EXIDE INDUSTRIAL

EXIDE hsp CLASSIC

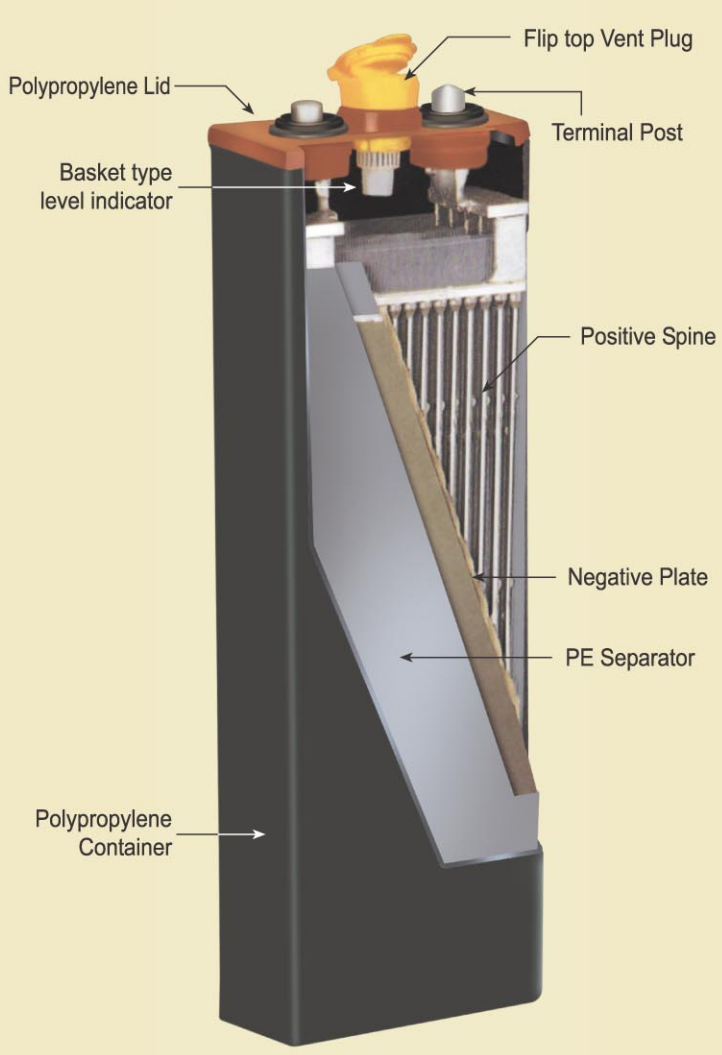
MOTIVE POWER BATTERIES

Why Exide HSP?

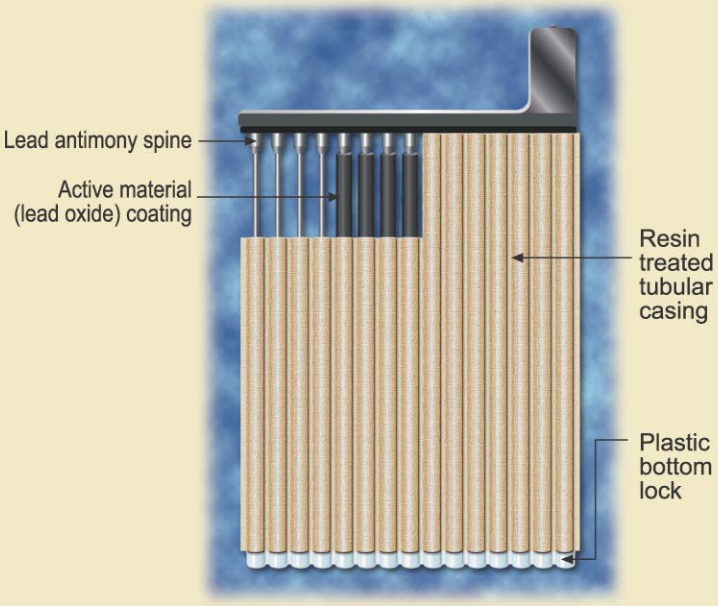
The Features	The Benefits
1. Sturdy Tubular Positive Plates	• Increased Cycle Life • Increased Corrosion Resistance • Excellent Electrical Conductivity • Exceptional Mechanical Performance • Resistant To Shocks and Vibration
2. Specially designed grid for Negative Plate	• Better Active Material Retention • Longer Life
3. Low Antimony	• Low Self Discharge Loss • Low Power Consumption On Charge • Low Maintenance
4. Polypropylene Construction and Total Sealing	• High Impact Resistance • No Electrolyte Leakage • No Electrical / Earth Leakage • Ideally Suitable For Cold Storage Application
5. Special Polyethylene Separator	• High Volume Porosity • Tear Resistant • No Short Circuits

ADVANTAGE EXIDE

- **Experience** : 50 years accumulated experience in Research & Development, Manufacturing and Field Operations. The only company in India to design & manufacture batteries from 2.5 Ah – 20,000 Ah in conventional & VRLA design.
- **Network** : Easy availability with 24 Company branches, 30 Exide Powercentres and over 500 Industrial dealers spread out all over the country. Trained manpower at all locations ensure immediate service and zero down time for your equipment.
- **Solution** : Experienced engineers are available to offer total solutions regarding equipment selection, installation, operation and maintenance.
- **Eco-friendly Company** : ISO 14001 certification. Ensuring eco-friendly production process. The only company with available network for collecting and recycling used batteries to avoid environmental damage.



View of Positive Plate



Features

Total Sealing

The lids are sealed to the container under heat and pressure, thus ensuring complete protection from all acid leakage and terminal corrosion.

Polypropylene construction

Both cell-box and lid are made of impact resistant polypropylene which are able to withstand shock and abuse during service. Polypropylene has both acid resistant and good insulation properties.

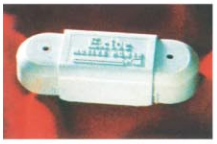
Special Polyethylene Separators

Flexible Polyethylene separators are made into envelopes preventing possibility of side short circuits. These separators have low electrical resistance, smaller pore size, higher volume porosity and very high compressive strength and thus help to extend the life of the battery.

New Design Snaptop Vent Plug

The snaptop vent plugs save time on filling and topping-up of cells. Basket-type level indicators also serve as separator guard.

High Grade Plastic Shrouds



High grade plastic shrouds on inter-cell connectors and terminal take-offs prevent accidental short-circuiting and provides protection from corrosion.

Special Tray Liners

The special liner material within the battery trays provide improved insulation and act as shock absorbers. This ensures tight fitment of individual cells in the Battery Tray.

Compatibility

The Exide HSP Classic is compatible with the latest automatic chargers that are designed to save on electricity. Exide can offer the entire range of batteries in BS & DIN design suitable for fitment in any Indian / Imported Industrial trucks.

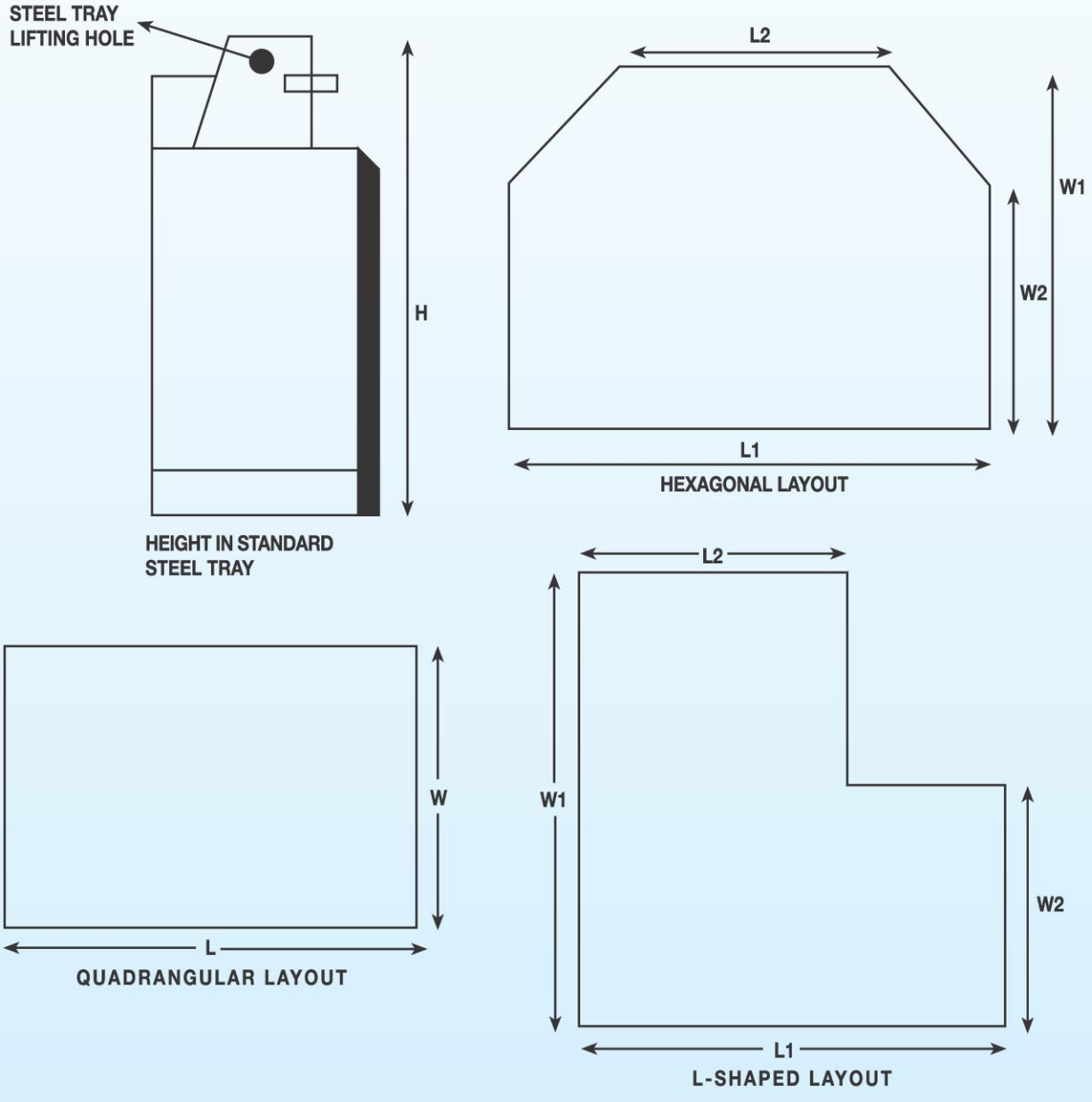
Selecting Your Battery

If Truck make & Model is known please refer “Replacement Chart” alongside.

Otherwise please provide

1. Capacity of battery at 5 hour rate of discharge and battery voltage
2. Number of cells per battery
3. Clear inside dimensions of battery compartment
4. Overall maximum dimensions of existing/required battery. Please provide a handsketch of the battery.
5. Terminal positions and cell layout.
6. Detail on position of studs (if any)

Following is the schematic diagram of Traction batteries :



Replacement Chart

Truck Model	Battery Type	Volts	Rating at 30°C	Max. Overall Dimensions		
				Length (in mm)	Width (Tolerance = + 3 mm)	Height
MACNEILL						
Ranger 1010	24 IMF17	48V	320AH	902	718	518
Ranger 1015	24 ILF17	48V	385AH	902	718	518
Ranger 1020	24 TLF17 Or	48V	443AH	902	718	518
	24 THF17	48V	516AH	902	718	625
Ranger 1025	36 IMF17 Or	72V	320AH	1022	914	637
	36ILF17	72V	385AH	1022	914	637
Ranger 1030	36 ILF17 (With Counter Weight) or	72V	385AH	1022	914	637
	36 TLF17	72V	443AH	1022	914	637
Transloader (TL-2140)	2 x 12 IMF17	48V	320AH	965	345	450
Transloader (TL-2040)	24 IMF17	48V	320AH	997	733	435
Towmaster (TM-2040)	24 XVF13	48V	174AH	972	524	463
HI-STACK (HS 1010)	12 IMF13	24V	240AH	518	468	392
HI-LIFT 1005/ HI-STACK 1110	12IMF13	24V	240AH	699	335	440
HI-LIFT 1008	12IMF13	24V	240AH	699	335	440
HI-LIFT 1008 (Tilting)	2 x 6 IMF13	24V	240AH	363	338	400
Commuter	12 TLF7	24V	166AH	723	221	533
Hi-Reach	8 THF 11/21	24V	645AH	**L1 : 497 L2 : 271	**W1 464 W2 287	838
R5010	24ILF11	48V	241AH	920	528	448
R1020	24TLF21	48V	553AH	921	884	572
HDC1.0	12THF7	24V	194AH	723	220	600
HDC1.25/HDC1.5	12THF9	24V	258AH	660	260	592
HDC1.75	12ILF13	24V	290AH	696	340	480
HR1015	12XWFF11	24V	700AH	L1 497 L2 271	W1 464 W2 287	838
JOSTS						
2T, 3-Wheeler Platform (Jumboelectric)	15 ILF9	30V	193AH	856	355	504
2T, 3-Wheeler Platform (Jumboelectric)	15 ILF13	30V	290AH	856	355	504
2T, 4-Wheeler Platform (Josts Truck)	18IMF17	36V	320AH	1000	467	395
PIGMY	2 x 6 ILF7	24V	144AH	402	178	475
Pallet truck	12THF7	24V	194AH	664	221	600
JALDOOT						
3 Wheeler Platform	15ILF13	30V	290AH	856	355	504
3 Wheeler Platform	15ILF9	30V	193AH	856	355	504
Pallet Truck	12THF7	24V	194AH	723	221	600
Pallet Truck	12TLF7	24V	166AH	723	221	533
4 Wheeler Platform	18IMF17	36V	320AH	1000	467	395

N.B ** Dimensions in L-shaped Layout

Truck Model	Battery Type	Volts	Rating at 30°C	Max. Overall Dimensions (in mm) (Tolerance = + 3 mm)		
				Length	Width	Height
GODREJ						
G050E/G075E	18 IMF17	36V	320AH	*L1 830 L2 500	*W1 630 W2 470	400
G075E/G100E (S)	18 ILF17	36V	385AH	*L1 830 L2 500	*W1 630 W2 470	495
G100E(S)	18 TLF17	36V	443AH	*L1 830 L2 500	*W1 630 W2 470	500
G100E (L)	18 TLF17	36V	443AH	825	611	537
G150E	18 TLF17	36V	443AH	990	475	540
G200E	18 ILF 25	36V	578AH	990	675	533
EC40	18 TLF25	36V	664AH	860	827	534
EC40	18 TLF25	36V	664AH	990	641	533
EC70 (3T)	36 TLF17	72V	443AH	1000	892	533
2 Ton FLT	24TLF17R	48V	470AH	1020	700	570
Crown SC1.6	24XWEF9	48V	440AH	820	518	625
Crown ESR1.4	24XWFF7	48V	420AH	1220	280	790
Crown SC1.25	24XWEF7	48V	330AH	830	412	625
G150E1.5T	18TLF19	36V	495AH	1000	499	520
G200E2.0T	24TLF21	48V	553AH	1000	735	560
Crown WE2000	12XWEF7	24V	330AH	820	215	625
G200E (Old)	18TLF23	36V	605AH	990	700	550
FORK TRUCKS / FTS						
Power Pallet Truck (1000/1500/2000kg)	12 TLF7	24V	166AH	723	221	533
Stacking Truck (1000kg)	12 IMF13	24V	240AH	699	335	440
Fork-Truck 2 Ton	24 TLF17	48V	443AH	946	717	543
VOLTAS						
1.5 Ton	18 TLF21	36V	553AH	990	641	533
2.0 Ton	18 TLF23	36V	605AH	990	641	533
2.0 Ton (Old)	18 TLF25	36V	664AH	990	641	533
2.5 Ton (Old)	18 THF23	36V	712AH	990	665	575
2.5 Ton	18 THF25	36V	775AH	990	665	575
5 Ton	36 THF25	72V	775AH	1285	1000	600
2 Ton (New)	24TLF17	48V	443AH	902	718	518
2.5 Ton (New)	24THF17	48V	516AH	902	718	625
BT Truck	24XWFF9	48V	560AH	1208	579	905
3 Ton	24THF25R	48V	810AH	990	865	600
SWARAJ						
FB Fork Lift	24 TLF21	48V	553AH	1000	825	580
MAINI						
EPT 5	2X6XVF15	24V	203AH	510	275	330
SC 18	12XWCF11	24V	450AH	650	415	520
SP 20	12XWBF5	24V	160AH	630	210	500
ST 15 / SP 36 / SC 14	12XWEF7	24V	330AH	797	212	615
ST10 / ST12 / SP22 / SP36 / SC10	12THF7R	24V	244AH	747	175	625
TT 20 / TT 50	24XWBF7	48V	240AH	794	415	480

N.B ** Dimensions in Hexagonal layout

Exide HSP Classic Motive Power Range

Type of Cell	Ah @C5 at 30°C	Cell Dimension in mm				Cell Weights in Kg.		Quantity of Acid (Ltr.)	Charging Current in Amperes				
		Length +/–2mm	Width +/–2mm	Overall Height +/–5mm	Height upto Lid Top +/–5mm	Without Acid +/–5%	With Acid +/–5%		Taper charging Single Step Charger			Equalising rate (Amps)	Constant Current charging rate (Amps)
									at 2.1 vpc		at 2.5 vpc		
									Taper 2:1 (Amps)	Taper 1.7:1 (Amps)	(Amps)		
XVF5	58	45	158	290	260	3.8	5.0	0.9	7.3	6.5	4.4	1.7	3.5
XVF7	87	61	158	290	260	5.3	6.8	1.2	10.9	9.8	6.5	2.6	5.2
XVF9	116	77	158	290	260	6.8	8.9	1.6	14.5	13.1	8.7	3.5	7.0
XVF11	145	93	158	290	260	8.2	10.7	1.9	18.1	16.3	10.9	4.4	8.7
XVF13	174	109	158	290	260	9.7	12.7	2.3	21.8	19.6	13.1	5.2	10.4
XVF15	203	125	158	290	260	11.2	14.6	2.6	25.4	22.8	15.2	6.1	12.2
XVF17	232	141	158	290	260	12.7	16.6	3.0	29.0	26.1	17.4	7.0	13.9
XVF19	261	157	158	290	260	14.7	19.0	3.3	32.6	29.4	19.6	7.8	15.7
XVF21	290	173	158	290	260	16.3	20.9	3.6	36.3	32.6	21.8	8.7	17.4
XVF23	319	189	158	290	260	17.8	23.0	4.0	39.9	35.9	23.9	9.6	19.1
XVF25	348	205	158	290	260	19.3	25.0	4.4	43.5	39.2	26.1	10.4	20.9
XVF27	377	221	158	290	260	20.7	26.8	4.7	47.1	42.4	28.3	11.3	22.6
IMF5	80	45	158	369	339	4.8	6.3	1.2	10.0	9.0	6.0	2.4	4.8
IMF7	120	61	158	369	339	6.7	8.9	1.7	15.0	13.5	9.0	3.6	7.2
IMF9	160	77	158	369	339	8.6	11.5	2.2	20.0	18.0	12.0	4.8	9.6
IMF11	200	93	158	369	339	10.6	14.0	2.6	25.0	22.5	15.0	6.0	12.0
IMF13	240	109	158	369	339	12.5	16.6	3.2	30.0	27.0	18.0	7.2	14.4
IMF15	280	125	158	369	339	14.4	19.1	3.6	35.0	31.5	21.0	8.4	16.8
IMF17	320	141	158	369	339	16.4	21.8	4.2	40.0	36.0	24.0	9.6	19.2
IMF19	360	157	158	369	339	18.9	24.8	4.6	45.0	40.5	27.0	10.8	21.6
IMF21	400	173	158	369	339	20.9	27.5	5.1	50.0	45.0	30.0	12.0	24.0
IMF23	440	189	158	369	339	22.9	30.1	5.6	55.0	49.5	33.0	13.2	26.4
IMF25	480	205	158	369	339	24.8	32.6	6.1	60.0	54.0	36.0	14.4	28.8
IMF27	520	221	158	369	339	26.7	35.2	6.6	65.0	58.5	39.0	15.6	31.2
ILF5	96	45	158	437	407	5.7	7.5	1.4	12.0	10.8	7.2	2.9	5.8
ILF7	144	61	158	437	407	8.0	10.6	2.0	18.0	16.2	10.8	4.3	8.6
ILF9	193	77	158	437	407	10.4	13.7	2.6	24.1	21.7	14.5	5.8	11.6
ILF11	241	93	158	437	407	12.7	16.7	3.1	30.1	27.1	18.1	7.2	14.5
ILF13	290	109	158	437	407	15.0	19.8	3.7	36.3	32.6	21.8	8.7	17.4
ILF15	336	125	158	437	407	17.4	22.8	4.3	42.0	37.8	25.2	10.1	20.2
ILF17	385	141	158	437	407	19.7	26.0	4.9	48.1	43.3	28.9	11.6	23.1
ILF19	432	157	158	437	407	22.6	29.6	5.4	54.0	48.6	32.4	13.0	25.9
ILF21	482	173	158	437	407	24.9	32.7	6.0	60.3	54.2	36.2	14.5	28.9
ILF23	528	189	158	437	407	27.4	35.9	6.6	66.0	59.4	39.6	15.8	31.7
ILF25	578	205	158	437	407	29.7	38.9	7.2	72.3	65.0	43.4	17.3	34.7
ILF27	624	221	158	437	407	32.0	42.0	7.7	78.0	70.2	46.8	18.7	37.4
TLF5	110	45	158	488	458	6.4	8.5	1.6	13.8	12.4	8.3	3.3	6.6
TLF7	166	61	158	488	458	9.0	11.9	2.3	20.8	18.7	12.5	5.0	10.0
TLF9	221	77	158	488	458	11.7	15.5	2.9	27.6	24.9	16.6	6.6	13.3
TLF11	277	93	158	488	458	14.3	18.9	3.5	34.6	31.2	20.8	8.3	16.6
TLF13	332	109	158	488	458	17.0	22.4	4.2	41.5	37.4	24.9	10.0	19.9
TLF15	385	125	158	488	458	19.6	25.9	4.8	48.1	43.3	28.9	11.6	23.1
TLF17	443	141	158	488	458	22.8	30.0	5.6	55.4	49.8	33.2	13.3	26.6
TLF19	495	157	158	488	458	25.5	33.4	6.2	61.9	55.7	37.1	14.9	29.7
TLF21	553	173	158	488	458	28.1	36.9	6.8	69.1	62.2	41.5	16.6	33.2
TLF23	605	189	158	488	458	30.9	40.5	7.5	75.6	68.1	45.4	18.2	36.3
TLF25	664	205	158	488	458	33.5	44.0	8.1	83.0	74.7	49.8	19.9	39.8
TLF27	715	221	158	488	458	36.2	47.5	8.8	89.4	80.4	53.6	21.5	42.9

Exide HSP Classic Motive Power Range

Type of Cell	Ah @ C5 at 30°C	Cell Dimension in mm				Cell Weights in Kg.		Quantity of Acid (Ltr.)	Charging Current in Amperes				
		Length +/–2mm	Wiidth +/–2mm	Overall Height +/–5mm	Height upto Lid Top +/–5mm	Without Acid +/–5%	With Acid +/–5%		Taper charging Single Step Charger			Equalising rate (Amps)	Constant Current charging rate (Amps)
									at 2.1 vpc		at 2.5 vpc		
									Taper 2:1 (Amps)	Taper 1.7:1 (Amps)	(Amps)		
THF5	129	45	158	544	514	7.2	9.6	1.8	16.1	14.5	9.7	3.9	7.7
THF7	194	61	158	544	514	10.2	13.5	2.6	24.3	21.8	14.6	5.8	11.6
THF9	258	77	158	544	514	13.2	17.5	3.3	32.3	29.0	19.4	7.7	15.5
THF11	323	93	158	544	514	16.2	21.3	4.0	40.4	36.3	24.2	9.7	19.4
THF13	387	109	158	544	514	19.2	25.3	4.8	48.4	43.5	29.0	11.6	23.2
THF15	453	125	158	544	514	22.1	29.2	5.5	56.6	51.0	34.0	13.6	27.2
THF17	516	141	158	544	514	25.7	33.8	6.3	64.5	58.1	38.7	15.5	31.0
THF19	582	157	158	544	514	28.7	37.7	7.0	72.8	65.5	43.7	17.5	34.9
THF21	645	173	158	544	514	31.6	41.6	7.7	80.6	72.5	48.4	19.4	38.7
THF23	712	189	158	544	514	34.7	45.7	8.5	89.0	80.1	53.4	21.4	42.7
THF25	775	205	158	544	514	37.7	49.6	9.2	96.9	87.2	58.1	23.3	46.5
THF27	841	221	158	544	514	40.7	53.5	9.9	105.1	94.6	63.1	25.2	50.5

Capacities declared based on test sp. gravity in fully charged condition as 1.285±0.005 as per IS:5154

Exide HSP Classic Motive Power Range

DIN RANGE CELLS (198 MM WIDE)

Type of Cell	Ah @ C5 at 30°C	Cell Dimension in mm				Cell Weights in Kg.		Quantity of Acid (Ltr.)	Charging Current in Amperes				
		Length +/–2mm	Width +/–2mm	Overall Height +/–5mm	Height upto Lid Top +/–5mm	Without Acid +/–5%	With Acid +/–5%		Taper charging Single Step Charger			Equalising rate (Amps)	Constant Current charging rate (Amps)
									at 2.1 vpc		at 2.5 vpc		
									Taper 2:1 (Amps)	Taper 1.7:1 (Amps)	(Amps)		
XWAF5	120	47	198	378	348	6.4	8.3	1.5	15.0	13.5	9.0	3.6	7.2
XWAF7	180	65	198	378	348	9.1	12.1	2.3	22.5	20.3	13.5	5.4	10.8
XWAF9	240	83	198	378	348	11.8	15.7	3.0	30.0	27.0	18.0	7.2	14.4
XWAF11	300	101	198	378	348	14.5	19.3	3.7	37.5	33.8	22.5	9.0	18.0
XWAF13	360	119	198	378	348	17.3	23.1	4.5	45.0	40.5	27.0	10.8	21.6
XWAF15	420	137	198	378	348	20.0	26.7	5.2	52.5	47.3	31.5	12.6	25.2
XWAF17	480	155	198	378	348	22.8	30.5	5.9	60.0	54.0	36.0	14.4	28.8
XWAF19	540	173	198	378	348	25.5	34.2	6.7	67.5	60.8	40.5	16.2	32.4
XWAF21	600	191	198	378	348	28.3	37.8	7.4	75.0	67.5	45.0	18.0	36.0
XWBF5	160	47	198	445	415	8.2	10.5	1.7	20.0	18.0	12.0	4.8	9.6
XWBF7	240	65	198	445	415	11.7	15.3	2.7	30.0	27.0	18.0	7.2	14.4
XWBF9	320	83	198	445	415	15.2	19.9	3.6	40.0	36.0	24.0	9.6	19.2
XWBF11	400	101	198	445	415	18.6	24.4	4.5	50.0	45.0	30.0	12.0	24.0
XWBF13	480	119	198	445	415	22.1	29.1	5.4	60.0	54.0	36.0	14.4	28.8
XWBF15	560	137	198	445	415	25.6	33.7	6.3	70.0	63.0	42.0	16.8	33.6
XWBF17	640	155	198	445	415	29.2	38.4	7.3	80.0	72.0	48.0	19.2	38.4
XWBF19	720	173	198	445	415	32.6	43.1	8.1	90.0	81.0	54.0	21.6	43.2
XWBF21	800	191	198	445	415	36.1	47.7	9.0	100.0	90.0	60.0	24.0	48.0

Exide HSP Classic Motive Power Range

DIN RANGE CELLS (198 MM WIDE)

Type of Cell	Ah @ C5 at 30°C	Cell Dimension in mm				Cell Weights in Kg.			Charging Current in Amperes				
		Length +/– 2mm	Width +/– 2mm	Overall Height +/–5mm	Height upto Lid Top +/– 5mm	Without Acid +/–5%	With Acid +/–5%	Quantity of Acid (Ltr.)	Taper charging Single Step Charger			Equalising rate (Amps)	Constant Current charging rate (Amps)
									at 2.1 vpc		at 2.5 vpc		
									Taper 2:1 (Amps)	Taper 1.7:1 (Amps)	(Amps)		
XWCF5	180	47	198	494	464	9.3	11.9	2.0	22.5	20.3	13.5	5.4	10.8
XWCF7	270	65	198	494	464	13.5	17.6	3.1	33.8	30.4	20.3	8.1	16.2
XWCF9	360	83	198	494	464	17.6	23.0	4.2	45.0	40.5	27.0	10.8	21.6
XWCF11	450	101	198	494	464	21.8	28.4	5.1	56.3	50.6	33.8	13.5	27.0
XWCF13	540	119	198	494	464	26.0	34.0	6.2	67.5	60.8	40.5	16.2	32.4
XWCF15	630	137	198	494	464	30.1	39.4	7.2	78.8	70.9	47.3	18.9	37.8
XWCF17	720	155	198	494	464	34.3	44.9	8.2	90.0	81.0	54.0	21.6	43.2
XWCF19	810	173	198	494	464	38.4	50.4	9.3	101.3	91.1	60.8	24.3	48.6
XWCF21	900	191	198	494	464	42.6	55.8	10.2	112.5	101.3	67.5	27.0	54.0
LXWEF5	220	47	198	582	552	11.5	14.5	2.3	27.5	24.8	16.5	6.6	13.2
LXWEF7	330	65	198	582	552	16.5	21.2	3.7	41.3	37.1	24.8	9.9	19.8
LXWEF9	440	83	198	582	552	21.4	27.7	4.9	55.0	49.5	33.0	13.2	26.4
LXWEF11	550	101	198	582	552	26.3	34.1	6.0	68.8	61.9	41.3	16.5	33.0
LXWEF13	660	119	198	582	552	31.2	40.7	7.3	82.5	74.3	49.5	19.8	39.6
LXWEF15	770	137	198	582	552	36.2	47.1	8.5	96.3	86.6	57.8	23.1	46.2
LXWEF17	880	155	198	582	552	41.2	53.7	9.7	110.0	99.0	66.0	26.4	52.8
LXWEF19	990	173	198	582	552	46.1	60.3	11.0	123.8	111.4	74.3	29.7	59.4
LXWEF21	1100	191	198	582	552	51.1	66.6	12.1	137.5	123.8	82.5	33.0	66.0
XWEF5	220	47	198	611	581	11.8	15.1	2.5	27.5	24.8	16.5	6.6	13.2
XWEF7	330	65	198	611	581	16.8	22.0	4.0	41.3	37.1	24.8	9.9	19.8
XWEF9	440	83	198	611	581	21.7	28.6	5.3	55.0	49.5	33.0	13.2	26.4
XWEF11	550	101	198	611	581	26.6	35.1	6.5	68.8	61.9	41.3	16.5	33.0
XWEF13	660	119	198	611	581	31.6	41.8	7.9	82.5	74.3	49.5	19.8	39.6
XWEF15	770	137	198	611	581	36.5	48.4	9.2	96.3	86.6	57.8	23.1	46.2
XWEF17	880	155	198	611	581	41.7	55.3	10.5	110.0	99.0	66.0	26.4	52.8
XWEF19	990	173	198	611	581	46.7	62.0	11.9	123.8	111.4	74.3	29.7	59.4
XWEF21	1100	191	198	611	581	51.6	68.5	13.1	137.5	123.8	82.5	33.0	66.0
LXWFF5	280	47	198	729	699	14.3	18.3	3.0	35.0	31.5	21.0	8.4	16.8
LXWFF7	420	65	198	729	699	20.5	26.7	4.8	52.5	47.3	31.5	12.6	25.2
LXWFF9	560	83	198	729	699	26.6	34.8	6.4	70.0	63.0	42.0	16.8	33.6
LXWFF11	700	101	198	729	699	32.6	42.7	7.8	87.5	78.8	52.5	21.0	42.0
LXWFF13	840	119	198	729	699	38.7	51.0	9.5	105.0	94.5	63.0	25.2	50.4
LXWFF15	980	137	198	729	699	44.8	59.0	11.0	122.5	110.3	73.5	29.4	58.8
LXWFF17	1120	155	198	729	699	51.2	67.4	12.6	140.0	126.0	84.0	33.6	67.2
LXWFF19	1260	173	198	729	699	57.3	75.6	14.2	157.5	141.8	94.5	37.8	75.6
LXWFF21	1400	191	198	729	699	63.4	83.6	15.7	175.0	157.5	105.0	42.0	84.0
XWFF5	280	47	198	753	723	14.4	18.6	3.2	35.0	31.5	21.0	8.4	16.8
XWFF7	420	65	198	753	723	20.6	27.1	5.0	52.5	47.3	31.5	12.6	25.2
XWFF9	560	83	198	753	723	26.7	35.3	6.6	70.0	63.0	42.0	16.8	33.6
XWFF11	700	101	198	753	723	32.8	43.4	8.2	87.5	78.8	52.5	21.0	42.0
XWFF13	840	119	198	753	723	39.0	51.8	9.9	105.5	94.5	63.0	25.2	50.4
XWFF15	980	137	198	753	723	45.1	59.9	11.5	122.5	110.3	73.5	29.4	58.8
XWFF17	1120	155	198	753	723	51.5	68.4	13.1	140.0	126.0	84.0	33.6	67.2
XWFF19	1260	173	198	753	723	57.6	76.8	14.8	157.5	141.8	94.5	37.8	75.6
XWFF21	1400	191	198	753	723	63.8	84.9	16.3	175.0	157.5	105.0	42.0	84.0

Capacities declared based on test sp. gravity in fully charged condition as 1.285±0.005 as per IS:5154

Applications

EXIDE HSP range of Traction batteries are used for the following applications

ELECTRIC FORK-LIFT TRUCKS

EXIDE HSP CLASSIC batteries are the preferred batteries for all major Electric Fork Lift Truck manufacturers in India – Godrej, Jaldoot, Josts, Macneill, Mahindra Stillers, Maini, Swaraj, Voltas and others. The recommended Replacement charts indicate relevant details pertaining to fitment of batteries in the commonly used trucks. EXIDE HSP batteries are also suitable for fitment to imported trucks like Komatsu, Yale, Still, Linde, Crown, Jungheinrich and other makes.

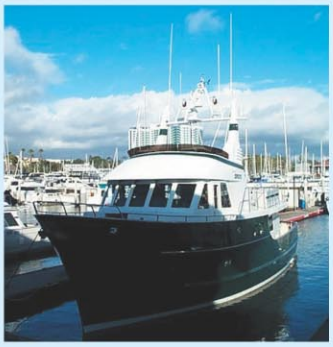



ELECTRIC VEHICLES

EXIDE HSP CLASSIC batteries are preferred batteries for Electravan and Electrabus. The battery voltages are 96 volts and 160 volts.

NAVAL APPLICATIONS

EXIDE HSP CLASSIC batteries are also used in ships like corvettes, towing tugs etc.



MINING LOCOMOTIVES

EXIDE HSP CLASSIC batteries are used in Mining Locomotives – Ventra, Gem, Clayton, Sig & Skoda used in underground mines of coal, copper, manganese, zinc, gold and other metals. The battery voltages range from 60 volts to 120 volts and the batteries are assembled in several trays as per make of locomotives.

Do's and Don'ts for Traction battery

Do's

1. Regularly top up battery with Battery Grade water upto required level. For quick and safe top up use Exide Autofil System
2. Keep the battery top clean and dry.
3. Carry out periodic equalizing charge on the battery as specified.
4. Remove sulphation from battery terminals by using hot water only and smear contact points with petroleum jelly.
5. Maintain daily readings of Sp. Gravity voltage and temperature of pilot cells in the record book.
6. Replace defective cells (which cannot be repaired) immedately.
7. Always keep the vent plugs closed except during charging.
8. For storage of battery in dry and uncharged condition-plug all vent holes making them airtight. Battery to be stored in cool dry place.
9. For storage of battery in charged condition – disconnect main cables connected to it. Store in cool dry place. Put battery on trickle charge or if kept in open circuit, put battery on freshening charge, once in a month.
10. Battery charging room should be well ventilated, preferably with air exhaust system.

Don'ts

1. In case of any cell failure, do not short circuit or jump the cell for running the battery.
2. Never top up cells with acid.
3. Avoid naked flames, sparks and smoking near a battery.
4. Do not use non-insulated tools while working on batteries. Do not wear wrist chains/bangles. Avoid wearing watches with loose metal bands. These may cause short circuit and sparks.
5. Do not use grease on battery terminals.
6. Do not keep charged battery directly under sunlight or in any heated place.
7. Do not top up with tap water- use demineralized water only.

Initial Charging

"Initial charging of all traction cells shall be done in Constant Current mode at currents indicated in the table with a minimum Ah input of 5 to 5.5 times of rated C5 capacity. Charging may be continued even after the minimum Ah has been delivered till three consecutive hourly readings of Voltage and Specific Gravity are observed to be constant."

✆ Current Tracmobile Nos. are as follows :

The Tracmobile is a fully equipped mobile service van dedicated for Traction customers located in these cities.

Just dial the number convenient for you.

Bangalore	: +91 9880109879
Baroda	: +91 9998955151
Chennai	: +91 9884415245
Kolkata	: +91 9830189941
Delhi	: +91 9212627189
Hyderabad	: +91 9885625602
Mumbai	: +91 9892875203
Pune	: +91 9422510764
Goa	: +91 9420165785

The Exide R&D Centre & Haldia Factory

The state of the art R&D Centre in Kolkata is recognized by the Department of Scientific & Industrial Research under Ministry of Science & Technology, Govt. of India. It is one of the best institutions in India where quality research is carried out on battery technology. The Exide R&D team offers specialized expertise in bringing out superior products suitable for various applications.

The Traction factory at Haldia (West Bengal) has the most modern equipment to manufacture Traction cells of global standards.

TÜV CERT

CERTIFICATE

The TÜV CERT Certification Body of RWTÜV Systems GmbH

certifies in accordance with TÜV CERT procedures that

EXIDE INDUSTRIES LIMITED
Haldia Factory
P.O. Durgachak, Haldia
Dist. Midnapore East, Pin 721 602
West Bengal, India

has established and applies an environmental management system for

Design and Manufacturing of Lead Acid Storage Batteries for Automotive, Industrial(including VRLA) and Submarine Applications

An audit was performed, Report No. 2.5-2514/2001

Proof has been furnished that the requirements according to

ISO 14001 : 2004

are fulfilled. The certificate is valid until 05 September 2008

Certificate Registration No. 04 104 2002 0724 - E3

The company has been certified since 2002

TÜV NORD

Essen, 04.10.2005

Committed to green environment

Haldia Factory

EXIDE INDUSTRIAL

Visit us at http://www.exide4u.com

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