

Front Terminal Gel Battery

FL12-160

As a well renowned front access telecom battery manufacturer in China, CSPower offers the widest selection of front access AGM batteries and GEL batteries. The gel technology has numerous superiorities over the equivalent AGM battery range, especially for telecommunication applications.

The FL type front terminal battery comes with longer lasting design life and front access connections for fast, easy installation and maintenance, and is ideally suitable for telecom outdoor equipment, renewable energy systems and other severe environments.

12V Voltage	160Ah Capacity	Gel Technology	Front Terminal
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COMPLIED STANDARDS

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

GENERAL FEATURES

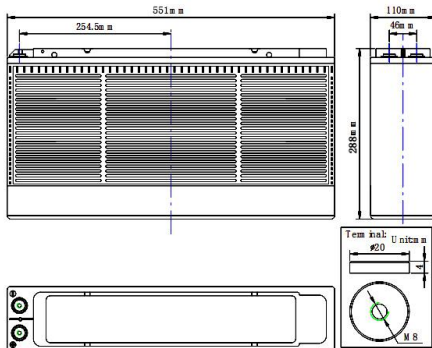
- Wide operating temperature range from -15°C to 60°C;
- Advanced nano gel electrolyte and longer floating service life over 12years;
- Front access terminal with standard width for 19" and 23" ETSI racks;
- High rate discharge performance;
- Low self discharge <3%.

APPLICATIONS

- Telecom Control Equipments
- UPS systems
- Communication Equipments
- Solar&Wind
- Emergency Power Systems

DIMENSIONS & WEIGHT

Length(mm)	551±1
Width(mm)	110±1
Height(mm)	288±1
Total Height(mm)	288±1
Weight(kg)	46±3%



TECHNICAL SPECIFICATIONS

Nominal Voltage		12V (6 cells per unit)
Design Floating Life @25°C		12 Years
Nominal Capacity @25°C (10 hour rate@16.0A,10.8V)		160Ah
Capacity @25°C	20hour rate (8.48A,10.8V)	169.6Ah
	5 hour rate (28.2A,10.5V)	141.0Ah
	1 hour rate (102.1A,9.6V)	102.1Ah
Internal Resistance	Full Charged Battery@25°C	≤3.4mΩ
Ambient Temperature	Discharge	-15°C~60°C
	Charge	-15°C~60°C
	Storage	-15°C~45°C
Max.Discharge Current@25°C		960A(5s)
Capacity affected by Temperature (10 hr Capacity)	40°C	108%
	25°C	100%
	0°C	90%
	-15°C	70%
Self-Discharge@25°C per Month		3%
Charge (Constant Voltage) @25°C	Standby Use	Initial Charging Current Less than 40A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 40A Voltage 14.4-14.9V

BATTERY DISCHARGE TABEL

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

F.V/Time	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	372.0	288.8	173.3	128.8	102.1	60.0	44.2	29.8	20.3	16.8	8.88
1.65V	344.2	272.8	167.5	123.8	99.0	58.1	42.7	29.3	20.2	16.5	8.80
1.70V	319.2	256.2	162.9	119.4	95.2	56.5	41.6	28.6	19.8	16.3	8.70
1.75V	298.1	240.0	154.4	114.1	91.4	55.0	40.6	28.2	19.5	16.2	8.62
1.80V	268.2	225.1	149.0	109.9	88.2	53.0	39.4	27.5	19.2	16.0	8.48

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

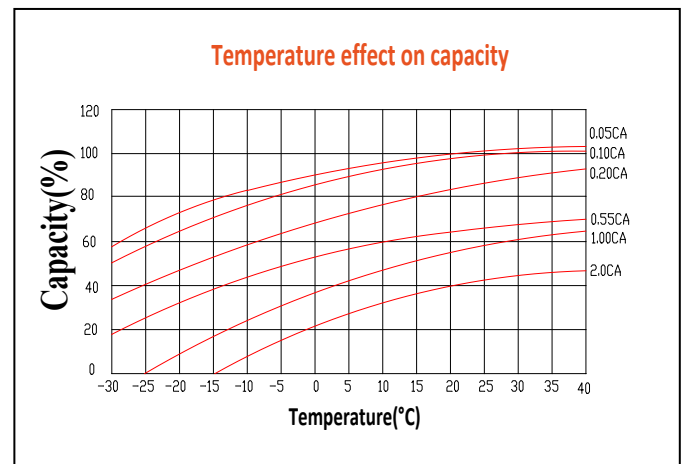
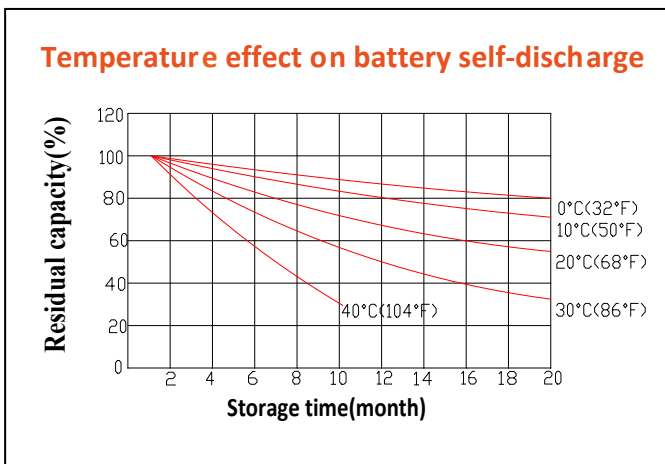
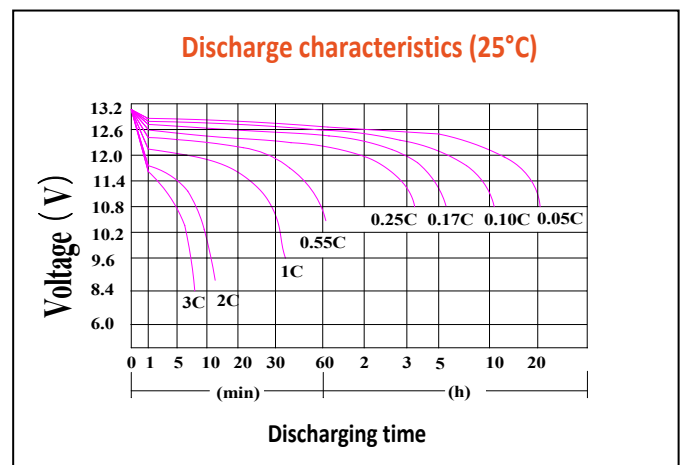
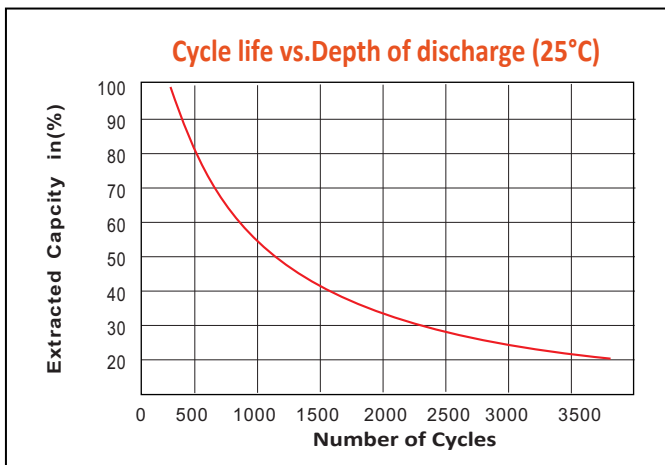
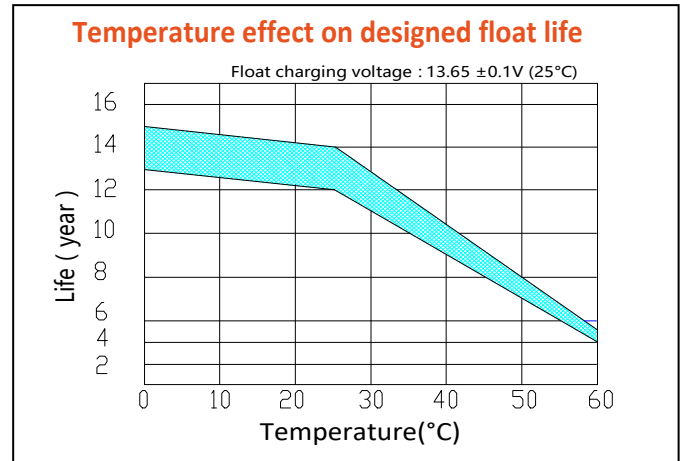
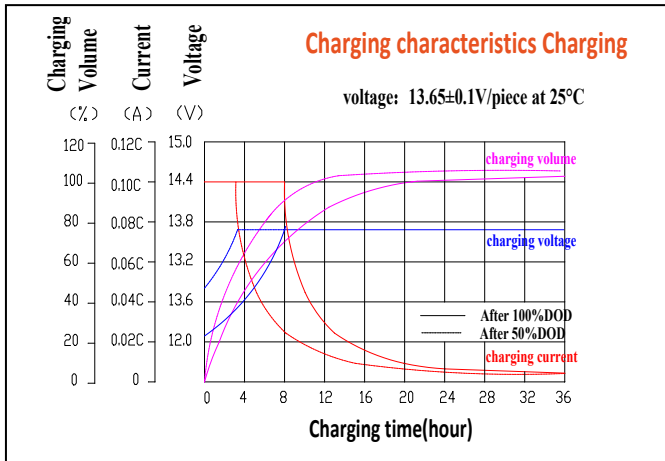
F.V/Time	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	669.1	552.2	337.8	244.6	195.8	113.8	84.3	57.4	39.7	32.8	17.1
1.65V	626.2	528.3	323.0	236.3	190.6	110.7	82.1	56.5	39.4	32.5	17.0
1.70V	586.4	492.3	309.8	228.8	184.0	108.2	80.2	55.7	38.9	32.2	16.8
1.75V	551.8	461.9	294.9	219.7	177.3	105.6	78.6	54.9	38.4	31.8	16.6
1.80V	499.5	433.6	282.9	212.3	171.5	102.1	76.3	53.8	37.9	31.7	16.5

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 **CSPower** for the latest information.

Front Terminal Gel Batter

FL12-160

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 optional)	Flame Si-Rubber and aging resistance	Female Copper Insert M8 (torque: 7~9N.m)	Advanced AGM separator for high pressure cell design	Silicon Gel import from Germany Evonik	Two layers epoxy resin seal

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