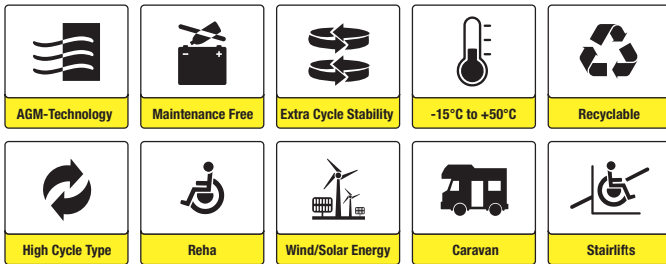




⊕⊖ **sunbattery**®

# HC12-50 M6 (12V50Ah)



## Applications

- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys
- Portable apparatus, lights and instruments
- Electric toys
- Portable power
- Wheelchairs
- Medical equipments
- Wind/Solar energy
- Electric boats
- Caravan

## Certificates



Conform to IEC60896-21&22



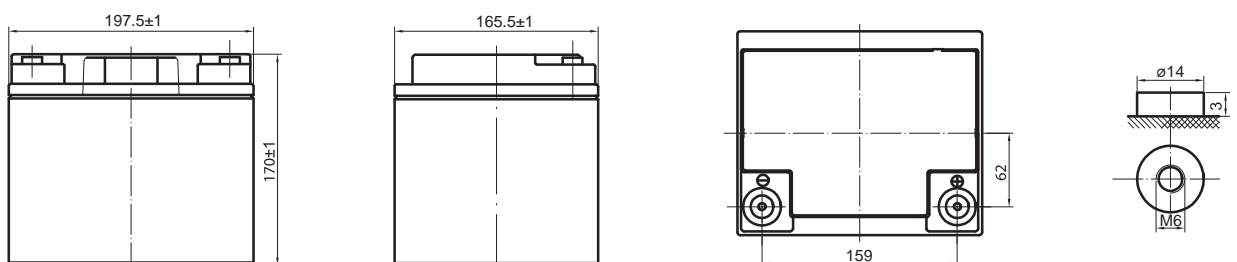
## Specifications

<b>Nominal Voltage</b>	12V	<b>Nominal Oper. Temp. R.</b>	25±3°C
<b>Nominal Capacity</b>	50.20Ah (C <sub>20</sub> , 1.75V/cell)	<b>Cycle Use</b>	Initial Charging Current less than 13.5A. Voltage 14.55V +-1% at 25°C. Temperature Coefficient -30mV/°C.
<b>Approx. Weight</b>	14.6kg	<b>Standby Use</b>	Initial Charging Current less than 13.5A. Voltage 13.65V +-1% at 25°C Temp. Coefficient -20mV/°C
<b>Terminal</b>	M6	<b>Capacity affected by Temp.</b>	40°C            103% 25°C            100% 0°C              86%
<b>Container Material</b>	ABS UL94 HB	<b>Self Discharge</b>	HC batteries may be stored for up to 6 months at 25°C and then a freshening charge is required. For higher temperatures the time interval will be shorter.
<b>Rated Capacity (25°C)</b>	50.20Ah/2.51A, 20hr, 1.75V/cell 47.70Ah/4.77A, 10hr, 1.75V/cell 42.85Ah/8.57A, 5hr, 1.75V/cell 38.40Ah/12.80A, 3hr, 1.60V/cell 30.90Ah/30.90A, 1hr, 1.60V/cell	<b>Cycle Life</b>	Approx. 650 Cycles at 50% DOD
<b>Max. Discharge Current</b>	450A (5s)		
<b>Internal Resistance</b>	Approx. 8.0mΩ		
<b>Operating Temp. Range</b>	Discharge:        -15~50°C Charge:            0-40°C Storage:           -15~40°C		

## Dimensions

### ■ M6 Terminal

Unit: mm | Dimensions: 197 Length X 165 Width X 170 Height (170 Height incl. Terminal)





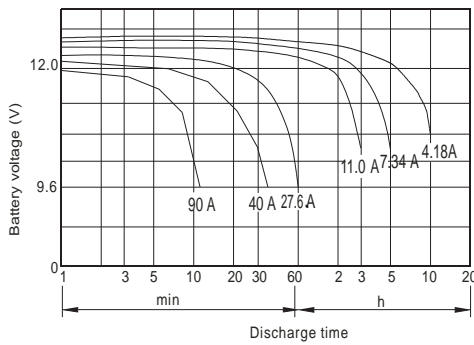
### Constant Current Discharge (Amperes) at 25°C

End Point	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V/cell	212	133	91.2	55.3	30.9	12.8	8.9	4.93	2.62
1.65V/cell	207	129	90.4	54.7	30.6	12.7	8.83	4.88	2.60
1.70V/cell	197	125	88.6	53.0	30.2	12.5	8.69	4.84	2.57
1.75V/cell	183	117	86.0	51.9	29.3	12.3	8.57	4.77	2.51
1.80V/cell	165	105	82.9	49.8	28.4	11.9	8.28	4.67	2.46

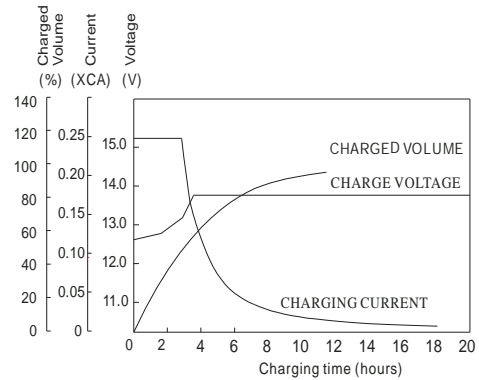
### Constant Power Discharge (Watts/cell) at 25°C

End Point	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V/cell	354.00	240.83	171.15	102.17	60.00	25.67	17.83	9.77	5.30
1.65V/cell	348.33	236.50	168.83	100.83	59.52	25.33	17.67	9.68	5.25
1.70V/cell	338.50	228.33	163.50	98.33	58.33	24.67	17.33	9.57	5.17
1.75V/cell	330.83	218.17	156.67	95.17	57.00	23.83	17.00	9.38	5.05
1.80V/cell	282.17	199.02	143.00	88.00	55.33	22.67	16.55	9.10	4.87

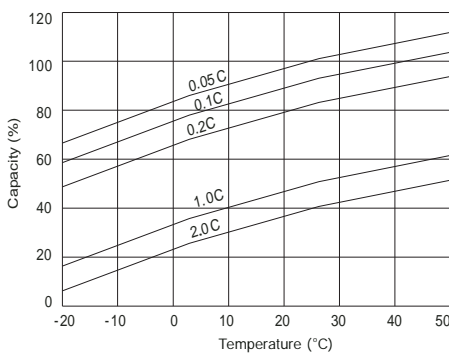
### Discharge Characteristics (25°C)



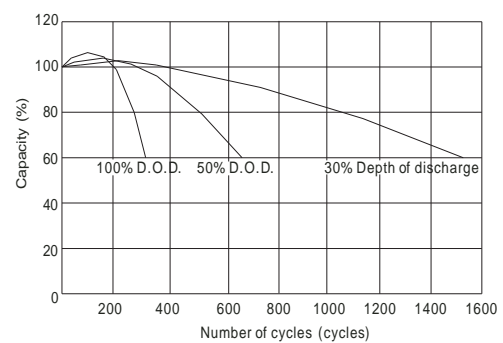
### Float Charging Characteristics (25°C)



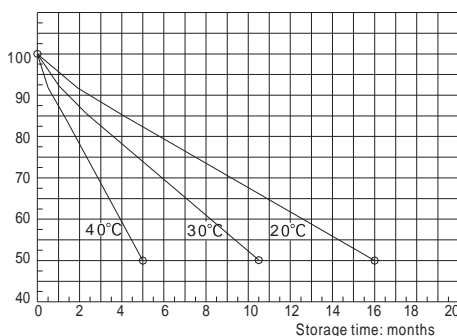
### Temperature Effects in Relation to Battery Capacity



### Cycle Service Life in Relation to Depth of Discharge



### Self Discharge Characteristics



### Temperature Effects on Float Life

