

THREE PHASE

FAST TRANSFER

EXT OUTDOOR RATING

NEMA 3R DRIP TIGHT

BAA



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
Input Line 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



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
- Summary Dry Form C Contact included
- 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 SERIES

4.0KVA-10.0KVA 3-PHASE OUTDOOR INVERTER SYSTEMS

ORDERING GUIDE

MODEL NAME

Output Wattage ¹		AC Input	AC Output
IIS3P	EXT		
4000	(4.0 KW / KVA)	120/208IN	120/208OUT
5000	(5.0 KW / KVA)	277/480IN	277/480OUT
6500	(6.5 KW / KVA)		
8000	(8.0 KW / KVA)		
10000	(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

¹ Derate for applications >10,000 ft. elevation

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

³ Includes Extended Two-Year Warranty.

⁴ Requires Factory Start Up option.

⁵ External Bypass cannot be used with branch circuit options.

⁶ A "make-before-break" BYPASS is included in IIS3P models. Select the BYPASSBBM option when "break-before-make" is desired.

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

Note: Batteries must be connected to continuous AC power within the time period as detailed per battery warranty. Under no circumstances should batteries remain unenergized for a period exceeding 180 days.

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 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/CustomerResources/Terms_and_conditions.aspx

IOTA REV 060823

ADDITIONAL OPTIONS

Emergency Runtime²

[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
- ☐ BYPASSBBM - Maintenance Bypass ("break before make")⁶
- ☐ EXTPASS - External Maintenance Bypass ("make before break")⁵
- ☐ 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 Protection⁷
- ☐ SNMP - Serial to Ethernet Adaptor
- ☐ STAINLESS - Stainless Steel Enclosure
- ☐ ZM(#) - Zone Monitoring, (#) = qty
- ☐ FSREG(#) - Factory Start Up³, (#) is the assigned installation zone (1-18)
- ☐ TREG(#) - On Site Training⁴, (#) is the assigned installation zone (1-18)
- ☐ PM(A or B)5REG(#) - 5-Year Preventative Maintenance⁴, (A) for annual plan, (B) for bi-annual plan, (#) is the assigned installation zone (1-18)
- ☐ BATINST - Battery Installation by Factory Certified Technician⁴
- ☐ 5YR - Extended Five-Year Warranty⁴

Output Breaker "A"

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
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
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 an combination of HID loads.