Pharos Marine Automatic Power

PMDB-Range

Pharos Marine Met-Ocean Data Buoys

The PMDB range of databuoy platforms are designed for open water & coastal operations where instrumentation is required to be deployed on the surface or at the sea bed and can be permanent or temporary platforms. These buoys will support service personnel at sea and can include a steel safety rail. The modular construction allows the buoy to be broken down for shipping. The same basic design covers the range 1.8m, 2.4m, 3.0m and 3.6m diameters. Mid sections may be stacked on larger buoys to increase focal plane height or payload capacity. Buoys can be fitted with sensor crows nests, and sealed battery pods. An optional ADCP hull mount is available

The system is modular and can be supplied with integrated solar power supply comprising up to 12 x 20W solar panels, regulator and batteries, self contained solar powered navigation light, St Andrews cross top mark, choice of telemetry system, message stencilling. Data buoys can also be supplied in standard lateral or cardinal configurations if required.

The buoys are fitted with a through hull fairlead tubes (moon pools) so that instruments can be deployed without cables being exposed over the hull and without recovering the buoy. Instruments are stored within the tube until the buoy is deployed, providing important protection during movement. Instrument packages may also be deployed through the centre of the hull and ballast skirt. The DB range is fitted with a hollow, removable upper tower section that houses the radar reflector and sensitive electronics modules within its own protected compartment. The upper tower section has a tapered lower portion that fits into a similarly tapered receptor in the middle tower section that makes alignment at sea extremely simple. The buoys have flat bottoms and are free standing on deck.

The split, two part (four part for 3.0 and 3.6) floatation unit, and other key components, are manufactured from rotationally moulded polyethylene with optimum E.S.C.R. (Environmental Stress Crack Resistance) Pre-coloured virgin polymers, with high UV stability. Robust wall thickness collars are also filled with marine safety approved close-cell foam making them virtually unsinkable even when punctured. Steel work is coated with Interzone 954 as standard, and comes with a 12 year warranty. We also offer a smaller 0.6m (minibuoy) and 1.25m DB-125 diameter hulls, all with similar features

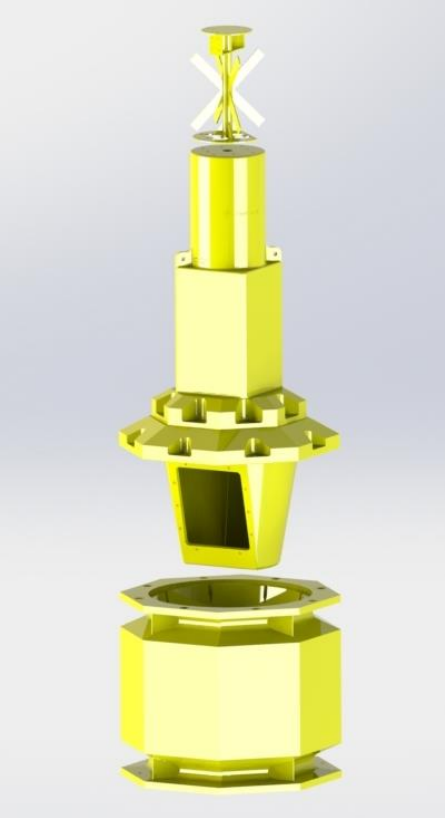
Specifications:

	DB-180	DB-240	DB-300	DB-360
Diameter mm	1800	2400	3000	3600
Overall height mm (without light)	4262	4262	5062	5062
Overall Wt Kgs with typical payload, battery and light (with 160kg of bolt on ballast)	600	758	1660	1825
Overall Wt of removable tower with battery, chassis and payload	66	66	66	66
Approximate Freeboard mm	410	410	600	600
Mooring Weight / Ballast Kgs	145-609	250-1263	400 - 3020	400 - 3703
Reserve Buoyancy Kgs with optimum mooring Wt	960	2102	5060	7655
Submergence Kg/cm	23.4	42	68	99
Typical Anchor Weight Kgs	900-2600	1000-3400	1500 -6600	1600 - 7000

ALL MODELS	
Solar Panels	Up to 12 x 20W
Nav light	Self contained solar. Typ Gp5 ev 20 amber, range 2nm in UK. Greater ranges available.
Radar reflector	Internal Echomax radar reflector giving peak RCS 24m2
Fairlead deployment tube	128mm ID, 160mm OD, 1m long. Up to 4 depending upon buoy size.

Construction:

Manufactured in the UK, the manufacturing plant operates quality management systems in line with BS EN ISO 9001- 2000. Each Buoy in the range as been carefully designed and tested using the latest in CAD and electronics technology. This helps to deliver high performance, long lasting and reliable buoys, that can be simply installed upgraded and easily maintained. The versatility of the design allows for additional float collars to be added doubling the reserve buoyancy. All components are replaceable or interchangeable, and where possible standardised to minimise the stocks of spare parts.



Service Exchange Tower:

A unique feature of the PMDB range of data buoys is the service exchange (SET) tower system. This provides a safe, secure and weather proof compartment for sensitive electronics, sensors and batteries. The tower fits into the central day mark section and is guided into place by virtue of its tapered profile. The SET may be removed from the main buoy for maintenance and calibration which means that only the small SET needs to be moved or stored within a workshop.

The St Andrews cross – light-antenna mount- sensor mount is attached to the SET which carries solar panels and electronics in a single manageable package. Additional space is available above the tapered compartment where larger sensor packs can be installed.

The octagonal mid section can house additional batteries and up to 8 20W solar panels,

The SET and mid sections are interchangeable between all of the DB hulls from 1.8 to 3.6m making the DB range of data buoy hulls the most useful and flexible available.

Optional Instrument deployment frame

Optional DBT-3 telemetry module with 38AH battery Fitted to stainless steel battery chassis

All values are subject to change without notice.

Pharos Marine Automatic Power
Gray, LA - USA
rleblanc@automaticpower.com
Phone: +1-985-223-8700

Pharos Marine Automatic Power, Ltd.
London, UK
sales@pharosmarine.com
Phone:+44-20-8538-1100

AB Pharos Marine Pte.
Singapore
sales@pharos-api.com
Phone: +65-6747-9325