

LEOCH LONG LIFE STANDBY SERIES

LPL Series

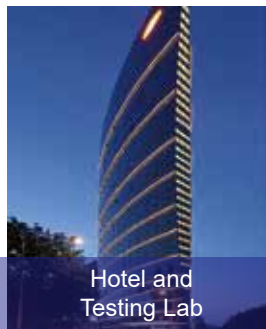
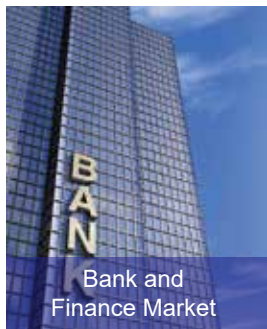


Characteristics

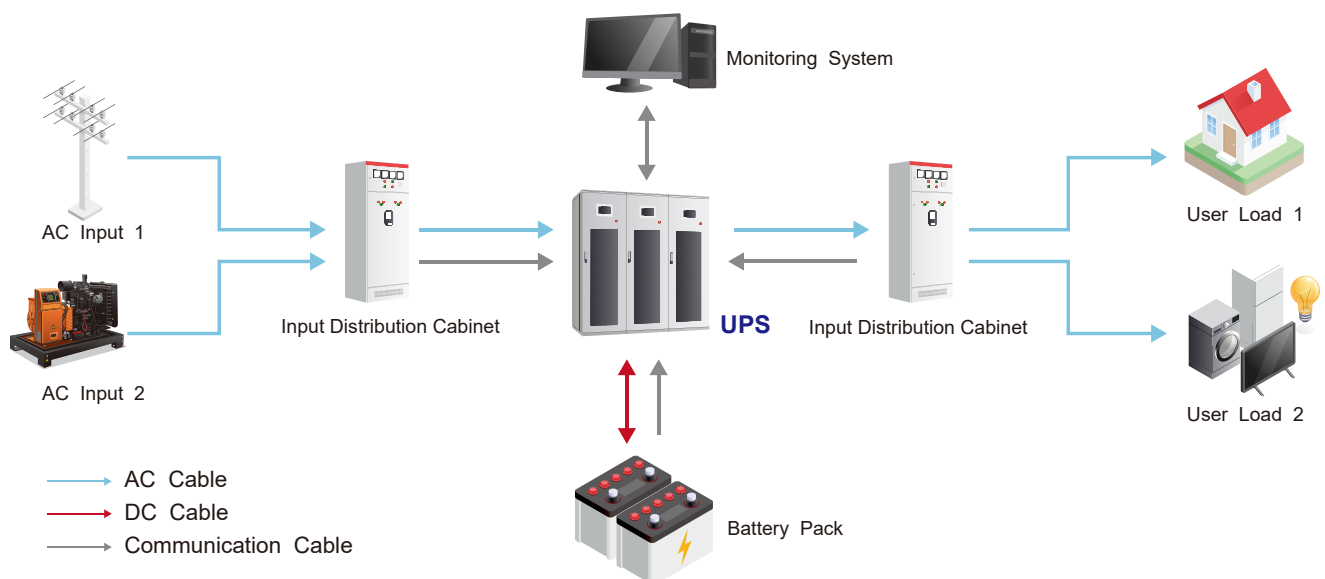
- Long design life.
- ABS material: UL 94 HB or V-0 optional.
- Wide temperature range: -20°C~55°C.
- Oxygen recombination efficiency: $\geq 98\%$.
- Valve Regulated Lead Acid (VRLA) Battery, Maintenance Free.
- PbCaSn alloy for plate grids: less gassing, less self-discharging.
- Unique vent valve design: control water losing, prevent air and spark entering.
- Special grid and plate manufacture technology, automatic manufacture line, raise the life and uniformity of battery.
- 3D structure: Optimized design of active material adhesion, fine mesh grid provides more surface area for high power output.
- Unique technology optimizes power capacity, battery consistency, and long-term reliability.



Applications



UPS Application



LPL Specifications-Small Size Series

Model	Rated Voltage(V)	20hr@1.75V/cell	Dimensions(mm)				Gross Weight (kg)	Terminal
			L	W	H	TH		
LPL6-6.5	6	6.5	150	34	94	100	1.26	T1/T2
LPL6-9.0	6	9	151	50.5	94	100	1.7	T1/T2
LPL6-11	6	11	151	50.5	94	100	1.95	T1/T2
LPL6-18	6	18	157	83	125	125	3.3	T3-A
LPL12-7.0	12	7	151	65	93.5	99.5	2.43	T1/T2
LPL12-12	12	12	151	98	95	101	3.87	T1/T2
LPL12-18	12	18	181.5	76.5	167.5	167.5	5.7	T3
LPL12-24	12	24	166	175	125	125	7.6	T12-I/T12(M5)
LPL12-28	12	28	166	175	125	125	8.2	T12-I/T12(M5)
LPL12-28H	12	28	164	125	176	176	9.1	T2;T3-A

LPL Specifications-Middle Size Series

Model	Rated Voltage(V)	10hr@1.80V/cell	Dimensions(mm)				Gross Weight (kg)	Terminal
			L	W	H	TH		
LPL6-180	6	180	306	168	222	228	30.3	T8(M6)
LPL12-38	12	38	197	165	170	170	12.7	T6(M6)
LPL12-40	12	40	197	165	170	170	14.5	T6(M6)
LPL12-45	12	45	197	165	170	170	14.2	T6(M6)
LPL12-55	12	55	229	138	210	230	18	T9
LPL12-60	12	60	260	168	210	216	20.7	T6(M6)
LPL12-65	12	65	348	167	178	178	21	T6(M6)
LPL12-70	12	70	348	167	178	178	23.1	T6(M6)
LPL12-75	12	75	260	168	208	214	22.7	T6(M6)
LPL12-90H	12	90	330	173	212	220	29.5	T11(M8)
LPL12-100	12	100	330	173	212	220	30.5	T11(M8)
LPL12-120	12	120	408	177	225	225	36.3	T11(M8)
LPL12-150	12	150	483	170	238.5	238.5	46.5	T11(M8)
LPL12-200	12	200	522	240	218	224	62.3	T11(M8)
LPL12-225	12	225	522	268	220	226	70.5	T11(M8)
LPL12-250	12	250	522	268	220	226	76.5	T11(M8)

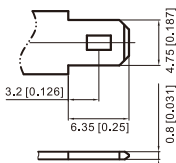
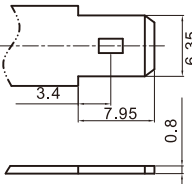
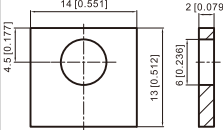
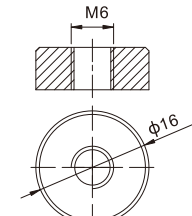
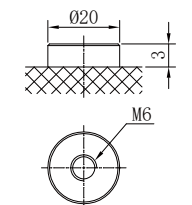
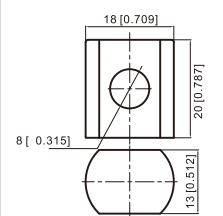
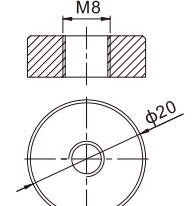
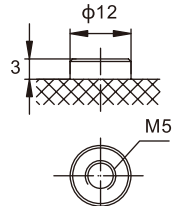
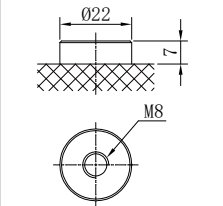
LPL Specifications-Big Size Series

Model	Rated Voltage(V)	10hr@1.80V/cell	Dimensions(mm)				Gross Weight (kg)	Terminal
			L	W	H	TH		
LPL2-100	2	100	170	72	205	214	5.7	T6(M6)
LPL2-200M	2	200	90	181	350	365	12.4	T11(M8)
LPL2-200	2	200	170	110	328	348	13.4	T11(M8)
LPL2-300M	2	300	124	181	350	365	18	T11(M8)
LPL2-300	2	300	170	150	328	348	18.5	T11(M8)
LPL2-400M	2	400	158	181	350	365	22.7	T11(M8)
LPL2-400	2	400	210	175	330	350	25.5	T11(M8)
LPL2-500M	2	500	191	181	350	365	28.4	T11(M8)
LPL2-500	2	500	240	175	330	350	30	T11(M8)
LPL2-600M	2	600	225	181	350	365	33.1	T11(M8)
LPL2-600	2	600	300	175	330	350	37	T11(M8)
LPL2-800M	2	800	303	181	350	365	44.5	T11(M8)
LPL2-800	2	800	410	175	330	350	50.4	T11(M8)

LPL Specifications-Big Size Series

Model	Rated Voltage(V)	10hr@1.80V/cell	Dimensions(mm)				Gross Weight (kg)	Terminal
			L	W	H	TH		
LPL2-1000M	2	1000	370	181	350	365	55.8	T6(M6)
LPL2-1000	2	1000	475	175	328	350	60	T11(M8)
LPL2-1500M	2	1500	355	337	330	342	89.7	T11(M8)
LPL2-1500H	2	1500	282.5	230	539	549	91.5	T11(M8)
LPL2-1600M	2	1600	355	337	330	342	91.7	T11(M8)
LPL2-2000M	2	2000	476	337	330	342	118.7	T11(M8)
LPL2-2000H	2	2000	358	232	539	549	118.5	T11(M8)
LPL2-3000M	2	3000	697	340	330	342	179.1	T11(M8)

Terminal

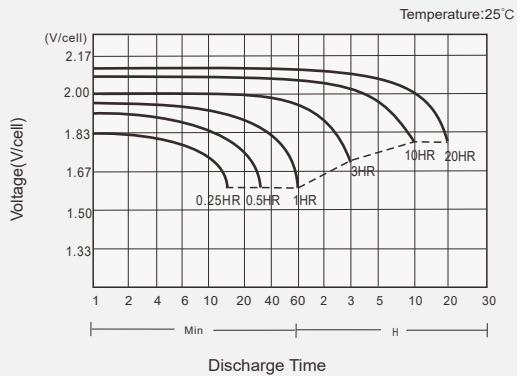
T1  	T2  	T3   Torque: M5 is 2.0-3.0 N*m M6 is 3.9Nm-5.4N*m (mm)
T6   Torque: 3.9~5.4(N*m) (mm)	T8   Torque: 3.9~5.4 N*m (mm)	T9   Torque: 3.9~5.4 N*m (mm)
T11   Torque: 11~14.7(N*m) (mm)	T12   Torque: 2.0~3.0(N*m) (mm)	T17   Torque: 11~14.7 N*m (mm)

Compliant Standards

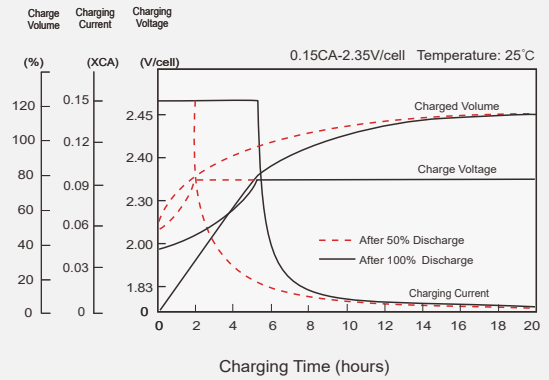
- IEC60896-21/22
- UL 94 and UL1989
- GB/ T 19639
- GB/ T 19638
- JIS C 8702
- JIS C 8704

Characteristics curves

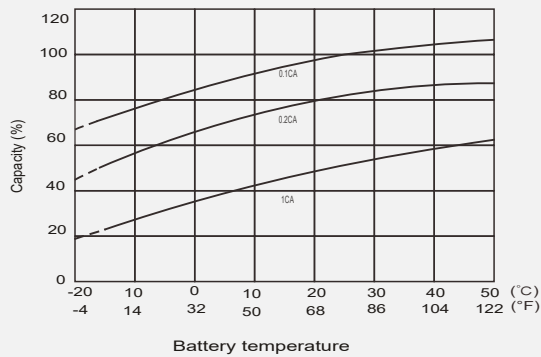
Discharge Characteristics



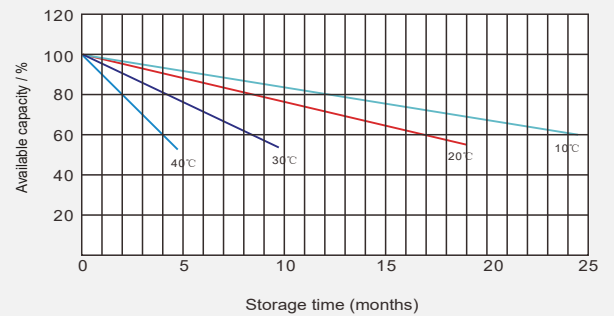
Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics





UPS Configuration

Constant power calculation:

$$W_{(w/cell)} = P_L \div (V \div 2 \times \eta)$$

P_L ——Load Power(=UPS rated capacity $V \times$ power factor $\cos\phi$), unit: W/cell

V ——Rated voltage of battery pack, unit: V

η —— Inversion Efficiency

Notes:

1. The rated capacity of UPS commonly used KVA representation, for example: 160kVA, $P_L = 160 \times 1000 \times \cos\phi$;
2. " $V \div 2$ " is the number of cells for per battery pack (for example: The 12V battery is composed of 6 cells, rated voltage per cell is 2V);
3. According to the value of W, find the constant power discharge parameters from the specs to determine the battery model.



Product Description

Structure	
Positive Plate	Lead calcium mesh reduce corrosion and extend life
Negative Plate	Equilibrium lead calcium mesh, optimized recombination efficiency
AGM Separator	High strength, low resistance, micro porous glass fiber makes the electrolyte completely absorbed by the structure
Connector	Lead/Copper connector provide better conductivity
Case/Cover Material	ABS (UL 94 HB or V-0)

Operating Temperature Range(OTR)	
Recommended Temperature	(25±3)°C
Discharging	-15~50°C
Charging	-20~40°C
Storage	-15~40°C

Performance	
Max. Charging Current	≤ 0.3CA
Float Charging Voltage	2.25~2.30V/cell, Temp.Coefficient: -3mV/°C/cell(@ 25°C)
Equalization Charge Voltage	2.35~2.40V/cell, Temp.Coefficient: -5mV/°C/cell(@ 25°C)
Self-discharge Rate	≤ 3%/month @25°C

ISO14001

ISO9001

ISO45001



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