



# XP Series-Ultra High Rate

## XP12-490(12V490W)

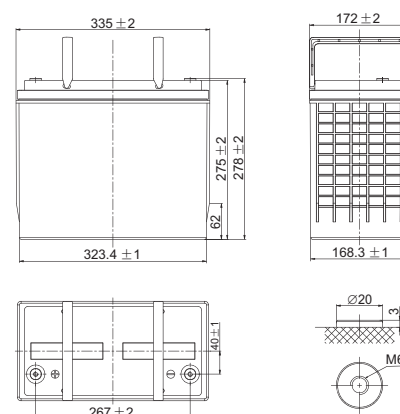


### Specifications

Rated Voltage	12V	
Nominal Rate ( $W_{15}, 1.67V/cell$ )	505.7W/cell	
Nominal Capacity( $C_{20}, 1.80V/cell$ )	142Ah	
Dimension	Length	335±2mm (13.2 inches)
	Width	172±2mm (6.77 inches)
	Container Height	275±2mm (10.8 inches)
	Total Height	278±2mm (10.9 inches)
Approx. Weight	42.6 Kg (93.9 lbs)	
Terminal	M6	
Container Material	ABS: UL 94 HB or V-0 optional	
Rated Capacity (25°C)	142.0 Ah	(20hr, 7.10A, 1.80V/cell)
	136.0 Ah	(10hr, 13.6A, 1.80V/cell)
	124.0 Ah	(5hr, 24.8A, 1.75V/cell)
	114.0 Ah	(3hr, 38.0A, 1.75V/cell)
	99.4 Ah	(1hr, 99.4A, 1.67V/cell)
Max. Discharge Current	1846A	
Internal Resistance (25°C)	Approx. 3.8mΩ	
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)	42.0A	
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	



### 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	261.7	220.7	194.8	168.9	134.5	103.1	82.1	48.4	35.1	28.0	23.4	20.2	16.0	13.3	6.93
1.80V/cell	310.5	248.5	216.5	183.6	144.4	109.9	87.2	50.6	36.7	28.9	24.1	20.8	16.4	13.6	7.10
1.75V/cell	355.0	282.6	237.2	196.8	152.2	115.5	91.7	52.5	38.0	29.9	24.8	21.4	16.8	13.8	7.26
1.70V/cell	391.7	303.6	253.1	208.7	159.8	120.9	95.6	54.7	38.9	30.5	25.4	21.8	17.1	14.0	7.38
1.67V/cell	426.0	326.6	270.7	220.4	168.3	126.5	99.4	56.6	40.1	31.4	25.9	22.2	17.4	14.2	7.51
1.60V/cell	463.5	354.8	287.3	232.3	176.4	131.3	103.0	58.1	41.1	32.1	26.6	22.7	17.7	14.5	7.63

### 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	497.8	424.6	377.4	329.0	263.7	203.4	162.9	96.6	70.3	56.2	47.3	41.1	32.7	27.3	14.3
1.80V/cell	583.6	474.1	415.6	355.1	280.9	215.0	171.7	100.2	72.9	57.7	48.3	41.8	33.3	27.7	14.6
1.75V/cell	661.2	532.2	451.5	377.7	293.7	224.2	179.2	103.3	75.0	59.3	49.5	42.9	33.9	28.0	14.8
1.70V/cell	722.4	566.4	476.7	397.6	306.2	233.0	185.4	106.7	76.5	60.3	50.4	43.4	34.3	28.3	15.0
1.67V/cell	777.5	602.9	505.7	416.4	320.5	242.5	191.8	109.9	78.2	61.7	51.1	44.1	34.6	28.6	15.2
1.60V/cell	829.6	641.4	527.2	429.8	329.2	247.0	195.1	110.8	78.8	61.9	51.5	44.3	34.6	28.5	15.2



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### Applications

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

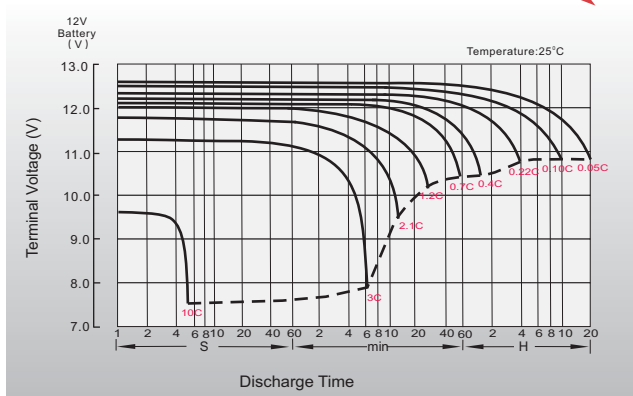
### General Features

- 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

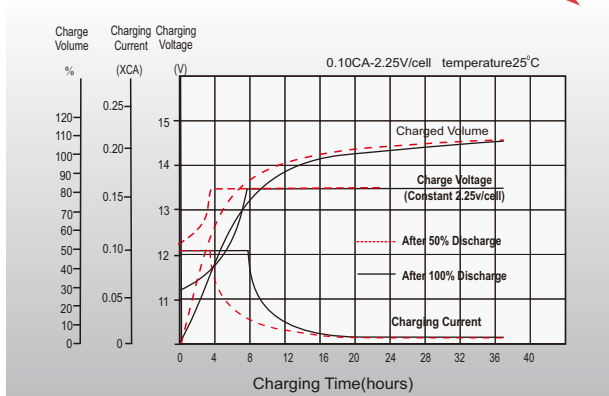
### Standards

- 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

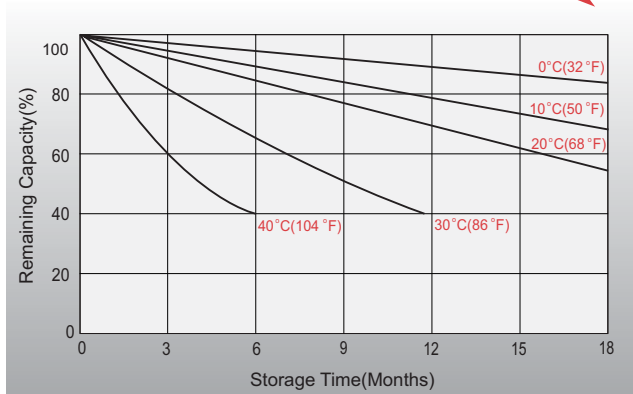
### Discharge Characteristics



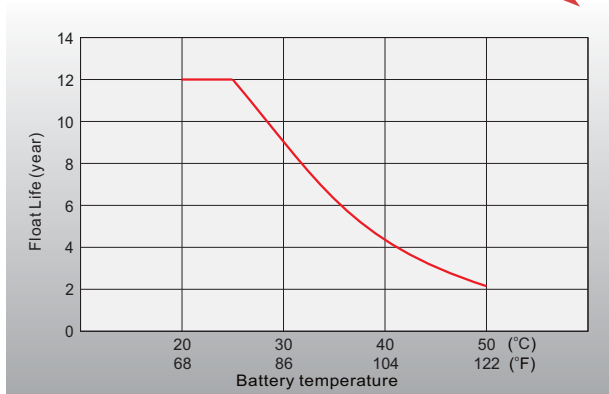
### Float Charging Characteristics



### Self Discharge Characteristics



### Effect of Temperature on Long Term Float Life



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