

Solar Power PS2V428AH



Specification

Nominal Voltage	2V
Nominal Capacity(100HR)	460.0AH
Dimension	Length 210±2mm (8.27 inches)
	Width 175±2mm (6.89 inches)
	Container Height 330±2mm (12.99 inches)
	Total Height (with Terminal) 350±2mm (13.78 inches)
Approx Weight	Approx 25.5 Kg (56.2 lbs)
Terminal	T11
Container Material	ABS
Rated Capacity	460.0 AH/4.60A (100hr, 1.80V/cell, 25°C/77°F)
	428.0 AH/21.4A (20hr, 1.80V/cell, 25°C/77°F)
	400.0 AH/40.0A (10hr, 1.80V/cell, 25°C/77°F)
	351.5 AH/70.3A (5hr, 1.75V/cell, 25°C/77°F)
	235.2 AH/235.2A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	3200A (5s)
Internal Resistance	Approx 0.7mΩ
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)
Cycle Use	Initial Charging Current less than 120.0A. Voltage 2.4V~2.5V at 25°C(77°F)Temp. Coefficient -5mV/°C
	No limit on Initial Charging Current Voltage 2.25V~2.3V at 25°C(77°F)Temp. Coefficient -3mV/°C
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	Batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.

Applications

- Green energy systems
- Communication systems



Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	293.6	233.0	193.4	120.6	93.3	76.9	65.4	46.6	38.7	20.7	9.16	4.50
1.80V/cell	315.0	245.1	205.4	127.4	97.7	80.3	68.2	48.1	40.0	21.4	9.30	4.60
1.75V/cell	333.6	257.7	214.3	132.2	101.1	83.0	70.3	49.0	40.6	21.5	9.46	4.64
1.70V/cell	350.0	267.4	221.9	136.2	103.7	84.8	71.5	49.7	41.0	21.8	9.57	4.70
1.65V/cell	367.1	279.1	229.8	139.4	106.3	86.7	73.0	50.4	41.6	22.1	9.69	4.76
1.60V/cell	379.6	286.5	235.2	142.4	108.1	87.9	74.1	51.1	42.2	22.3	9.80	4.81

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

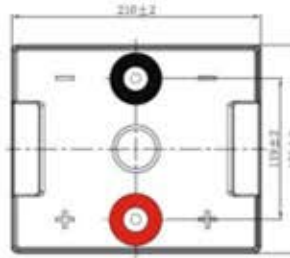
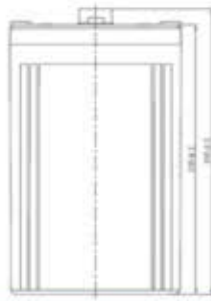
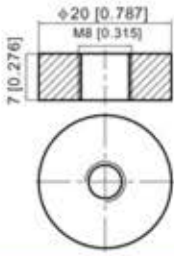
F.V/Time	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	561.0	447.9	374.0	234.6	182.4	150.7	128.9	92.5	77.0	41.1	18.3	9.00
1.80V/cell	597.1	468.1	395.1	246.6	190.1	157.0	133.8	95.1	79.4	42.5	18.5	9.18
1.75V/cell	627.5	489.3	410.5	254.9	196.1	161.7	137.4	96.7	80.5	42.7	18.8	9.25
1.70V/cell	652.9	504.2	422.6	261.5	200.5	164.6	139.4	98.1	81.3	43.2	19.0	9.36
1.65V/cell	679.8	523.3	435.3	266.5	204.5	167.6	141.8	99.2	82.4	43.7	19.2	9.45
1.60V/cell	695.9	532.1	442.4	270.6	207.0	169.1	143.3	100.3	83.4	44.1	19.4	9.54



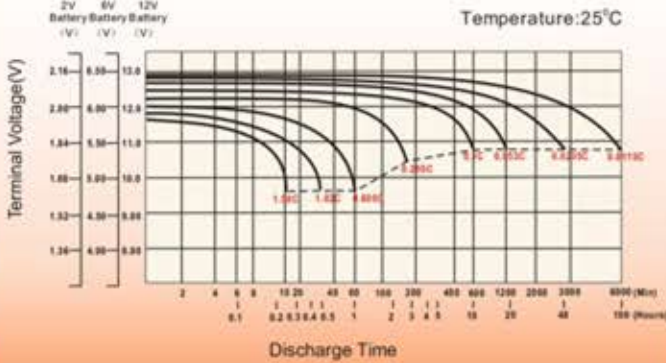
Dimensions

T11 Terminal

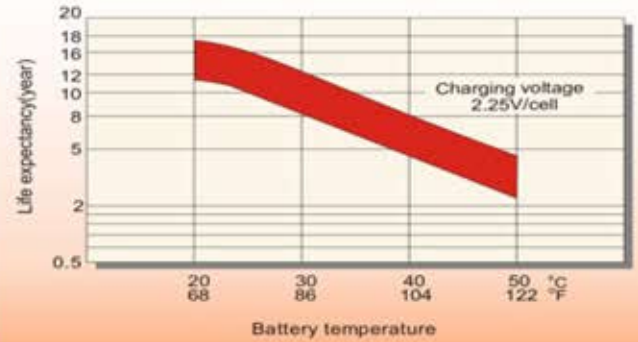
Unit: mm [inches]



Discharge Characteristics



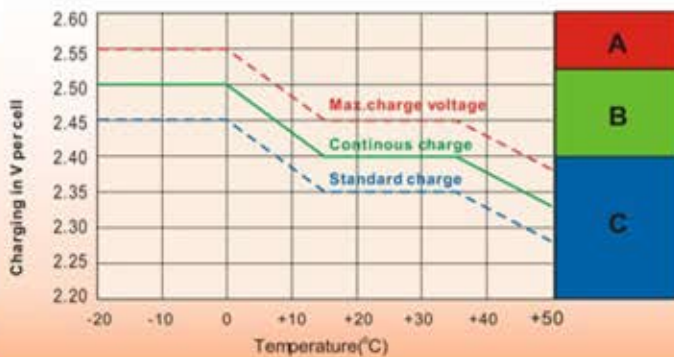
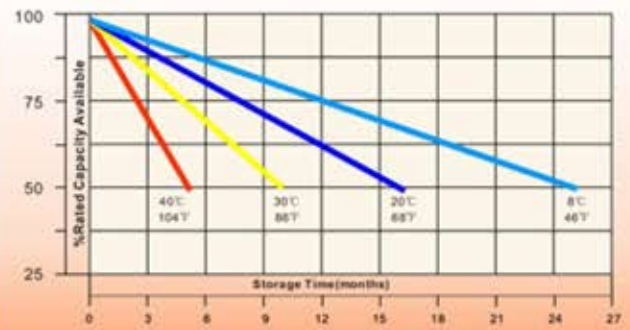
Effect of Temperature on Long Term Float Life



Cycle Service Life



Self-Discharge at Different Temperatures



Charge Mode

- A** With switch regulator (two-step controller) charge on curve max. charge voltage for max. 2 hrs/day then switch over to continuous charge
- B** Standard charge without switching
- C** Boost charge (Equalizing charge with external generator) charge on curve continuous charge for max. 5 hrs/month, then switch over to curve Standard charge