



# XP Series-Ultra High Rate

## XP12-100(12V100W)

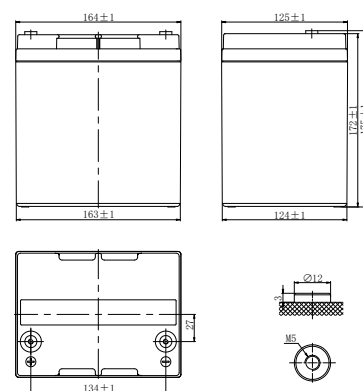


### Specifications

Rated Voltage	12V	
Nominal Rate ( $W_{15}, 1.67V/cell$ )	92.8W/cell	
Nominal Capacity( $C_{20}, 1.80V/cell$ )	27Ah	
Dimension	Length	164±1mm (6.46 inches)
	Width	125±1mm (6.92 inches)
	Container Height	172±1mm (6.77 inches)
	Total Height	175±1mm (6.89 inches)
Approx. Weight	7.90 Kg (17.4 lbs)	
Terminal	M5	
Container Material	ABS	
Rated Capacity (25°C)	27.0 Ah	(20hr, 1.35A, 1.80V/cell)
	26.1 Ah	(10hr, 2.61A, 1.80V/cell)
	23.8 Ah	(5hr, 4.75A, 1.75V/cell)
	22.0 Ah	(3hr, 7.32A, 1.75V/cell)
	18.2 Ah	(1hr, 18.2A, 1.67V/cell)
Max. Discharge Current	540A	
Internal Resistance (25°C)	Approx. 12.0mΩ	
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)	
Max. Charging Current(25°C)	8.1A	
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	



### Layout



### 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	62.5	47.7	39.0	33.0	25.7	19.5	15.8	9.40	6.86	5.44	4.51	3.88	3.05	2.54	1.32
1.80V/cell	71.2	52.8	42.2	34.9	27.2	20.6	16.8	9.88	7.12	5.61	4.67	4.01	3.15	2.61	1.35
1.75V/cell	81.1	56.4	44.8	37.3	28.3	21.3	17.3	10.2	7.32	5.74	4.75	4.08	3.22	2.66	1.38
1.70V/cell	89.1	60.3	46.8	38.6	29.2	21.9	17.7	10.4	7.47	5.88	4.87	4.19	3.29	2.71	1.40
1.67V/cell	94.8	63.0	48.9	40.1	30.1	22.5	18.2	10.6	7.62	5.98	4.98	4.28	3.34	2.75	1.43
1.60V/cell	98.5	65.1	50.5	41.5	31.1	23.0	18.6	10.8	7.76	6.12	5.10	4.37	3.41	2.81	1.47

### 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	121.5	93.3	76.8	65.3	51.0	38.9	31.7	18.90	13.90	11.00	9.18	7.91	6.26	5.22	2.74
1.80V/cell	137.1	102.2	82.2	68.4	53.6	40.8	33.4	19.80	14.30	11.30	9.45	8.13	6.42	5.33	2.77
1.75V/cell	154.5	108.1	86.6	72.3	55.3	41.7	34.1	20.2	14.60	11.50	9.55	8.23	6.52	5.42	2.82
1.70V/cell	167.8	114.3	89.2	74.2	56.6	42.6	34.8	20.5	14.80	11.70	9.72	8.39	6.61	5.47	2.85
1.67V/cell	177.1	118.7	92.8	76.3	57.9	43.4	35.5	20.8	15.00	11.80	9.89	8.53	6.70	5.54	2.89
1.60V/cell	181.9	121.3	94.8	78.2	59.3	44.0	35.9	21.0	15.20	12.00	10.00	8.62	6.77	5.61	2.94



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### Applications

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

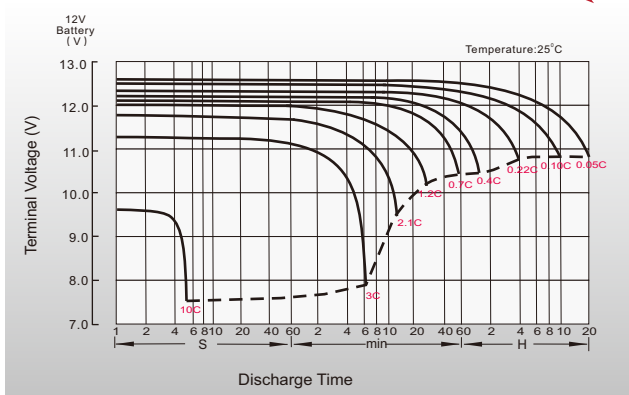
### General Features

- 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

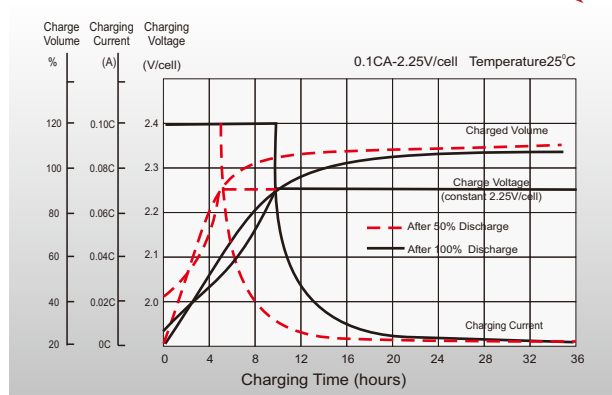
### Standards

- Compliance with IEC 60896 standards
- Classified as "Long Life" according to Eurobat
- CE, UL Certified
- Manufactured in Leoch@IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

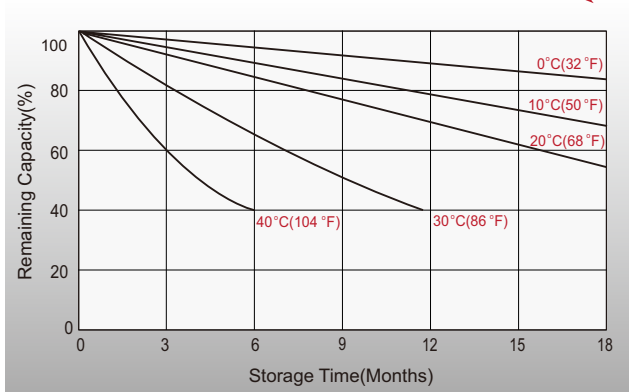
### Discharge Characteristics



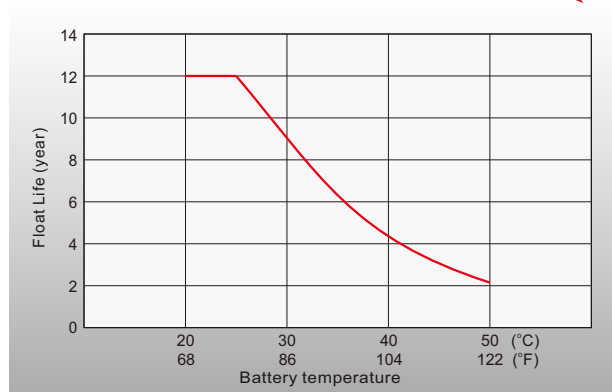
### Float Charging Characteristics



### Self Discharge Characteristics



### Temperature Effects on Long Term Float Life



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Publication No.: LB-XP12-100-PD-EN-V1.3-201912