Si-1150

1150 Watt Pure Sine Wave Emergency Lighting Inverter

Assurance Emergency Lighting
a division of Assurance Engineering LLC

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

PST™ Power Share Technology

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 ..... 10.2 A @120 Vac
4.4 A @ 277 Vac
Power Factor ..... 0.88 Leading to 0.88 Lagging
Output ..... 120 or 277 Vac, 60 Hz
Output Power ..... 1150 W
Output voltage regulation in emergency ..... +/- 5%
Output ..... Switched, Normally On, & Normally Of
Operating Time ..... 90 Minutes @ 25℃
Transfer Time ..... < 1 Sec
Recharge Time ..... 96 Hours (meets UL requirements)
Battery over voltage and under voltage protection
Sealed long-life, valve-regulated, lead calcium batteries
Dimensions ..... 22.4"L x 25.1" W x 9.2"D
Weight ..... 254 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) ..... 535 BTUs in Emergency
22 BTUs in normal charging
Remote Mounting Distance ..... See website
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. 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-1150 can be connected to up to 860W (max.) of normal and emergency loads.

Description

The Assurance Emergency Lighting Si-1150 & Si-1150-PST are Pure sine wave output with optiona self-test/self diagnostic inverter designed for designated emergency lighting fixtures. In the event of a power failure, the inverter will automatically supply 1150 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 1150 watt inverter. 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 4140W) and the 0-10 Vdc dimming voltage is adjusted to the AC drivers for rated emergency output.

Specifications

Emergency lighting shall be provided by the Assurance Si-1150 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-1150 model is for single zone wiring. The Si-1150-PST option with Power Share Technology which dims the load (Max. connected total normal load: 4140 W & 1035 W per Zone) 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-1150 is applicable and accepted for use in California.

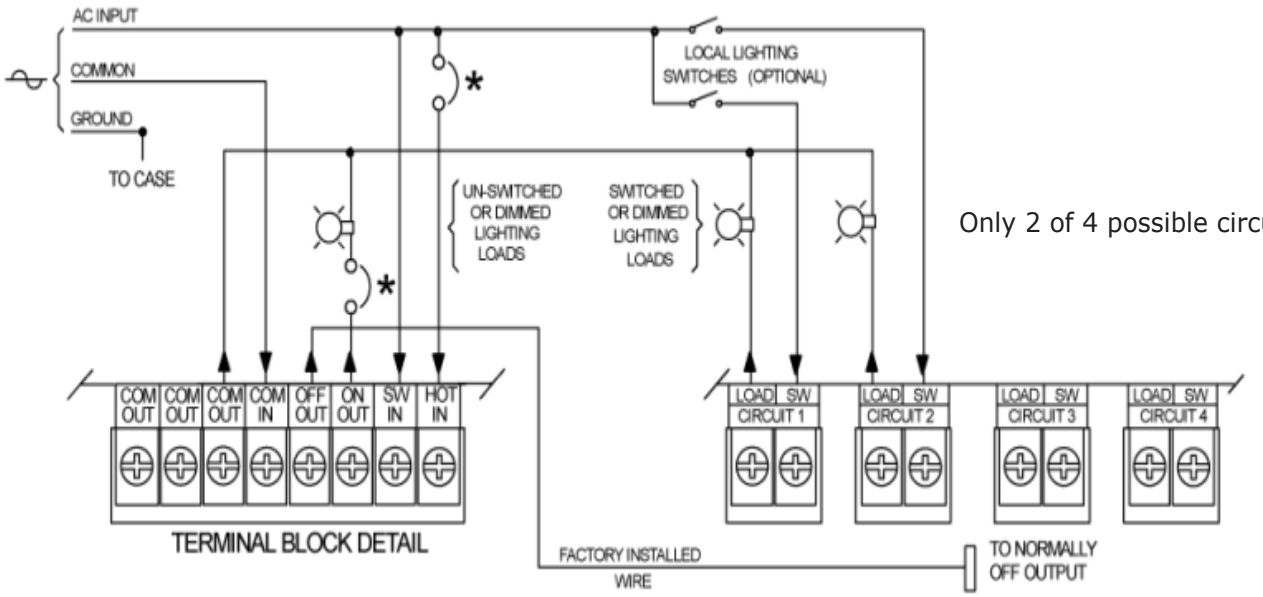
All Specifications subject to change without prior notification.

Order Code	Output Circuit Breakers	Self Diagnostic	Power Share Technology
Si-1150	NA	NA	NA
Si-1150-CB2	2	NA	NA
Si-1150-CB6	6	NA	NA
Si-1150-SDT	NA	SDT	NA
Si-1150-CB2-SDT	2	SDT	NA
Si-1150-CB6-SDT	6	SDT	NA
Si-1150-PST	NA	NA	PST
Si-1150-CB2-PST	2	NA	PST
Si-1150-CB6-PST	6	NA	PST
Si-1150-SDT-PST	NA	SDT	PST
Si-1150-CB2-SDT-PST	2	SDT	PST
Si-1150-CB6-SDT-PST	6	SDT	PST

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	
Model	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode
Si-1150 with - PST option	4140W and 1035W per zone max.	1150 W Total EM	2070W and 1035W per zone max.	1150 W Total EM	1380W and 1035W per zone max.	1150 W Total EM	1150W and 1035W per zone max.	1150 W Total EM

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



Only 2 of 4 possible circuits shown.

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.