

CHR 38-12

12V 38AH

High Rated



CHR38-12



Physical Specification

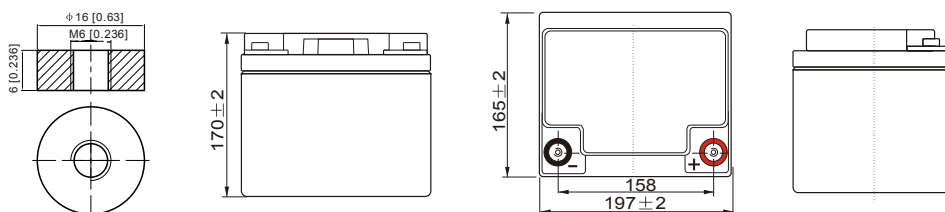
Part Number:	CHR 38-12
Length:	197 ± 2 mm (7.76 inches)
Width:	165 ± 2 mm (6.50 inches)
Container Height:	170 ± 2 mm (6.69 inches)
Total Height (with terminal):	170 ± 2 mm (6.69 inches)
Approx Weight:	Approx 13 kg (29.1 lbs)

Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	38.7AH
Terminal Type	Standard Terminal	T6
	Optional Terminal	T10-1
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:VO)
Rated Capacity	38.7 AH/3.87A	(10hr, 1.80V/cell, 25°C / 77°F)
	36.6 AH/4.58A	(8hr, 1.80V/cell, 25°C / 77°F)
	32.8 AH/6.56A	(5hr, 1.75V/cell, 25°C / 77°F)
	30.0 AH/9.99A	(3hr, 1.75V/cell, 25°C / 77°F)
	25.3 AH/25.3A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	456A (5s)	
Internal Resistance	Approx 10mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (5 ~ 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 11.4A. Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V 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) 86%	
Design Floating Life at 20°C	12+ Years	
Self Discharge	Canbat 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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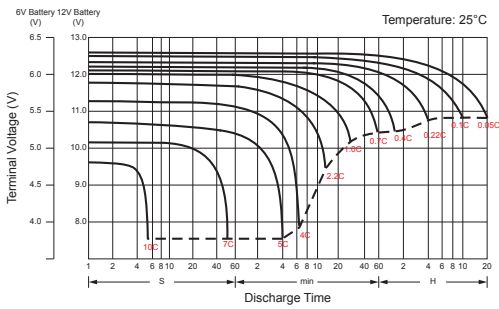
Constant Power Discharge Characteristics at 25°C /77°F, Unit: W

F.V (V/Cell)	15 min	20 min	30 min	40 min	50 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	753.9	638.4	462.3	375.1	317.7	273.1	147.5	105.5	84.99	72.46	63.84	49.43	44.34	23.69
1.80V/cell	766.7	649.3	467.5	379.3	321.3	276.3	150.1	107.4	86.74	73.68	64.99	50.40	45.22	24.06
1.75V/cell	772.4	654.7	470.6	382.8	324.5	278.8	151.5	108.4	87.57	74.40	65.65	50.92	45.71	24.29
1.70V/cell	786.4	665.1	473.1	387.1	328.5	282.7	154.5	110.5	89.20	75.86	66.96	51.91	46.62	24.76
1.67V/cell	790.6	666.6	474.6	387.9	330.6	284.4	155.5	111.1	90.02	76.57	67.56	52.35	47.03	24.99
1.60V/cell	795.4	670.1	478.5	390.0	331.8	286.2	155.9	111.8	90.97	77.39	68.29	52.90	47.44	25.22

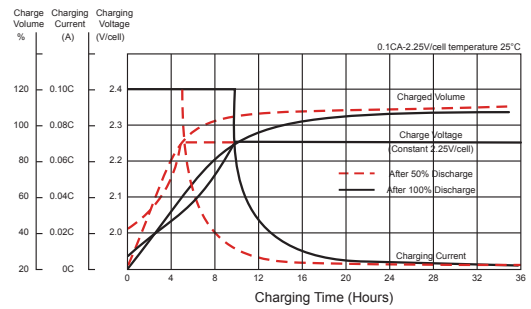
Constant Current Discharge Characteristics at 25°C /77°F, Unit: A

F.V (V/Cell)	15 min	20 min	30 min	40 min	50 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	67.98	56.30	38.95	31.60	26.77	23.02	12.39	8.852	7.082	6.019	5.311	4.116	3.686	1.951
1.80V/cell	69.39	57.46	39.75	32.25	27.32	23.49	12.65	9.035	7.228	6.144	5.421	4.201	3.762	1.991
1.75V/cell	70.09	58.04	40.15	32.58	27.60	23.73	12.78	9.126	7.301	6.206	5.476	4.244	3.800	2.011
1.70V/cell	71.49	59.20	40.96	33.23	28.15	24.20	13.03	9.308	7.447	6.330	5.585	4.328	3.876	2.052
1.67V/cell	72.19	59.78	41.36	33.56	28.42	24.44	13.16	9.400	7.520	6.392	5.640	4.371	3.914	2.072
1.60V/cell	72.96	60.42	41.80	33.92	28.73	24.70	13.30	9.500	7.600	6.460	5.700	4.418	3.956	2.094

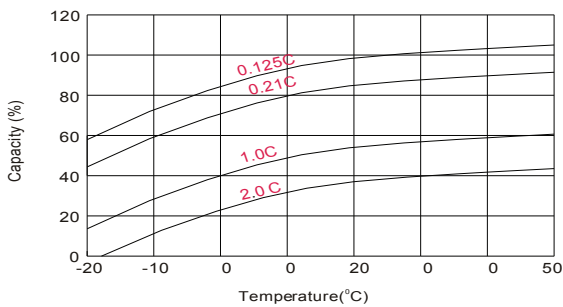
Discharge Characteristics



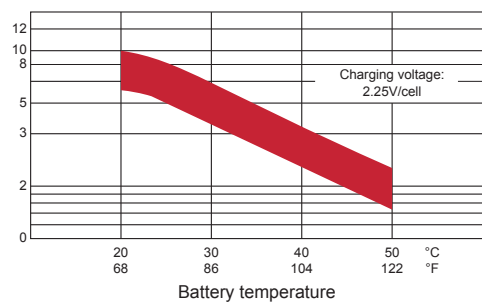
Float Charging Characteristics



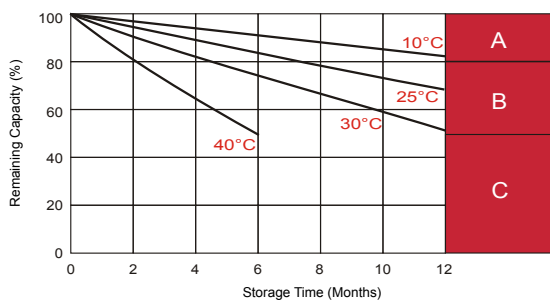
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics



- A** No supplementary charge required
(Carry out 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 2.45V/cell.
3. Charged for 8~10 hours at limited current 0.05CA.
- 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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