

## Rotating beacons

### SERIE BGA • MAJOR COMPACT ROTATING BEACONS



The BGA series heavy-duty rotating beacons are designed to fulfil the requirements of a long-range landfall light, as well as marking headlands, entrances to estuaries/ports, hazardous reefs, rocky outfalls, outlying jetties or major beacon and lighthouse stations.

BGA rotating beacons use high optical efficiency, Fresnel acrylic moulded lenses and run on DC low voltage by means of their MGE150 electronic, brushless and gearless double motor system, forming an excellent major compact rotating beacon ideally suited for solar power supply systems

#### Features

---

- Family of rotating beacons unique in the world.
- High reliability and availability, proven by field experience.
- Hundreds of units in service around the world.
- ODA200 and ODA360 high-efficiency acrylic moulded Fresnel optical systems.
- 600 mm and 1,000 mm diameter, heavy-duty lanterns with cylindrical glass protection. Both rotating beacons utilise the same MGE150 gear-less double motor system.
- The MGE150 is an electronic gearless and brushless double motor with one slow moving assembly. It forms two independent units to increase safety.
- The same CMA130 electronic control unit controls the complete operation of the beacons.
- Field adjustable rotational speed, from 0.66 to 6 rpm.
- Two types of lampchangers available: CLB12 and CLC series, spring or motor operated.
- CMB200 control unit for high-intensity, lamps and CLC series lampchanger.
- Simple installation and low maintenance.
- Status and alarms of motor, batteries and LED's cluster for monitoring and remote control.
- Standard DC power supply.
- Ideal for solar powered stations.

#### Range of lamps

---

- High- intensity, metal-halide discharge lamps, 120 V or 220 V AC, up to 12,000 life hours.
- Xenon discharge lamps, 12 V DC, 6,000 life hours.

## Technical specifications

### LENSES

- 200 & 360 mm focal-distance acrylic moulded Fresnel lenses.
- Hexagonal & octagonal lens configurations.
- Light colours available: clear, red and green.

### LANTERN

- Heavy-duty lantern, hermetically sealed, made from aluminium and other materials resistant to marine atmosphere.
- Motor system mounted inside the lantern base.
- Cylindrical curved glass protection.
- Bolted dome with integral birdspike.
- Watertightness degree: IP-66.

### MGE150 MOTOR

- Gearless and brushless double rotating motor.
- Field-adjustable rotation speed from 0.66 to 6 rpm.
- Accuracy higher than 1.5%.
- Consumption: 10 to 15 W.
- Voltage supply: 12 or 24 V DC.
- Any other AC voltage using AC-DC converter.

### CMA130 ELECTRONIC CONTROL UNIT

- It controls the complete beacon operation.
- Very easy electronic card change, makes possible to repair the control unit in a few minutes.
- Manual and automatic motor operation.
- Selectable main motor (Motor 1 or Motor 2).
- Operation status and alarms for both motors.
- Operating system selection, by photocell control, or continuous rotation (24 hours / day).
- Automatic motor change.
- Manual and automatic lamp operation.
- Lamp operation status and alarms.
- Motors & lamps status and alarms ready for their remote control via RS232 serial port.
- UCA130 remote control alarm unit, optional.
- Net weight: 25 kg
- Shipping data: 80 x 60 x 50 cm (0,24 m<sup>3</sup>) 38 kg
- Watertightness degree: IP-67.
- Electromagnetic compatibility  $\text{CE}$



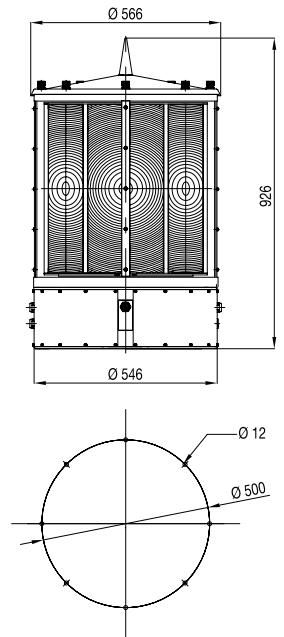
Rotating beacons

BGA600 • MAJOR COMPACT ROTATING BEACONS



Features

- Luminous Nominal Range of 25 n.m. (T = 0.74)
- 500 mm high x 200 mm focal-distance acrylic moulded lens, type ODA 200.
- 600 mm diameter, heavy-duty lantern glass lens cover.
- Net weight: 125 kg
- Shipping data: (wooden) 60 x 60 x 110 cm (0.396 m<sup>3</sup>) 140 kg



BGA600	Fixed intensity (Cd)	Hexagonal array								
		Effective intensity (Cd)								
Lamps	Fixed intensity (Cd)	Rotation speed (rpm)								
		0.66	1	1.5	2	2.5	3	4	5	6
Hal 50 W / 12 V	324.000	194.382	161.920	129.536	107.947	92.526	80.960	64.768	53.973	46.263
Hal 100 W / 12 V	375.000	238.952	202.117	164.220	138.291	119.433	105.101	84.759	71.014	61.105
Hal 150 W / 24 V	497.000	312.060	263.012	212.914	178.848	154.179	135.491	109.054	91.249	78.442
HI 35 W / 220 V	442.000	310.848	270.658	226.768	195.126	171.233	152.553	125.230	106.208	92.202
HI 70 W / 220 V	575.000	431.358	383.333	328.571	287.500	255.556	230.000	191.667	164.286	143.750
HI 150 W / 220 V	759.000	607.321	552.000	485.760	433.714	391.742	357.176	303.600	264.000	233.538
XL 35 W / 12V	1.500.000	837.054	681.818	535.714	441.176	375.000	326.087	258.621	214.286	182.927

BGA600	Fixed intensity (Cd)	Octagonal array								
		Effective intensity (Cd)								
Lamps	Fixed intensity (Cd)	Rotation speed (rpm)								
		0.66	1	1.5	2	2.5	3	4	5	6
Hal 50 W / 12 V	269.000	161.248	134.320	107.456	89.547	76.754	67.160	53.728	44.773	38.377
Hal 100 W / 12 V	331.000	210.840	178.338	144.900	122.021	105.382	92.736	74.787	62.659	53.916
Hal 150 W / 24 V	427.000	268.141	225.995	182.949	153.677	132.480	116.422	93.705	78.407	67.402
HI 35 W / 220 V	414.000	291.420	253.742	212.595	182.930	160.531	143.018	117.403	99.570	86.440
HI 70 W / 220 V	535.000	401.680	356.960	305.966	267.720	237.973	214.176	178.480	152.983	133.860
HI 150 W / 220 V	676.000	541.068	491.782	432.768	386.400	349.006	318.212	270.480	235.200	208.062
XL 35W / 12V	1.220.000	680.804	554.545	435.714	358.824	305.000	265.217	210.345	174.286	148.780

These luminous intensities apply to white light.  
 For red light, multiply by 0.32  
 For green light, multiply by 0.32

## BGA1000 MAJOR COMPACT ROTATING BEACONS



### Features

Luminous Nominal Range of 28 n.m.  
( $T = 0.74$ )

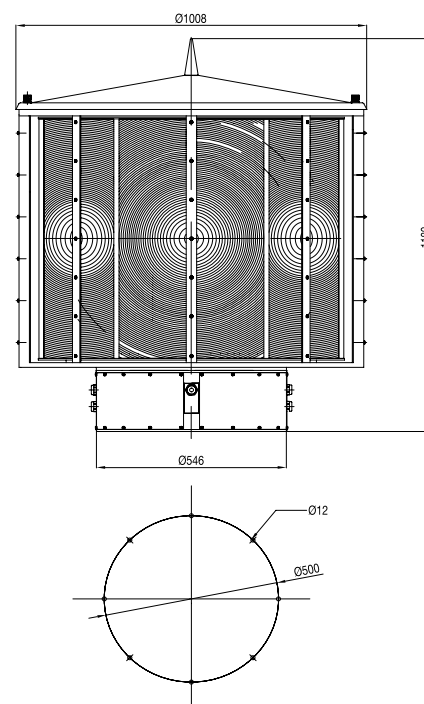
720 mm high x 360 mm focal-distance acrylic moulded lens, type ODA 360.

1,000 mm diameter, heavy-duty lantern glass lens cover.

Net weight: 225 kg

Shipping data: (wooden)

120 x 120 x 150 cm (2,16 m<sup>3</sup>) 400 kg



BGA1000	Fixed intensity (Cd)	Hexagonal array								
		Effective intensity (Cd)								
Lamps		Rotation speed (rpm)								
		0.66	1	1.5	2	2.5	3	4	5	6
Hal 50W/12V	561.000	271.689	215.846	165.059	133.619	112.240	96.759	75.838	62.356	52.943
Hal 100W/12V	745.000	394.703	319.371	248.400	203.236	171.969	149.040	117.663	97.200	82.800
Hal 150W/24V	1.012.000	562.472	460.000	361.429	297.647	253.000	220.000	174.483	144.571	123.415
HI 35 W/220 V	1.035.000	621.248	517.500	414.000	345.000	295.714	258.750	207.000	172.500	147.857
HI 70 W/220 V	1.465.000	932.968	789.148	641.183	539.943	466.315	410.357	330.933	277.268	238.580
HI 150 W/220 V	1.882.000	1.280.200	1.103.267	914.136	780.360	680.739	603.674	492.227	415.516	359.492
HI 700 W/220 V	3.634.000	2.370.825	2.018.889	1.651.818	1.397.692	1.211.333	1.068.824	865.238	726.800	626.552
XL 35W/12V	1.750.000	879.397	700.000	538.462	437.500	368.421	318.182	250.000	205.882	175.000

BGA1000	Fixed intensity (Cd)	Octogonal array								
		Effective intensity (Cd)								
Lamps		Rotation speed (rpm)								
		0.66	1	1.5	2	2.5	3	4	5	6
Hal 50W/12V	470.000	227.595	180.815	138.271	111.933	94.024	81.055	63.530	52.236	44.351
Hal 100W/12V	598.000	316.737	256.286	199.333	163.091	138.000	119.600	94.421	78.000	66.444
Hal 150W/24V	841.000	467.875	382.636	300.643	247.588	210.450	183.000	145.138	120.257	102.659
HI 35 W/220 V	879.000	527.371	439.300	351.440	292.867	251.029	219.650	175.720	146.433	125.514
HI 70 W/220 V	1.126.000	716.857	606.351	492.660	414.872	358.298	315.302	254.276	213.042	183.315
HI 150 W/220 V	1.449.000	985.635	849.414	703.800	600.805	524.106	464.774	378.969	319.909	276.775
HI 700 W/220 V	3.110.000	2.035.079	1.727.556	1.413.455	1.196.000	1.036.533	914.588	740.381	621.920	536.138
XL 35 W / 12 V	1.560.000	783.920	624.000	480.000	390.000	328.421	283.636	222.857	183.529	156.000

These luminous intensities apply to white light.

For red light, multiply by 0.32

For green light, multiply by 0.32