



DC12-250 12V250AH

DC SERIES-Deep Cycle Battery



Applications

- ◆ Solar Systems

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	250AH	
Dimension	Length	522±3mm (20.6 inches)
	Width	268±2mm (10.6 inches)
	Container Height	218 ±2mm (8.58 inches)
	Total Height (with Terminal)	226 ±2mm (8.90 inches)
Approx Weight	Approx 65.6Kg (144.7lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	258.8AH/12.9A	(20hr ,1.80V/cell,25°C/77°F)
	250.0 AH/25.0A	(10hr,1.80V/cell,25°C/77°F)
	218.7 AH/43.7A	(5hr,1.75V/cell,25°C/77°F)
	198.7 AH/66.2A	(3hr,1.75V/cell,25°C/77°F)
	161.5 AH/161.5A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	2000A (5s)	
Internal Resistance	Approx 2.0mΩ	
Operating Temp.Range	Discharge	: -15 ~50°C (5 ~122°F)
	Charge	: 0 ~40°C (32 ~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 75A.Voltage 14.4V~14.9V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use	
Capacity affected by Temperature	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25°C(77 °F)Temp. Coefficient -20mV/°C	
	40°C (104 °F)	103%
Self Discharge	25°C (77 °F)	100%
	0°C (32 °F)	86%
	DC series batteries may be stored for up to 6 months at 25°C(77°F) and battery should be recharged before use. For higher temperatures the time interval will be shorter.	

Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.80V	561.6	358.0	304.2	194.2	142.7	131.0	83.3	58.5	39.8	26.2	23.4	13.00
1.75V	584.1	372.3	316.4	202.0	148.4	136.3	86.6	60.8	41.4	27.3	24.3	13.5
1.70V	595.3	379.5	322.5	205.9	151.3	138.9	88.3	62.0	42.2	27.8	24.8	13.8
1.65V	606.5	386.7	328.5	209.8	154.2	141.5	90.0	63.2	43.0	28.3	25.3	14
1.60V	617.8	393.8	334.6	213.6	157.0	144.1	91.6	64.4	43.8	28.8	25.7	14.3

Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.80V	1081.1	689.2	585.6	373.9	274.8	252.3	160.4	112.6	76.6	50.5	45.0	25.0
1.75V	1124.3	716.8	609.0	388.8	285.8	262.3	166.8	117.1	79.6	52.5	46.8	26.0
1.70V	1145.9	730.5	620.7	396.3	291.3	267.4	170.0	119.4	81.2	53.5	47.7	26.5
1.65V	1167.6	744.3	632.4	403.8	296.8	272.4	173.2	121.6	82.7	54.5	48.6	27.0
1.60V	1189.2	758.1	644.1	411.3	302.3	277.5	176.4	123.9	84.2	55.5	49.5	27.5

Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.



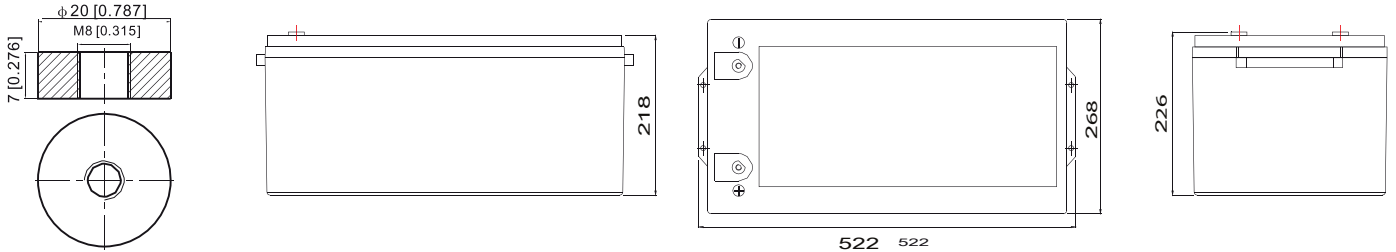
DC250-12 12V250AH

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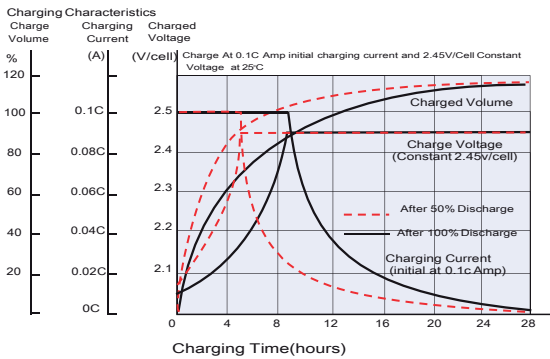
Dimensions

T11 Terminal

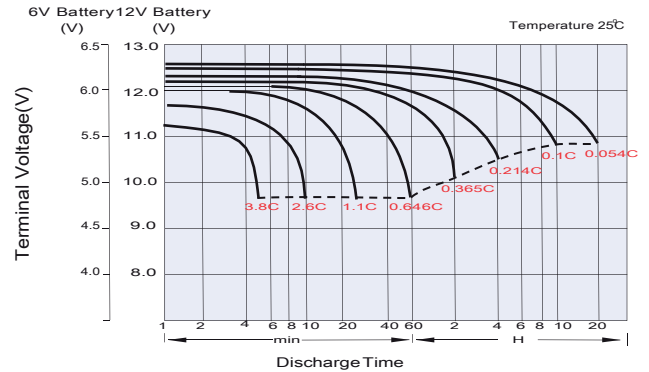
Unit: mm [inches]



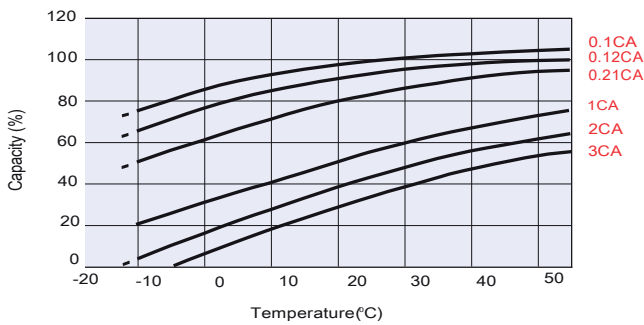
Charging Characteristics (cycle use)



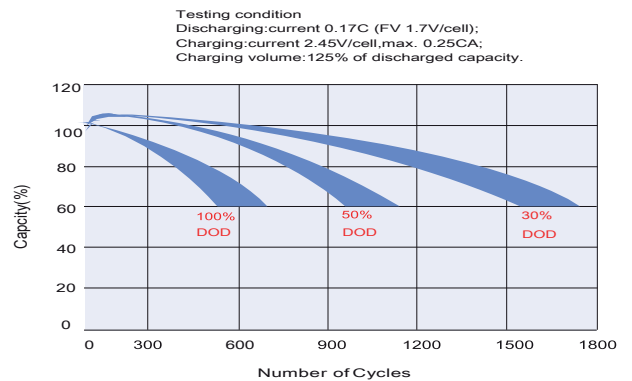
Discharge Characteristics



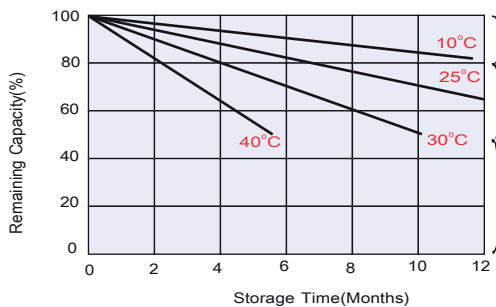
Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



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:

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.

Supplementary charge may often fail to recover the capacity.

The battery should never be left standing till this is reached.