HBL®

An ISO 9001, ISO 14001 and
OHSAS 18001 Certified Company

Since
1977
Design. Development. Manufacturing

Higher Reliability
Redefined

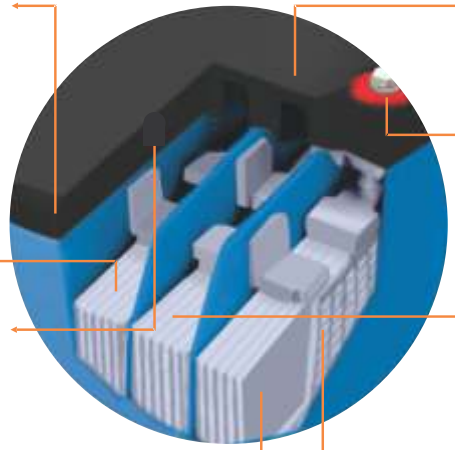
OPTIMUZ

SEALED MAINTENANCE FREE
VRLA BATTERIES

Why us

Today's global businesses demand a 24x7 uptime environment making Uninterruptible Power Supplies (UPS) an integral part of the infrastructure. Batteries are the single most critical element of UPS system. HBL POWER SYSTEMS takes pride in positioning itself as the industry leader in manufacturing reliable, safe, high-quality customized Sealed Maintenance Free battery for UPS. HBL has a state of the art manufacturing facilities with unmatched quality standards. HBL is accredited with ISO 9001 and OHSAS 18001 certified.

Design and construction features



Container and cover sealing
Heat sealing / Special Epoxy sealing for better joint strength.

Separator
High porosity absorbent type glass mat separator (AGM) with low internal resistance.

Safety Valve
Self releasing, pressure regulating EPDM valve.

Positive Plate
Flat pasted Plate with corrosion resistant lead alloy grids

Container
High impact ABS container for better strength.

Terminals
High conductivity brass terminals for better electrical conductivity.

Electrolyte
High purity sulphuric acid along with additives to maximize shelf life and to improve heat dissipation.

Negative Plate
Flat pasted plate with lead calcium alloy grid for maintenance free characteristics.

Upgrade in technology

OPTIMUZ SMF VRLA batteries use state of the art heavy duty grids with high purity specialized alloy along with Valve Regulated Lead Acid (VRLA) technology. These batteries are designed to suit long and frequent power failures.

HBL has a distinction of serving defence, railways & telecom majors since 3 decades

Superior features & benefits include

Low Internal Resistance
High rate discharge performance.
Fast charge capability.

Low Self discharge
Long shelf life.

Copper alloy terminals
Better electrical conductivity and contact

High Energy Density
Less weight

Corrosion resistant grid alloy
Long life

Deep Discharge Capability
Withstands frequent & long power failures

Applications

UPS

Solar Power Equipment

Medical Instruments

Fire & Security Alarm Systems

OPTIMUZ is the firtst choice for IT, Banking, Educational institutions & Industries

Charge settings at 25°c

Dual Setting
Boost 14.0V Float 13.7V

Single Setting 13.8V

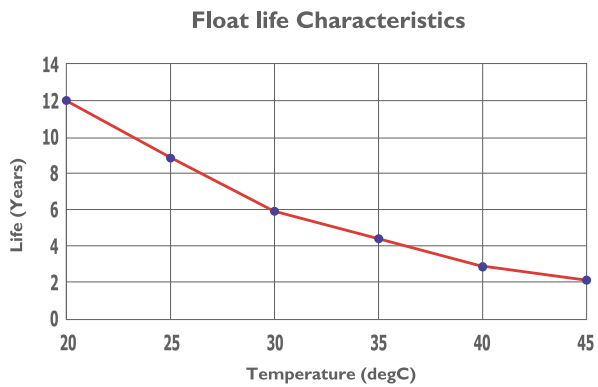
Cyclic 14.1V

Current Limit (% of rated capacity)
Minimum : **10%**
Maximum : **20%**

Temperature compensation for charge Voltage
Compensation 18mv to be reduced for every 1°C rise in temperature and vice versa.

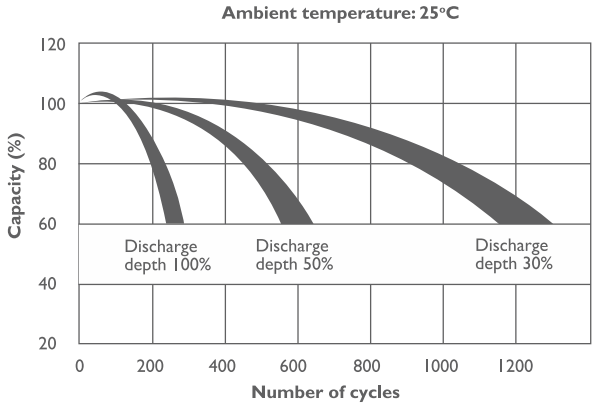
Float life

The float life of the battery is defined in calendar years at a standard temperature of 25°C, when floated with a charge voltage of 2.25 volts per cell. The expected float life of batteries at various average ambient temperatures, when floated with a voltage of 2.25 volts per cell is shown in graph.



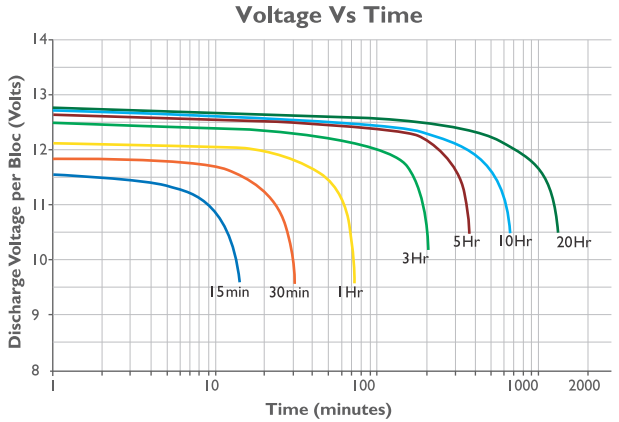
Cycle life

Battery cycle life is highly dependent on the depth of discharge, recharge and ambient temperature that the battery experiences during each cycle. The number of cycles related to the depth of discharge with respect to % capacity is shown in graph.



Discharge characteristics

The curves in the figure illustrate the typical discharge characteristics at an ambient temperature of 25°C. The C20 expresses the nominal capacity of the battery at 20 hr discharge rate.



Constant current discharge performance

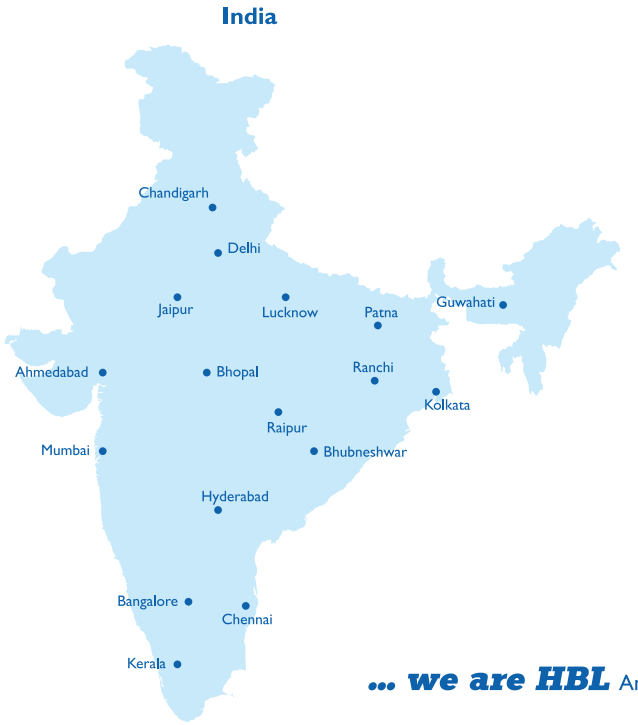
Bty. Model	Discharge Current/ Battery to 1.75VPC (Amps)							
	10 min	15 min	30 min	1 Hour	3 Hour	5 Hour	10 Hour	20 Hour
OPTI 7	13.2	10.6	6.80	4.28	1.73	1.16	0.65	0.35
OPTI 12	22.6	18.2	11.7	7.3	2.97	1.99	1.11	0.60
OPTI 17	32.1	25.9	16.5	10.4	4.21	2.83	1.58	0.85
OPTI 26	49.0	39.5	25.3	15.9	6.4	4.32	2.41	1.30
OPTI 42	79.2	63.9	40.8	25.7	10.4	7.0	3.90	2.10
OPTI 65	123	99	63.2	39.7	16.1	10.8	6.0	3.25
OPTI 75	141	114	72.9	45.8	18.6	12.5	7.0	3.75
OPTI 100	179	143	93.4	57.6	23.3	15.8	9.1	5.00
OPTI 120	215	172	112	69.1	28.0	19.0	10.9	6.00
OPTI 150	269	215	140	86.4	35.0	23.7	13.7	7.50
OPTI 200	358	286	186	115	46.7	31.6	18.2	10.0

Bty. Model	Discharge Watts / Cell to 1.75VPC (Watts)							
	10 min	15 min	30 min	1 Hour	3 Hour	5 Hour	10 Hour	20 Hour
OPTI 7	24.2	20.0	13.0	8.3	3.41	2.30	1.30	0.71
OPTI 12	41.5	34.2	22.3	14.3	5.9	3.95	2.23	1.21
OPTI 17	58.8	48.5	31.6	20.2	8.3	5.6	3.16	1.72
OPTI 26	90	74.2	48.4	30.9	12.7	8.6	4.83	2.62
OPTI 42	145	120	78.2	49.9	20.5	13.8	7.8	4.24
OPTI 65	225	185	121	77.2	31.7	21.4	12.1	6.6
OPTI 75	259	214	140	89.1	36.6	24.7	13.9	7.6
OPTI 100	329	269	179	112	45.9	31.3	18.2	10.1
OPTI 120	394	322	215	134	55.1	37.6	21.8	12.1
OPTI 150	493	403	268	168	68.9	47.0	27.3	15.1
OPTI 200	657	537	358	224	91.9	62.6	36.4	20.2

Product Specifications

Model	Dimensions (in mm) +/- 5 mm			Weight in kg (+/-5%)
	Length	Width	Height	
OPTI 7	151	65	100	2.20
OPTI 12	151	98	100	3.75
OPTI 17	181	76	171	6.00
OPTI 26	166	125	175	9.00
OPTI 42	197	165	170	13.5
OPTI 65	330	168	176	21.0
OPTI 75	350	168	176	23.5
OPTI 100	410	175	225	30.0
OPTI 120	410	175	225	33.0
OPTI 150	525	220	225	46.0
OPTI 200	525	220	225	57.0

Our Sales offices



Manufactured and marketed by:

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