



# Vanguard® High FTS 270/FTS 372 Lighting System

The Vanguard High FTS 270/FTS 372 lighting system is comprised of high, medium and low intensity LED obstruction lighting. The system provides white lights for day and twilight and either red or white lights at night. It is designed for structures FAA towers B3-B6, C3-C6, F3-F6 and G3-G6, such as broadcast communications towers, smokestacks, chimneys and bridges.

Engineered for maximum LED life, the feature-rich Vanguard High provides ultimate serviceability, easing troubleshooting and minimizing downtime if maintenance is required.

#### **Key Features**

- Single panel integrating white, red and infrared LEDs that complies with FAA Engineering Brief 98 and eliminates the need for additional red beacons
- **▼** Standard integrated GPS provides mode change backup using sunrise/sunset data
- ▶ Altimeter sensors detect errors in a beacon's tier location, eliminating installation errors and pinpointing the location of the beacon on the tower in case maintenance is required
- Industry-leading 25 kA surge suppression rating, protecting against 99% of lightning strikes when properly installed and grounded

#### Monitoring

- SMART Card Monitor and control the system remotely and receive full diagnostic information through LTE modem or Ethernet-based connectivity; SNMP, Modbus or Eagle protocols may be used; included on all systems
- Graphic annotated tower on webpage interface provides clear status of modes and alarms and facilitates deeper monitoring and analysis of individual lighting elements
- 7 standard alarm dry contacts
- Optional Wi-Fi Interface offers command and control capabilities on mobile devices local to the site
- Optional Relay Expansion allows up to 28 additional dry contact alarm points for greater insight into cause of alarm

### Installation & Maintenance

- Pre-terminated quick connect cables with twist-lock plugs reduce installation error and enable troubleshooting flexibility
- 7 Remote firmware upgrades can update boards on the tower as well as the ground, reducing the need for truck rolls and tower climbs
- Local mode override at each light unit speeds up troubleshooting

#### **Regulatory Compliance**

- 7 FAA L-856, L-864, L-865 and L-810 per AC 150/5345-43J and Engineering Brief 98 (infrared)
- FAA AC 70/7460-1M and 1L tower types B3-B6, C3-C6, F3-F6 and G3-G6
- 7 FAA AC 70/7460-1K tower types B2-B6, C2-C6, F2-F6 and G2-G6
- ICAO Annex 14 7th edition, high intensity types A and B, medium intensity types A and B and low intensity type B
- Transport Canada CAR 621 types CL-856, CL-864, CL-865 and CL-810



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## Vanguard® High FTS 270/FTS 372

FTS 372 AOL BEACON SYSTEM			
Input Voltage	100-240 VAC, 277 VAC		
Dimensions (with bracket)	15.75 dia. x 7.3" (400 dia. x 185.7 mm)		
Weight	26.3 lbs. (11.9 kg)		
Power Consumption	114 W		
Aerodynamic Wind Area	0.7 ft² (0.065 m²)		

FH 270 FLASHHEAD ASSEMBLY		
Input Voltage	100-277 VAC at 50/60Hz	
Dimensions (with bracket)	20.7 H x 37.1 W x 12.4" D (525.8 x 942.3 x 315 mm)	
Weight (with bracket)	105.2 lbs. (47.7 kg)	
Aerodynamic Wind Area	5 ft² (1.5 m²)	

FH POWER CONSUMPTION*				
	Mode	Wattage	Flash Rate	Flash Intensity
FH 270 L-856	Day (white)	299	40 fpm	270,000 +/- 25%
	Twilight (white)	52	40 fpm	20,000 +/- 25%
	Night (white)	38	40 fpm	2,000 +/- 25%
FH 270 L-864	Night (red)	37	20/30/40/60 fpm	2,000 +/- 25%
	Night (infrared)	40	20/30/40/60 fpm	2,000 +/- 25%
FH 372s L-865	Day (white)	66	40 fpm	20,000 +/- 25%
	Twilight (white)	66	40 fpm	20,000 +/- 25%
	Night (white)	21.5	40 fpm	2,000 +/- 25%
FH 372s L-864	Night (red)	24.2	20/30/40/60 fpm	2,000 +/- 25%
	Night (infrared)	21.5	20/30/40/60 fpm	2,000 +/- 25%

MKR 372 INTERFACE & MKR 371 LIGHTS				
Interface Input Voltage	100-240 VAC, 50/60 Hz			
Interface Dimensions	16.1 H x 10.5 W x 4.9" D (408.9 x 266.7 x 124.8 mm)			
Interface Weight	10.1 lbs (4.6 kg)			
Interface Aerodynamic Wind Area	1.08 ft2 (0.1 m²)			
Interface Power Consumption	With Markers 19.6 W steady 4.2 W flashing	Without Markers 4 W steady		
Marker Input Voltage	12-48 VDC (24 VDC is used)			
Marker Dimensions	9.0 H x 2.75 W x 2.13" D (228.6 x 69.9 x 54.1 mm)			
Marker Weight	1.6 lbs (0.7 kg)			
Marker Aerodynamic Wind Area	0.16 ft <sup>2</sup> (0.05 m <sup>2</sup> )			
Marker Power Consumption (steady)	2.5 W 3.9 W IR			
Protection Rating	IP66			

FTC 270 CONTROLLER			
Input Voltage	120/240 VAC at 50/60 Hz		
Dimensions	23.8 x 17.5 x 8.5" (605 x 444.5 x 216.2 mm)		
Weight	Base System – 25.1 lbs. (11.4 kg)		
	Fully Loaded System – 35.5 lbs. (16.1 kg)		
Protection Rating	IP66		
Power Consumption	Base System – 7.2 W		
	Fully Loaded System – 19.4 W		

<sup>\*</sup> Only 30 fpm for red night is applicable for FAA-certified applications filed under AC 70/7460-1M and 1L. Example tower graphic reflects an F3 tower filed under FAA AC 70/7460-1K.

**FH 372s AOL Beacon -** required for towers with appurtenances greater than 40'

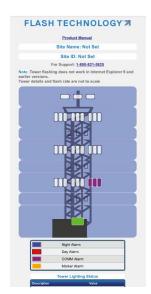
**PC 372 -** needed to operate AOL beacon

FH 270 Assembly - FH assembly consists of 3 LED panels, bracket and PC 270-2. Minimum of 3 FHs per tier to provide 360-degree visibility

PC 270-2 - 1 per FH 270, attached to FH using quick connect cables



MKR 372 Interface & MKR 371 Lights - 3 markers and 1 marker interface per tier



FTC 270 - system controller mounted near base of tower offers a suite of monitoring options

