

STARMAX

The world's leading battery brand



XP SERIES-LONG LIFE **BATTERIES**

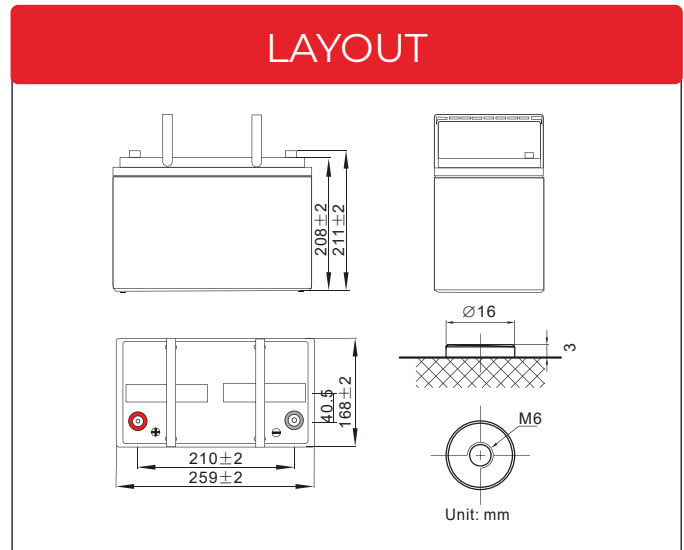
XP12-300



www.starmaxbatteries.com

XP Series

XP12-300



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 ₁₅ ,1.67V/cell)	324.6W/cell
Nominal Capacity	(C ₂₀ ,1.80V/cell)	82Ah
Dimensions	Length	260±2mm (10.2 inches)
	Width	168±2mm (6.61 inches)
	Container height	208±2mm (8.19 inches)
	Total height	211±2mm (8.31 inches)
Approx. weight	24.2 Kg (53.4 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	82.0 Ah	(20hr, 4.10A,1.80V/cell)
	78.6 Ah	(10hr, 7.86A,1.80V/cell)
	71.0 Ah	(5hr, 14.2A,1.75V/cell)
	65.7 Ah	(3hr, 21.9A,1.75V/cell)
	57.5 Ah	(1hr, 57.5A,1.67V/cell)
Max. discharge current	1230A	
Internal resistance (25°C)	Approx. 4.5mΩ	
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)	24.0A	
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	

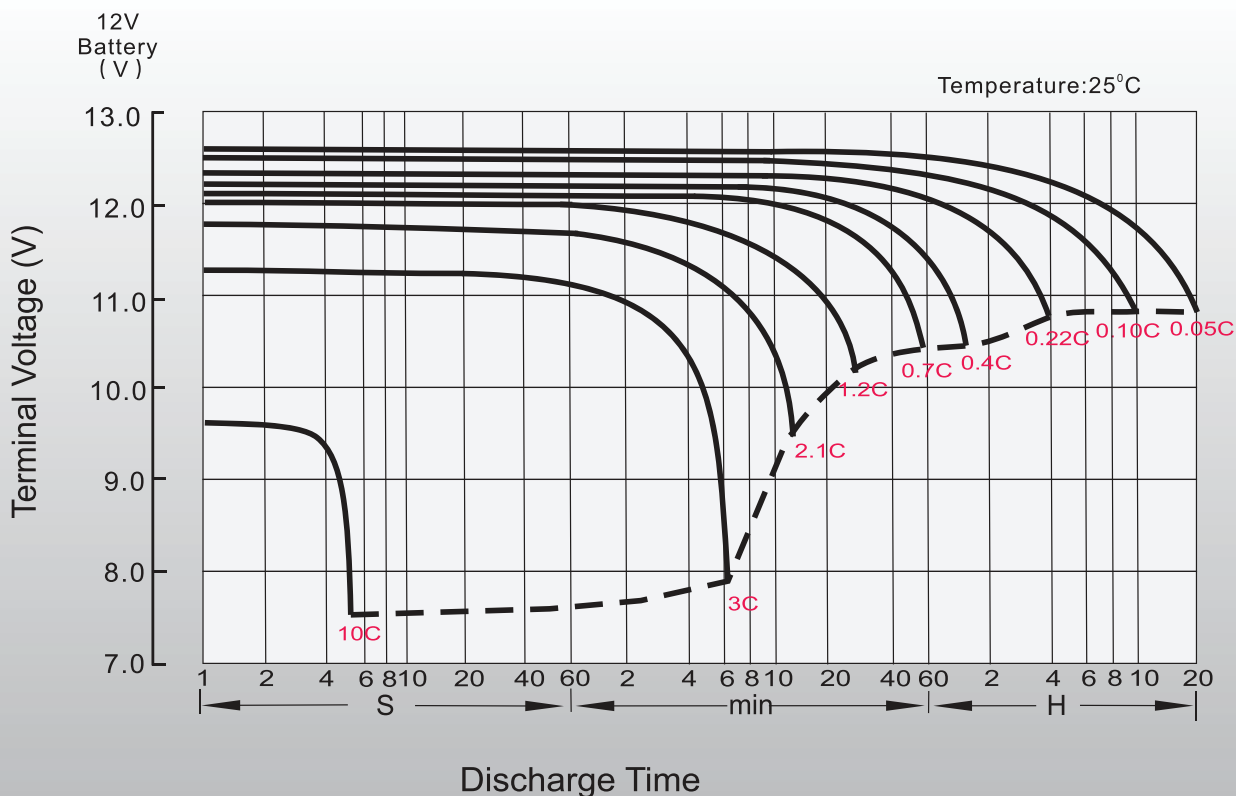
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	192.4	146.1	126.0	110.2	85.0	63.6	51.2	29.1	20.7	16.2	13.5	11.6	9.19	7.70	4.02
1.80V/cell	220.7	161.0	138.1	118.8	89.5	65.9	52.9	30.0	21.4	16.7	13.9	12.0	9.46	7.86	4.10
1.75V/cell	251.1	180.8	150.2	126.0	93.3	68.0	54.3	30.9	21.9	17.1	14.2	12.3	9.66	8.00	4.17
1.70V/cell	276.4	196.0	160.1	134.1	98.1	70.9	55.9	31.4	22.4	17.6	14.6	12.5	9.82	8.14	4.24
1.67V/cell	305.8	213.4	171.2	140.2	102.3	73.0	57.5	32.0	22.8	17.8	14.8	12.6	9.99	8.28	4.31
1.60V/cell	336.2	230.3	180.7	147.6	106.3	75.7	58.8	32.6	23.1	18.2	15.1	12.9	10.2	8.43	4.36

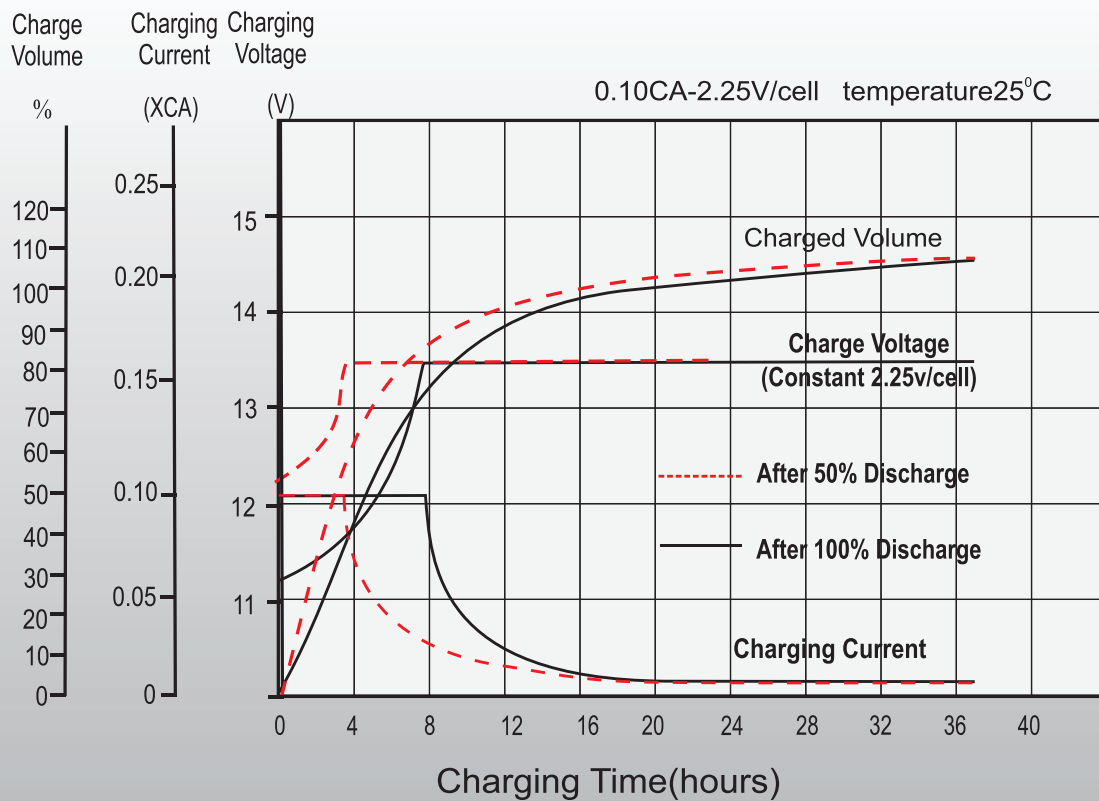
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	374.2	285.7	247.8	217.9	168.9	127.0	102.5	58.4	41.9	32.9	27.4	23.7	18.8	15.8	8.30
1.80V/cell	425.0	311.8	269.0	232.7	176.4	130.6	105.2	59.9	42.9	33.7	28.1	24.3	19.3	16.1	8.42
1.75V/cell	478.5	346.7	290.0	244.5	182.2	133.6	107.2	61.3	43.7	34.3	28.6	24.7	19.6	16.3	8.53
1.70V/cell	520.7	371.7	305.4	257.5	189.6	137.9	109.5	61.9	44.4	34.9	29.1	25.0	19.8	16.5	8.61
1.67V/cell	571.4	401.7	324.6	267.6	196.7	141.4	112.0	62.7	44.9	35.3	29.4	25.2	20.0	16.7	8.72
1.60V/cell	621.1	429.0	339.1	279.0	202.3	145.1	113.5	63.3	45.1	35.7	29.7	25.5	20.2	16.8	8.73

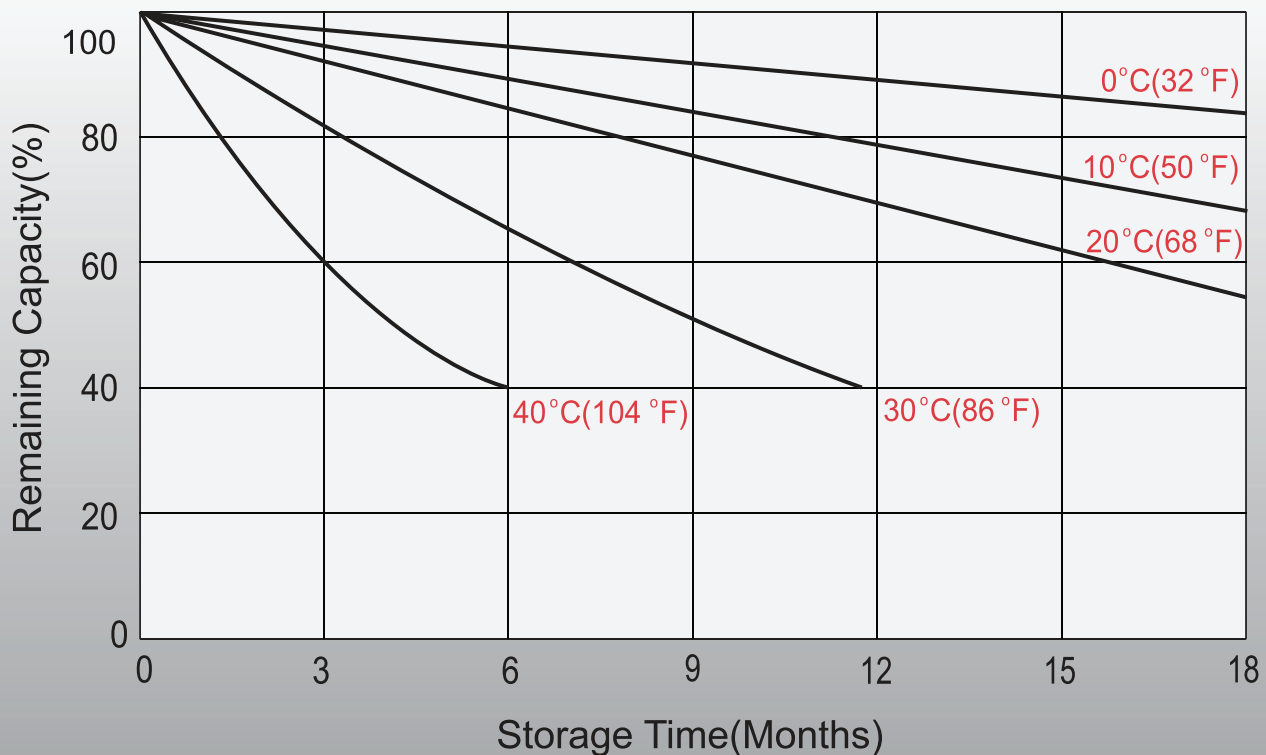
Discharge Characteristics



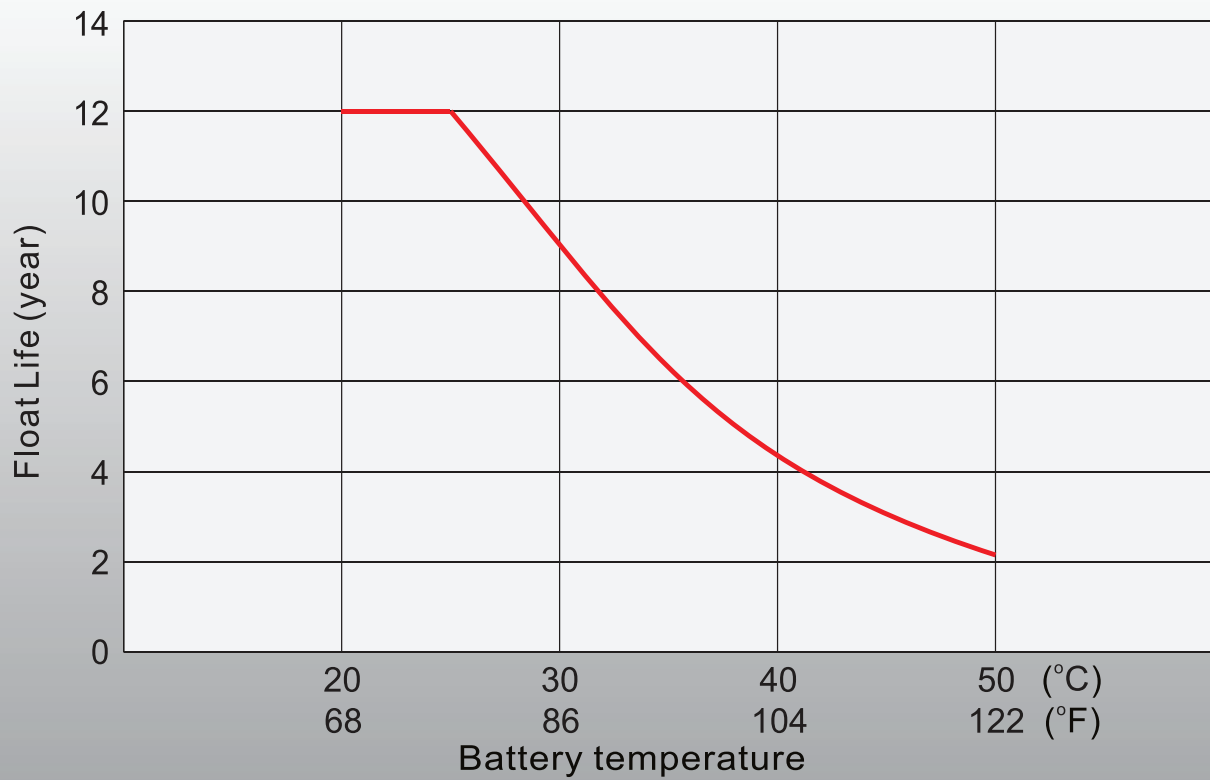
Float Charging Characteristics



Self-Discharge Characteristics



Effect of Temperature on Long Time Float Life





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