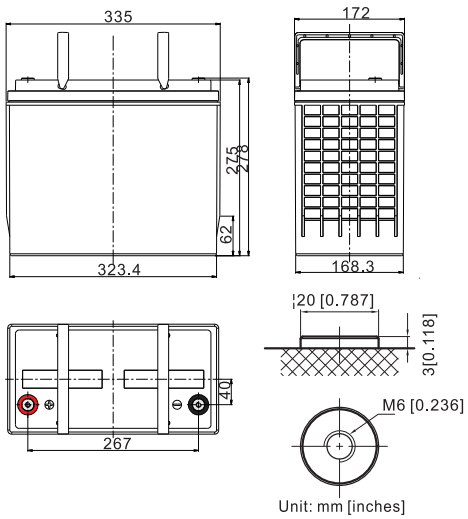
XP Series-Ultra High Rate
XP12-490(12V490W)

LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Rate (W_{15},1.67V/cell)		490.9W/cell
Nominal Capacity(C_{20},1.80V/cell)		142Ah
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		42.0 Kg (92.6 lbs)
Terminal		M6
Container Material		ABS
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. 3.2mΩ
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)		42.6A
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	216.4	189.1	168.9	133.2	101.1	82.1	48.4	35.1	28.0	23.4	20.2	16.0	13.3	6.93
1.80V/cell	310.5	243.6	210.2	183.6	143.0	107.7	87.2	50.6	36.7	28.9	24.1	20.8	16.4	13.6	7.10
1.75V/cell	355.0	277.1	230.3	196.8	150.7	113.2	91.7	52.5	38.0	29.9	24.8	21.4	16.8	13.8	7.26
1.70V/cell	391.7	297.6	245.7	208.7	158.2	118.5	95.6	54.7	38.9	30.5	25.4	21.8	17.1	14.0	7.38
1.67V/cell	426.0	320.2	262.8	220.4	166.6	124.0	99.4	56.6	40.1	31.4	25.9	22.2	17.4	14.2	7.51
1.60V/cell	463.5	347.8	278.9	232.3	174.7	128.7	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	416.3	366.4	329.0	261.1	199.4	162.9	96.6	70.3	56.2	47.3	41.1	32.7	27.3	14.3
1.80V/cell	583.6	464.8	403.5	355.1	278.1	210.8	171.7	100.2	72.9	57.7	48.3	41.8	33.3	27.7	14.6
1.75V/cell	661.2	521.8	438.3	377.7	290.8	219.8	179.2	103.3	75.0	59.3	49.5	42.9	33.9	28.0	14.8
1.70V/cell	722.4	555.3	462.8	397.6	303.2	228.4	185.4	106.7	76.5	60.3	50.4	43.4	34.3	28.3	15.0
1.67V/cell	777.5	591.1	490.9	416.4	317.3	237.7	191.8	109.9	78.2	61.7	51.1	44.1	34.6	28.6	15.2
1.60V/cell	829.6	628.8	511.8	429.8	325.9	242.2	195.1	110.8	78.8	61.9	51.5	44.3	34.6	28.5	15.2

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LEOCH BATTERY

Applications

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

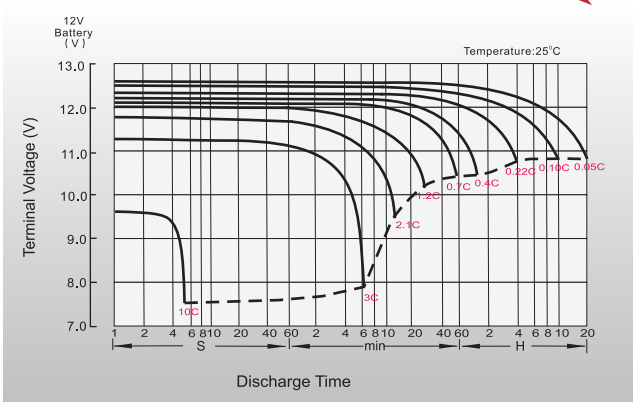
General Features

- 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

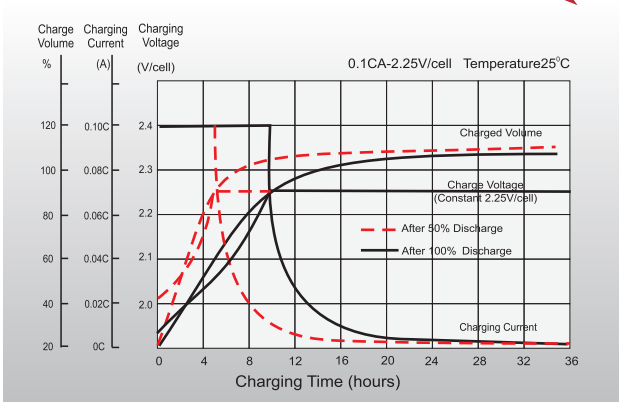
Standards

- Compliance with IEC 60896 standards
- Classified as "Long Life" according to Eurobat
- CE, UL Certified
- Manufactured in Leoch®TS16949, OHSAS 18001,ISO 9001 and ISO 14001 certified production facilities

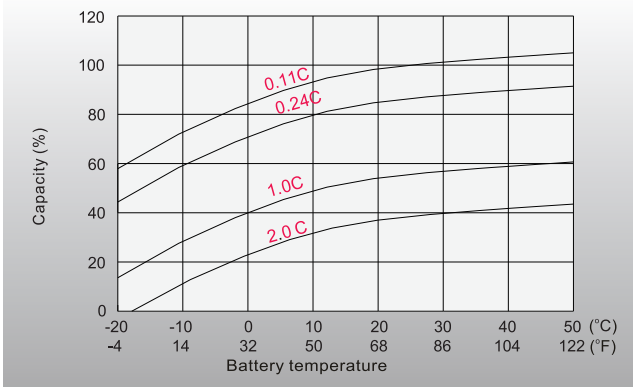
Discharge Characteristics



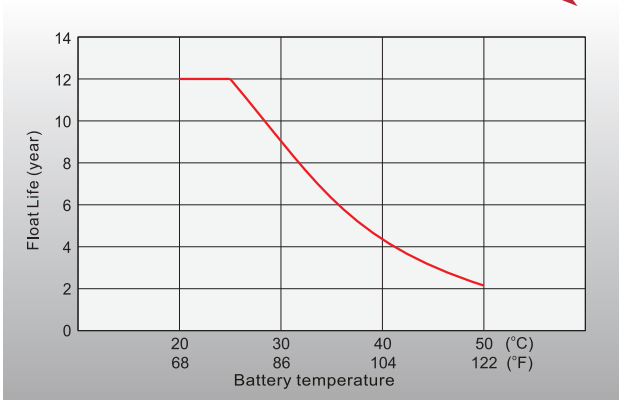
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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Publication No.: LB-XP12-490-PD-EN-V1.1-201903