

# Si-550 & Si-550-PST

550 Watt Pure Sine Wave Self Testing Emergency Lighting Inverter  
with Optional Power Share Technology



Compatible with LED loads

## Specifiers reference:

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

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

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

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

## Product Summary

**Approvals**.....UL Listed to UL924  
NEMA 410 load tested up to 1125 W

**Input Voltage**.....Field Select-able 120 or 277 Vac input/Output

**Input Current**.....6A (120 Vac), 2 A (277Vac)

**Input Frequency**.....60 Hz

**Power Factor**.....0.5 Leading to 0.5 Lagging

**Output**.....120-277 Vac, 60 Hz

**Output Current**.....4.9 A (120 Vac), 2.0A (277 Vac)

**Output Power**.....550 W

### Optional Power Share Technology -PST

Field adjustable 0-10 Vdc emergency dim feature

Max. connected normal 0-10 Vdc load of **1125 W**

**Output voltage regulation in emergency** +/- 5%

**Output**.....Dimmed, Switched, Normally On, & Normally Off  
All models have 4 switchable command zones and  
1 normally ON circuit.

**Operating Time**.....90 Minutes @ 25°C

### Self-Testing & Self-Diagnostic

Monthly reported via visual user interface panel

**Transfer Time**.....50 mS, 1s (default), 2 s

**Recharge Time**.....24 Hours

### Battery over voltage and under voltage protection

### Sealed long-life, valve-regulated, lead calcium batteries

**Dimensions**.....20.0"H x 20.0" W x 7.1"D

**Weight**.....85 lbs.

**Operating Temperature**.....68°F to 86°F (20°C to 30° C

**Storage Temperature**.....-4° F to 158 °F (-20°C to 70°C)

**Warranty**.....2 years full on electronics,  
3 years pro-rata on batteries,  
See website for warranty details

## Options

- PST 4 Independent Adjustable (20-100%) Dimming Zones,  
0-10Vdc, Dali, & Fire Alarm Interface (Max. Normal Power Load  
of 1125 W when using Power Share Technology -PST)  
Audible Alarm -AA

Examples: Si-550 & Si-550-PST  
Si-550-AA

For Remote Test Monitor - Order RTS-M Separately

## Description

The Assurance Emergency Lighting Si-550 & Si-550-PST are Pure sine wave output self-test/self diagnostic inverters designed for designated emergency lighting fixtures. In the event of a power failure, the inverter will automatically supply 550 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 550 watt inverter. It has optional features such as Power Share Technology (PST) for auto dimming in emergency, audible alarm and Seismic Restraints.

When the PST option is selected, it can be used with 0-10 Vdc controlled dimmable luminaires (up to 1125W) 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-550 inverter unit equipment designed to operate designated LED and fluorescent fixtures on emergency power (up to 550W) 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 normally on, normally off dimmed/switched without affecting lamp operation during a power failure. The unit shall include a self-contained inverter section with an automatic, variable-rate battery charger, low voltage battery disconnect, short circuit, brown out protection and 5X crest factor for high inrush currents. The unit shall utilize a valve regulated sealed lead calcium battery with a 10 year design life expectancy. The inverter shall be self testing and self diagnostic and perform monthly self diagnostic test and report failures via user interface panel. The Si-550 shall have the option of Power Share Technology (Si-550-PST) which dims the load (Max. connected normal load: 1125 W) in emergency via the 0-10 vdc luminaire inputs to pre-selected values (20, 40, 60, 80 & 100%) for 3 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: Two (2) years full on electronics and three (3) years pro rata on batteries. Per the California Energy Commission, Regulatory Advisory dated Oct. 31, 2018, Backup Battery Charger Systems, the Si-550 is applicable and accepted for use in California.

**For 2 hour FEMA emergency operation, the Si-550 can power up to 410 W (max.) of emergency loads.**

All Specifications subject to change without prior notification.

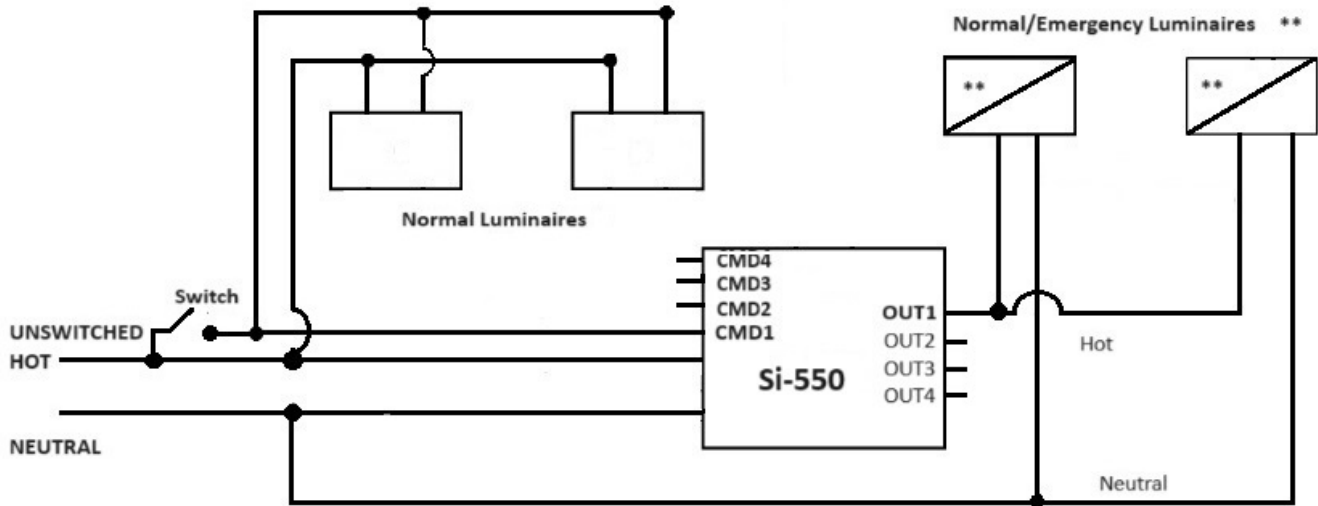
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## DIAGRAM 1

Typical Wiring Diagram for Switched applications  
4 Zones available- only one shown

Max. Connected Load: 550W

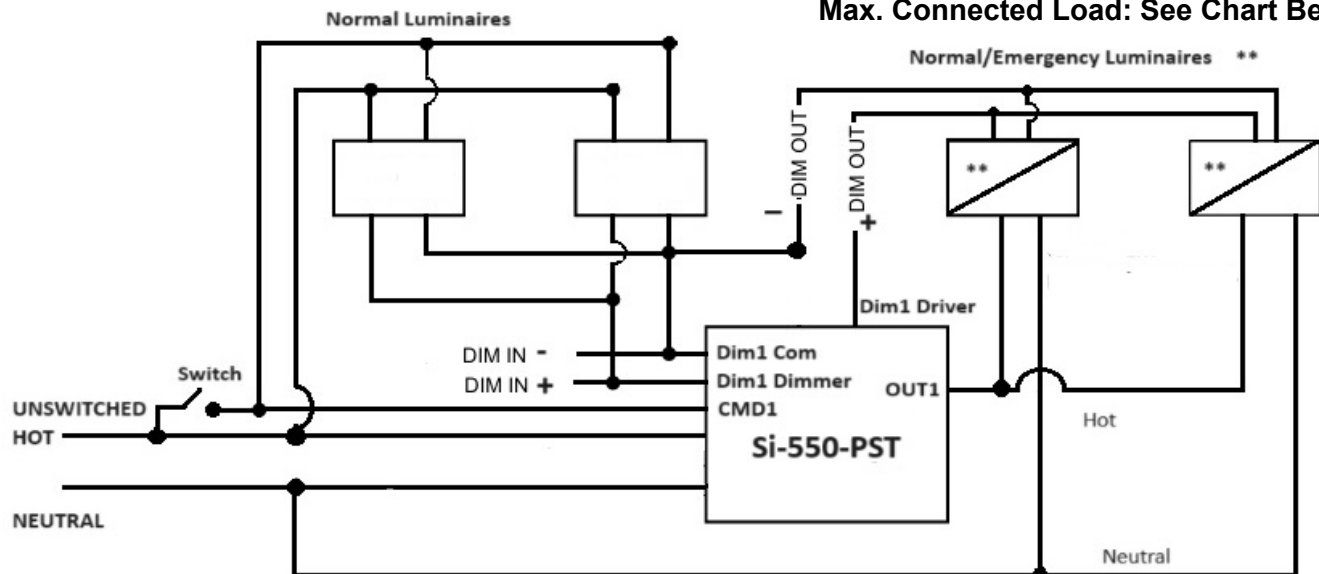


Note: Multiple zone wiring can be duplicated - Only One zone is shown.

## DIAGRAM 2

Typical Wiring Diagram for 0-10 Vdc and Power Share Technology  
4 Zones are available - only one shown.

Max. Connected Load: See Chart Below



Note: Multiple zone wiring can be duplicated - Only One zone is shown.

Additional CMDs, DIM, and OUTs not shown.

Table 1

Output of all ( 4 ) dimming circuits	2.0 V		4.0 V		6.0 V		8.0 V		10.0 V	
Model	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode
<b>Si-550-PST</b>	1125W max.	550W Total EM	1125W	550W Total EM	915W	550W Total EM	685W	550W Total EM	550W	550W Total EM