

## Nickel Cadmium Pocket Plate Batteries

HBL's Nickel Cadmium Pocket Plate Battery designs are based on the superior Pocket Plate technology of SABNIFE AB, Sweden.

The first electrode design for Nickel Cadmium Batteries employed the pocket plate construction which is still considered to be the most reliable design.

The fully integrated modern factory, supported by strong process management and quality controls makes HBL one of the best Nickel Cadmium Battery production facilities in the world.

In HBL's Pocket Plate design, the active materials are encapsulated between folded steel strips which are perforated from both sides. This double perforation method increases the effective surface area by 30% and helps in better utilization of the active material thereby making the battery more efficient. The batteries are manufactured in 3 series designated as **H**, **M** and **L** based on their performance capabilities. The **H** series have thin plates to provide for high discharge currents, the **L** series have thick plates to provide lower currents for long durations and the **M** series have an optimized plate thickness which is ideal for medium discharge performance and durations.

These Batteries are available as Single cells of 1.2V or in Blocks (individual cells thermally welded and connected either in series or in parallel) of higher voltages (2.4, 3.6V etc) and capacities.

### Superior Features

- Unsurpassed resistance to electrical and mechanical abuse.
- Good charge retention.
- Long and reliable service life.
- Quick recharge capability.
- Wide operating temperature range.
- No emission of corrosive gases.
- Flame-arresting vent protection.
- Minimal maintenance requirements.
- Long shelf life.





The Batteries are available in tough, fusion-welded polypropylene cell containers and lids. When placed on multi-step battery racks, the electrolyte level in all the cells can be visually monitored to facilitate maintenance. For special requirements, the containers can be offered in flame-retardant polypropylene, structural foam-moulded polypropylene or stainless steel.

HBL's batteries are supplied with the electrolyte, inter-cell connectors and related hardware and accessories required for normal operation and maintenance. Suitable battery racks are also offered as options.



HBL's batteries have been tested in accordance with the IEC/EN 60623 standard and certified by INTERTEK ETL SEMKO. The batteries also conform to DIN 40771, BS 6260 and UIC 854R international standards.

Pocket Plate Cell Series	Capacity Range Ah	Typical Back-up	Typical Applications
<b>Low rate</b> <b>KPL</b> (Single) <b>KBL</b> (Block)	11 to 480 8 to 1540	Above 3 hours	Fire alarms, Emergency lightning, Telecom, Railway signalling, Switchgear protection, Photovoltaic, Cathodic protection.
<b>Medium rate</b> <b>KPM</b> (Single) <b>KBM</b> (Block)	10 to 395 12 to 1460	60 minutes to 3 hours	Switchgear protection, Emergency lighting, Motive power, Train lighting, Instrumentation and process control, UPS, Electric vehicles.
<b>High rate</b> <b>KPH</b> (Single) <b>KBH</b> (Block)	10 to 265 9 to 930	Below 60 minutes	Generator starting, UPS, Diesel locomotive cranking, Aircraft/Helicopter ground starting, Electro magnets.

Batteries can be selected from the above range for a given application. Contact HBL for your battery sizing requirements.



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