ENERPOWER

Serie VCL 300-2E (2V-300Ah)

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

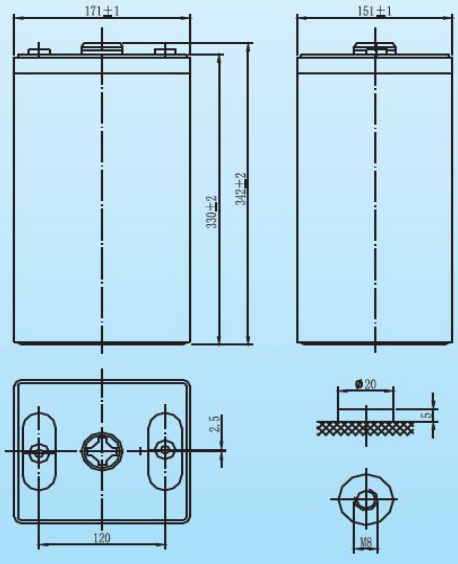
General Features

- 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.

Dimensions and Weight

Length(mm / inch)	171/6.73
Width(mm / inch)	151/ 5.94
Height(mm / inch)	330/ 13.0
Total Height(mm / inch)	364/ 14.3
Approx. Weight(Kg / lbs)	19.3/ 42.5

* Weight deviation: ± 3%



Total height with removeable cover: 364

Battery Specification

Performance Characteristics	
Nominal Voltage	2V
Number of cell	1
Design Life	20 years
Nominal Capacity 77°F(25°C)	
10 hour rate (30.0A, 1.8V)	300Ah
5 hour rate (51.5A, 1.75V)	257.5Ah
1 hour rate (185A, 1.6V)	185Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	≤0.75mOhms
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)	1500A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40-2.45VPC
Maximum charging current	60A
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	15min	30min	45min	1h	3h	5h	10h
1.60V	421	309	228	185	85.0	55.8	32.1
1.65V	401	295	219	179	82.5	54.5	31.8
1.70V	380	281	209	171	79.8	53.1	31.3
1.75V	359	266	200	164	77.2	51.5	30.7
1.80V	337	252	189	157	74.6	49.7	30.0

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

End Point Volts/Cell	15min	30min	45min	1h	2h	3h	5h
1.60V	755	578	452	366	235	166	109
1.65V	718	552	437	352	229	162	107
1.70V	682	526	421	339	222	158	105
1.75V	645	501	406	325	217	154	103
1.80V	608	475	390	312	210	149	100

(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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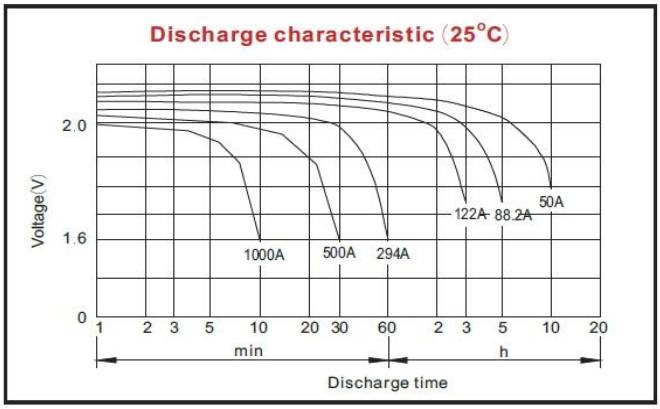
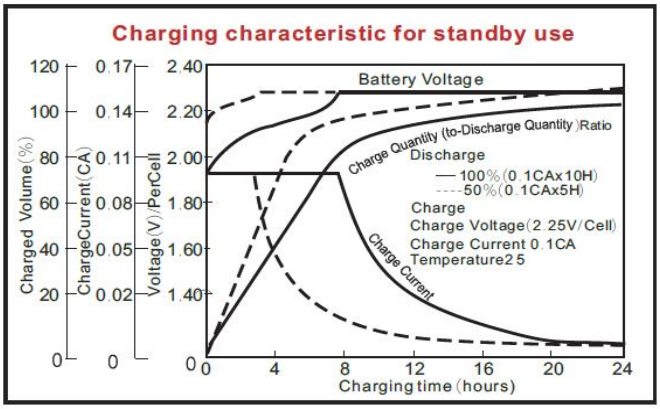
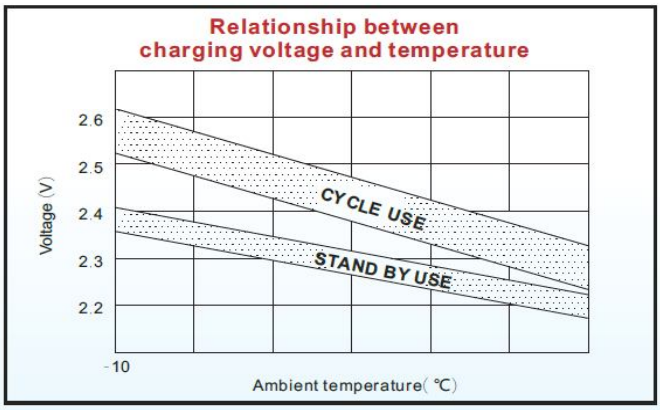
Discharge characteristic (25°C)



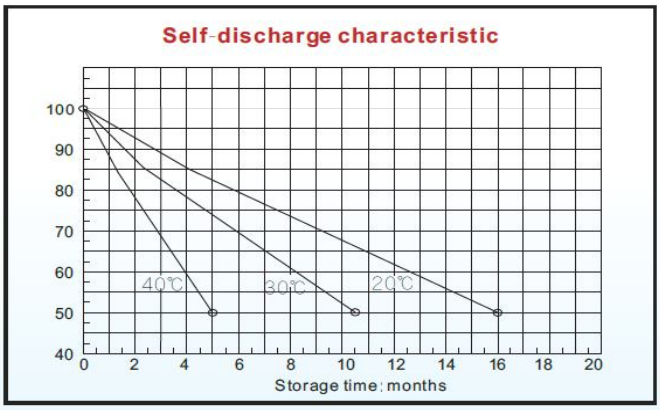
Charging characteristic for standby use



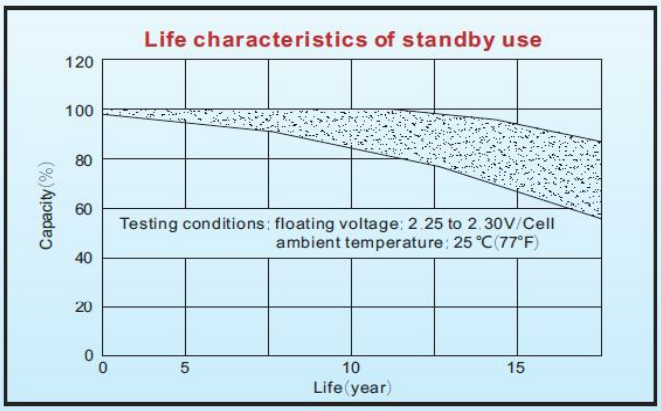
Relationship between charging voltage and temperature



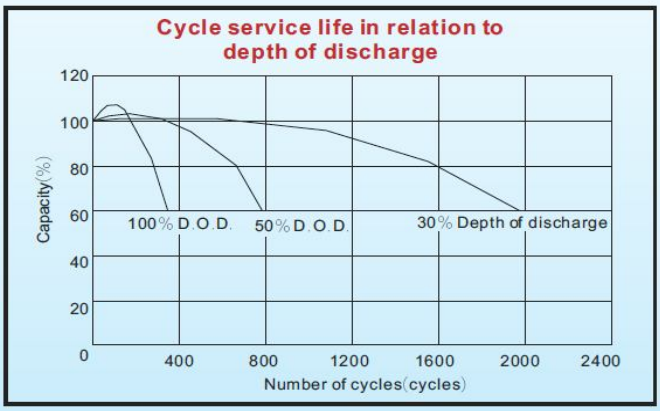
Self-discharge characteristic



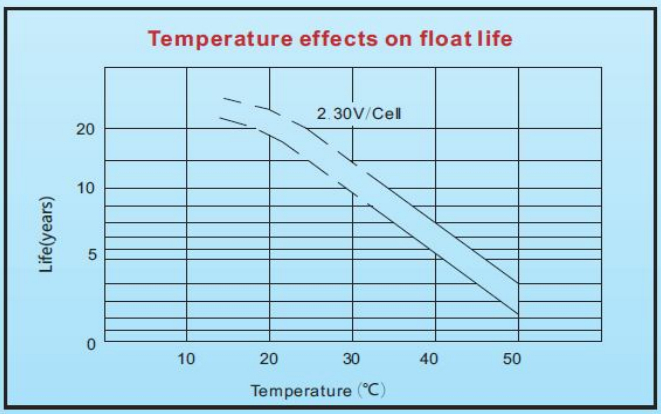
Life characteristics of standby use



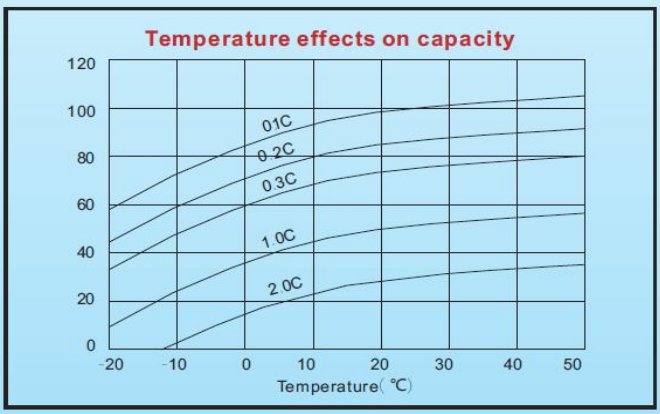
Cycle service life in relation to depth of discharge



Temperature effects on float life



Temperature effects on capacity



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