

# STARMAX

The world's leading battery brand



## XP SERIES-LONG LIFE **BATTERIES**

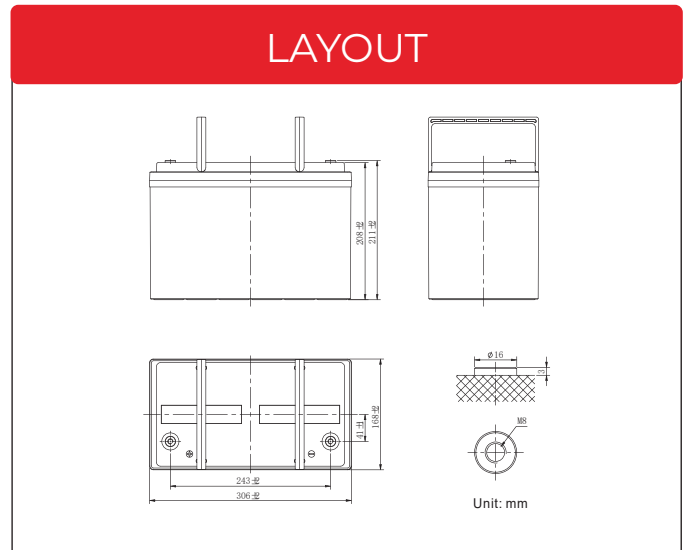
XP12-350



[www.starmaxbatteries.com](http://www.starmaxbatteries.com)

# XP Series

## XP12-350



## General Features

- ✓ Special designed grids for optimized high power density
- ✓ Oversized partition intercell welds, providing low resistance connections & minimal power loss
- ✓ Advanced lead tin calcium alloy, reduces grid corrosion & promotes long battery life
- ✓ Performance excels at high rates of discharge & recharge
- ✓ High integrity post seal for long life

## Applications

- ✓ UPS
- ✓ Hospitals & Testing Laboratories
- ✓ Emergency Power Supply
- ✓ Electric starting
- ✓ Telecommunications
- ✓ Data Centers

## Standards

- ✓ Compliance with IEC 60896 standards
- ✓ Classified as "Long Life" according to Eurobat
- ✓ CE, UL Certified
- ✓ Manufactured in Starmax, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities



# SPECIFICATIONS

Rated Voltage	12V	
Nominal Rate	(W <sub>15</sub> ,1.67V/cell)	374W/cell
Nominal Capacity	(C <sub>20</sub> ,1.80V/cell)	95Ah
Dimensions	Length	306±2mm (12.0 inches)
	Width	168±2mm (6.61 inches)
	Container height	208±2mm (8.19 inches)
	Total height	211±2mm (8.31 inches)
Approx. weight	28.2 Kg (62.2 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	95.0 Ah	(20hr, 4.75A,1.80V/cell)
	90.7 Ah	(10hr, 9.07A,1.80V/cell)
	83.5 Ah	(5hr, 16.7A,1.75V/cell)
	77.1 Ah	(3hr, 25.7A,1.75V/cell)
	66.3 Ah	(1hr, 66.3A,1.67V/cell)
Max. discharge current	1425A	
Internal resistance (25°C)	Approx. 4.0mΩ	
Operating temp. range	Discharge	-15~50°C (5~122°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-15~40°C (5~104°F)
Nominal operating temp. range	25±3°C (77±5°F)	
Max.Charging Current(25°C)	27.0A	
Charge voltage(25°C)	Float	13.5V
	Temp. Coefficient	-3mV/cell/°C
	Equalization	14.1~14.4V
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self discharge	≤3%/month @ 25°C	

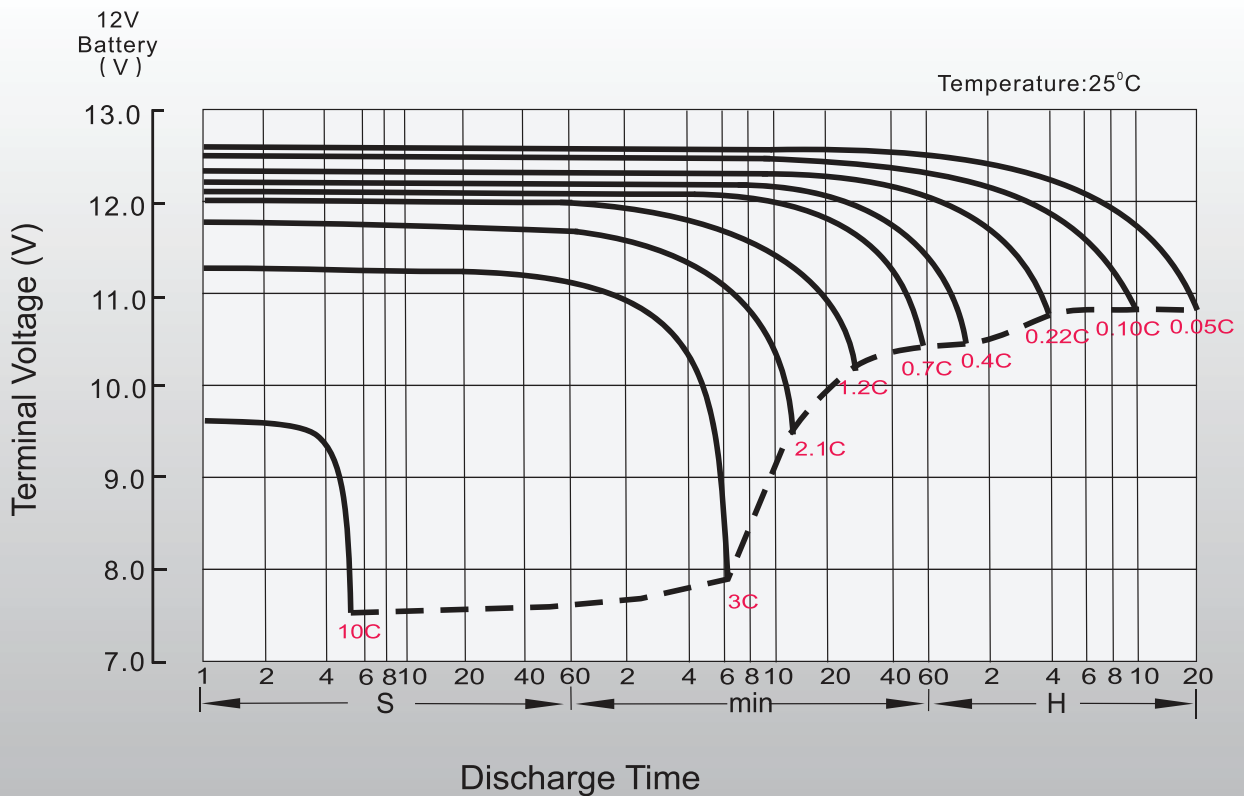
## Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	226.8	177.5	147.0	123.1	96.0	70.6	57.3	33.7	24.4	19.1	15.8	13.6	10.7	8.84	4.63
1.80V/cell	253.9	197.8	160.1	133.1	101.7	74.1	60.1	35.0	25.1	19.8	16.3	14.0	10.9	9.07	4.75
1.75V/cell	283.5	217.0	173.1	142.2	106.9	77.5	62.5	35.8	25.7	20.1	16.7	14.3	11.2	9.25	4.86
1.70V/cell	314.3	235.4	184.2	151.3	112.3	80.9	64.5	36.6	26.2	20.6	17.1	14.6	11.4	9.43	4.94
1.67V/cell	347.6	251.9	197.3	159.6	117.7	83.6	66.3	37.3	26.7	21.0	17.3	14.9	11.6	9.59	5.03
1.60V/cell	377.1	268.5	210.6	166.7	123.0	88.0	69.6	38.3	27.2	21.4	17.7	15.2	11.9	9.76	5.16

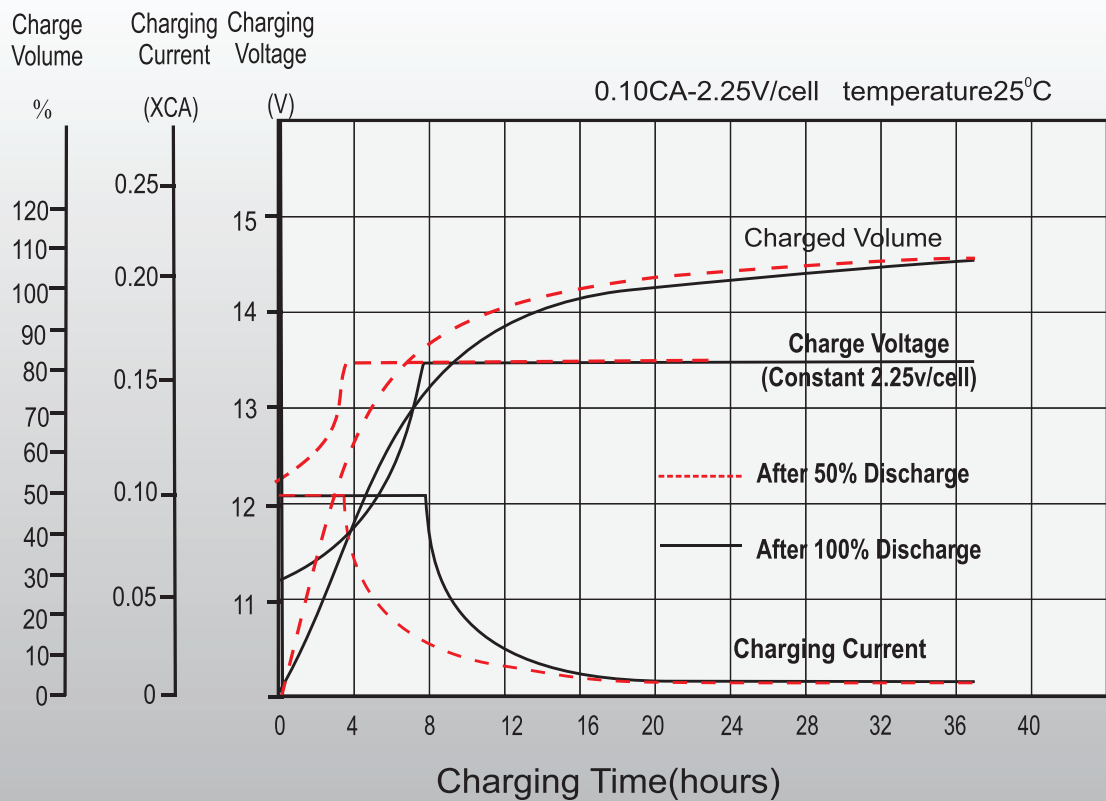
## Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	441.2	347.2	289.2	245.8	190.7	141.0	114.9	67.8	49.2	38.8	32.2	27.7	21.8	18.2	9.58
1.80V/cell	488.8	383.0	311.7	263.2	200.3	146.9	119.5	69.9	50.4	39.8	33.1	28.3	22.3	18.6	9.76
1.75V/cell	540.1	416.3	334.1	278.8	208.8	152.2	123.4	71.1	51.3	40.3	33.5	28.9	22.7	18.8	9.93
1.70V/cell	592.0	446.5	351.5	293.6	217.0	157.4	126.2	72.1	52.0	41.1	34.1	29.2	23.0	19.1	10.0
1.67V/cell	649.4	474.3	374.0	307.6	226.1	162.0	129.1	73.1	52.7	41.6	34.4	29.6	23.3	19.3	10.2
1.60V/cell	696.8	500.0	395.0	318.4	234.1	168.6	134.2	74.5	53.2	42.0	34.9	29.9	23.6	19.4	10.3

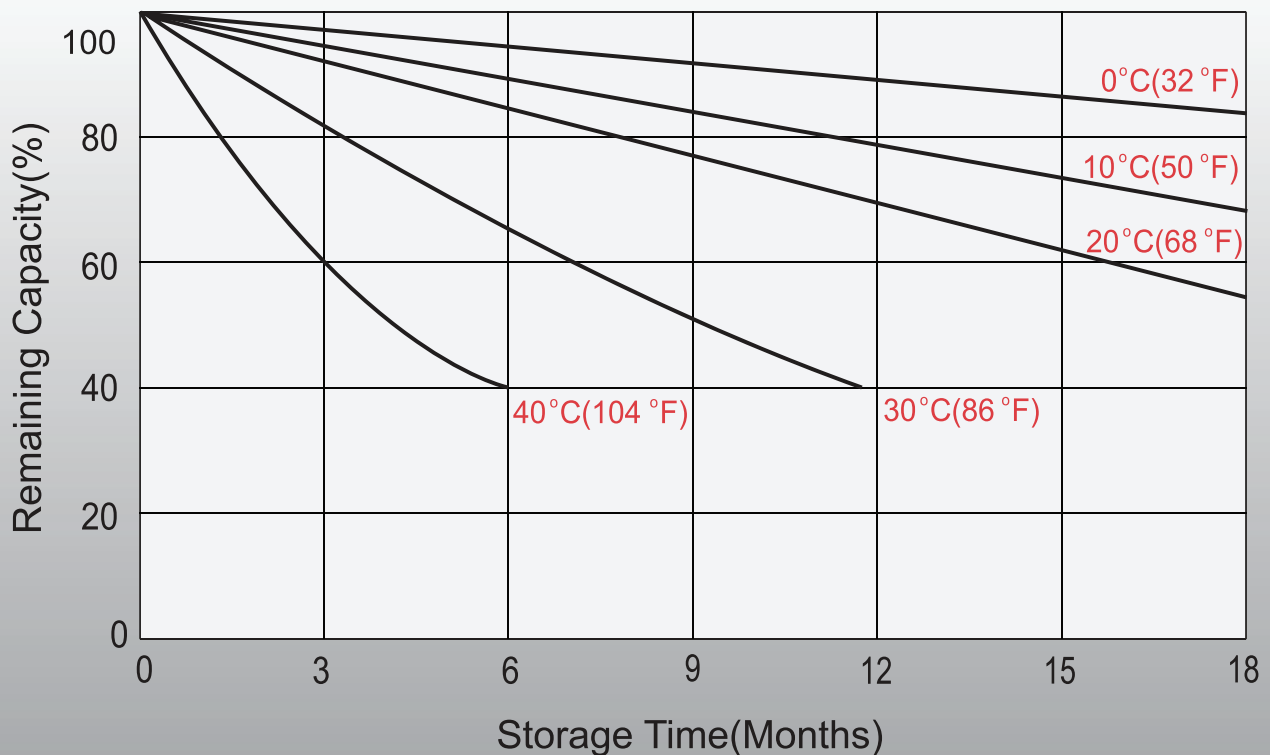
## Discharge Characteristics



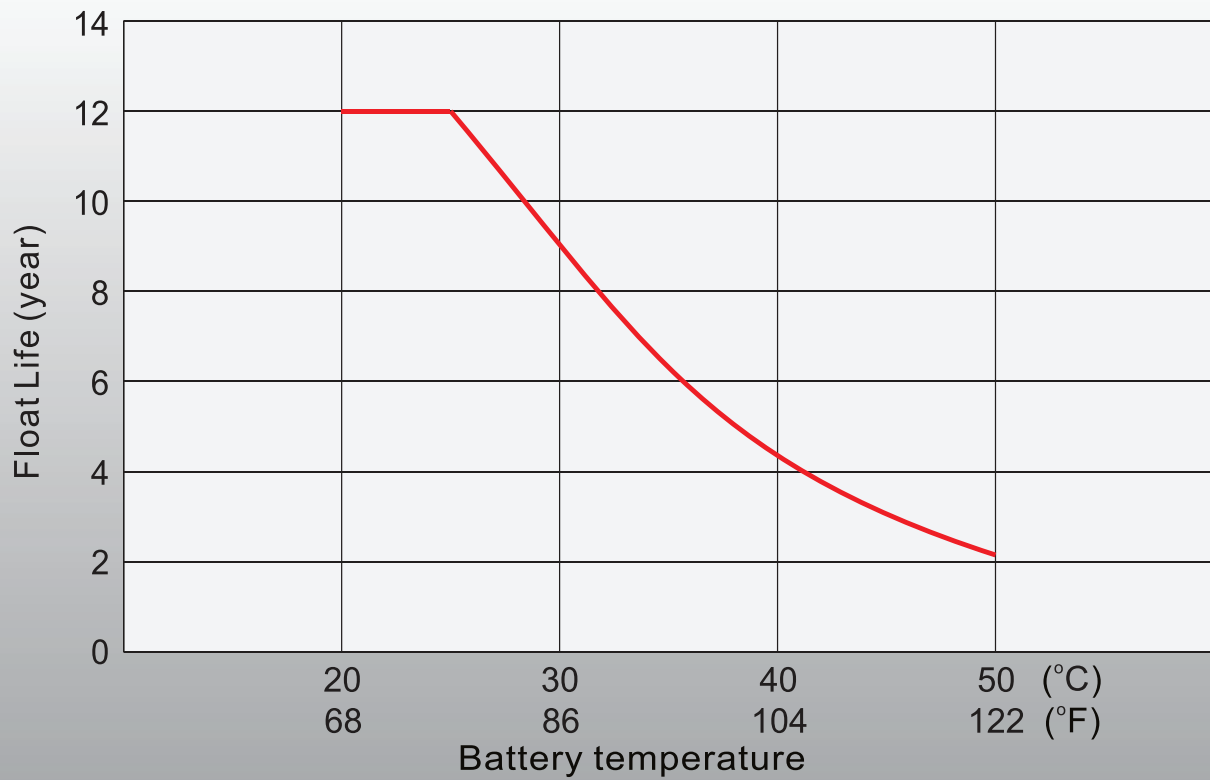
# Float Charging Characteristics



# Self-Discharge Characteristics



# Effect of Temperature on Long Time Float Life





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