



XP Series-Ultra High Rate

XP12-540(12V540W)

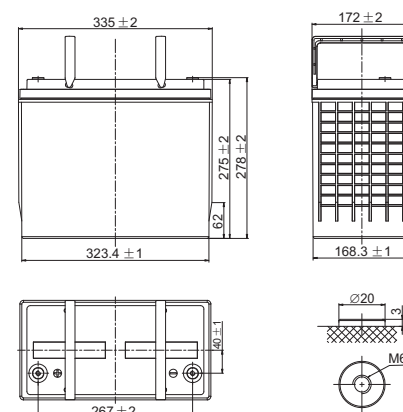


Specifications

Rated Voltage	12V	
Nominal Rate ($W_{15}, 1.67V/cell$)	540.1W/cell	
Nominal Capacity($C_{20}, 1.80V/cell$)	155Ah	
Dimension	Length	335±3mm (13.19 inches)
	Width	172±2mm (6.77 inches)
	Container Height	275±3mm (10.83 inches)
	Total Height	278±3mm (10.94 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)	155.0 Ah	(20hr, 7.75A, 1.80V/cell)
	147.0 Ah	(10hr, 14.7A, 1.80V/cell)
	130.5 Ah	(5hr, 26.1A, 1.75V/cell)
	120.3 Ah	(3hr, 40.1A, 1.75V/cell)
	105.6 Ah	(1hr, 105.6A, 1.67V/cell)
Max. Discharge Current	2015A	
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)	46.5A	
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	282.7	229.7	197.9	173.4	139.3	106.0	87.0	51.5	37.2	29.6	24.6	21.4	17.1	14.3	7.57
1.80V/cell	327.4	254.0	218.0	192.0	151.7	114.1	92.1	54.0	38.8	30.7	25.5	22.1	17.6	14.7	7.75
1.75V/cell	381.3	284.1	241.7	207.9	162.8	121.1	97.3	56.3	40.1	31.5	26.1	22.6	17.9	15.0	7.93
1.70V/cell	425.9	312.2	265.5	225.9	174.3	127.9	102.0	58.2	41.2	32.3	26.7	23.0	18.3	15.3	8.06
1.67V/cell	466.9	344.0	289.1	240.4	181.8	133.3	105.6	60.1	42.4	33.1	27.3	23.5	18.7	15.5	8.15
1.60V/cell	502.7	372.2	305.0	253.4	191.1	138.9	109.5	61.7	43.2	34.0	28.0	24.2	19.1	15.9	8.36

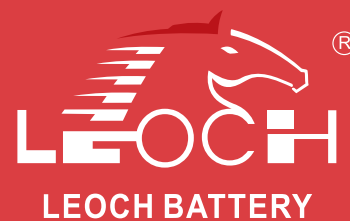
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	537.7	441.9	383.5	339.5	273.0	209.1	172.5	102.8	74.4	59.5	49.8	43.5	34.9	29.5	15.6
1.80V/cell	615.4	484.6	418.6	373.2	295.0	223.2	181.3	106.8	77.1	61.2	51.1	44.4	35.6	30.0	15.9
1.75V/cell	710.1	534.9	459.8	400.9	314.2	235.1	190.2	110.7	79.2	62.5	52.0	45.2	36.1	30.4	16.2
1.70V/cell	785.4	582.5	500.2	432.4	334.1	246.5	197.9	113.6	80.8	63.8	53.0	45.8	36.7	30.9	16.4
1.67V/cell	852.0	635.1	540.1	456.6	346.4	255.5	203.8	116.8	82.8	65.0	53.9	46.6	37.2	31.2	16.5
1.60V/cell	898.8	672.8	559.7	471.1	356.4	261.2	207.5	117.7	82.9	65.5	54.3	47.1	37.5	31.3	16.6



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Applications

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

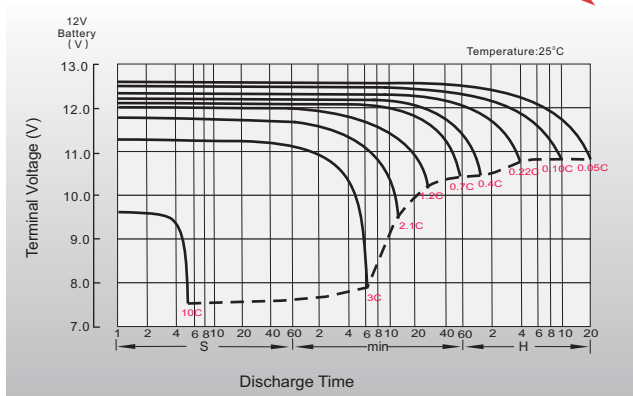
General Features

- 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

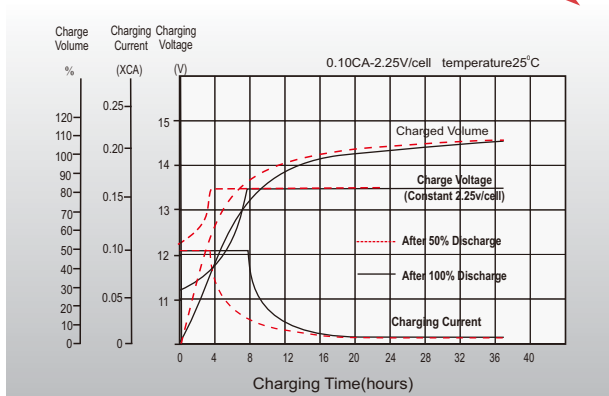
Standards

- 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

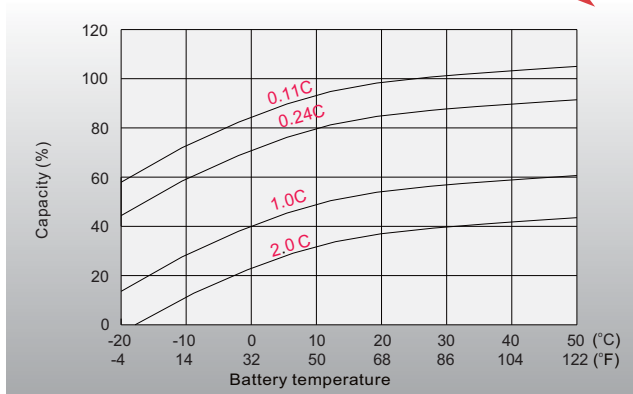
Discharge Characteristics



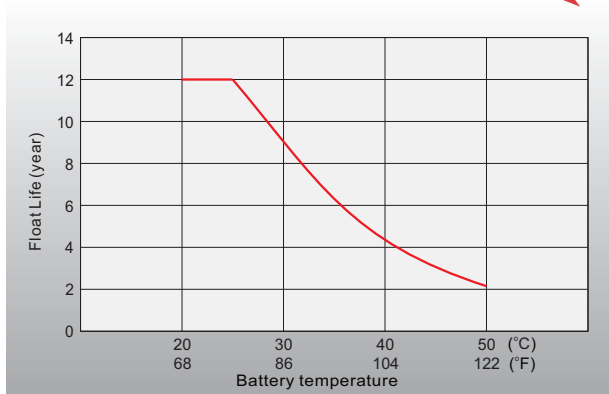
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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Publication No.: LB-XP12-540-PD-EN-V1.5-202303