

PLANTÉ

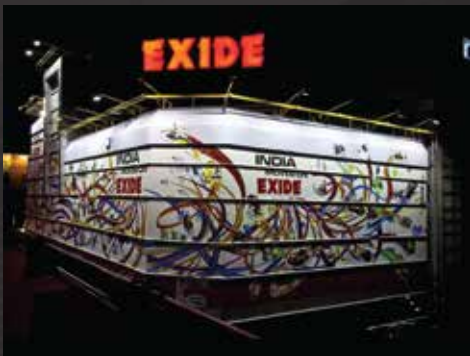
STANDBY
BATTERIES



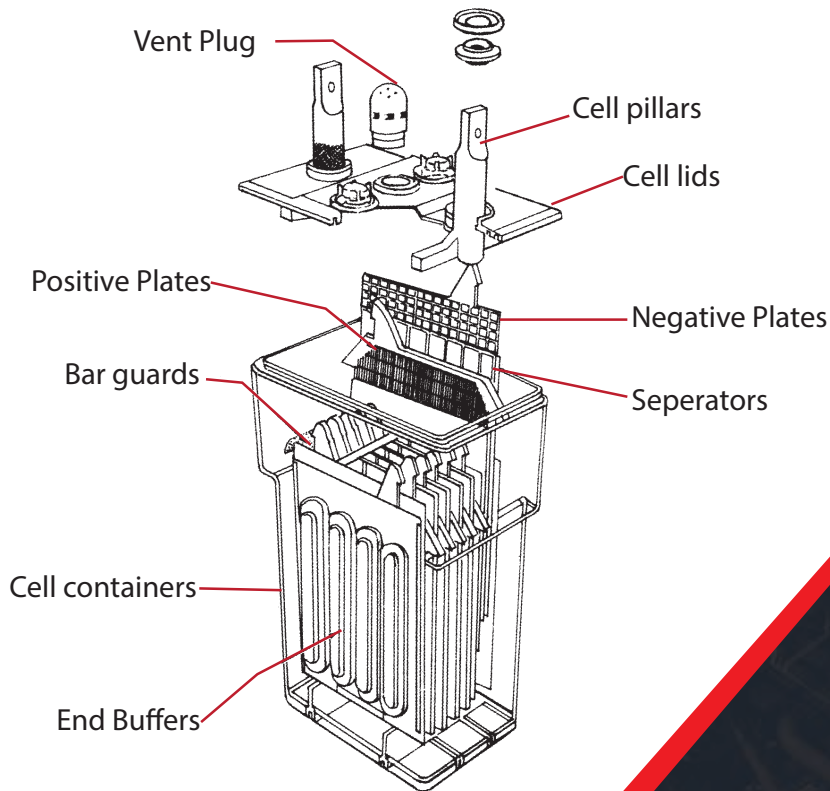
 **EXIDE**
Exide Industries Limited, India

INDUSTRIAL
SOLUTION
POWER

Enabling **Reliability**



- + Headquartered in **Kolkata**, India
- + Products : **Lead Acid Storage Batteries** : 2.5Ah to 20,000 Ah
Hybrid Solar UPS & Home UPS
DC Power Solution
Solar Products & Solutions
- + **9 Manufacturing units** in India
- + **1 R&D Center** in India
- + **5 Wholly owned Subsidiaries** in India
- + Turnover of **USD 1.3 Billion**
- + An Integrated Manufacturing Unit for **Solar Systems and DC Power solutions** in Kolkata, India.



Vent Plugs - Specially designed incorporating a microporous ceramic filter which effectively returns all acid spray to all the cell, but allows free exit of oxygen and hydrogen which is generated towards the end of boost charging.

Cell Pillars - Lead alloy (YAP) with copper insert (YCP/YHP) designed to give minimum resistance and maximum current flow.

Cell containers - Moulded from transparent Styrene Acrylonitrile (SAN) giving excellent clarity, outstanding chemical resistance, rigidity and toughness with very high insulating qualities which eliminate the need for separate cell insulators. Transparency enables the electrolyte level and the cell condition to be monitored at a glance.

Cell lids - Moulded from opaque SAN and sealed to the Container. Can be easily removed if the need for repair occurs.

Negative Plates - Pasted grid construction. Designed for balance performance and life.

Positive Plates - Unique lamellar construction from Ultra-pure lead (99.99%) to ensure least open circuit loss and no fall-off in capacity throughout their long life.

Separators - Sintered PVC providing a complete diaphragm between the plates. Separators are inert chemically, have excellent oxidation resistance and their high degree of porosity ensures minimum internal resistance.

Bar guards - Safeguard against short circuits.

End Buffers - Provide additional lateral support at each end of the element, ensuring a compact assembly to prevent plate movement during transit.



PRODUCT FEATURES



Excellent high rate discharge performance.



Transparent containers for easy maintenance.



Expected service life is greater than 20 years in standby float application at 25°C.



No aging margin required as per IEEE 485 :1997.



Topping up frequency : once in 12/18 months.



Capable of rapid recharging.



Insulated Inter cell Connectors.



Superior all round voltage profile and energy (Wh) output.



Much higher energy output compared to Tubular Cells of similar capacity.



Higher Ah and Wh efficiencies.



Conform to BS 6290: Part 2 : 1999, IS 1652 : 1991 and IEC 60896.





TECHNICAL DATA FOR EXIDE INDIA PLANTE CELL

Type Of Cell	Capacity (Ah) @ 27°C when discharged at 10 hr rate to 1.85V	Charging current (A)		Total input during initial Charging (Ah)	Weight of cell +/- 5% (KG)		Approx Qty of acid 1.19 sp. gr. (Liters)	Overall Cell Dimensions +/- 3mm			Corresponding cell centers (mm)	Trickle Charges Current (mA)	
		Starting Rate	Finishing Rate		Without acid	With acid		Length	Breadth	Height*		Min	Max
YAP 5	16	2.00	1.00	88	2.70	4.70	1.70	114	133	260	123	10	30
YAP 7	24	3.40	1.70	132	3.50	5.40	1.60	114	133	260	123	15	45
YAP 9	32	5.00	2.50	176	4.30	6.10	1.50	114	133	260	123	20	60
YAP 11	40	6.00	3.00	220	5.40	8.80	2.90	190	133	260	199	30	90
YAP 13	48	7.00	3.50	265	6.90	9.50	2.80	190	133	260	199	40	120
YAP 15	56	8.00	4.00	308	7.00	10.20	2.70	190	133	260	199	45	135
YAP 17	64	9.00	4.50	352	7.80	11.00	2.60	190	133	260	199	50	150
YCP 7	75	10.50	5.25	413	10.50	15.90	4.50	134	203	426	211	60	180
YCP 9	100	14.00	7.00	550	12.50	17.30	4.40	134	203	426	211	80	240
YCP 11	125	18.00	9.00	688	18.00	24.40	5.80	173	203	426	211	100	300
YCP 13	150	21.00	10.50	825	22.40	27.25	5.40	173	203	426	211	125	375
YCP 15	175	24.50	12.25	963	19.70	28.70	7.60	210	203	426	211	140	420
YCP 17	200	28.00	14.00	1100	22.00	30.70	7.30	210	203	426	211	160	480
YCP 19	225	32.00	16.00	1238	24.30	34.90	8.90	248	203	426	211	180	540
YCP 21	250	35.00	17.50	1375	26.70	36.90	8.60	248	203	426	211	200	600
YCP 23	275	38.50	19.25	1513	29.10	41.40	10.30	286	203	426	211	220	660
YCP 25	300	42.00	21.00	1650	31.50	43.40	10.00	286	203	426	211	240	720
YCP 27	325	46.00	23.00	1786	36.30	52.60	13.70	362	203	426	211	260	780
YCP 29	350	49.00	24.50	1925	38.50	54.40	13.40	362	203	426	211	280	840
YCP 31	375	52.50	26.25	2063	40.80	56.40	13.10	362	203	426	211	300	900
YCP 33	400	56.00	28.00	2200	43.20	58.40	12.80	362	203	426	211	320	960
YCP 35	425	60.00	30.00	2338	45.80	60.40	12.50	362	203	426	211	340	1020
YHP 11	535	75.00	37.50	2943	64.30	96.70	27.10	230	368	682	238	300	600
YHP 13	645	90.00	45.00	3548	74.80	105.40	25.70	230	368	682	238	360	720
YHP 15	750	105.00	52.50	4125	79.20	108.70	24.50	230	368	682	238	420	840
YHP 17	860	120.00	60.00	4730	104.10	179.50	63.30	433	368	682	376	480	960
YHP 19	965	135.00	67.50	5306	114.40	188.20	62.00	433	368	682	376	550	1100
YHP 21	1070	150.00	75.00	5885	124.70	196.90	60.70	433	368	682	376	600	1200
YHP 23	1180	165.00	82.50	6490	135.00	205.70	59.40	433	368	682	376	660	1320
YHP 25	1285	180.00	90.00	7068	145.30	214.40	58.10	433	368	682	376	720	1440
YHP 27	1395	195.00	97.50	7673	155.60	220.30	54.80	433	368	682	376	780	1560
YHP 29	1500	210.00	105.00	8250	165.90	229.60	53.50	433	368	682	376	850	1700
YHP 31	1605	225.00	112.50	8828	181.70	261.00	66.60	509	368	682	376	900	1800
YHP 33	1715	240.00	120.00	9433	192.00	269.60	65.20	509	368	682	376	960	1920
YHP 35	1820	255.00	127.50	10010	202.30	278.30	63.90	509	368	682	376	1025	2050
YHP 1850	1850	259.00	129.50	10175	202.30	279.00	63.90	509	368	682	376	1035	2070
YHP 37	1930	270.00	135.00	10615	215.90	307.30	76.80	585	368	682	376	1100	2200
YHP39	2035	285.00	142.50	11193	225.90	315.70	75.60	585	368	682	376	1150	2300
YHP 41	2140	300.00	150.00	11770	236.20	324.40	74.10	585	368	682	376	1200	2400
YHP 43	2250	315.00	157.50	12375	246.60	333.10	72.70	585	368	682	376	1250	2500

High Performance Plante Cell manufactured in india

- Unmatched high discharge performance.
- Expected service life is greater then 20 years when opersted on float or trickle charges at 25°C.
- 100% capacity retained throught life span and therefore no aging factor to be considered during battery sizingas reffered in IEEE 485 : 1997.
- Very low maintenance - Topping up frequency : once in 12/18 months.
- Superior all round voltage profile and energy (Wh) output.Maximum energy output within a narrow operation voltage band.
- Capable of rapid recharging.
- Transparent containers for ease of inspection and maintenance.
- Much higher energy output compared to Tubular Cells of similar capacity and therefore, for a given application, plante capacity will be much lower then Tubular.
- Higher Ampere-hour and Watt-hour efficiencies.
- Conforms to BS 6290 : Part 2 : 1999 and IS 1652 :1991.



APPLICATIONS

High Performance plante range of cell are suitable for Standby duties in :





CHARGING INSTRUCTION

Initial Charge

- **Filling-in specific gravity** : 1.19 ± 0.005 at 20°C .
- **Rest period** 12-18 hours.
- Charging may be commenced **at any rate between the starting and finishing rates**.
- Once cell voltage reach 2.36V , **reduce current to finishing rate and continue charging**, till the cell are fully charged. If during any time of charging, temperature exceeds 50°C , suspend charging. **Allow temperature to come down to 40°C and continue at finishing rate**. If however, the time taken for the cell to cool down to 40°C is inordinately long, recharging may be started at 45°C .
- Cell are considered to be **fully charged once three successive hourly readings of cell voltage and electrolyte gravity are found to be constant**. All cells should also gas freely. The voltage of each cell should be around 2.75V on top of charge condition. However, the minimum total Ah input, as mentioned in the table must be provided to the cell even if the voltage and specific gravities are observed to be constant before that. On completion of charge, adjust acid level to 'maximum' after correcting specific gravity of electrolyte to 1.210 ± 0.005 at 20°C

Recharge

All plant cells should strictly be floated at voltage as mentioned in Table 2. In case of lower float voltage because of any system constraint, an equalising must be given once in 3 months.

Trickle Charging currents should be so adjusted, anywhere between the maximum and minimum allowed levels given in the Table 2, such individual cell remain fully charged.

Table 2

Temperature	Float Voltage
$<5^{\circ}\text{C}$	$2.30 \pm 0.02 \text{ VPC.}$
$5^{\circ}\text{C} - 19^{\circ}\text{C}$	$2.27 \pm 0.02 \text{ VPC.}$
$20^{\circ}\text{C} - 35^{\circ}\text{C}$	$2.25 \pm 0.02 \text{ VPC.}$
$36^{\circ}\text{C} - 45^{\circ}\text{C}$	$2.23 \pm 0.02 \text{ VPC.}$

Quick Recharge

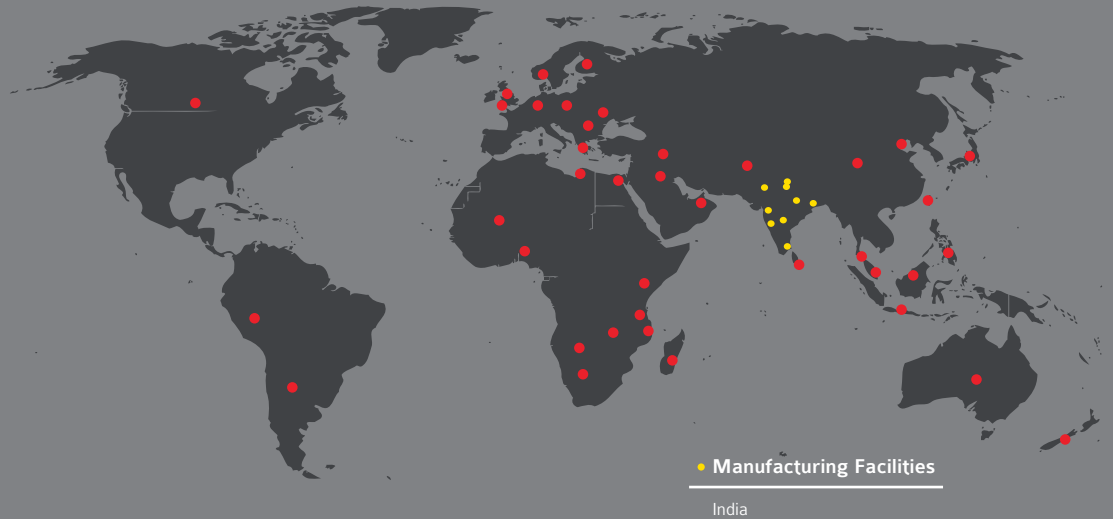
Exide (India) Plante cells after a deep discharge can also be recharged quickly by applying the starting rates mentioned in the table. However, currents will have to be reduced to the Finishing Rate once individual cells attain a voltage level of 2.36 volts. **Care will also have to be taken so that electrolyte temperature does not exceed the maximum of 50°C in which case the charging has to be discontinued until the temperature drops below 40°C** . Charging may be resumed at the finishing rate from the point.

Equalizing charge

Periodical Equalising Charge to be done, depending on the Float Voltage, by charging at Constant Current Charge at Finishing Rate, upto 2.75vpc , till Sp. Gravity reaches steady value and all cells gas freely, followed by a Constant current charges at half the Finishing rate for 16 to 24 hours.

Global Presence

- Norway
- UK
- Canada
- Croatia
- Poland
- Greece
- Malta
- Israel
- Jordan
- Egypt
- Bahrain
- Qatar
- Peru
- Argentina
- Mali
- Nigeria
- Botswana
- South Africa
- Zambia
- Tanzania
- Mozambique
- Kenya
- Mauritius
- UAE
- Sri Lanka
- Malaysia
- New Zealand
- Australia
- Singapore
- Indonesia
- Brunei
- Philippines
- Thailand
- Cambodia
- Vietnam
- Hong Kong
- Taiwan
- Bangladesh
- China
- Japan
- Korea
- Afghanistan
- Oman
- Kuwait
- Armenia
- Finland
- Germany
- Scotland



EXIDE*



DYNEX

INDEX

CHLORIDE*



* Wherever we own the brand



Exide Industries Limited, India

Head Office: Kolkata: 'Exide House', 59E Chowringhee Road, Kolkata - 700 020.
Phone: (033) 2283 2120/33/36/50/51/71/2238/39, Fax: (033) 2283 2632/37

Corporate Marketing Office: Kolkata: 6A, Hathibagan Road, Kolkata - 700 014.
Phone: (033) 2286 6158/6159, Fax: (033) 2286 6186

E-mail: surajitmu@exide.co.in

Visit us at: www.exideindustries.com/www.exideindustrialbatteries.com

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