STAY POWER 105A C10

GEL Deep Cycle Battery

BT-HSE-105-12 [12V105Ah]

General Features

- Designed floating charging service life: 12 years (25ºC)
- Safety valve installation for explosion proof ,Sealed and maintenance free operation
- By using strong grids, high purity lead and patented Gel electrolyte
- Extremely low self-discharge characteristic
- Wide operating temperature range from -20ºC~55ºC
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion

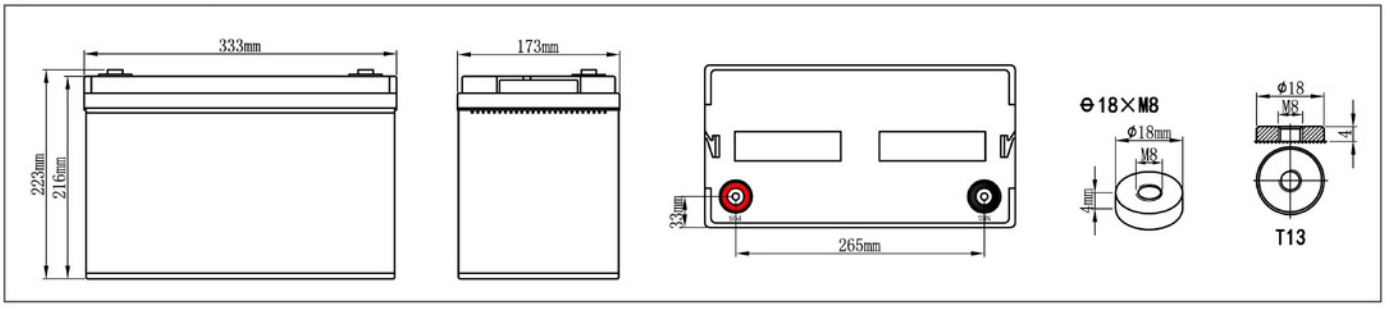
Application

- Pumps systems
- Solar lighting systems
- Telecom stations and power stations
- Solar/wind energy storage systems

Physical Specifications

Nominal Voltage	Nominal Capacity (10HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	105AH	333±3mm	173±2mm	216±3mm	223±3mm	Approx 31.8kg (70.1lbs)	≈4.3mΩ	T13 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hour rate (5.0A)	109.2AH
10 hour rate (10.0A)	105.0AH
5 hour rate (17.0A)	88.5AH
3 hour rate (25.0A)	76.5AH
1 hour rate (60.0A)	65.9AH
Capacity affected by Temperature	
40ºC(104ºF)	103%
25ºC(77ºF)	100%
0ºC(32ºF)	86%

Cycle Application
1. Limit initial current less than 20.0A.
2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25ºC(77ºF).
3. Hold at 14.1V to 14.4V until current drop to under0.60A for at least 3 hours.
4. Temperature compensation coefficient of charging voltage is -30mV/ºC.
Standby Service
1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 20.0A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.
2. Temperature compensation coefficient of charging voltage is -18mV/ºC.

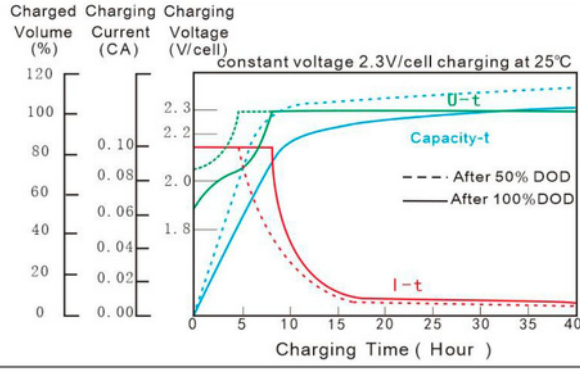
⚠ NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

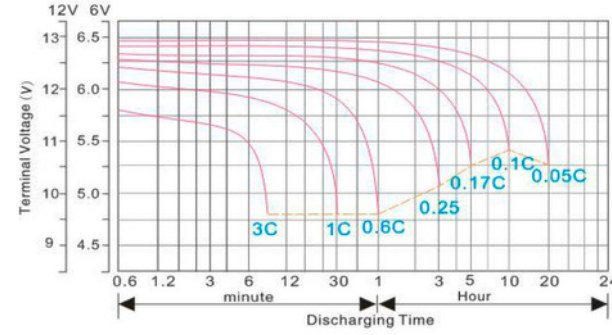
End Voltage (V)	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25ºC) Unit: A												
9.6V	252	200	112	96.8	65.9	52.5	44.0	27.1	18.8	12.9	10.9	5.62
9.9V	241	190	107	93.7	64.9	50.5	42.8	26.7	18.4	12.7	10.8	5.57
10.2V	230	181	102	90.6	62.8	49.4	41.8	26.1	18.0	12.5	10.7	5.51
10.5V	218	173	96.8	87.5	61.8	48.4	40.9	25.5	17.7	12.2	10.6	5.46
10.8V	208	165	92.7	84.4	60.8	47.4	39.8	24.9	17.2	11.9	10.5	5.41
Constant Power Discharge Data Sheet (@25ºC) Unit: W												
9.6V	2822	2338	1448	1014	843	616	460	343	221	168	131	69.8
9.9V	2689	2227	1378	979	824	600	449	335	216	165	130	69.2
10.2V	2561	2121	1313	947	803	586	438	326	211	162	129	68.5
10.5V	2438	2020	1250	915	784	570	427	318	206	159	127	67.8
10.8V	2322	1925	1190	885	764	557	417	311	201	154	126	67.0

Performance Characteristics

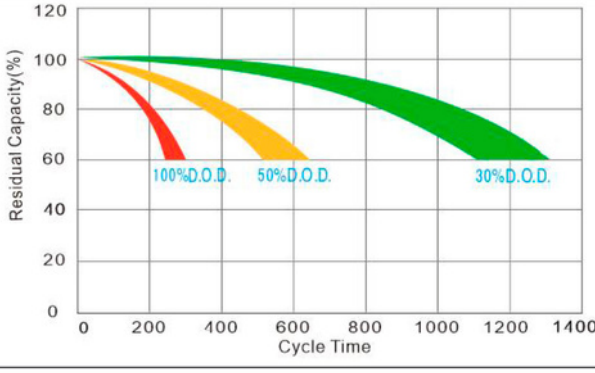
Charge Characteristics (25ºC/77ºF)



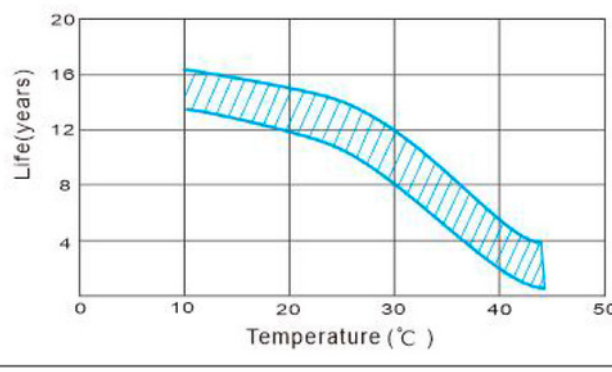
Discharge Characteristic (25ºC/77ºF)



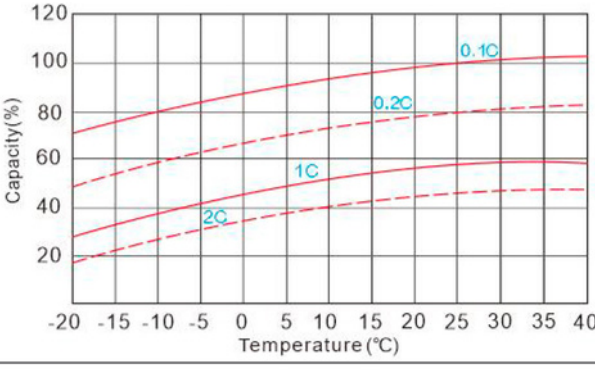
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics