



22 NM MARINE BEACON

VLB-92

AVAILABLE FROM 13 TO 22 NM RANGE AT 0.74T

1.6° Vertical Profile

The VLB-92 is Vega's state of the art Long Range LED Beacon. It is intended for applications requiring very high intensity.

Depending on the configuration, the beacon is able to produce a range from 13-22NM at a transmissivity of 0.74T.



Vega Long Range LED Beacon VLB-92



OUTSTANDING FUNCTIONALITY AND FEATURES

The VLB-92 is Vega's brightest all-round beacon. It is ideally suited to replace incandescent beacons used as landfall lights.

The LEDs are connected with redundancy in mind. If one LED malfunctions, the remaining LEDs will continue with only a slight localised reduction in intensity, but the beacon will still be within specification.

The core strength of the VLB-92 is that it can sustain an output of 80,000cd per tier on a fixed character (up to 50°C outside temperature). This is due to a large heatsink, efficient optics and high performance LED driver (see example).

The VLB-92 also has automatic Schmidt-Clausen correction to ensure short flashes are still visible at the required range.

Every beacon is tested in Vega's zero-range light tunnel to ensure it meets optical specifications.

EXTERNAL CONNECTIONS

- RS232 or RS485 Data Port for monitoring and software configuration
- Optional integrated GPS Synchronization using the VSU-29 GPS Sync Unit
- Beacon alarm output
- ON/OFF control inputs
- ON/OFF status output
- Hardwire synchronisation

PROGRAMMING FEATURES (WITH VEGA IR REMOTE PROGRAMMER) INCLUDE

- Effective intensity settings (5,800-240,000cd)
- Day/night transition level settings (40-250 lux range)
- Programmable flash characters, including IALA recommended characters
- Programmable custom character
- Synchronisation control including master/slave options and sync delay
- Synchronising delay can be set from 0 to 9.9 seconds
- Low voltage cut-out setting
- Optional security code
- Read supply voltage
- Vega remote programmer

MONITORING

Monitoring of the VLB-92 can be done in a number of ways:

- Using the VegaWeb internet monitoring unit via the data connector
- Using the Vega AIS Aton transponder
- Using the hardwire data connections to third party transponder

MAXIMUM PERFORMANCE EXAMPLE (3 TIER)

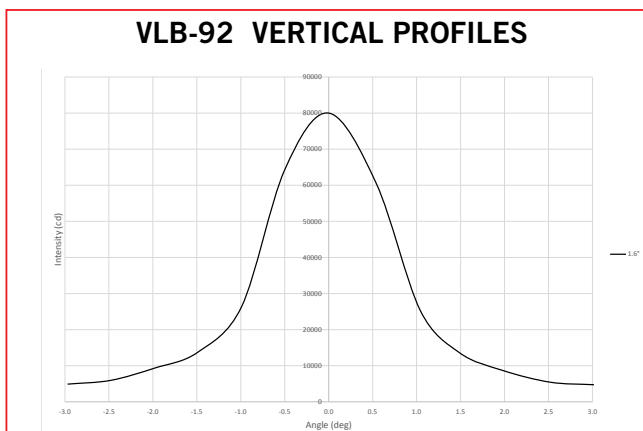
Voltage	12 or 24 Volts
Power	1200 W @ (50 Amps)
Flash Character	Fixed
Light Output	240,000 cd
Range	22NM @ 0.74T



SPECIFICATIONS

OPTICAL SPECIFICATION

Light Source	96 LEDs per tier
Colours Available	Yellow, White IALA Recommendation E-200-1 part 1
Intensity	IALA Recommendation E-200 Part 3 (2008) 5,800cd to White - 240,000cd (3 tier) Yellow - 70,700cd (3 tier)
Effective Intensity	Multiple level for both day and night; automatic Schmidt- Clausen correction
Flash Characters	246 standard characters plus one custom character; 20 factory set custom characters if required
Horizontal Divergence	360° (IALA Rec E-200-3)
Vertical Divergence	±0.8° at 50% of peak intensity; ±1.6° at approximately 10% of peak intensity
Temperature control	Constant intensity output to 50°C



This graph shows the corresponding relationship between the vertical divergence and the intensity of the beam for a single tier beacon.

ENVIRONMENTAL

Temperature	-30°C to +50°C
Intrusion Protection	IP68 1.5m, 30 mins
Design Icing Load	20 kg/m ² on external surface
Design Wind Speed	200kph

MATERIALS

Lens	Machined cast acrylic
Bird Spike	28 spikes, 316 stainless steel
Body	Anodised marine grade aluminium
Base	2 part painted cast marine grade aluminium

ELECTRICAL PERFORMANCE

Voltage	Available in 12V nominal, 10 to 18VDC or 24V nominal, 20 to 36VDC
Protection	Short circuit/reverse polarity
Transient Voltage	Tested to 500V-200A surges
Overheat Protection	Beacon enters protection mode with reduced light intensity
Standby Current	50 mA per unit @24V, 100mA @12V
Day/Night Transition	3 photo sensors equally spaced inside lens; nine program settings for the day/night accuracy of sensor ±20 lux
Inputs/outputs	Override On/Off; operates on ≥6VDC input; max sink-current 1.6mA

STANDARDS

Electromagnetic Interference: EN55015:2006; 2007:Amd1;
2009: Amd2 radiated

Emissions: EN61000-4-2:2008 Electrostatic Discharge

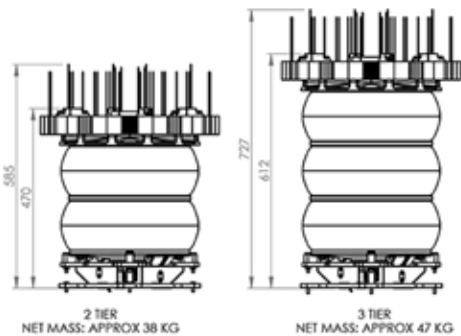
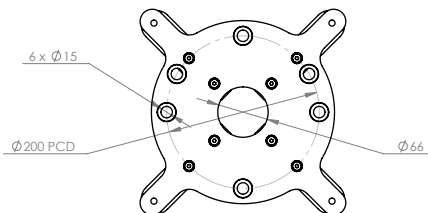
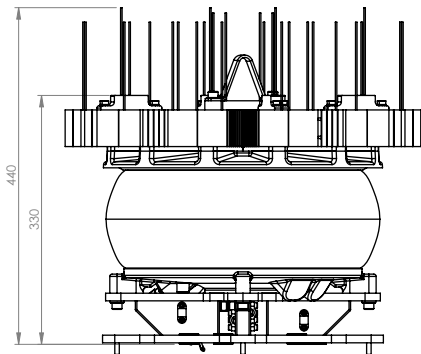
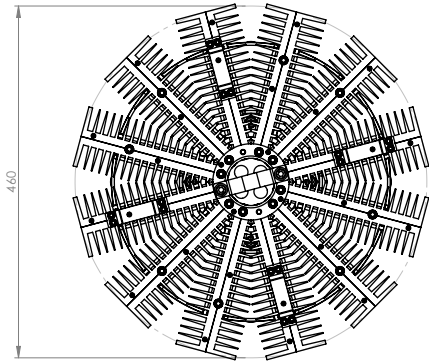
Immunity: Level 4. EN61000-4-3: 2006 +A1: 2007, +A2
2010 Radiated

Immunity: Class 1. EN6100-4.5:2005 Class 3 Surge
Immunity, 0.5kV lead-to-lead.

Shock: MIL-STD-202G, Method 213B, Cond H.10g shock
vertical and 35g horizontal

Vibration: MIL-STD-202G, Method 204D Cond B 2g peak.

DIMENSIONS & WEIGHTS



PARTS FOR ORDERING

DESCRIPTION

VLB-92 Long Range LED Beacon

PRODUCT CODE FORMAT

VLB-92-C-1.6-XX-Y

Where C (Colour)

- = Y (Yellow Light)
- = W (White Light)

Where Y (Tiers)

- = Number of tiers

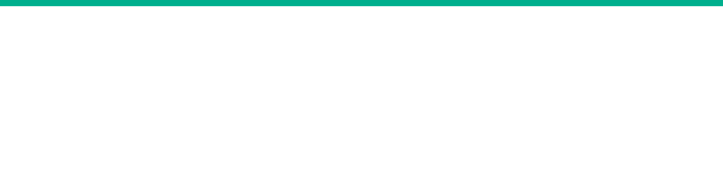
Where XX (Voltage)

- = 12 (12 Volts)
- = 24 (24 Volts)

OPTIONAL EXTRAS

GPS synchronization	VSU-29
Computer Programmer IRDA	Prog-03
An extra Infrared Remote	Remote -02

Ask us about other colours and vertical divergence options.
To enquire about customised options please email the sales team at sales@vega.co.nz.



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