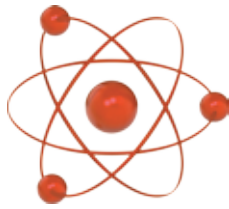


FUSION

AGM BATTERIES



CBC SERIES - Deep Cycle

CBC12V50AH

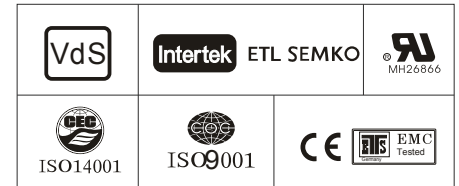
Specifications

Nominal Voltage	12V	
Nominal Capacity (20HR)	50.0AH	
Dimensions	Length	257+/-3mm
	Width	132+/-2mm
	Container Height	200+/-2mm
	Total Height (with Terminal)	200+/-2mm
Approx Weight	Approx 17.6 kg	
Terminal	T6	
Container Material	ABS	
Rated Capacity	53.6 AH/2.68A	(20hr, 1.80V/cell, 25°C)
	50.0 AH/5.50A	(10hr, 1.80V/cell, 25°C)
	43.9AH/8.77A	(5hr, 1.75V/cell, 25°C)
	39.8 AH/13.3A	(3hr, 1.75V/cell, 25°C)
	32.3 AH/32.3A	(1hr, 1.60V/cell, 25°C)
Max. Discharge Current	600A (5s)	
Internal Resistance	Approx 8.0m Ω	
Operating Temp. Range	Discharge	-15~50°C
	Charge	0~40°C
	Storage	-15~40°C
Nominal Operating Temp. Range	25° +/-3°C	
Cycle Use	Initial Charging current less than 15.0A. Voltage 14.4V~15.0.5 V at 25°C Temp Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current. Voltage 13.5V~13.8V at 25°C Temp. Coefficient -20mV/°C	
Capacity Affected by Temperature	40°C	103%
	25°C	100%
	0°C	86%
Self Discharge	Fusion CBC Series 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.	



Applications

- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golf cart
- ◆ Portable apparatus, lights and instruments;
- ◆ Electric toys
- ◆ Illumination light
- ◆ Fire alarms
- ◆ Portable power
- ◆ Wheelchairs
- ◆ Medical equipments.



Constant Current Discharge (Amperes) at 25°C

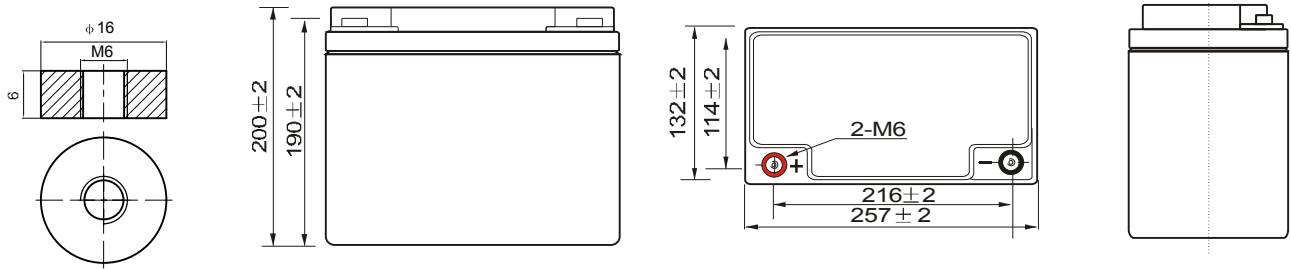
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	73.2	61.6	53.8	38.7	30.8	25.0	15.5	12.1	9.80	7.96	6.95	5.76	4.72	2.66
1.80V/cell	93.5	74.4	63.6	45.7	35.8	28.0	16.9	13.01	10.5	8.55	7.45	6.01	5.00	2.68
1.75V/cell	102.8	81.3	68.4	47.4	37.1	29.3	17.6	13.3	10.7	8.77	7.65	6.11	5.05	2.71
1.70V/cell	112.0	86.8	71.9	49.4	38.6	30.2	18.3	13.6	11.0	8.99	7.81	6.20	5.10	2.76
1.65V/cell	120.9	92.3	76.4	52.1	39.6	31.2	18.8	14.2	11.4	9.20	7.98	6.30	5.21	2.79
1.60V/cell	131.3	98.7	81.4	55.0	41.3	32.3	19.4	14.6	11.7	9.50	8.16	6.36	5.26	2.81

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

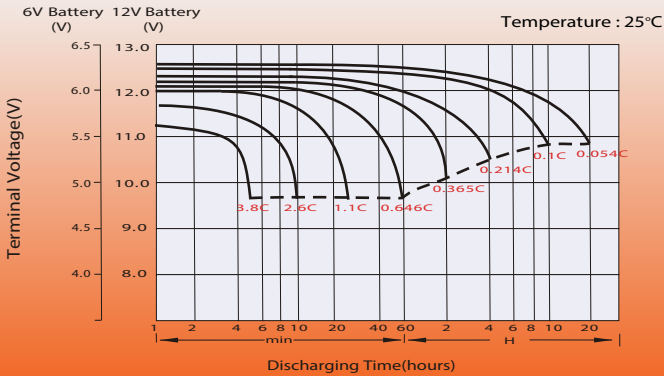
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	136.6	116.1	102.6	74.4	59.5	48.5	30.2	23.6	19.2	15.6	13.7	11.2	9.3	5.31
1.80V/cell	172.2	138.2	119.4	86.8	68.6	54.0	32.8	25.3	20.4	16.7	14.7	11.9	9.9	5.35
1.75V/cell	186.9	149.5	127.4	89.6	70.9	56.2	33.9	25.7	20.8	17.1	15.0	12.1	10.0	5.40
1.70V/cell	200.8	158.5	133.1	92.9	73.5	57.9	35.2	26.3	21.3	17.5	15.3	12.2	10.1	5.49
1.65V/cell	215.2	167.4	140.8	97.6	75.1	59.6	36.0	27.4	22.0	18.0	15.6	12.4	10.3	5.56
1.60V/cell	229.7	176.9	148.4	102.0	77.5	61.2	37.0	28.1	22.6	18.5	15.9	12.5	10.4	5.58

Dimensions

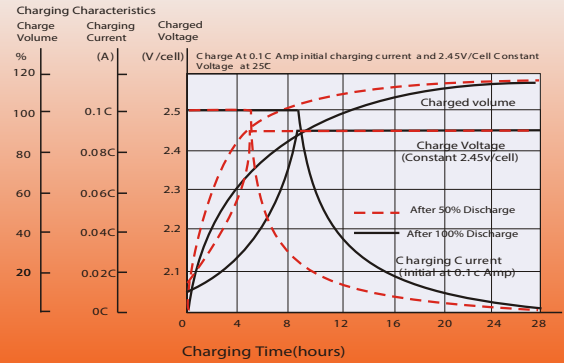
T6 Terminal



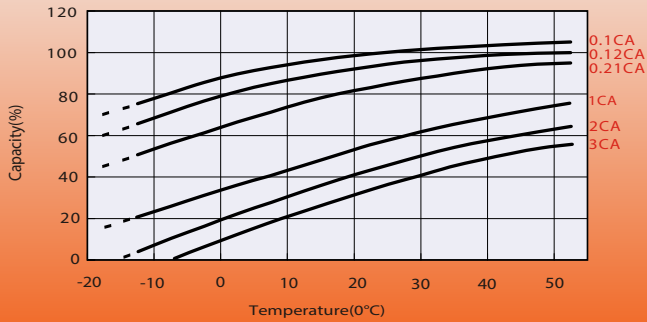
Discharge Characteristics



Charging Characteristics (cycle use)

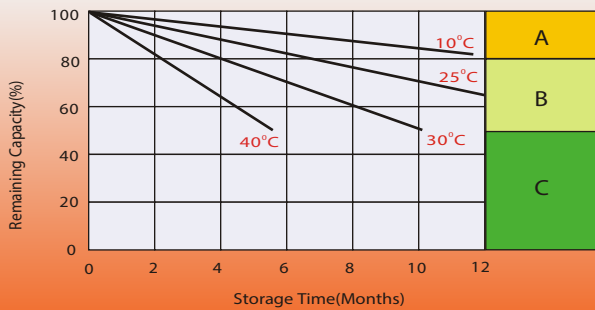
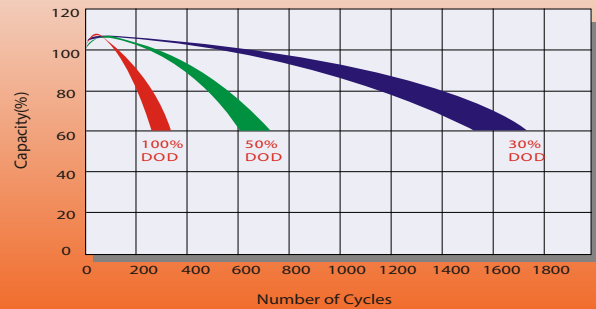


Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge

Testing condition
 Discharging : current 0.17 C A (FV 1.7 V / cell);
 Charging : current 0.25 C max , voltage 2.45 V /cell;
 Charging volume: 125% of discharged capacity.



- A** No supplementary charge required
 (Carry out supplementary charge before use if 100% capacity is required.)
 Supplementary charge required before use.
 Optional charging way as below:
- B** 1.Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
 2.Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 3.Charged for 8~10hours 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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