



Industrial Batteries (UK) Limited

**Industrial Batteries (UK) Limited**  
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## Battery Specification Services

We can offer, on a consultancy basis, a full design analysis service for new or existing battery installations, which, according to the needs, can include:

- ✓ **Life cycle cost analysis:** This looks at the cost of ownership of the battery over a defined number of years. It is important in such an analysis that items such as inflation, servicing, replacement cost and disposal costs should be taken into account.
- ✓ **Battery choice and sizing:** The selection of the correct battery for the installation is essential if the system is to achieve the lifetime and performance required for the application.
- ✓ **Comparison between different options:** Demonstrating that the correct choice has been made by comparing a number of options is a prerequisite for a correct specification.
- ✓ **Installation parameters:** Installing a battery has to take into account dimensions, stands requirements, maintenance needs and equipment, ventilation, seismic needs etc.
- ✓ **Gas evolution and ventilation requirements:** Batteries installed in the UK should meet the requirements of the European EN 50272-2 standard which incorporates the appropriate British Standards. It is necessary to carry out these calculations correctly to ensure compliance.
- ✓ **Battery monitoring considerations:** Although Nickel-Cadmium cells do not require sophisticated monitoring, it can be a customer requirement to have some form of monitoring. Unsuitable monitoring systems are false security.

Battery Number	nickel-cadmium			lead vented		
	1	2	3	4	5	6
<b>System Details</b>	Ni-Cd	Ni-Cd	Ni-Cd	Lead	Lead	Lead
ULM	ULM	ULM	ULM	Vented	Vented	Vented
110 Volt	48 Volt	48 Volt	48 Volt	110 Volt	48 Volt	48 Volt
400Ah	100Ah	400Ah	400Ah	400Ah	100Ah	400Ah
No. of cells/blocs	90	40	40	55	24	24
Actual life at effective av. temp.	20	20	20	15	15	15
Actual watering int. at effective av. temp. (yr)	10	10	10	2	2	2
<b>Battery replacement cost (present)</b>	€28,727.00	€4,764.00	€13,074.00	€20,779.00	€3,144.00	€9,359.00
<b>Procurement/Installation Costs (Present)</b>	€36,477.00	€6,964.00	€15,274.00	€28,529.00	€5,344.00	€11,559.00
<b>Training Costs (Present)</b>	€1,410.00	€1,410.00	€1,410.00	€1,410.00	€1,410.00	€1,410.00
<b>Annual Maintenance Costs (Present)</b>	€650.00	€455.00	€455.00	€910.00	€780.00	€780.00
<b>Water</b>				€182.50	€227.50	€130.00
<b>Disposal</b>				€1,282.00	€1,822.00	€987.00
<b>Plant</b>				€8,680.00	€8,680.00	€8,680.00



N°	Cell type	Cells No.	R10h	R10h C
1	HCl110P	83	1.00	1.07
2	XHP115	85	1.05	1.02
3	VNI119	84	1.08	1.15
4	MCI 30P	83	1.18	1.29
5	M45P	3 x 83	1.23	1.31

**Battery calculation worksheet IEE 1115**

The screenshot shows the software interface for battery calculation. It includes a table of battery options, a 'Printed documents' section with checkboxes for 'Battery proposal', 'Load profile curve', and 'Calculation sheet'. Below the table, there are fields for 'Rated capacity', 'Required capacity', 'Cell height', and 'Battery weight'. A 'Commercial in Confidence' watermark is visible. A CD-ROM icon is also present.

This can be produced as a full report, which can be used by consultants and engineers as part of their total design analysis. However, if you only need one of the above aspects to be evaluated we are happy to do this and produce a suitable report of the findings. If you wish to consult us on this, please use the contact information at the top of this leaflet or go via our web site: [www.ibluk.co.uk](http://www.ibluk.co.uk).