

STANDBY BATTERIES

**Planté Cells
ZAP, ZCP
and ZHP**



PRODUCT AND SERVICE BENEFITS

- **Premier Quality**
Conforms to BS 6290 2000 and IEC 60896-11:2003 standards and manufactured to ISO 9001: 2008 quality standards
- **Proven Reliability**
Used successfully, achieving claimed life, in numerous applications.
- **Customer Care**
Every standby cell carries a comprehensive product warranty.

DESIGN FEATURES

Designed for all standby duties including power stations, telephone exchanges, switchgear operation, telecommunications, emergency lighting and diesel starting.

Noteworthy advantages of these cells are:

- Ease of inspection, test and maintenance (a hydrometer reading indicates the state of charge.)
- Lower internal resistance which provides increased performance at high rates of discharge.
- No falling-off of capacity with age.
- Life expectancy of 20 years or longer.
- Designed for float-charge operation, always ready for use.

POSITIVE PLATE

Pure lead grids of 8mm and 10mm for YCP and YHP respectively, ensures that there is no fall-off of capacity throughout the life of the cell.

NEGATIVE PLATE

Industrial pasted grid construction, for balanced performance and life.

SEPARATORS

Made of microporous rubber, for exceptionally long life and have high degree of porosity, ensuring minimum internal resistance

TECHNICAL DETAILS

FLOAT CHARGING

As these cells are designed for standby applications they should be float charged to ensure that they remain fully charged, ready for instant use, as all times. Correct float voltage settings may vary depending upon operational differences but as a guideline 2.25 volts per cell at 25°C may be used as a level of charge which will minimise the need for equalising charges whilst providing acceptable life. The installation and maintenance manual should be read for further information.

SPECIFIC GRAVITY

A simple hydrometer reading indicates the state of charge. A fully charged cell will have a specific gravity of 1.210.

VOLTAGE

The nominal voltage is 2 volts per cell, i.e. a nominal 110V battery will have 55 cells. On discharge, the recommended final voltage at which the discharge should be terminated depends on the discharge rate. It is not recommended to continue discharging the cells once the final voltage has been reached as the voltage will fall away at an increasing rate with minimal gain of discharge duration and the risk of over-discharge.

CAPACITY

The capacity of these cells is normally rated at the 10hour rate of discharge although the capacity which can be taken from a cell will vary depending on the discharge rate, as indicated in the capacity table. Capacity is also affected by the cell temperature.

INSTALLATION

These cells can be connected either edge to edge or face to face. The standard method of connection is to follow the shortest distance between the negative post on one cell and the positive post of the next cell.

RECHARGING

The cell's ampere hour efficiency is 90%. To fully recharge the cells the amount of charge required is equal to the amount of discharge in ampere hours plus 11%.

TRANSPARENT CONTAINERS

Moulded from transparent styrene acrylonitrile (SAN) to provide optimum transparency and very high insulating qualities.

CELL LIDS

Moulded from opaque SAN. Are permanently sealed to the container.

VENT PLUGS

Are of a special design which effectively returns all acid spray to the cell, but allows free exit of oxygen and hydrogen gasses.

Planté, Capacities, Weights and Dimensions

Type	Capacity in amp hours at 25°C when discharged in			Initial Charge Current	Weight		Approx Quantity of acid 1.210sg	External dimensions of cell container			Overall height of cells	Centres of cells	Width of single row stillage or stand	Width of double row stillage or stand
	10 Hours	3 Hours	1 Hour		Cell compl. filled	Acid only 1.210sg		Length	Width	Height				
Final Voltage	1.80	1.80	1.75	Amps	Kg	Kg	Litres	m m	m m	m m	m m	m m	m m	m m
ZAP 5	16	13	9.8	1	3.8	1.16	0.96	76	133	212	260	83	330	508
ZAP 9	32	26	19.5	2	6.3	1.89	1.56	114	133	212	260	121	330	508
ZAP 13	48	38.5	29.5	3	10	3.4	2.83	190	133	212	260	140	388	666
ZAP 17	64	52	39	4	11.45	3.25	2.68	190	133	212	260	140	388	666
ZAP 21	80	64	49	5	13.6	3.8	3.16	228	133	212	260	140	388	666
ZCP 7	75	60	46	5	11.0	6.5	5.4	134	203	349	423	140	400	710
ZCP 9	107	86	65	7	18.6	5.5	4.5	134	203	349	423	140	400	710
ZCP 11	134	107	82	8.5	22.2	7.5	6.2	172	203	349	423	178	400	710
ZCP 13	161	129	98	10	24.9	7.2	5.9	172	203	349	423	178	400	710
ZCP 17	214	172	131	14	30.6	8.7	7.2	210	203	349	423	209	406	662
ZCP 21	268	215	163	17	36.9	10.4	8.6	248	203	349	423	209	426	742
ZCP 25	322	258	196	21	43.4	12.1	10	286	203	349	423	209	464	818
ZCP 29	375	301	229	24	54.4	16.2	13.4	362	203	349	423	209	542	974
ZCP 33	429	344	262	28	58.4	15.5	12.8	362	203	349	423	209	542	974
ZCP 35	455	365	278	32	60.4	15.1	12.1	362	203	349	423	209	542	974
ZHP 11	650	408	272	35	95.2	32.2	27.1	230	368	592	682	240	370	969
ZHP 13	780	489	327	42	106.2	30.6	25.7	230	368	592	682	240	370	969
ZHP 15	910	571	381	49	133.5	45.3	38.1	306	368	592	682	315	370	969
ZHP 17	1040	653	436	56	144.5	43.7	36.7	306	368	592	682	315	370	969
ZHP 19	1170	735	490	63	155.5	42.1	35.4	306	368	592	682	315	370	969
ZHP 21	1300	816	545	70	179.3	53.3	44.8	357	368	592	682	379	360	949
ZHP 23	1430	898	599	77	190.4	51.8	43.5	357	368	592	682	379	360	949
ZHP 25	1560	979	654	84	218	68.8	56.1	433	368	592	682	379	435	1099
ZHP 27	1690	1061	708	91	229	65.2	54.8	433	368	592	682	379	435	1099
ZHP 29	1820	1143	762	98	240.1	63.7	53.5	433	368	592	682	379	435	1099
ZHP 31	1950	1224	817	105	268.3	79.3	66.6	509	368	592	682	379	510	1249
ZHP 33	2080	1306	871	112	279.2	77.6	65.2	509	368	592	682	379	510	1249
ZHP 35	2210	1387	926	119	290.2	76	63.9	509	368	592	682	379	510	1249
ZHP 37	2340	1469	980	126	318.2	91.4	76.8	585	368	592	682	379	586	1401
ZHP 39	2470	1550	1035	133	329.2	89.8	75.5	585	368	592	682	379	586	1401
ZHP 41	2600	1632	1089	140	340.2	88.2	74.1	585	368	592	682	379	586	1401

The length of a stand is n x cell centre where n is the number of cells in a row.

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**For More Information Contact:
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