

# Si-750

750 Watt Pure Sine Wave Emergency Lighting Inverter



Compatible with LED loads  
Options include:  
Power Share Technology - PST  
Self Diagnostic / Self Testing - SDT  
Output Circuit Breakers- CB



Specifiers reference:

Project: \_\_\_\_\_

Type: \_\_\_\_\_

Model #: \_\_\_\_\_

Comments: \_\_\_\_\_



## Product Summary

Approvals.....	UL Listed to UL924
Input Voltage.....	120 / 277 Vac, 60Hz (Dual input)
Input Frequency.....	60 Hz
Input Current.....	7.5 A @120 Vac 3.3 A @ 277 Vac
Power Factor.....	0.88 Leading to 0.88 Lagging
Output.....	120 or 277 Vac, 60 Hz
Output Power.....	750 W
Output voltage regulation in emergency.....	+/- 5%
Output.....	Switched, Normally On, & Normally Off
Operating Time.....	90 Minutes @ 25°C
Transfer Time.....	< 1 Sec
Recharge Time.....	96 Hours (meets UL requirements)
<b>Battery over voltage and under voltage protection</b>	
<b>Sealed long-life, valve-regulated, lead calcium batteries</b>	
Dimensions.....	22.4"L x 25.1" W x 9.2"D
Weight.....	190 lbs.
Operating Temperature.....	68° F to 86° F (20°C to 30° C)
Storage Temperature- Cabinet....	-4° F to 158° F (-20°C to 60°C)
Storage Temperature- Batteries....	32° F to 104° F (0°C to 40°C)
Thermal Output ( BTUs).....	416 BTUs in Emergency 14 BTUs in normal charging
Remote Mounting Distance.....	Up to 1000 feet
Warranty.....	3 years full on electronics, 4 years pro-rata on batteries, See website for warranty details



### Options:

- **PST Power Share Technology - 4 Independent Adjustable (25, 50 75 & 100%) Dimming Zones with 0-10 Vdc luminaires. Max. connected normal load of 2700W. See chart on page 2 for details.**

- **SDT Self Diagnostic and Testing- Monthly and annual testing**

- **CB2, CB6: Output circuit breakers: 0, 2 and 6**

**For 2 hour FEMA emergency operation, the Si-750 can be connected to up to 560W (max.) of normal and emergency loads.**

## Description

The Assurance Emergency Lighting Si-750 & Si-750-PST are Pure sine wave output with optional self-test/self diagnostic inverters designed for designated emergency lighting fixtures. In the event of a power failure, the inverter will automatically supply up to 750 watts of emergency power to LED, fluorescent and incandescent luminaires for ninety (90) minutes. It will operate with multiple switched, non-switched and emergency only luminaires. It can operate as a standalone 750 watt inverter with single zone wiring (Si-750). It has optional features such as Power Share Technology (PST) for selectable dimming in emergency with 4 zones. When the PST option is selected, it can be used 0-10 Vdc controlled dimmable luminaires (up to 2700W normal load) and the 0-10 Vdc dimming voltage to the AC drivers can be adjusted for optimal emergency output.

## Specifications

Emergency lighting shall be provided by the Assurance Si-750 inverter unit equipment designed to operate designated LED and fluorescent fixtures on emergency power either at rated power or reduced luminaire power using the optional Power Share Technology during the 90 minute emergency discharge regardless of the wall switch position. The inverter shall allow for connected emergency fixtures to operate normally on, normally off dimmed/switched without affecting lamp operation during a power failure. The unit shall include a self-contained inverter with an automatic, variable-rate battery charger, low voltage battery disconnect, short circuit, brown out protection. The unit shall utilize a valve regulated sealed lead calcium battery with a 10 year design life expectancy. The inverter shall have optional self testing and self diagnostics (-SDT) and perform monthly self diagnostic test and report failures via visual indicator lights. The base Si-750 model is for single zone wiring. The Si-750-PST option with Power Share Technology which dims the load (Max. connected total normal load: 2700 W) in emergency via the 0-10 vdc luminaire inputs to pre-selected values (25, 50,75 & 100%) for 4 independent zones. The inverter shall be UL Listed. It shall meet or exceed the requirements of UL924, NFPA 101 Life Safety Code, NFPA 70 National Electrical Code, OSHA, State and Local Codes.

Warranty: Three (3) years full on electronics and three (4) years pro rata on batteries. Per the California Energy Commission, Regulatory Advisory dated Oct. 31, 2018, Backup Battery Charger Systems, the Si-750 is applicable and accepted for use in California.

All Specifications subject to change without prior notification.

Assurance Emergency Lighting, a division of Assurance Engineering LLC

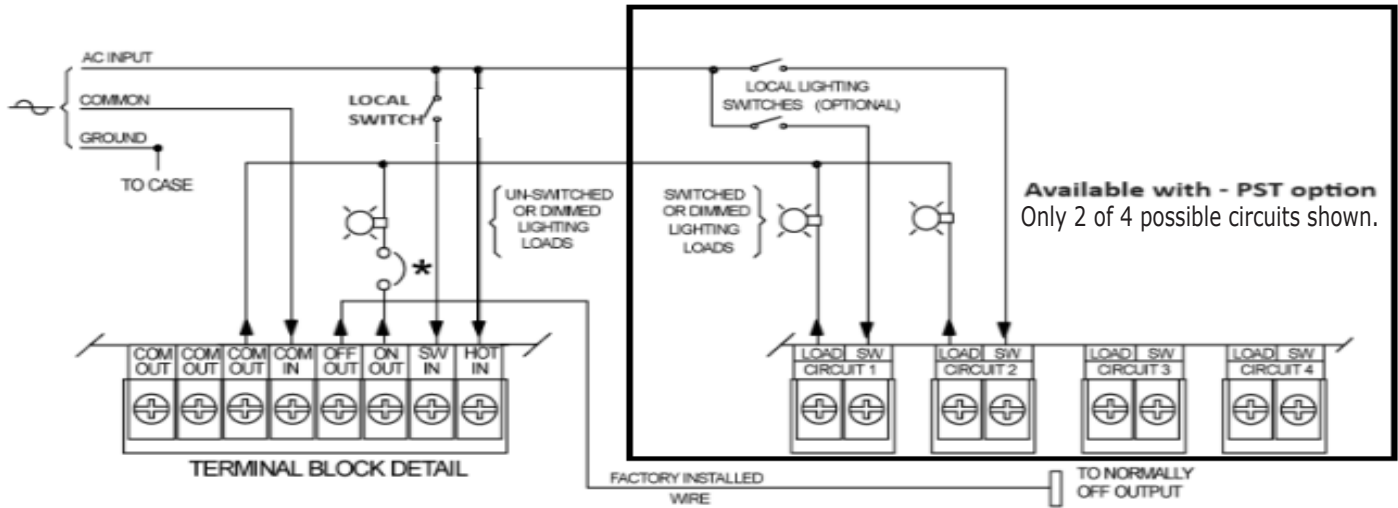
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Table 1: Order Code	Output Circuit Breakers	Self Diagnosis	Power Share Technology	Zone wiring
Si-750	NA	NA	NA	1
Si-750-CB2	2	NA	NA	1
Si-750-CB6	6	NA	NA	1
Si-750-SDT	NA	SDT	NA	1
Si-750-CB2-SDT	2	SDT	NA	1
Si-750-CB6-SDT	6	SDT	NA	1
Si-750-PST	NA	NA	PST	4
Si-750-CB2-PST	2	NA	PST	4
Si-750-CB6-PST	6	NA	PST	4
Si-750-SDT-PST	NA	SDT	PST	4
Si-750-CB2-SDT-PST	2	SDT	PST	4
Si-750-CB6-SDT-PST	6	SDT	PST	4

**Table 2: Maximum Connected Load when using optional Power Share Technology - PST**

Output of all ( 4 ) dimming circuits	2.5 V		5.0 V		7.5 V		10.0 V	
	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode
<b>Si-750 w - PST Option</b>	2700W and 1035W per zone max.	750W Total EM	1350W and 1035W per zone max.	750W Total EM	900W	750W Total EM	750W	750W Total EM

**Typical Wiring for Switched or Optional PST Dimmed ( 0-10 Vdc) Loads**



\* Optional OCBs

**DIMMING OPTION PROGRAMMING TABLE**  
NOTE: POSITION-1 AND POSITION-2 ARE PROVIDED FOR EACH OF THE (4) CIRCUITS.

POSITION-1	POSITION-2	VOUT 1
OPEN (OFF)	OPEN (OFF)	10.0V
OPEN (OFF)	CLOSED (ON)	7.50V
CLOSED (ON)	OPEN (OFF)	5.00V
CLOSED (ON)	CLOSED (ON)	2.50V

NOTE: Dimming switches S1-1 and S1-2 are designed for independent settings to allow different emergency dimming control voltages for each circuit  
CAUTION: Dimming switches must be programmed such that total loads do not exceed unit rating in emergency mode.

