

Job/Location: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

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

Date: \_\_\_\_\_



### ■ specifications: internal

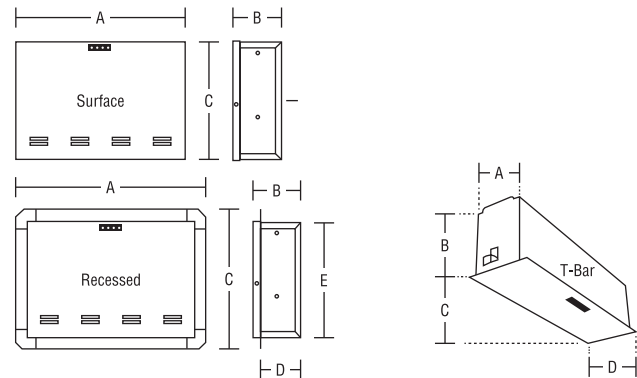
The VESTA Series is designed to provide up to 220 watts/250VA of emergency power to incandescent, fluorescent, induction and LED luminaires. VESTA provides clean, sinusoidal AC output power allowing it to be remotely mounted up to 1,000 feet away from the controlled luminaire(s). Unlike an emergency ballast, VESTA provides power to the input side of the luminaire, (including the ballast or driver) eliminating any chance of incompatibility. The VESTA Series is designed primarily for surface mounting, however, the VST-55/125 and VST-110/125 models provide optional housings for recessed or T-Bar mounting. All VESTA systems will provide emergency power output for a minimum of 90 minutes.

### ■ specifications: external

**HOUSING:** Heavy-duty steel cabinet is finished in a durable white powder coat. Custom colors (CC) are available, contact factory. Connection to an unswitched AC circuit is required by the NEC. Wiring access is provided via conduit knockouts in the housing. All surface mount configurations are provided with knockouts in the back of the housing for rear wiring from standard electrical boxes. All VESTA models are UL924 Listed and meet NFPA 101 Life Safety Code, NEC, OSHA, Local and State Codes.

### ■ system advantages

Compared to traditional emergency lighting units, VESTA provides emergency illumination from a single power source resulting in lower maintenance overhead and routine testing expenses. VESTA lowers installation costs by powering existing lighting fixtures during emergencies. VESTA connected luminaires are driven at full output; providing superior egress lighting and improved safety.



Series	A	B	C	D	E
Surface (standard)	16.6" (422mm)	4.3" (272mm)	11.6" (295mm)		
Recessed (RK)	18.1" (460mm)	4.3" (272mm)	13.1" (333mm)	3.4" (86mm)	11.6" (292mm)
T-Bar	4.8" (105mm)	8" (203mm)	23.9" (606mm)	6.3" (159mm)	

### ■ ordering logic

Series	System/Battery	Input / Output	Options
VST <sup>1</sup>	55W/125VA // 24VDC <sup>2</sup>	UNV (120 or 277V field selectable)	RK <sup>3</sup> (recess model)
	110W/125VA // 24VDC		TB <sup>4</sup> (t-bar plenum rated)
	110W/250VA // 48VDC <sup>2</sup>		CC (custom color- specify)
	220W/250VA // 48VDC		4CK (four output circuit switching)

**NOTE 1:** Freight not included for this item.

**NOTE 2:** Ni-Cd battery.

**NOTE 3:** Recess kit for 55W/125VA & 110W/125VA only.

**NOTE 4:** Recess t-bar for 55W/125VA & 110W/125VA only.

**EXAMPLE:** VST-110W/250VA-UNV-48VDC

**DESCRIPTION:** 110W/250VA system, universal input / output, 48VDC

## ■ performance

VESTA's clean, sinusoidal AC output will operate incandescent lamps as well as all common fluorescent, induction and LED lamp types. Consult factory for compatibility with all other lamp types. Lighting loads are driven at 100% output for the entire emergency power cycle. This feature provides increased occupant egress vision and safety.

## ■ specifications: electrical

**INPUT:** Voltages: (60Hz) 120 or 277V  $\pm$  10%  
Frequencies: 60Hz  $\pm$  2%  
Protection: AC Line Fuses

**OUTPUT:** Voltages: (60Hz) 120 or 277V  
Efficiency Rating: 98% at full rated load (line)  
Waveform: Sinusoidal (digitally controlled)  
Static Voltage:  $\pm$  5% during battery discharge. 0-100% linear load.  
Frequencies: 60 Hz.  $\pm$  0.3Hz during emergency cycle  
Distortion: Less than 3% THD (linear load)  
Transfer Time: Less than 1.0 second  
Load Power Factor Range: 0.44 Lead to 0.44 Lag  
Minimum Loading: 0% of rated system capacity  
Protection: Line and inverter fuses

**BATTERY:** Sealed Lead Calcium (10 year life). 24VDC for VST-55/125, VST-110/125 models and 48VDC for VST-110/250, VST-220/250 models. 90 minutes runtime standard- based on battery performance at 77°F (25°C). Other runtimes available, consult factory. Low Voltage Battery Disconnect protects the battery from being severely damaged by deep discharge during prolonged power failures. DC Overload and Short Circuit Protection provided by a DC input breaker and fuse.

**CIRCUIT:** The VESTA series features a fully automatic, temperature compensated, dual-mode charger. 15W maximum (2.5W in standby) for VST-55/125, and VST-110/125 models. 30W maximum (5W in standby) for VST-110/250, and VST-220/250 models. Meets UL924 requirements. The battery circuit breaker is also used as a battery isolator. Momentary test switch, AC-On, Charge-On and Inverter-On LED indicator lights are standard. AC Lockout prevents battery discharge prior to initial unit power-up. Brownout Protection automatically switches the unit to emergency mode when utility voltage is significantly reduced.

## ■ specifications: mechanical

The VESTA system's sinusoidal AC output design eliminates voltage drop and proximity concerns. VESTA can be located conveniently out of sight. In lighting applications, no special or additional emergency fixtures are necessary. Simply designate and connect existing lighting fixtures, either interior or exterior, to VESTA for emergency operation.

The VESTA offers three different types of mounting: surface, recess and t-grid. Surface mount is designed for mounting to walls via keyhole slots provided in the back of the housing. Recess mount provides recess-mounting holes on both sides of the enclosure (VST-55/125, VST-110/125 Only). T-Grid mount is for drop-in installation in a grid/drop type ceiling. Safety wires (supplied by others) are required for attachment to building structure (VST-55/125, VST-110/125 only).

## ■ self-powered

Upon failure of the normal utility power VESTA automatically turns on via a solid state switching circuit and provides a minimum of 90 minutes of emergency power to the connected load. Lumen output will be maintained at 100% of the lamp's rating throughout the entire duration. A solid state low voltage disconnect circuit is used to protect the battery from being severely damaged by a deep discharge. When normal utility power is restored, the unit switches the load back to normal utility operation and the fully automatic, temperature compensated, dual mode charger begins to restore the battery; bringing it to full charge within UL 924 specified parameters. A brownout sensing circuit insures proper operation during "low line" conditions.

## ■ system status monitoring panel

All VESTA systems provide a monitoring panel on the front of the unit to show operating status at all times. The panel provides a test switch for user initiated system tests and a 3-LED array that provides an intuitive visual indication of unit readiness.

## ■ suggested specifications

An inverter system with sinusoidal output shall be supplied capable of powering any combination of lighting fixtures, including incandescent, fluorescent, induction and/or LED light sources without compatibility problems. The system shall transfer in less than 1.0 second to reliably back up lighting fixtures without loss of illumination and operate any and all connected lighting fixtures at full lumen output during the complete 90 minute discharge cycle. The input voltage shall be the same as the output voltage and shall be single phase (120) (277) volts, 60 Hz. Capacity will be (55 Watts/125VA) (110 Watts/125VA) (110 Watts/250VA) (220 Watts/250VA) for a minimum duration of 90 minutes. The design shall be a standby, off-line inverter with on line efficiency of 98%; on-line double conversion UPS systems shall not be considered acceptable alternatives. VESTA system output shall be a PWM generated sine wave with less than 3% total harmonic distortion. The system shall also provide short circuit and overload protection as standard. An intuitive three LED display shall provide system operational information at a glance and alert user to any malfunction in system performance. Authorized maintenance personnel shall have access to the system's controls while being protected from any live exposed connections. Protective devices shall include AC Line fuses, DC input breaker and a DC input fuse. The entire VESTA system, including batteries, shall be incorporated into compact cabinetry which shall have provisions for (surface/recessed/T-Grid) mounting. System shall utilize a sealed lead calcium battery with a 10 year design life. The charger shall be temperature compensated, dual mode type, and recharge the batteries as per UL 924 guidelines. Entire system shall be tested, approved, and labeled to UL924 Emergency Lighting and Power Systems standards.

## ■ warranty

**Unit:** 3-years full coverage against defects in materials and workmanship from date of invoice.

**Battery:** 3 years full warranty plus an additional 7 years of pro-rated.