ENERPOWER

Serie VCL 600-2E (2V-600Ah)

Overview

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special oneway valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

Battery Construction

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

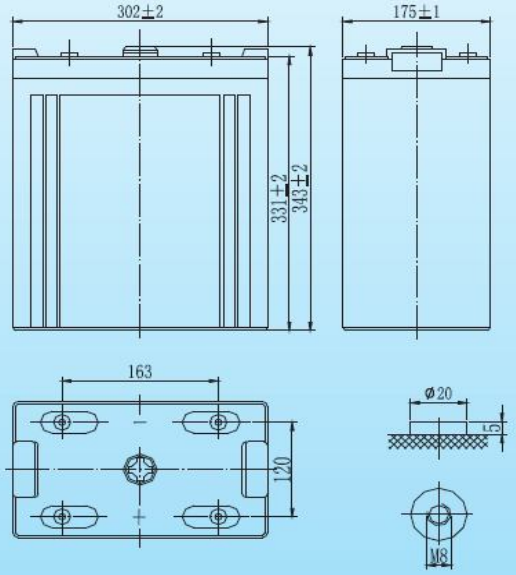
General Features

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.
- Case and cover available in both standard and flame retardant ABS.

Dimensions and Weight

Length(mm / inch)	302/11.98
Width(mm / inch)	175/6.89
Height(mm / inch)	331/13.03
Total Height(mm / inch)	343/13.50
Approx. Weight(Kg / lbs)	38.5 /84.9

* Weight deviation: ± 3%



Battery Specification

Performance Characteristics	
Nominal Voltage	2V
Number of cell	1
Design Life	20 years
Nominal Capacity 77°F(25°C)	
10 hour rate (60.0A, 1.8V)	600Ah
5 hour rate (108A, 1.75V)	530Ah
1 hour rate (364A, 1.6V)	357Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	0.3 mOhms
Self-Discharge	
3% of capacity declined per month at 20°C(average)	
Operating Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max. Discharge Current 77°F(25°C)	3000A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40-2.45VPC
Maximum charging current	120A
Temperature compensation	-5.0mV/°C
Standby use	2.20-2.28VPC
Temperature compensation	-3.3mV/°C

Discharge Constant Current (Amperes at 77°F25°C)

End Point Volts/Cell	10min	15min	30min	45min	2h	3h	5h	10h
1.60V	1138	869	606	470	357	182	113	65.0
1.65V	1079	827	578	452	344	177	111	64.0
1.70V	1017	784	551	431	330	171	109	63.0
1.75V	955	740	522	411	316	164	106	61.0
1.80V	891	696	493	389	301	157	103	60.0

Discharge Constant Power (Watts at 77°F25°C)

End Point Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	1873	1396	1101	887	696	473	351	221
1.65V	1764	1320	1046	847	666	463	342	218
1.70V	1654	1244	989	804	636	451	333	214
1.75V	1545	1167	932	760	605	437	323	210
1.80V	1438	1090	874	716	571	410	303	207

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.All data shall be changed without notice,Vision reserves the right to explain and update the information contained hereinto.

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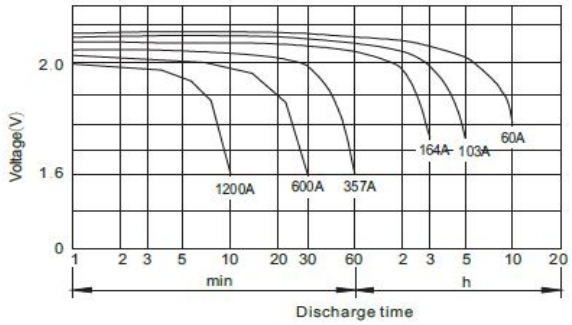
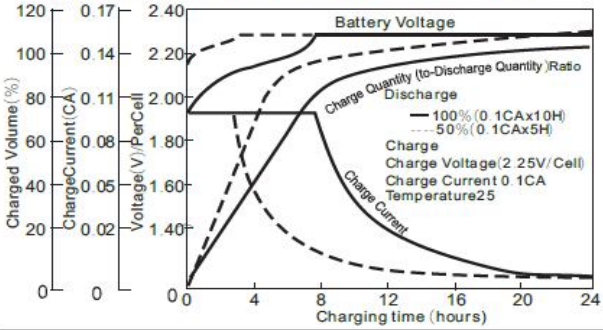
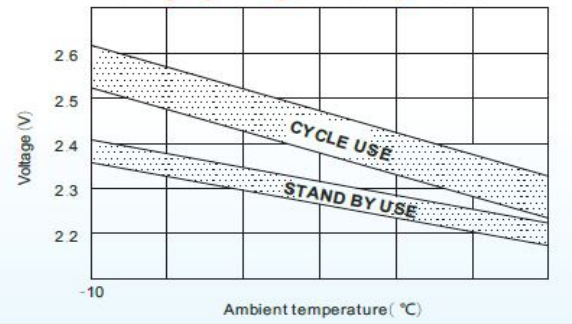
Discharge characteristic (25°C)



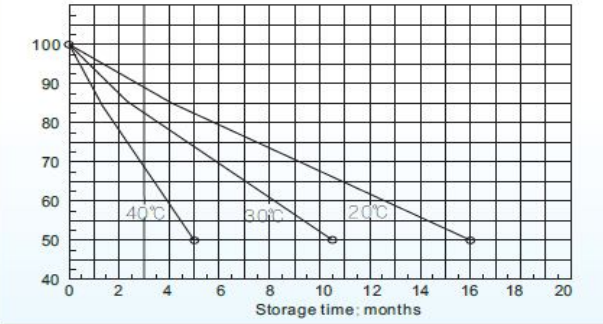
Charging characteristic for standby use



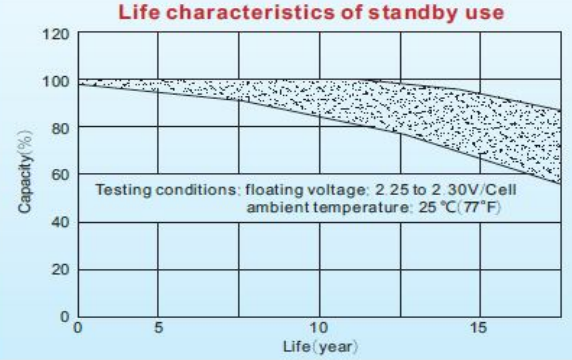
Relationship between charging voltage and temperature



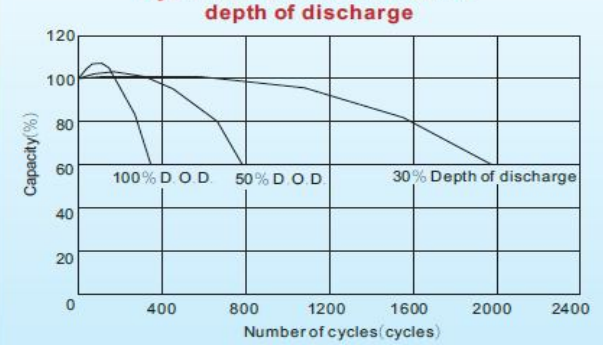
Self-discharge characteristic



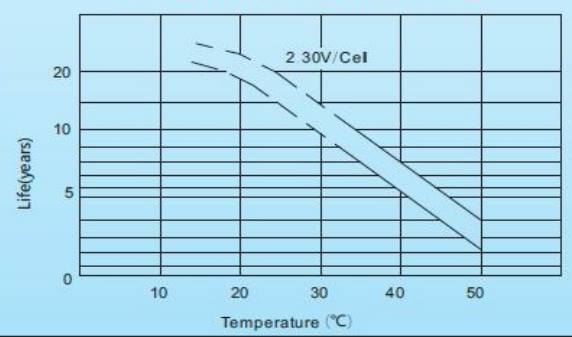
Life characteristics of standby use



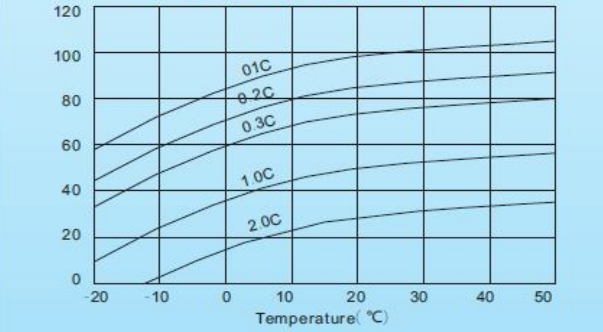
Cycle service life in relation to depth of discharge



Temperature effects on float life



Temperature effects on capacity



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