

# HPPL Series

## HPPL12-380W 12V90Ah

Sacredsun thin plate pure lead (TPPL) series batteries are designed as high power, high energy, long life batteries used in UPS and Telecom, which are fully automatic produced by Con-Casting-Punch-Paste (CCPP) plate manufacture technology, reliable assembly technology and intelligent formation technology. Pure lead grid due to its enhanced corrosion resistance ensures the battery long float service life and the duration at elevated temperature. Thin plate and optimized positive and negative plate active material design provide large chemical reaction surface area, high power density and low resistance cycle.



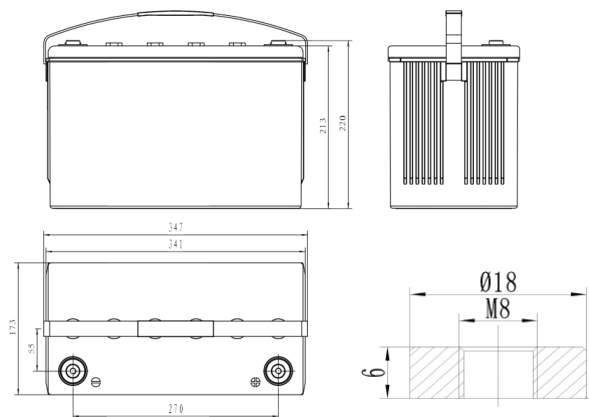
### Benefits

- Specially designed for high-rate discharge
- Excellent 5minr discharge performance
- Faster recharge
- High power density
- Design life 15 years at 25 °C (77 °F)
- Shelf life up to 2 years at 25 °C (77 °F)
- Wider operating temperature range: -40 °C to +60 °C (-40 °F to +140 °F)
- Container Material: PC-ABS flame retardant UL94-V0
- Easy and recommended upright installation

### Applications

- Uninterruptible Power Supply (UPS)
- Data Centers
- Renewable energy
- Emergency Power Supply (EPS)
- Electrical Facilities

### Drawing



### Standards

- IEC 60896-21/22: 2004
- JIS C8704-1/2: 2006
- EUROBAT guide

### Specifications

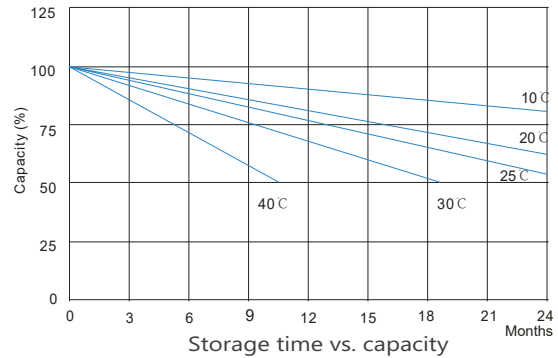
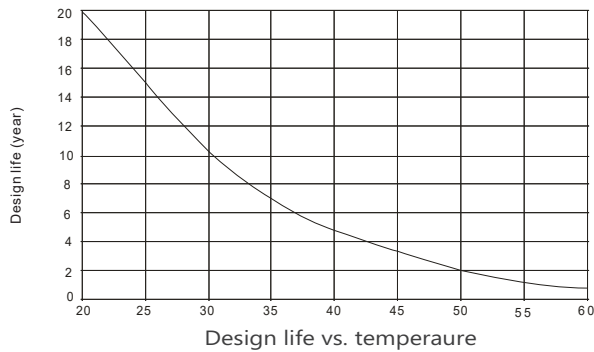
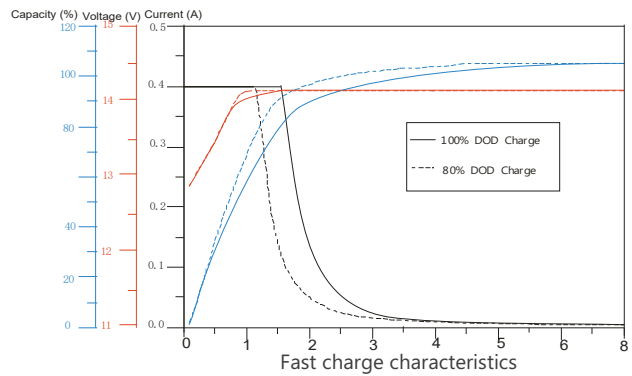
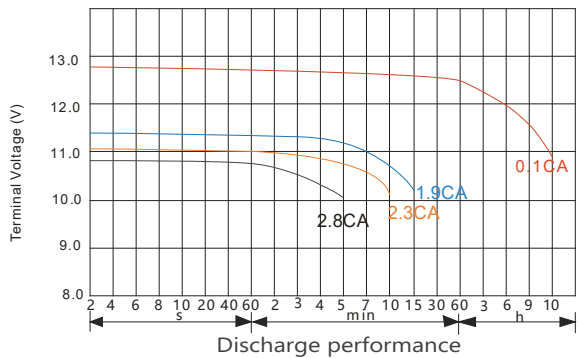
Battery Model	HPPL12-380W			
Design Life (years, 25°C)	15			
Capacity ( 25°C)	10min (1.67V)	15min (1.67V)	1HR (62.9A, 1.80V)	10HR (9.0A, 1.80V)
	483.5W/cell	380W/cell	62.9Ah	90Ah
Dimensions (mm)	Length	Width	Height	Total Height
	341	173	213	220
Approx. Weight (kg)	28.5			
Reference Internal Resistance (mΩ)	2.7 ( fully charged @ 25°C)			
Maximum Discharge Current (A/5 Sec.)	1080			
Self-Discharge (25°C)	≤ 2 % per month			
Charge Voltage (V/cell, 25°C)	Cycle use		Float use	
	2.35 (-3mV/°C/cell), max charge current: 54A		2.23 (-3mV/°C/cell)	
Short Circuit Current (A)	4650			

## Discharge Data

Constant Current Discharge Data (25°C, A)											
End Voltage (V/cell)	min					h					
	10	15	20	30	45	1	2	3	5	8	10
1.60	277.2	210.3	170.5	118.7	89.0	66.3	37.1	26.3	18.2	11.7	9.6
1.65	268.4	205.0	167.0	116.9	88.0	65.8	36.6	25.8	17.9	11.5	9.5
1.67	264.2	202.5	165.3	116.0	87.6	65.5	36.4	25.7	17.7	11.3	9.4
1.70	257.3	198.3	162.4	114.4	86.7	65.1	35.9	25.5	17.5	11.2	9.3
1.75	244.2	190.1	156.8	111.4	85.0	64.1	35.1	25.0	17.1	11.0	9.2
1.80	229.4	180.7	150.2	107.8	83.0	62.9	34.2	24.5	16.8	10.8	9.0

Constant Power Discharge Data (25°C, W/cell)											
End Voltage (V/cell)	min					h					
	10	15	20	30	45	1	2	3	5	8	10
1.60	502.2	392.2	321.9	227.5	173.0	130.2	73.0	51.8	35.9	23.2	19.0
1.65	489.7	384.5	316.7	224.5	171.5	129.2	72.3	51.1	35.4	22.9	18.9
1.67	483.5	380.0	314.1	223.4	170.7	128.8	72.2	50.9	35.2	22.7	18.8
1.70	473.4	374.3	309.6	221.0	169.3	128.1	71.2	50.6	34.9	22.5	18.7
1.75	453.8	361.8	301.0	216.2	166.6	126.4	69.8	49.9	34.3	22.2	18.5
1.80	431.5	347.4	290.7	210.5	163.4	124.5	68.4	49.2	33.8	21.8	18.2

## Performance Curve



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