



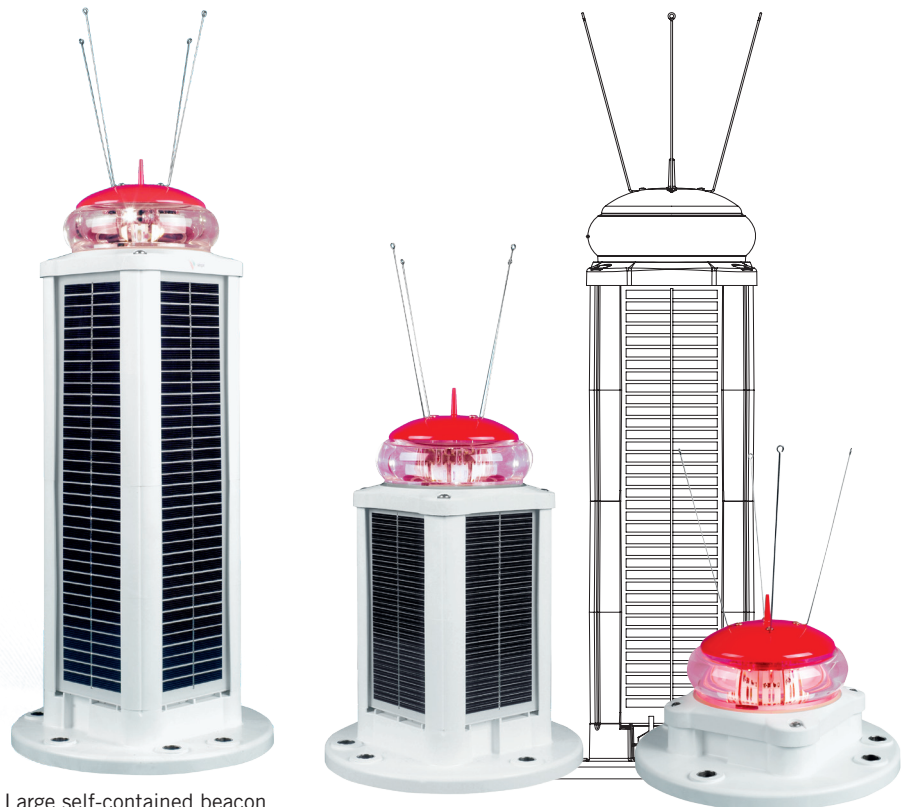
# VLB-5 (Also known as VLB-67) LED SOLAR MARINE BEACON

SHORT-RANGE LANTERN 2-5NM AT 0.74T

US Coast Guard APPROVAL CFR 33 PART 66 AND PART 67

With over **17,000** units sold around the globe, the **VLB-5** is Vega's flagship short range beacon available in **three different models** to suit a wide range of locations and environments.

On the world stage the VLB-5 boasts a **much larger battery** and **solar cell capacity** than other products in the **5 nautical mile space** so you can be assured of its reliability and robust performance.



Large self-contained beacon

Standard self-contained beacon

Stand-alone beacon



Approved for use as Class C lights for artificial island and structures in  
USCG CFR 33 Part 66 and Part 67

# OUTSTANDING FUNCTIONALITY AND FEATURES

Originally released in 2010 as the VLB-67, over 17,000 beacons are currently guiding ships in ports across the Middle East, the Pacific, the UK and the US.

The US Coast Guard have used over 8500 VLB-67/VLB-5 beacons from Vega in various different Coast Guard districts around the USA.

The handy infrared remote on the VLB-5 makes programming straight forward. It allows for a handsfree configuration in any conditions, day or night.

The VLB-5 is designed for installation on buoys, fixed poles and land locations and is available in four models:

- (SA) stand-alone beacon for use with external 12VDC power sources
- (SS) standard self-contained solar beacon
- (LS1) large self-contained beacon with 12Ah battery
- (LS2) large self-contained beacon with 24Ah battery for high latitude or heavy duty applications

#### Features include:

- remote programming in less than 2 minutes
- long life GEL lead acid batteries that will continue to charge to -20°C and provide continuous operation at -30°C
- high autonomy (days with no solar charge) in a completely sealed, self-contained unit
- five colours meeting IALA requirements
- IP68 waterproof
- light intensity automatically adjusts with flash character setting (Schmidt-Clausen)

#### Programming features (with Vega IR Remote Programmer) include:

- nine options for day to night transition light levels
- more than 256 flash characters
- one custom character
- optional security codes
- ON/OFF control using sync wire
- calendar control of beacon operation
- serial number, LED type etc. are stored in beacon

To check how the beacon will perform in your planned location use the solar calculator on our website ([www.vega.co.nz](http://www.vega.co.nz)). Enter the intensity, range and flash character you require and the calculator will take into account the lowest solar month as well as temperature and provide details of expected solar autonomy based on the worst conditions likely to be encountered.

#### IRDA option available

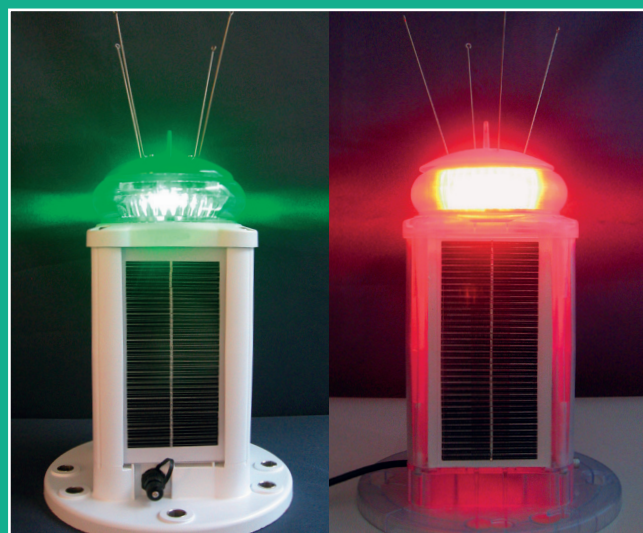
The VLB-5 is IRDA capable, giving you the option to configure all of the parameters of the beacon via a computer.

#### VLB-5 solar power details:

Model	Solar	Battery
Stand-alone (SA)	N/A	N/A
Self-contained Standard (SS)	8W	12Ah 12V
Self-contained Large One (LS1)	16W	12Ah 12V
Self-contained Large Two (LS2)	16W	24Ah 12V

## EXAMPLE CALCULATION FOR ANCHORAGE, ALASKA

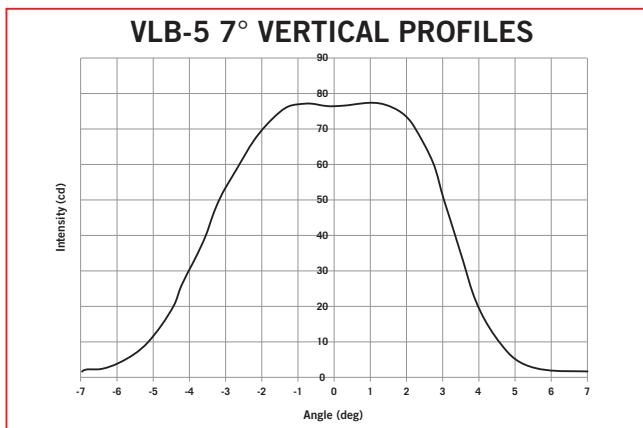
Latitude	61° North
Flash	1 second on, 9 seconds off
Colour	White
Distance	4.5NM
Divergence	7°
Effective Intensity	77 Candela
Autonomy	Standard (SS)- Not suitable Large One (LS1) – 25 days Large Two (LS2) – 49 days



# SPECIFICATIONS

## OPTICAL SPECIFICATION

<b>Intensity</b>	0.5 – 77 Candela (excluding blue). LEDs are temperature monitored to control intensity. Light intensity automatically adjusts with flash character setting (Schmidt-Clausen).
<b>Horizontal Divergence</b>	360°
<b>Vertical Divergence</b>	7° at 50% of peak intensity
<b>Chromaticity</b>	Colours meet IALA chromaticity requirements



## ELECTRICAL PERFORMANCE

<b>Reverse polarity</b>	Protected
<b>Battery</b>	GEL lead-acid battery 12Ah 12V or 24Ah 12V (2x12Ah)
<b>Charging</b>	Stops at -20°C
<b>Solar Panels</b>	4 Mono Crystalline panels

## ENVIRONMENTAL

<b>Temperature</b>	-30°C to +50°C
<b>Cooling</b>	Convection
<b>Pressure Equalisation</b>	Membrane in solar body
<b>Salt</b>	Continuous exposure saltwater and spray
<b>Wind</b>	140kt
<b>Ice Loading</b>	22kg/m <sup>2</sup>
<b>Shock/Vibration</b>	75g shock in all directions; 5g vibration in all directions

## MATERIALS

<b>Lens</b>	Moulded acrylic (PMMA)
<b>Bird Spike</b>	Stainless steel centre spike
<b>Body</b>	UV stabilised Nylon
<b>Base</b>	UV stabilised Nylon with 30% mineral fill
<b>Solar Panels</b>	Mono Crystalline silicon
<b>Top Cap</b>	UV stabilised ASA
<b>Mounting</b>	3 or 4-hole on 200mm PCD
<b>Warranty</b>	1 year
<b>Extended Warranty</b>	Options available up to 5 years (excluding battery), refer to Vega warranty conditions

## STANDARDS

**Marine Navigation Lights:** USCG Approval CFR 33 Part 66 and Part 67 for artificial island and structures

**Electromagnetic compatibility (EMC) / electromagnetic interference (EMI):**

EN55015:2006 +A1:2007, +A2:2009 radiated and conducted emissions;

EN61000-4-2:2008. Electrostatic Discharge, Immunity Level 4 (10KV air 6KV contact);

EN61000-4-3:2006 +A1:2007, +A2:2010 Radiation Immunity Class 1 (10V/m);

EN61000-4-5:2005 Class 3 Surge Immunity, 0.5KV lead to lead

FCC 47 CFR Section 15 Class A

**Optical Test:** IALA Recommendation E-122 (2001) and E-200-3 Part 3 (2008)

**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

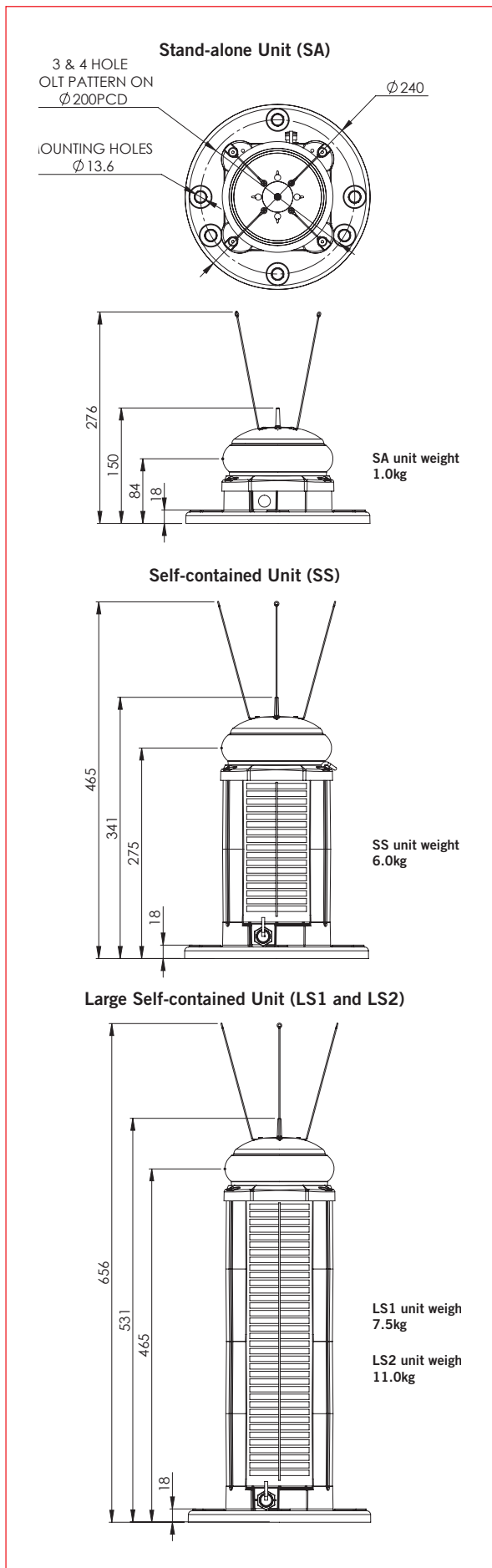
**Ingress:** IP68 to EN60529

**Shock:** MIL-STD-202G method 213B Cond H

**Vibration:** MIL-STD-202G method 204D Cond B

**Immersion:** MIL-STD-202G Method 104A Cond B withstands immersion to 1m depth

# DIMENSIONS & WEIGHTS



# PARTS FOR ORDERING

## DESCRIPTION

VLB-5 LED Marine Beacon

## PRODUCT CODE FORMAT

VLB-5-C07-YY

### Where C (Colour)

- = G (Green Light)
- = R (Red Light)
- = W (White Light)
- = Y (Yellow Light)
- = B (Blue Light)

### Where YY (Version)

- = SA (Stand-alone)
- = SS (Standard 9Ah Battery Solar Capacity)
- = LS1 (Large Single 12Ah Battery Solar Capacity)
- = LS2 (Large Two 12Ah Battery Solar Capacity)

## OPTIONAL EXTRAS

External charge and sync wire on	
SS and LS Self-contained models	<b>CP/SW</b>
Battery	<b>EBAT-VGA-SL12-12U</b>
GPS sync	<b>GS</b>
Data port, Alarm/Monitor, and Sync Wire Option	<b>DP/AL/SW</b>
Computer Programmer	<b>Prog-01</b>
An extra Infrared Remote	<b>Remote -02</b>

**NOTE:** Refer to our website ([www.vega.co.nz](http://www.vega.co.nz)) if you require additional components or parts.

Available from:



Telephone: +64 4 238 0200 Fax: +64 4 237 4392

Email: [sales@vega.co.nz](mailto:sales@vega.co.nz) [www.vega.co.nz](http://www.vega.co.nz)

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