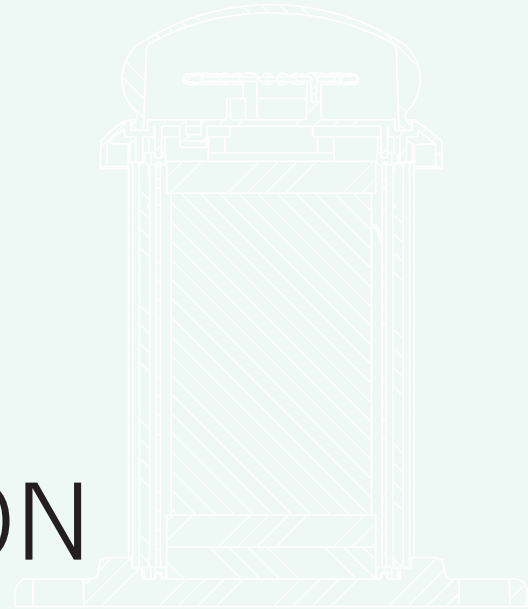




Vega *guides the way*



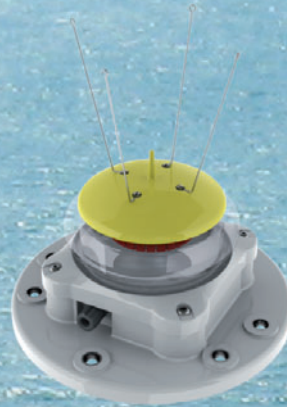
VLB-67 LED MARINE BEACON

SHORT RANGE BEACON 2-4NM AT 0.74T / 2.25-5NM AT 0.85T



Standard Self Contained Beacon

- * 7.2 Watt solar panel
- * 12 Ah long life battery



Standalone Beacon



Large Self Contained Beacon

- * 14.4 Watt solar panel
- * 12 or 24 Ah long life battery



ISO 9001

BUREAU VERITAS
Certification



VLB-67 LED MARINE BEACON

The VLB-67 beacon forms part of the Vega LED marine beacon family and is designed for applications required a 2 to 4NM range at 0.74T. The beacon is available in 5 colours: red, green, white, yellow and blue. All colours meet the IALA chromaticity requirements.

The VLB-67 LED beacon is available in 3 models:

- **Standalone** for use with external power supply
- **Self Contained** with solar power
- **Large Self Contained** for high latitude or high duty applications

Model	Solar W	Battery AH
Standalone	N/A	N/A
Self Contained	7.2	12
Large Self Contained	14.4	12 or 24

The use of high efficient optics and electronics has resulted in high energy efficiency. The low energy need of the beacon reduces the solar panel and battery requirements in all the overall design. Vertical divergence of the lens at 50% of the peak intensity is better than 7 degrees.

The VLB-67 LED beacon is a feature rich product that has been designed to provide the user with flexibility in the use of the product.

There are additional options that can be included at that time of order.

- RS232 Data Port
- GPS synchronisation
- Hard wire synchronisation for Self Contained unit (standard on Standalone unit)
- Hard wire synchronisation (to work with positive transition sync signals)

The mechanical design of the VLB-67 LED beacon has been designed for life of 10 years. Features include:

- 3 or 4-hole mounting on 200 PCD
- Waterproof body to IP68
- Ability to replace batteries on Self Contained units

The base of the VLB-67 beacon has a waterproof cavity that can be used by customers to extend the functionality of the beacon. On the Standalone unit this space may be the fitting of a power supply for a mains power lantern (Base

will take a Traco AC/DC converter, RS component part # RS 3221840)

The Self Contained unit has been sized to allow the VLB-67 LED beacon to be used over a wide range of locations and applications. The generous solar and battery sizing allows the VLB-67 LED beacon to be used at high latitudes and high duty cycle applications.

Vega provides a web based VLB-67 selection calculator allowing customers to confirm to beacons suitability at a

- particular location
- range
- colour, and
- flash character

The calculator can be found at www.vega.co.nz/vlb-67calc

For applications that need a bit more solar and battery capability the Large Self Contained unit is available.

The battery used in the Self Contained unit is a long life GEL lead acid unit capable to be used down to a temperature of -20° Celsius.

EASY PROGRAMMING

There are two methods of programming the VLB-67 LED marine beacon:

1. Using the Vega TVIR programmer. This allows the beacon to be programmed one feature at a time. The VLB-67 confirms the settings by flashing the programming code back to the user.
2. Using a computer or PDA all the VLB-67 settings can be displayed on a screen and downloaded or retrieved in a single action.
3. The VLB-67 LED marine beacon supports the standard features that are found on Vega marine LED beacons.
 - Automatic Schmitt Clausen intensity correction for short flashes
 - Multiple effective intensity settings
 - Day/night transition level settings
 - Programmable flash characters
 - One programmable custom character
 - Synchronisation control including master/slave options and sync delay
 - Programmable sleep and test modes
 - Programmable low battery voltage cut out.

MONITORING

Monitoring of the VLB-67 LED beacon can be provided using the Mini VegaWeb internet based monitoring unit.

The VLB-67 LED beacon also has a factory option of a RS232 Data Port to allow the customer to provide their own monitoring system.

SPECIFICATIONS

Optical Performance

Candela	Red	Green	White	Yellow	Blue
Peak	100	120	120	100	37
Effective	59	59	59	59	21

- Vertical divergence at 50% intensity better than 7°
- Colours meet IALA chromaticity requirements
- LEDs monitored for excess temperature
- Automatic Schmidt-Clausen intensity correction

Electrical Performance

Battery Voltage	12VDC
Operating Voltage	9 to 18VDC
Haze Solar Gel Battery	12Ah or 24Ah (2x12Ah)
Battery Life	6 years expected
Charging	Stops at -20°C
Solar Panels	Mono-crystalline
Solar Panel Orientation	95° to horizontal; 90° in azimuth

Current for fixed character:

mA	Red	Green	White	Yellow	Blue
3NM	24	20	24	31	77
4NM	59	40	59	77	N/A
Peak CD	225	125	225	235	200

- Night off Current 4mA
- Day Current 0.5mA
- For specific current usage refer product manual or Vega website
- The GPS sync options requires 10mA for 2 minutes every 20 minutes (1mA average)

Program Capability

- 246 flash characters
- 1 custom character
- Battery low voltage cut off
- Day/night transition level
- Multiple effective intensity settings
- Master/slave sync options
- Sync delay 0.1 to 9.9 seconds
- Storage, test, on normal operation
- Optional security codes
- Read battery voltage
- Serial number, LED type stored in beacon

Environmental

Temperature	-30° to +50° Celsius
Intrusion	IP 68, 2 Hours immersion in 1 metre of water
Cooling	Convection
Pressure	Membrane in solar body
Salt	Continuous exposure saltwater and spray
Ice Loading	22kg/m ²
Shock Vibration	50g shock; 15g vibration

Material for Beacon

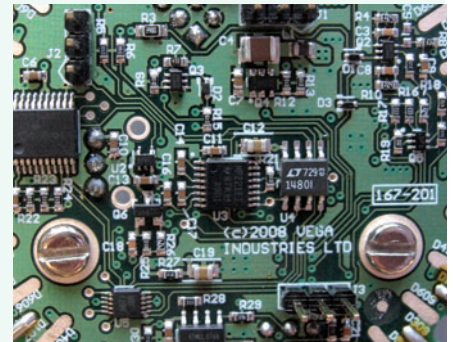
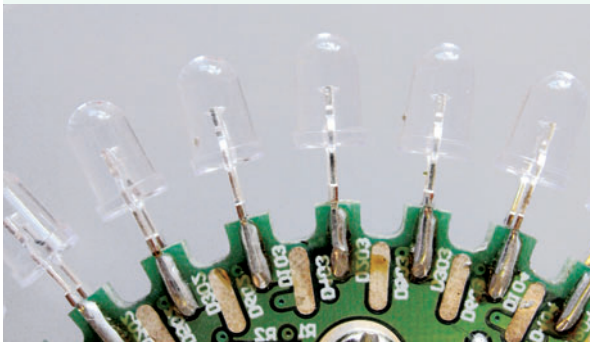
Lens	Moulded acrylic (PMMA)
Sealing	Lens glued in position
Bird Spikes	Plastic centre spike, 4 x stainless outer spikes

Material for Solar Power Pack and Box

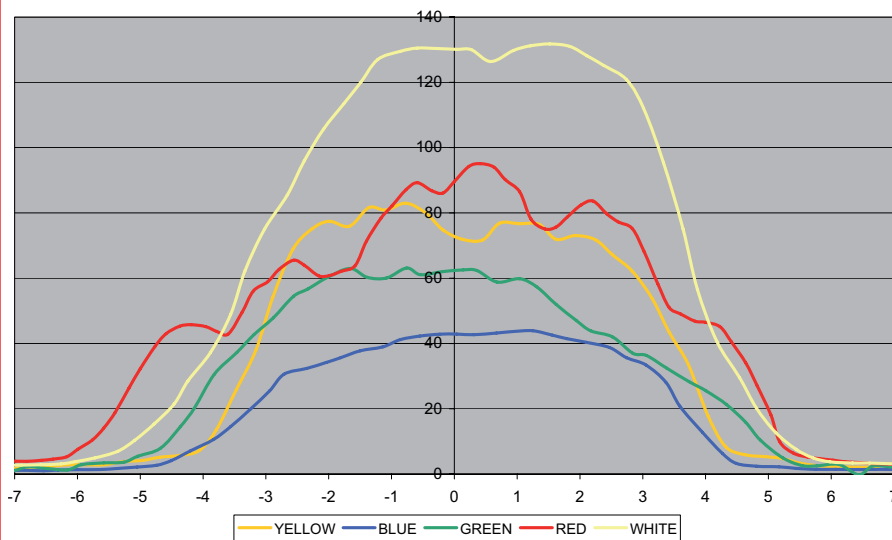
Body and Box	Injection moulded UV stabilised Nylon 6/6 with 30% glass fibre.
Top Cap	moulded UV stabilised ASA.
Sealing	O-ring
Weight & Dimensions	See drawings
Mounting	3 or 4-hole on 200 PCD
Service Life	10 years
Warranty	1 year. Refer Vega warranty conditions.

Standards

EMI/EMC	EN55015 radiated and conducted emissions EN61000-4-2:1995 Electrostatic Discharge Immunity EN61000-4-3 Radiation Immunity EN61000-4-5:1995 Class 3 Surge Immunity FCC Section 15 Class A
Optical Test	IALA Recommendation E-122(2001)
Colour	IALA Recommendation E-200-1 part 1
Daylight	IALA Recommendation 1038
Power Supply	IEC60945 section 7 normal and peak voltage, and reverse polarity protection IP68 to EN60529
Ingress	MIL-STD-202G Method 213B CondG
Shock	MIL-STD-202G Method 204D CondB
Vibration	MIL-STD-202G Method 104A CondB
Immersion	1m depth

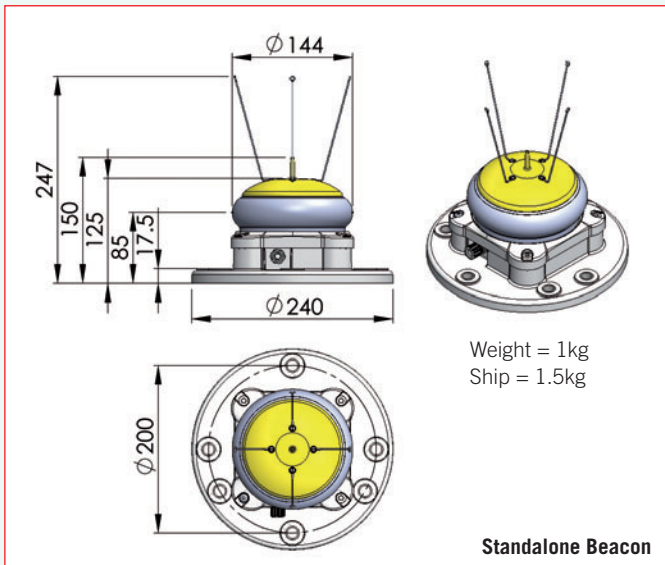


VLB-67 VERTICAL PROFILE



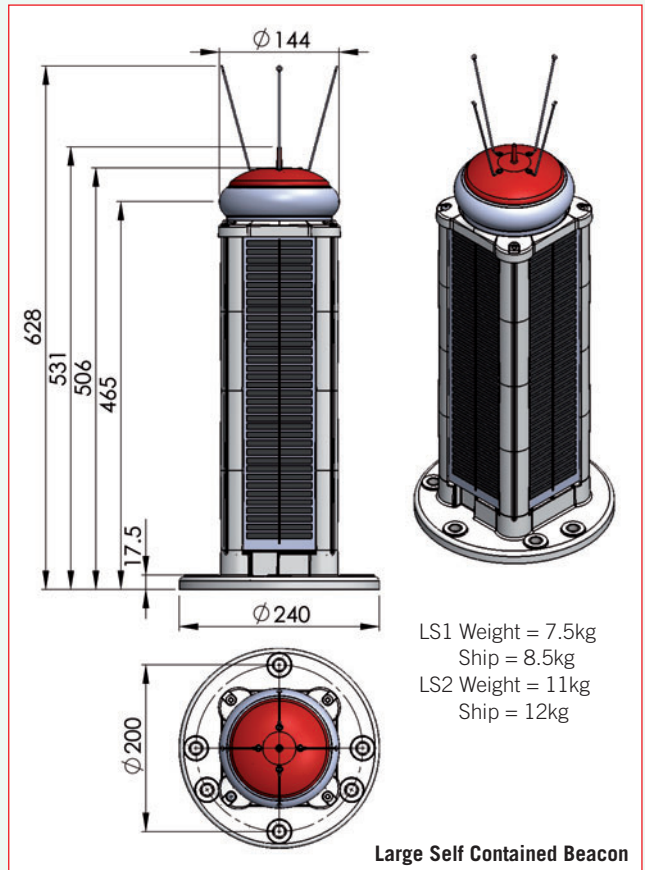
Suitable for use as Class B & C lights for artificial island and structures in USCG 8th District under 33 CFR Part 67.

DIMENSIONS



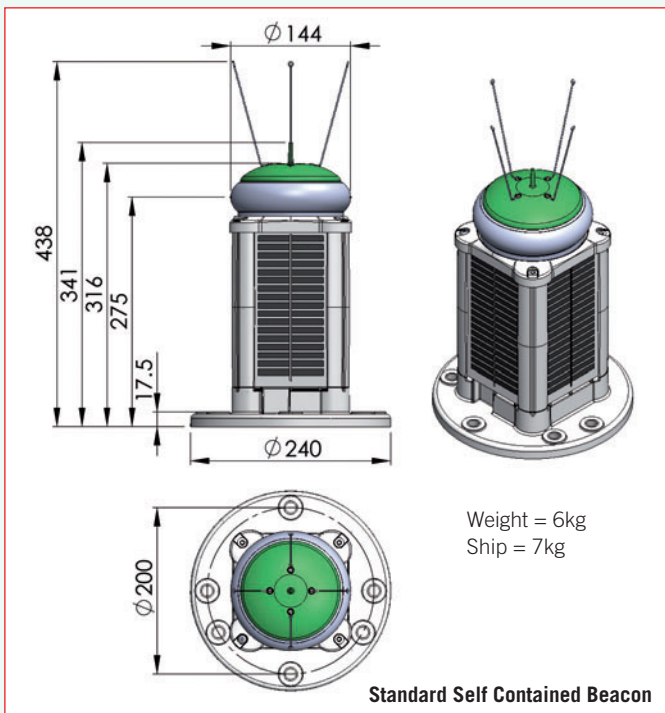
Weight = 1kg
Ship = 1.5kg

Standalone Beacon



LS1 Weight = 7.5kg
Ship = 8.5kg
LS2 Weight = 11kg
Ship = 12kg

Large Self Contained Beacon



Weight = 6kg
Ship = 7kg

Standard Self Contained Beacon



PARTS FOR ORDERING

DESCRIPTION

VLB-67 LED Marine Beacon

- Optional GPS sync – add “-GS” to product code
- Optional Data Port – add “-DP” to product code
- Optional Sync wire (on solar pack) – add “-SW” to product code
- Replacement battery
- Sync Signal Converter (receive only)

Note: C is colour (G, R, W, Y, B), YY is size: SA (Standalone), SS (Standard Solar), LS1 (Large Solar Single 12AH Battery), LS2 (Large Solar Two 12AH Battery)

CODE

VLB-67-C07-YY

EBatt-VEGA12
136-SYNC

DISTRIBUTOR

Released on 18 September 2009

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