

HBL®
An ISO 9001, ISO 14001 and
OHSAS 45001 Certified Company

Reliability Redefined

OPTIMUZ
SEALED MAINTENANCE FREE
VRLA BATTERIES



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 facility with high quality standards which is accredited with ISO 9001, I 4001 and OHSAS 45001 certifications.

Applications



UPS Systems

Banking, Financial Services &
Insurance IT/ITES



Telecom

Optical Network Terminal
Telecom Equipment



Power Back up

CFL/LED Lamps
Railway Emergency Light
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 -I

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

Design and construction features

Container and cover sealing

Heat sealing / Special epoxy sealing
for better joint strength

Separator

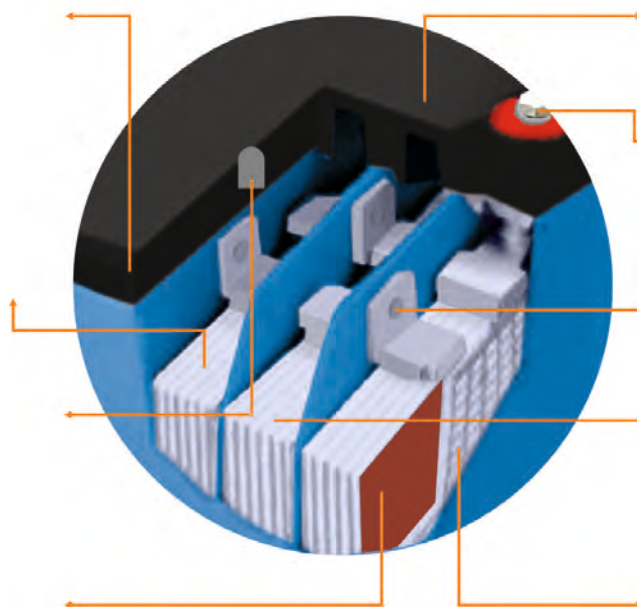
High porosity Absorbent
Glass Mat separator (AGM)
with low internal resistance

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

Charge settings at 27°C

Float Application

Boost 14.1V Float 13.5V

Cyclic Application

14.1V

Current limit

Minimum: 10% of Rated capacity

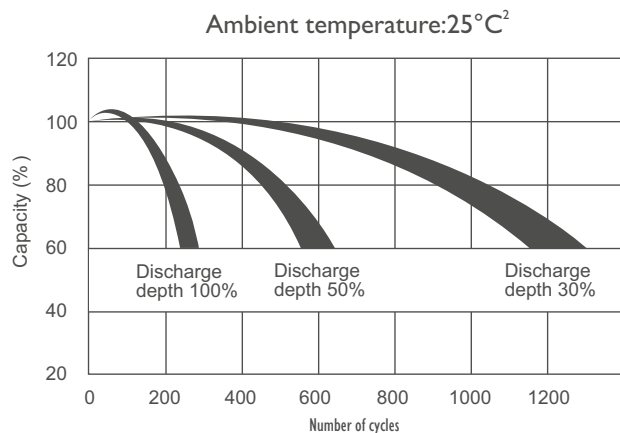
Maximum: 30% of Rated capacity

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



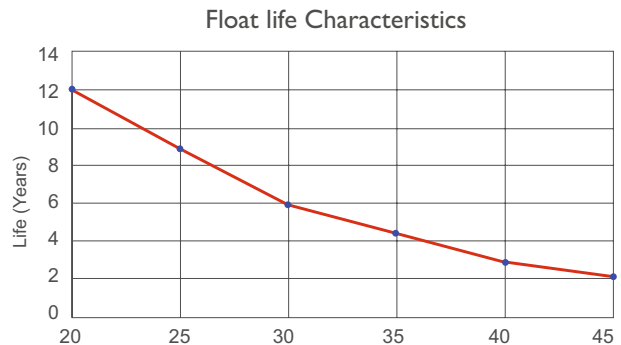
Cycle life

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.



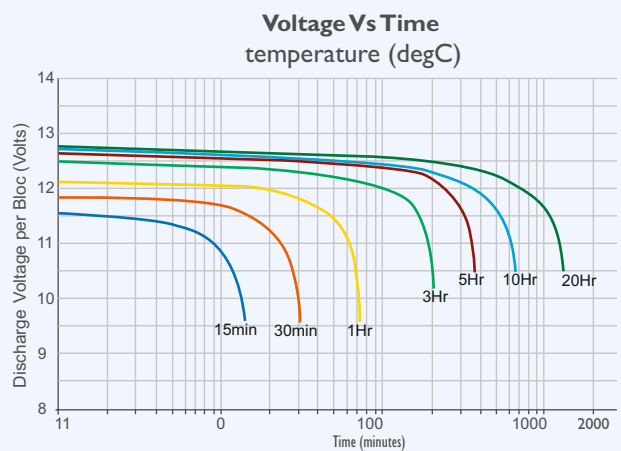
Design float life

The float life of the battery is defined in calendar years at a standard temperature of 27°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.



Discharge characteristics

The curves in the figure illustrate the typical discharge characteristics at an ambient temperature of 27°C. The C20 expresses the nominal capacity of the battery at 20 hr discharge rate.



Product Specifications

| MODEL | Capacity at 20 Hr Rate | Dimensions | | | Weight (Kg) |
|------------|------------------------|------------|-------|--------|-------------|
| | | Length | Width | Height | |
| OPTI 7 | 7 | 151 | 65 | 100 | 2.2 |
| OPTI 12 | 12 | 151 | 98 | 100 | 3.8 |
| OPTI 18 | 18 | 181 | 76 | 171 | 6.0 |
| OPTI 26 | 26 | 166 | 125 | 175 | 9.0 |
| OPTI 42 | 42 | 198 | 168 | 174 | 13.5 |
| OPTI 65 | 65 | 350 | 168 | 176 | 20.0 |
| OPTI 75 | 75 | 350 | 168 | 176 | 23.5 |
| OPTI 85 | 85 | 410 | 175 | 225 | 26.5 |
| OPTI 100 | 100 | 410 | 175 | 225 | 30.0 |
| OPTI 120 | 120 | 410 | 175 | 225 | 33.0 |
| OPTI 130 | 130 | 407 | 173 | 240 | 36.5 |
| OPTI 150 | 150 | 525 | 225 | 225 | 47.0 |
| OPTI 200 | 200 | 525 | 225 | 225 | 56.0 |
| OPTI 200 D | 200 | 535 | 225 | 240 | 60.5 |

Constant Power Discharge Performance at 27°C

| Watts per Block to end 10.5V | | | | | | | |
|------------------------------|--------|--------|--------|---------|---------|----------|----------|
| 10 min | 15 min | 30 min | 1 Hour | 3 Hours | 5 Hours | 10 Hours | 20 Hours |
| 161 | 130 | 80 | 51 | 21.3 | 14.5 | 7.9 | 4.24 |
| 277 | 222 | 138 | 87 | 36.5 | 24.9 | 13.5 | 7.3 |
| 415 | 333 | 207 | 131 | 55 | 37.3 | 20.2 | 10.9 |
| 674 | 512 | 310 | 193 | 79 | 54 | 29.2 | 15.7 |
| 922 | 741 | 482 | 305 | 128 | 87 | 47.2 | 25.4 |
| 1441 | 1157 | 747 | 471 | 197 | 135 | 73 | 39.4 |
| 1730 | 1389 | 861 | 544 | 228 | 156 | 84 | 45.4 |
| 1794 | 1437 | 916 | 573 | 236 | 161 | 93 | 51 |
| 1991 | 1625 | 1078 | 674 | 278 | 189 | 110 | 61 |
| 2389 | 1950 | 1294 | 809 | 333 | 227 | 132 | 73 |
| 2489 | 2196 | 1347 | 876 | 361 | 246 | 142 | 79 |
| 2987 | 2438 | 1617 | 1011 | 417 | 284 | 164 | 91 |
| 3982 | 3250 | 2156 | 1348 | 556 | 378 | 219 | 121 |
| 4612 | 3780 | 2412 | 1451 | 608 | 415 | 225 | 121 |

* FR Container optional

* High Wattage Models available 720W (15 min @ 10.5 V)

* C10 Models available from 100 Ah to 200 Ah

Our presence



Manufactured by

HBL[®]

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