



LP Series - Battery

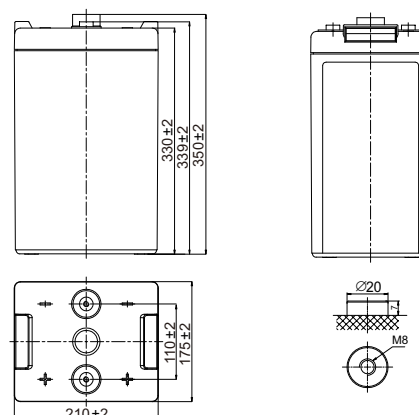
LP2-400(2V400Ah)

Specifications of LP2-400

Rated Voltage	2V	
Nominal Capacity	C ₁₀ , 1.80V/cell	400Ah
Dimension	Length	210±3mm(8.27 inches)
	Width	175±2mm(6.89 inches)
	Container Height	330±3mm(12.99inches)
	Total Height	350±3mm(13.78inches)
Approx Weight	25.0kg (55.1 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity(25°C)	420.0 Ah	C20(21.0A, 1.80V/cell)
	400.0 Ah	C10(40.0A, 1.80V/cell)
	348.0 Ah	C5(69.6A, 1.75V/cell)
	302.4 Ah	C3(100.8A, 1.75V/cell)
	242.8 Ah	C1(242.8A, 1.60V/cell)
Max. Discharge Current	3500A (5s)	
Internal Resistance(25°C)	Approx 0.57mΩ	
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 120.0A Voltage	
	2.25V~2.3 V at 25°C(77°F)Temp. Coefficient -3mV/°C	
Cycle Use	Initial Charging Current less than 120.0AVoltage	
	2.4V~2.5V at 25°C(77°F)Temp. Coefficient -5mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	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. 3% at 20°C	



Layout



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

F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	412.0	370.8	306.7	243.2	199.6	119.9	92.7	76.1	64.8	56.6	45.6	38.2	20.3
1.80V/cell	468.0	412.8	329.1	255.9	212.0	126.5	97.2	79.5	67.5	59.1	47.4	40.0	21.0
1.75V/cell	/	445.0	348.5	269.0	221.2	131.7	100.8	82.2	69.6	60.5	48.3	40.4	21.2
1.70V/cell	/	475.9	365.7	279.2	228.9	135.6	103.5	84.0	70.8	61.6	49.0	40.8	21.4
1.65V/cell	/	/	383.6	291.3	237.2	139.7	105.7	85.8	72.3	62.7	49.7	41.3	21.7
1.60V/cell	/	/	396.8	299.2	242.8	143.0	108.0	87.0	73.4	63.5	50.4	41.8	21.9

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

F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	780.1	705.3	586.2	467.6	386.1	233.2	181.1	149.3	127.7	111.8	90.5	76.0	40.3
1.80V/cell	874.8	776.9	623.9	488.7	407.8	244.9	189.1	155.4	132.4	116.4	93.7	79.4	41.7
1.75V/cell	/	827.8	655.6	510.9	423.6	254.0	195.6	160.1	136.0	118.8	95.2	80.1	42.1
1.70V/cell	/	877.8	682.2	526.4	436.1	260.4	200.0	163.0	138.0	120.7	96.6	80.9	42.5
1.65V/cell	/	/	710.2	546.3	449.3	267.1	203.5	165.9	140.4	122.4	97.8	81.8	43.0
1.60V/cell	/	/	727.3	555.8	456.7	271.7	206.7	167.5	141.9	123.7	98.8	82.6	43.4



LP Series-Battery

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Applications

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

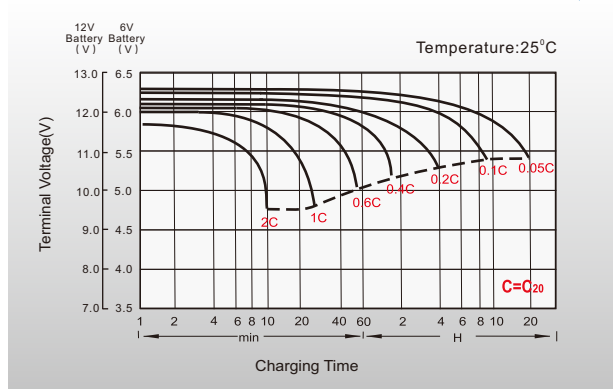
General Features

- 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

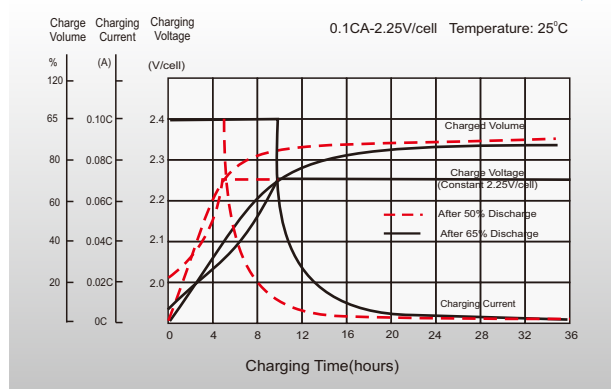
Standards

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

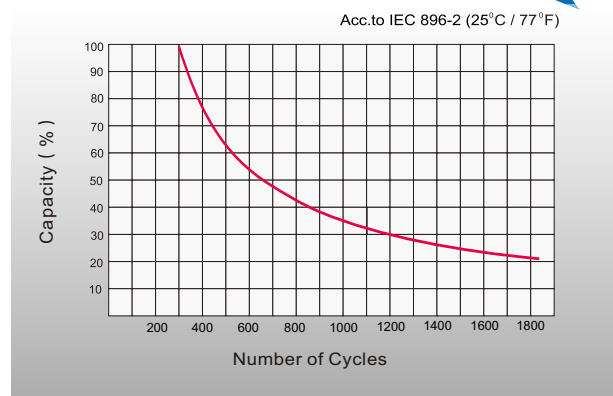
Discharge Characteristics



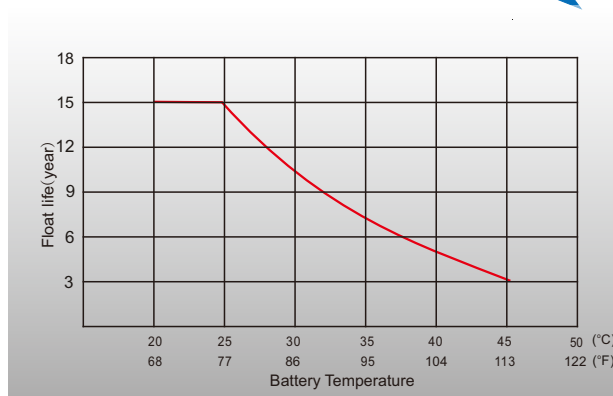
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Effect of Temperature on Long Term Float Life



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