HBL

An ISO 9001, ISO 14001 and
OHSAS 18001 Certified Company

Since
1977
Design. Development. Manufacturing

Reliability Redefined

OPTIMUZ

SEALED MAINTENANCE FREE
VRLA BATTERIES

Why OPTIMUZ

Today's global businesses demand a 24X7 uptime environment making Uninterrupted Power Supplies (UPS) an integral part of the infrastructure. Batteries are the single most critical element of UPS system. HBL takes pride in positioning itself as the industry leader in manufacturing reliable, safe, high-quality Sealed Maintenance Free batteries for UPS applications.

HBL has a state of the art manufacturing facilities with high quality standards and is accredited with ISO 9001, 14001 and OHSAS 18001.

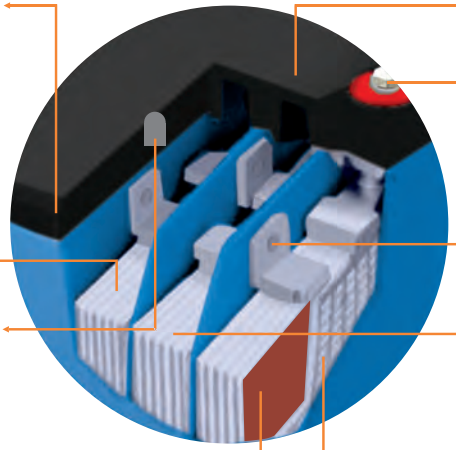
Design and construction features

Container and cover sealing
Heat sealing / Special epoxy sealing for better joint strength

Separator
High porosity Absorbent Glass Mat separator (AGM) with low internal resistance

Safety valve
Self releasing, pressure regulating EPDM valve

Positive plate
Flat pasted plate with corrosion resistant cyclic lead alloy



Container
High impact PP/ABS container for better strength

Terminals
High conductivity brass terminals for better electrical conductivity

Inter Cell Welding (ICW) or Over patrician joint
Withstands high rate performance

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 for maintenance free characteristics

Applications

UPS Systems
Banking, Financial Services & Insurance
IT / ITES

Telecom
Optical Network Terminal
Telecom Equipment

Power Back up
CFL/LED Lamps
Railway Emergency Lighting
Solar Power Equipment
Medical Instruments
Fire & Security Alarm Systems

Feature benefit snapshot

Cyclic grid alloy for positive plate
Higher cycle life

Radial grids
Low internal resistance
Quick recharge
High discharge performance

AGM Separator
Greater compression
Longer life

Copper alloy screw type terminals
Better electrical conductivity
Absolute positive contact
Zero wear & tear

Deep discharge capability
Withstands frequent & long power failures

Low self discharge
Longer shelf life

Product conformance
JIS C 8702 - 1

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

Charge settings at 25°c

Dual setting
Boost 14.0V Float 13.7V

Single setting 13.8V

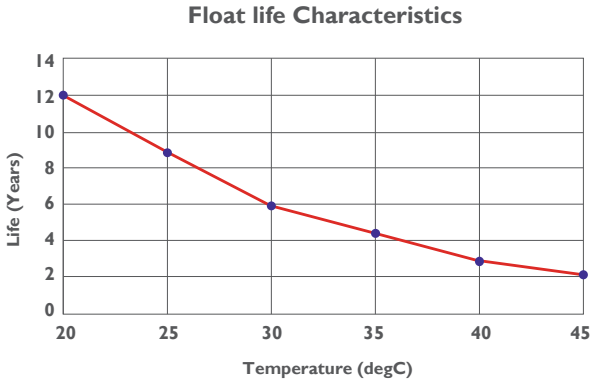
Cyclic 14.1V

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

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

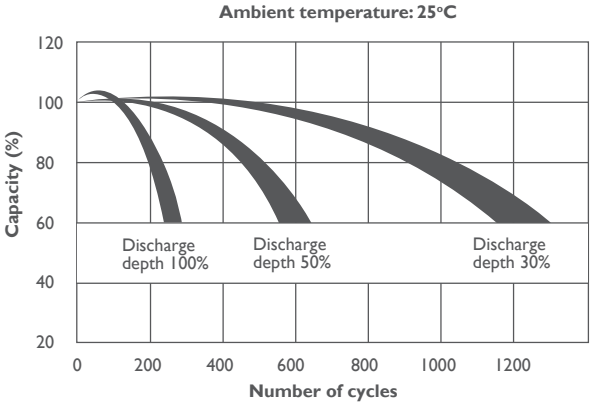
Design float life

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.



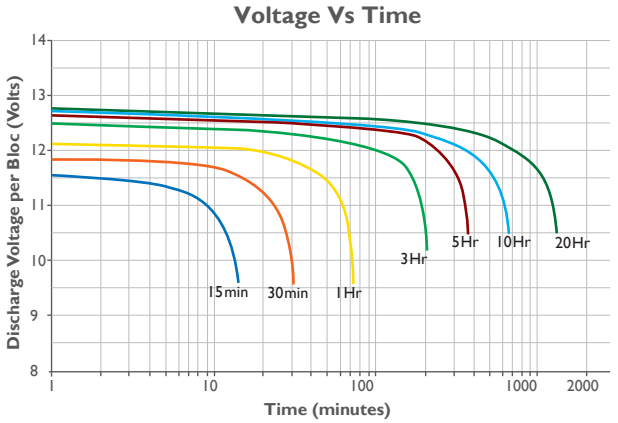
Cycle life

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 26	49.0	39.5	25.3	15.9	6.4	4.3	2.41	1.30
OPTI 42	79	64	40.8	25.7	10.4	6.8	3.9	2.10
OPTI 65	123	99	63	39.7	16.1	10.8	6.0	3.25
OPTI 100	189	152	97	61	24.8	16.6	9.3	5.0
OPTI 150	283	228	146	92	37.2	24.9	13.9	7.5

Constant power discharge performance

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 26	90	74	48.4	30.9	12.7	8.6	4.83	2.62
OPTI 42	145	120	78	49.9	20.5	13.5	7.8	4.24
OPTI 65	225	185	121	77	31.7	21.4	12.1	6.6
OPTI 100	346	285	186	119	48.8	32.9	18.6	10.1
OPTI 150	519	428	279	178	73.1	49.4	27.9	15.1

Product specifications

Bty. Model	Dimensions (in mm) +/- 5 mm			Weight in kg. (+/-5%)
	Length	Width	Height	
OPTI 26	166	125	175	9.00
OPTI 42	198	168	174	13.5
OPTI 65	350	168	176	21.0
OPTI 100	410	175	225	32.0
OPTI 150	525	220	225	47.0

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