

CHT50-12

12V 50AH

High Temperature Battery

CANBAT

CHT50-12



Physical Specification

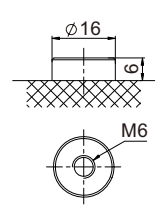
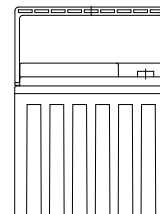
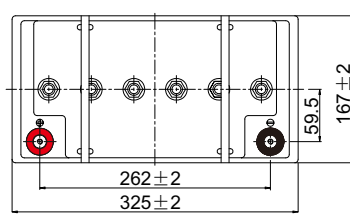
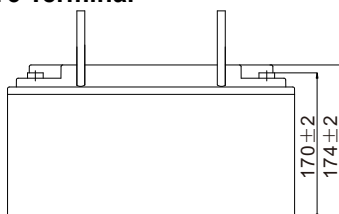
Part Number:	CHT50-12
Length:	325 ± 2 mm (12.80 inches)
Width:	167 ± 2 mm (6.57 inches)
Container Height:	174 ± 2 mm (6.85 inches)
Total Height (with terminal):	174 ± 2 mm (6.85 inches)
Approx Weight:	19.6 kg (43.2 lbs)

Specifications

	Nominal Voltage	12V
	Nominal Capacity (10HR)	50AH
Terminal Type	Standard Terminal	T6
	Terminal Specs	(M6,Torque3.9~5.4N m)
Container Material	Standard Option	ABS(High Temperature Resistant Material)
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity(35°)	C20(2.7A,1.80V/cell)	54.0 Ah
	C10(5.0A,1.80V/cell)	50.0 Ah
	C5(8.8A,1.75V/cell)	44.0Ah
	C3(12.9A,1.75V/cell)	38.7 Ah
	C1(30.7A,1.67V/cell)	30.7Ah
Max Discharge Current	400A (5s)	
Internal Resistance	Approx 12mΩ	
Discharge Characteristics	Operating Temp. Range	The battery can operate at temperatures of -40C ~ +65C. Extreme temperature can be up to 80C.
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 12.5A.Voltage 14.1V ~ 14.4V at 25°C (77°F) Temp. Coefficient -30mV/°C
	Standby Use	Initial Charging Current less than 12.5A.Voltage 13.5V at 25°C (77°F) Temp. Coefficient -20mV/°C
	Capacity affected by Temperature	40°C (104°F) 103%
		25°C (77°F) 100%
		0°C (32°F) 79%
Design Floating Life at 20°C	5 Years	
Self Discharge	Canbat High Temperature Batteries may be stored for up to 6 months at 25°C(77F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

Dimensions

T6 Terminal



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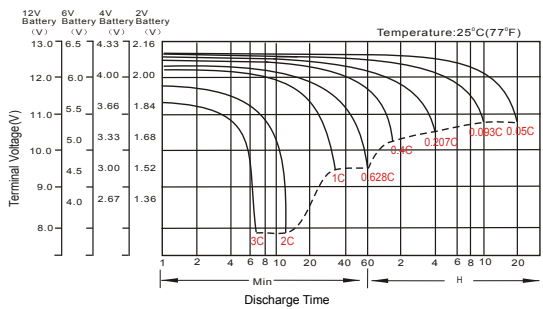
Constant Current Discharge (Amperes) at 35 °C (95°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	61.2	53.0	47.7	37.9	28.9	24.1	15.2	11.4	9.30	8.00	6.93	5.60	4.75	2.64
1.80V/cell	73.6	61.3	54.2	42.2	32.4	26.8	16.4	12.3	10.0	8.49	7.36	5.90	5.00	2.71
1.75V/cell	85.3	69.8	60.3	46.0	34.6	28.3	17.2	12.9	10.4	8.76	7.59	6.05	5.07	2.74
1.70V/cell	94.8	75.9	64.6	48.7	36.1	29.6	18.1	13.3	10.6	9.01	7.80	6.18	5.15	2.79
1.67V/cell	101.4	79.8	67.4	50.6	37.5	30.7	18.6	13.7	10.9	9.20	7.95	6.27	5.23	2.82
1.60V/cell	110.6	85.4	72.1	53.6	39.6	32.1	19.2	14.2	11.3	9.50	8.13	6.36	5.32	2.85

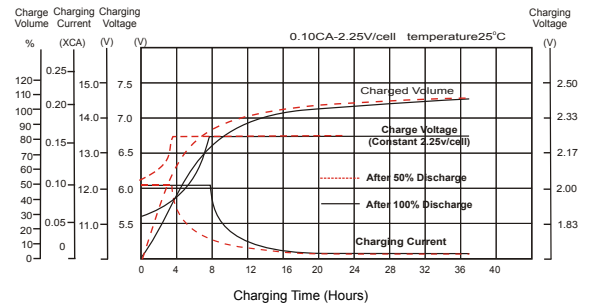
Constant Power Discharge (Watts/cell) at 35 °C (95°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	115.0	100.3	90.9	72.9	55.9	46.8	29.5	22.3	18.3	15.7	13.7	11.1	9.4	5.3
1.80V/cell	136.1	114.2	102.1	80.4	62.3	51.8	31.9	23.9	19.5	16.7	14.5	11.7	9.9	5.4
1.75V/cell	155.5	128.5	112.4	87.0	66.0	54.6	33.3	25.0	20.3	17.2	14.9	12.0	10.1	5.5
1.70V/cell	170.2	138.5	119.6	91.5	68.7	56.7	34.9	25.8	20.8	17.6	15.3	12.2	10.2	5.6
1.67V/cell	180.2	144.0	123.7	94.4	71.0	58.5	35.7	26.5	21.2	18.0	15.6	12.4	10.4	5.6
1.60V/cell	192.8	151.8	130.9	99.0	74.4	60.9	36.8	27.2	21.8	18.4	15.9	12.5	10.5	5.7

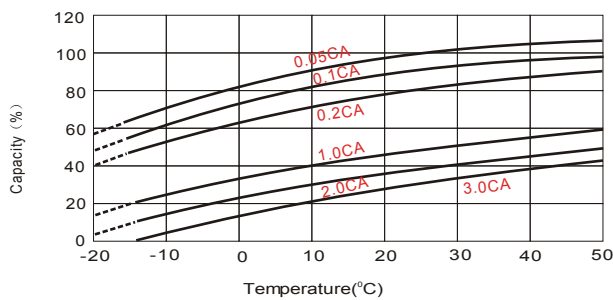
Discharge Characteristics



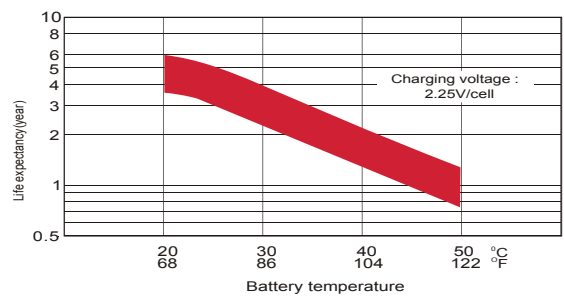
Float Charging Characteristics



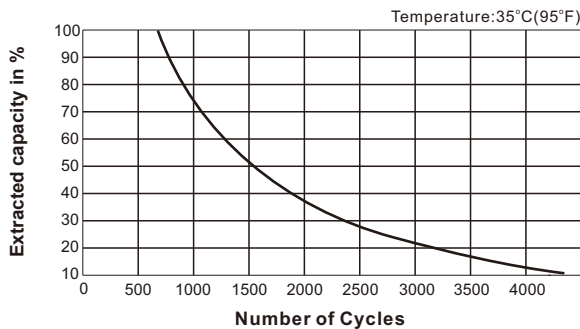
Temperature Effects in Relation to Battery Capacity



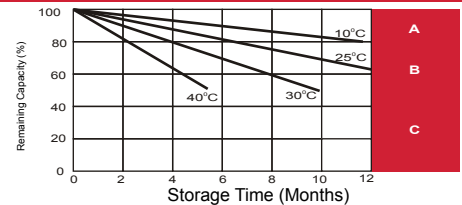
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No supplementary required
(Carryout supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.25V/cell.
3. Charged for 8 ~ 10 hours at limited current 0.05 CA.
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

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