Fast Charge	<input type="radio"/>
		<input type="radio"/> BLOCK(#) - Breaker Locks, (#) = qty 1-24	<input type="radio"/>
		<input type="radio"/> BYPASSBBM - Maintenance Bypass ("break before make") <sup>6</sup>	<input type="radio"/>
		<input type="radio"/> EXTPASS - External Maintenance Bypass ("make before break") <sup>5</sup>	<input type="radio"/>
		<input type="radio"/> VRLA10 - Long Life VRLA batteries (10-yr)	<input type="radio"/>
		<input type="radio"/> BACNET - BACnet (MS/TP Only)	<input type="radio"/>
		<input type="radio"/> BACIP - BACnet (over ethernet) ASHRAE 135 compliant interface	<input type="radio"/>
		<input type="radio"/> MODBUSRTU - RTU protocol for BAS, SCADA (serial)	<input type="radio"/>
		<input type="radio"/> MODBUSIP - TCP/IP protocol for BAS, SCADA (RJ45)	<input type="radio"/>
		<input type="radio"/> HEATER - Battery Heater for Additional Temperature Protection <sup>7</sup>	<input type="radio"/>
		<input type="radio"/> SNMP - Serial to Ethernet Adaptor	<input type="radio"/>
		<input type="radio"/> STAINLESS - Stainless Steel Enclosure	<input type="radio"/>
		<input type="radio"/> ZM(#) - Zone Monitoring, (#) = qty	<input type="radio"/>
		<input type="radio"/> FSREG(#) - Factory Start Up <sup>3</sup> , (#) is the assigned installation zone (1-18)	<input type="radio"/>
		<input type="radio"/> TREG(#) - On Site Training <sup>4</sup> , (#) is the assigned installation zone (1-18)	<input type="radio"/>
		<input type="radio"/> PM(A or B)5REG(#) - 5-Year Preventative Maintenance <sup>1</sup> , (A) for annual plan, (B) for bi-annual plan, (#) is the assigned installation zone (1-18)	<input type="radio"/>
		<input type="radio"/> BATINST - Battery Installation by Factory Certified Technician <sup>4</sup>	<input type="radio"/>
		<input type="radio"/> 5YR - Extended Five-Year Warranty <sup>4</sup>	<input type="radio"/>

### Breaker Package Worksheet

#### QTY maximums

Max. breaker positions is 14 (see below). Note that 14 unsupervised, 8 supervised 2-pole and 3-pole breakers will require 2 and 3 breaker positions, respectively.

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 2P480 - 2 pole 480V 3P208 - 3 pole 208V 3P480 - 3 pole 480V	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 B2P480 - 2 pole 480V B3P208 - 3 pole 208V B3P480 - 3 pole 480V	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.