SM SOLAR BATTERY: Constant, Safe POWER for YOU

VRLA AGM SEALED LEAD ACID Battery SM12-150

CS series AGM batteries are designed to have a large amount of stored current discharged between charging sessions, with very heavy non-porous battery plates to withstand repeated major discharging and charging cycle. The VRLA AGM battery uses a different chemistry for the plates active paste material, and a slightly stronger electrolyte than normal battery electrolyte, thus the CS range features higher cyclic life with 10 years of float life when compared to the standard Duration range.

12V	150Ah	AGM	VRLA
Voltage	Capacity	Technology	Battery

GENERAL FEATURES

- **30% more cyclic life through innovation at the PAM additives**
- **Long life expectancy of 10 years in floating condition**
- **Thick flat plate with high Tin low Calcium alloy**
- **Excellent deep discharge recovery capability**
- **Deep cycle performance: up to 700 cycles @50% DOD**

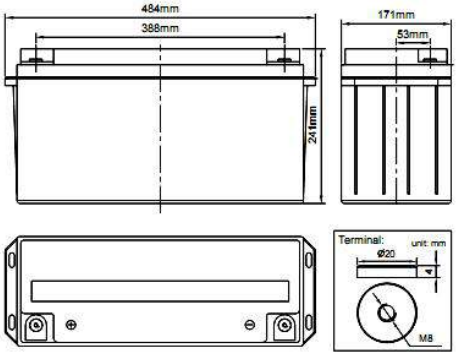
APPLICATIONS

- **Telecom Control Equipments**
- **UPS systems, Inverter**
- **Power Equipments**
- **Solar&Wind**
- **Emergency Power Systems**

COMPLIED STANDARDS

DIMENSIONS & WEIGHT

Length(mm/inch)	484/19.06
Width(mm/inch)	171/6.73
Height(mm/inch)	241/9.49
Total Heigth(mm/inch)	241/9.49
Weight(kg/lbs)(±3%)	41/90.5



TECHNICAL SPECIFICATIONS

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25℃		10 Years
Nominal Capacity @25℃(10 hour rate@15.0A,10.8V)		150Ah
Capacity @25℃	20hour rate (8.03A,10.8V)	160.6Ah
	5 hour rate (27.4A,10.5V)	137Ah
	1 hour rate (87.4A,9.6V)	87.4Ah
Internal Resistance	Full Charged Battery@25℃	≤3.5mΩ
Ambient Temperature	Discharge	-15℃~45℃
	Charge	-15℃~45℃
	Storage	-15℃~45℃
Max.Discharge Current@25℃		900A (5s)
Capacity affected by Temperature (10 hour)	40℃	105%
	25℃	100%
	0℃	85%
	-15℃	65%
Self-Discharge@25℃ per Month		3%
Charge (Constant Voltage) @25℃	Standby Use	Initial Charging Current Less than 37.5A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 37.5A Voltage 14.4-14.9V

BATTERY DISCHARGE TABEL

Discharge Constant Current per Cell (Amperes at 25°C)

F.V/Time	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	163.0	142.8	102.5	87.4	60.8	44.5	28.6	17.5	15.6	8.35
1.65V	158.6	139.0	99.7	85.0	59.7	43.7	28.2	17.3	15.5	8.27
1.70V	154.2	135.2	97.0	82.7	58.6	42.8	27.8	17.1	15.3	8.19
1.75V	149.9	131.3	94.2	80.3	57.2	41.8	27.4	17.0	15.2	8.11
1.80V	145.5	127.5	91.5	78.0	55.8	40.8	27.0	16.8	15.0	8.03

Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	313.7	274.9	197.3	168.2	117.1	85.6	55.1	33.6	30.0	15.9
1.65V	305.3	267.5	192.0	163.7	114.9	84.0	54.3	33.3	29.7	15.8
1.70V	296.9	260.2	186.7	159.2	112.8	82.5	53.5	33.0	29.5	15.6
1.75V	288.5	252.8	181.4	154.7	110.1	80.5	52.8	32.7	29.2	15.5
1.80V	280.1	245.4	176.1	150.2	107.4	78.5	52.0	32.3	28.9	15.3

Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **SM SOLAR** for the latest information.

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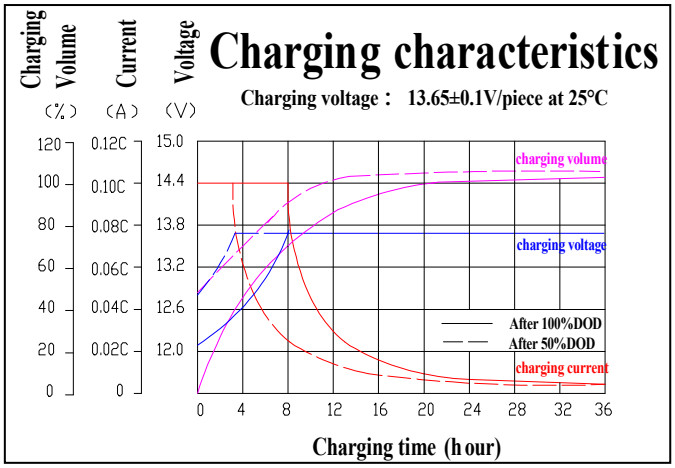
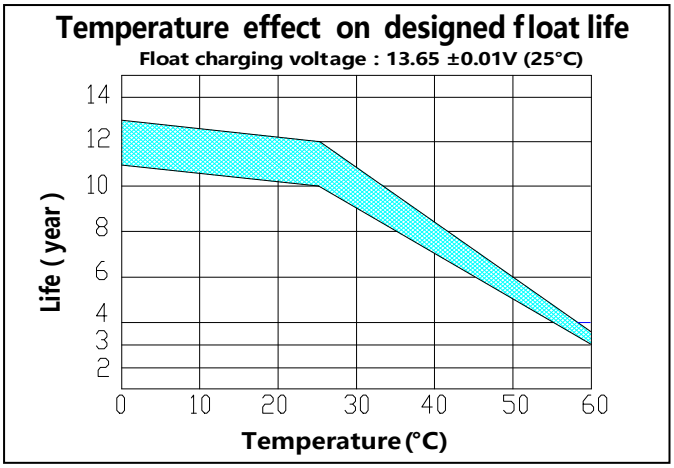
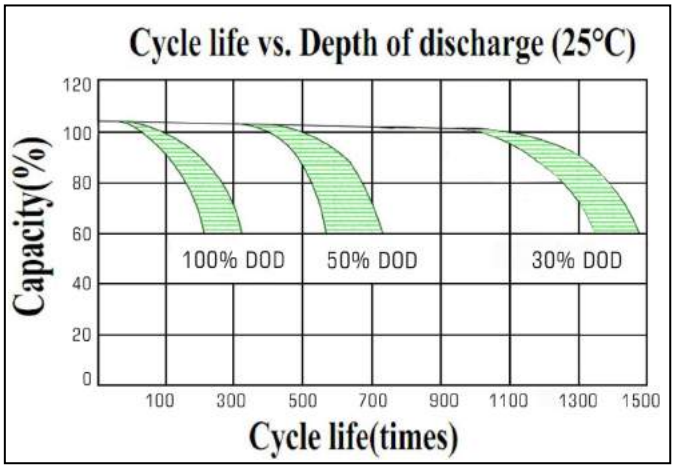
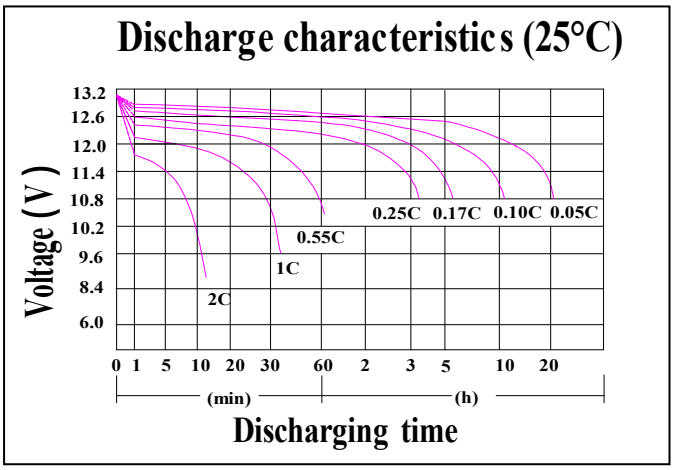
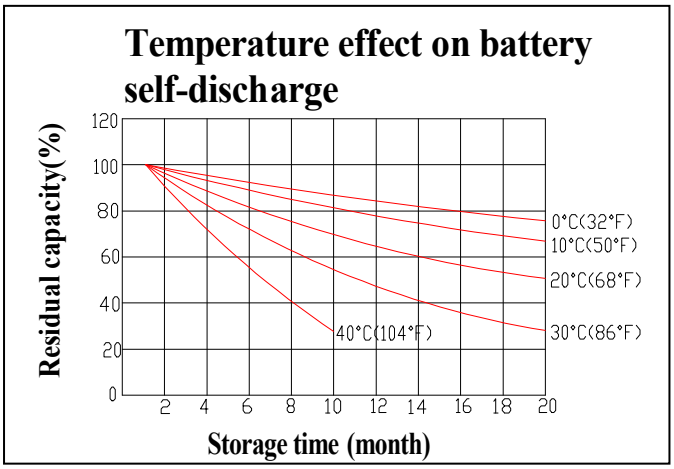
PERFORMANCE CHARACTERISTICS

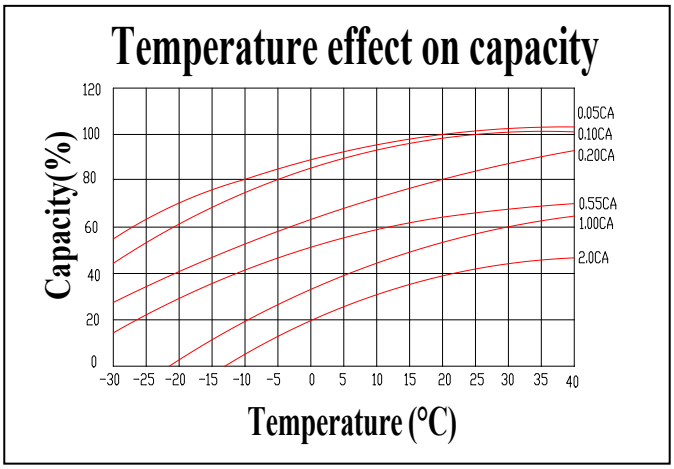












BATTERY CONSTRUCTION

Component	Positive plate	Negative plate	Container &Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	Fire resistance ABS (UL94-V0)	Flame Si-Rubber and aging resistance	Female Copper Insert M8	Advanced AGM separator for high pressure cell design	Dilute high purity sulfuric acid	Two layers epoxy resin seal

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Website: http:/www.smsolar.net/