



LP Series - Battery

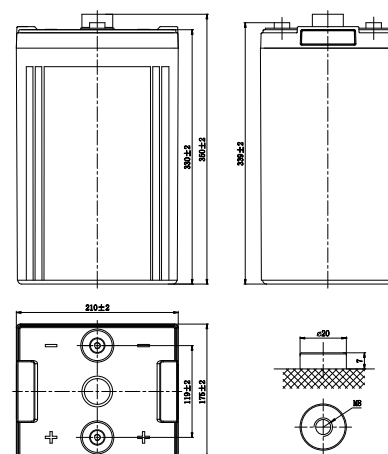
LP2-450(2V450Ah)

Specifications of LP2-450

Rated Voltage	2V	
Nominal Capacity	C ₁₀ , 1.80V/cell	450Ah
Dimension	Length	210±2mm(8.27 inches)
	Width	175±2mm(6.89 inches)
	Container Height	330±2mm(12.99 inches)
	Total Height	350±2mm(13.78 inches)
Approx Weight	26.0kg (57.3 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity(25°C)	478.0 Ah	C20(23.9A, 1.80V/cell)
	450.0 Ah	C10 (45.0A, 1.80V/cell)
	399.0 Ah	C5 (78.8A, 1.75V/cell)
	351.0 Ah	C3 (117.0A, 1.75V/cell)
	283.1 Ah	C1 (283.1A, 1.60V/cell)
Max. Discharge Current	3600A (5s)	
Internal Resistance(25°C)	Approx 0.60mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C(5 ~ 122°F)
	Charge	0 ~ 40°C(32 ~ 104°F)
	Storage	-15 ~ 40°C(5 ~ 104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 135.0A Voltage	
	2.25V~2.3 V at 25°C(77°F)Temp. Coefficient -3mV/°C	
Cycle Use	Initial Charging Current less than 135.0AVoltage	
	2.4V~2.5V at 25°C(77°F)Temp. Coefficient -5mV/°C	
	40°C (104°F)	103%
Effect of temp. to Capacity	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Marstech LP series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Layout



Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	450.8	392.8	321.2	254.0	222.3	170.9	138.4	105.3	84.7	71.5	62.1	50.4	42.2	22.6
1.80V/cell	524.3	452.6	363.2	284.0	246.0	187.0	150.6	114.0	91.3	77.0	66.6	54.0	45.0	23.9
1.75V/cell	554.6	474.9	379.6	295.5	255.1	193.3	155.2	117.0	93.6	78.8	68.0	55.0	45.7	24.2
1.70V/cell	586.1	499.8	405.3	306.8	264.5	199.8	160.2	120.4	96.0	80.5	69.4	56.0	46.4	24.5
1.65V/cell	604.6	513.9	433.3	313.7	270.0	203.4	162.9	122.2	97.3	81.5	70.2	56.5	46.8	24.6
1.60V/cell	648.0	547.2	438.3	329.9	283.1	212.5	169.7	126.7	100.5	84.0	72.2	57.9	47.8	25.1

Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	866.1	756.8	620.9	492.5	432.1	333.2	270.6	206.5	166.5	140.7	122.4	99.7	83.4	44.9
1.80V/cell	996.7	863.6	696.1	546.6	475.0	362.5	292.9	222.5	178.8	151.1	130.9	106.5	88.9	47.4
1.75V/cell	1043.3	897.4	721.3	564.5	489.0	372.4	300.2	227.5	182.6	154.1	133.3	108.2	90.2	47.9
1.70V/cell	1090.3	935.0	763.2	581.3	503.5	382.7	308.2	233.1	186.6	157.1	135.8	109.9	91.4	48.5
1.65V/cell	1117.2	955.4	808.2	591.4	511.6	388.1	312.3	235.9	188.7	158.7	137.2	110.9	92.1	48.8
1.60V/cell	1176.4	1001.4	810.4	615.4	531.4	402.1	322.9	243.2	194.0	162.9	140.4	113.2	93.8	49.7



LP Series-Battery

LP2-450(2V450Ah)

Applications

- Telecommunications
- UPS system
- Wind power system
- Engine starting
- Wheelchair, Floor cleaning machines, Golf trolley, Boats

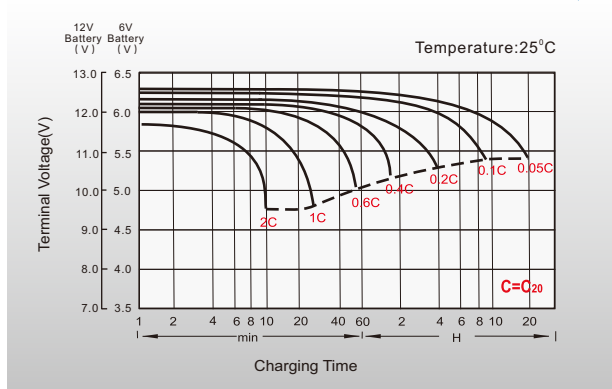
General Features

- Battery design life up to 15 years
- Special plate design guarantees battery floating life more than 1800 times
- High thermal capacity reduce the risk of thermal out of control and drying hard, and the battery can be used in bad environment
- Little water losing, and no electrolyte stratification phenomenon

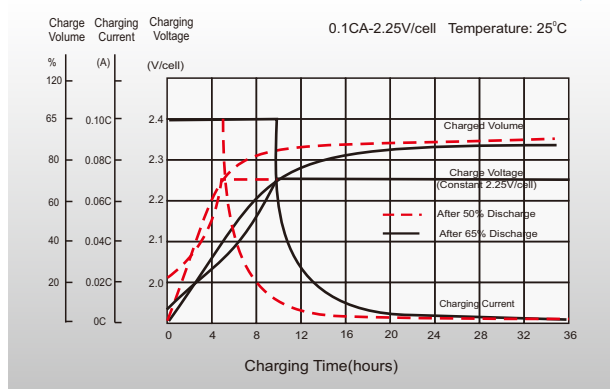
Standards

- IEC 60896 Certified
- Classified as "Long Life"
- ISO 9001 Certified
- Manufactured in standard IATF16949,

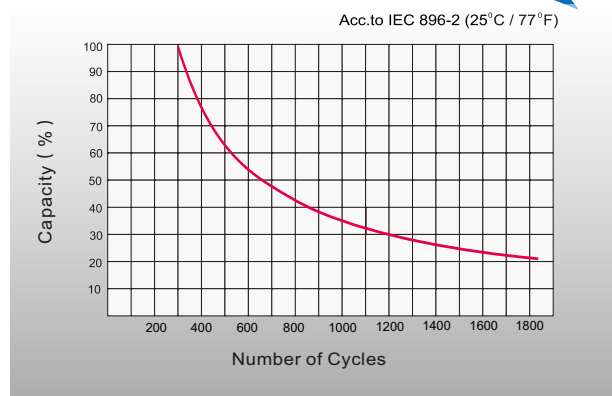
Discharge Characteristics



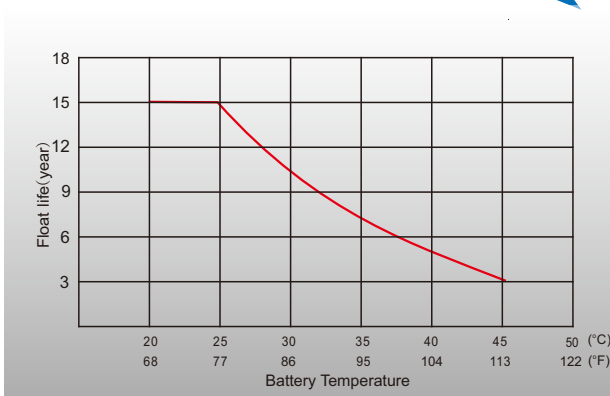
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Effect of Temperature on Long Term Float Life



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