

Job/Location: \_\_\_\_\_  
 Contractor: \_\_\_\_\_  
 Prepared By: \_\_\_\_\_

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



## internal

The VESTA Micro Series is designed to provide between 20 and 55 watts of emergency power to LED, fluorescent and incandescent luminaires. VESTA Micro provides clean, sinusoidal AC output power allowing it to be remotely mounted up to 1,000 feet away from the controlled luminaire(s). Unlike a fluorescent emergency ballast, VESTA Micro provides power to the input side of the luminaire, (including the ballast) eliminating any chance of incompatibility. The VESTA Micro offers surface, recessed and t-bar mount options. All VESTA Micro models will provide emergency power output for a minimum of 90 minutes.

## external

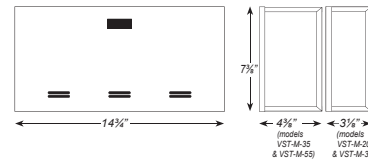
**HOUSING:** Heavy-duty steel cabinet is finished in a durable white powder coat. Custom colors (CC) are available, contact factory. Connection to an unswitched AC circuit is required by the NEC. Wiring access is provided via conduit knockouts in the housing. All models also provide knockouts in the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

## system advantages

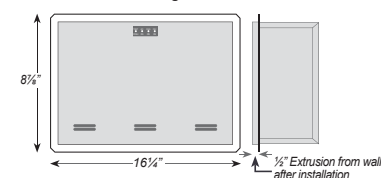
Compared to traditional discrete emergency lighting units, VESTA Micro provides emergency illumination from a single power source resulting in lower maintenance overhead and routine testing expenses. VESTA Micro lowers installation costs by powering existing lighting fixtures during emergencies. VESTA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

## dimensions

Standard Surface Mount Housings



Recessed Mount Housings



Optional Ceiling T-Bar Mount Housing



## ordering logic

Series	System	Input / Output	Options
VST-M <sup>1</sup>	20W-12V	120/277V	AT (autotest)
	32W-12V		CC (custom color- specify)
	35W-12V		CEC (Title 20 compliant)
	55W-12V		RK (recess mount housing)
			RTS (remote test switch)
			TB (plenum rated ceiling t-bar mount housing)

NOTE 1: Freight not included for this item.

**EXAMPLE:** VST-M-20W-12V-120/277V

**DESCRIPTION:** 20W/20VA system, universal input / output, 48VDC

## ■ compatibility

VESTA Micro provides clean, sinusoidal AC output that operates common LED, fluorescent and incandescent lamps. Consult factor for compatibility with other lamps types. Lighting loads are driven at 100% output during the entire emergency cycle.

## ■ electrical

**INPUT:** Voltages: (60Hz) 120 or 277V  $\pm$  10%

Frequencies: 60Hz  $\pm$  2%

Protection: Provided by Service Panel, Rated 20A max

**OUTPUT:** Voltages: (60Hz) 120 or 277V

Efficiency Rating: 98% at full rated load (line)

Waveform: Sinusoidal (digitally controlled, PWM design)

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: Inverter fuse

**BATTERY:** Sealed Lead Calcium (10 year life expectancy) for VST-M-32/32 and VST-M-55/55 models and sealed Nickel-Cadmium (15 year life) for VST-M-20/20, VST-M-35/35 models. 90 minutes runtime standard- based on battery performance 20°C (68°F) and 30°C (86°F); temperatures outside of this range will affect battery performance and life. 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 Micro series features a fully automatic, temperature compensated, dual-mode charger. 9W maximum on all 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.

## ■ mechanical

The VESTA Micro system's sinusoidal AC output design eliminates voltage drop and proximity concerns. VESTA Micro 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 Micro for emergency operation.

The VESTA Micro 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. T-Bar mount is for drop-in installation in a grid/drop type ceiling. Safety wires (supplied by others) are required for attachment to building structure.

## ■ emergency operation

Upon failure of the normal utility power VESTA Micro 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 Micro 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 LED, fluorescent and incandescent 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. Output capacity will be (20Watts/32 Watts) / (35 Watts/55 Watts) 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 Micro 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 DC input fuse, AC input overcurrent protection for live circuits to be provided by service panel rated 20A maximum. AC lockout, reverse battery connection, low voltage battery disconnect (LVD), short circuit and overload protection shall be provided standard on all models. The entire VESTA Micro system, including batteries, shall be provided in compact cabinetry which shall have provisions for (surface)(recessed)(t-bar) mounting.

System utilizes a (sealed lead calcium battery with a 10 year design life) (sealed Nickel-Cadmium battery with a 15 year design life). The charger is temperature compensated, dual mode type, and recharge the batteries as per UL 924 guidelines. Entire system is 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.