General Purpose Gel VRLA Battery FCG12-50BT

GENERAL FEATURES

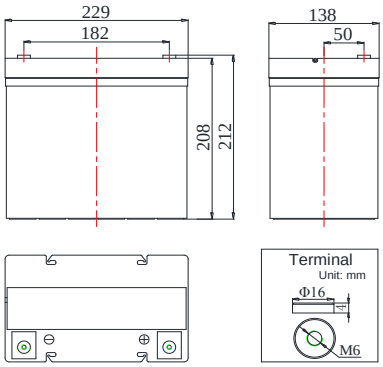
- Environmentally friendly
- Wide operating temperature range
- Nano gel electrolyte and long Floating service Life
- Can be used at vertical or horizontal orientation
- High Power Density
- Low self discharge

APPLICATIONS

- Telecom Control Equipments
- UPS systems
- Communication Equipments
- Medical Equipments
- Emergency Power Systems
- Security Systems
- Cable TV
- Railway System

DIMENSIONS & WEIGHT

Length(mm)	229±1
Width(mm)	138±1
Heighth(mm)	208±1
Total Heighth(mm)	212±1
Weight(kg)	15.9±3%



COMPLIED STANDARDS

IEC 60896-21/22	JIS C8704
YD/T1360	BS6290 part4
GB/T 19638	UL 1989

TECHNICAL SPECIFICATIONS

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25℃		12 Years
Nominal Capacity @25℃(10 hour rate@5.00A,10.80V)		50Ah
Capacity @25℃	20 hour rate (2.68A,10.5V)	53.6Ah
	5 hour rate (8.8A,10.5V)	44.0Ah
	1 hour rate (31.9A,9.6V)	31.9Ah
Internal Resistance	Full Charged Battery@25℃	≤8.5mΩ
Ambient Temperature	Discharge	-30℃~60℃
	Charge	-30℃~60℃
	Storage	-30℃~60℃
Max.Discharge Current@25℃		500A(5s)
Capacity affected by Temperature (10 hr Capacity)	40℃	108%
	25℃	100%
	0℃	90%
	-15℃	70%
Self-Discharge@25℃ per Month		3%
Charge (Constant Voltage) @25℃	Standby Use	Initial Charging Current Less than 12.5A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 12.5A Voltage 14.4-14.9V

BATTERY DISCHARGE TABEL

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

F.V/Time	15min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.60V	90.3	53.2	40.3	31.9	18.8	13.8	9.3	8.1	6.4	5.3	2.78
1.67V	85.3	50.4	38.7	31.0	18.2	13.4	9.2	8.0	6.3	5.2	2.75
1.70V	80.1	48.9	37.3	29.8	17.7	13.0	9.0	7.8	6.2	5.1	2.71
1.75V	75.0	46.8	35.7	28.6	17.2	12.7	8.8	7.7	6.1	5.1	2.68
1.80V	70.4	45.1	34.4	27.6	16.6	12.3	8.6	7.5	6.0	5.0	2.65

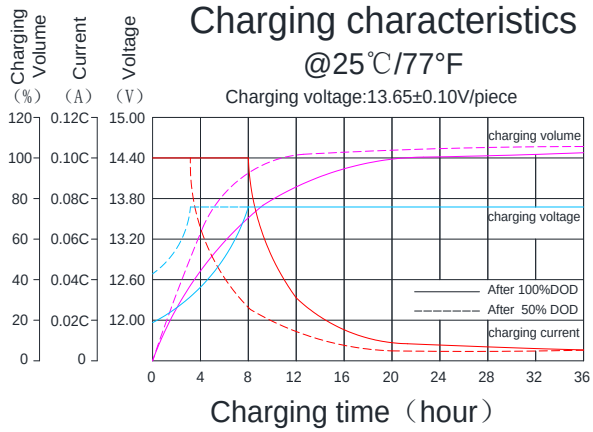
Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.60V	172.6	105.6	76.5	61.2	35.6	26.4	18.0	15.7	12.4	10.3	5.5
1.67V	165.1	99.0	73.9	59.6	34.6	25.7	17.7	15.4	12.3	10.2	5.4
1.70V	153.9	96.8	71.5	57.5	33.8	25.1	17.4	15.2	12.2	10.1	5.4
1.75V	144.4	92.2	68.7	55.4	33.0	24.6	17.2	15.0	12.0	10.0	5.3
1.80V	135.5	88.4	66.4	53.6	31.9	23.9	16.8	14.7	11.9	9.9	5.3

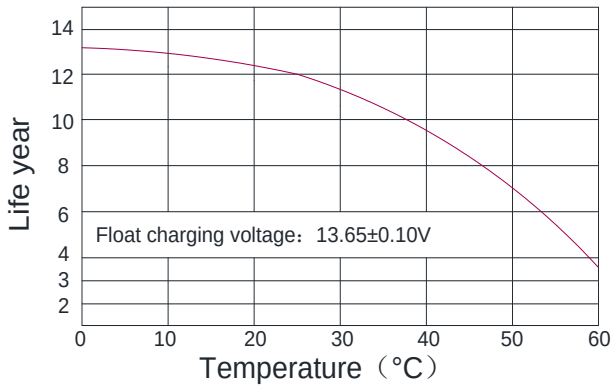
Note The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **MCA** for the latest information.

PERFORMANCE CHARACTERISTICS

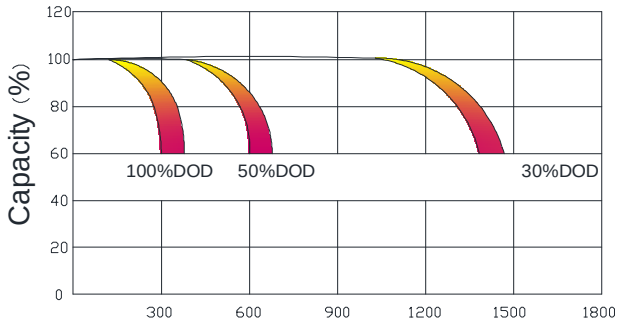
Charging characteristics @25℃/77°F



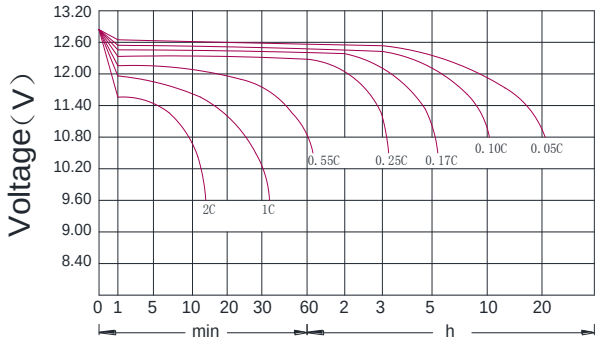
Temperature effect on Design Service life



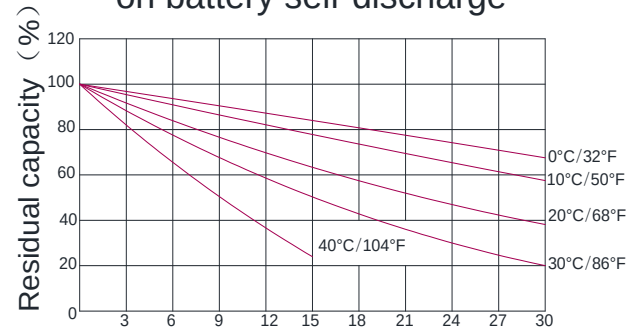
Cycle life vs.Depth of discharge @25°C/77°F



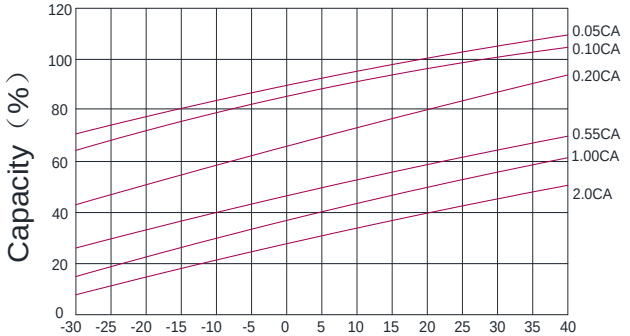
Discharge characteristics(@25℃/77°F)



Temperature effect on battery self-discharge



Temperature effect on capacity



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	ABS (UL94-V0 optional)	Flame Si-Rubbeand aging resistancer	Female Copper Insert M6(torque:4 ~6N.m)	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid with fumed Silica gel	Two layers epoxy resin seal

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