

GEL Deep Cycle Battery

PS-12180-GS[12V18Ah]



General Features

- Designed floating charging service life: 12 years (25°C)
- 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 -20°C~55°C
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion

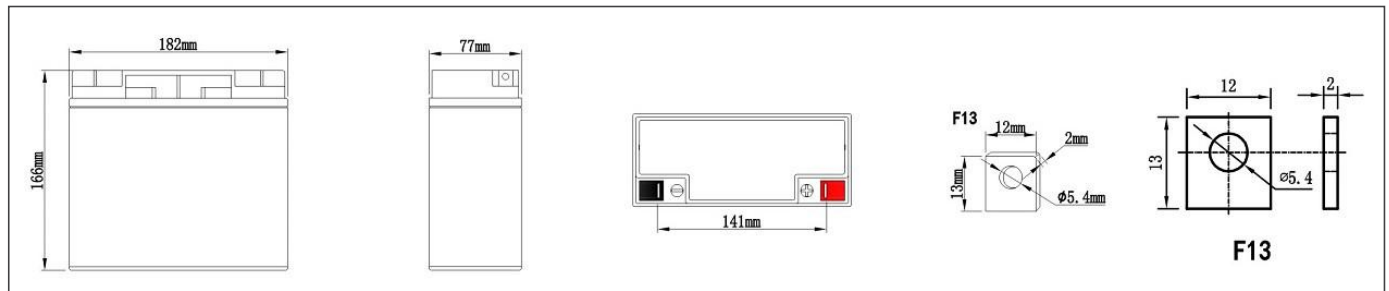
Application

- DC power supply
- UPS/EPS power supply
- Electrical devices & instruments
- Security and fire alarm systems
- Telecom stations and power stations
- Medical equipments
- Emergency lighting systems

Physical Specifications

Nominal Voltage	Nominal Capacity (20HR)	Dimension				Weight ±3%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	18AH	182±2mm	77±2mm	166±2mm	166±2mm	Approx 5.25kg (11.55lbs)	≈14.5mΩ	F13 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hour rate (0.85A)	18.80AH
10 hour rate (1.7A)	16.28AH
5 hour rate (2.84A)	14.50AH
27 minute rate (17A)	8.10AH
7 minute rate (51A)	5.95AH
Capacity affected by Temperature	
40°C(104°F)	103%
25°C(77°F)	100%
0°C(32°F)	86%

Cycle Application	
1.	Limit initial current less than 4.5A.
2.	Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).
3.	Hold at 14.1V to 14.4V until current drop to under 0.102A for at least 3 hours.
4.	Temperature compensation coefficient of charging voltage is -30mV/°C.
Standby Service	
1.	Hold battery across constant voltage source of 13.6to 13.8 volts with current limit 4.5A 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/°C.

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)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (Amperes at 25°C)													
10.20	66.6	42.3	33.4	17.4	12.6	10.8	8.60	6.4	4.83	3.08	2.06	1.72	0.921
10.50	65.9	41.9	33.1	17.2	12.4	10.7	8.43	6.15	4.67	3.03	2.04	1.70	0.911
10.80	65.2	40.5	32.3	17.0	12.3	10.6	8.31	5.91	4.51	2.97	2.02	1.68	0.900
Constant Power Discharge Data Sheet (Watt at 25°C)													
10.20	726	523	423	239	174.3	132.6	101.7	76.53	54.62	36.00	25.35	20.52	11.05
10.50	695	506	411	234	170.3	130.5	100.2	75.45	53.38	35.59	25.15	20.21	10.89
10.80	659	487	398	227	166.0	128.4	98.74	74.37	52.46	35.18	24.89	19.87	10.74

Performance Characteristics

