超威 CHILWEE

A Reliable Power Solution Provider

6-EVF-51 12V 51Ah(3hr) VRLA GEL BATTERY

Chilwee DZM Series VRLA Gel Battery is specially designed for motive power applications, i.e. electric bikes/scooters, electric tricycles, electric motocycles and other device require DC power source. The DZM Series adopts international leading technologies to ensure the batteries with features of long cycle life, large current discharge capability, high reliability and safety, and environmental-friendly.

FEATURES & BENEFITS

Non-Cadmium Design, Environment-friendly: Chilwee Battery has adopted internationally leading technology - Non-Cadmium container formation Production Process technology, which is in the leading position in the industry. It helps to save energy 28.5%, save water 90%, and non-discharge of waste water.

Super Long Mileage: Special active additives have been added in the positive plate to improve the consistency of the formated active material after formation. This has been obviously improved the battery's charge/discharge efficiency, and more power can be released during discharging. The mileage of each discharge is improved significantly.

Strong Motive Power: Super thin plate design is adopted to increase the area of electrochemical reaction, which enables the battery has excellent large current discharge ability. Adopting cast-welding process to reduce the battery's internal resistance, so the battery's charge/discharge efficiency is improved to enable battery with large power discharge capability.

Long Service Life: The Chilwee battery has excellent cycle life which can reach 600 cycles @ 80% DOD. The batteries are well grouped to improve the battery bank's consistency in order to improve the battery bank's service life.

Non-Spillable and High Safety: The battery container and lid are made of Enhanced ABS material and they are sealed by epoxy resin, so the battery is well sealed without any acid leakage issue. High accuracy safety valve has been applied to prevent battery bulging, and safety valve and acid filter are used for preventing sparks splashed into battery to ensure the safety use of battery.

High Reliability: Improved negative material prescription and increased micropoles structure at negative helps to improve a lot on charge/discharge performance at extreme temperature condition. Low water loss rate, high temperature resistance, and battery deformation resistance.

SPECIFICATION

Nominal Voltage (V)		12V
Open Circuit Voltage (V/Block)		13.1V - 13.45V
Number of Cells (Per Block)		6 Cells
Rated Capacity (Ah, 25℃)	2h rate (to 1.75V/Cell)	45Ah
	3h rate (to 1.75V/Cell)	51Ah
	5h rate (to 1.80V/Cell)	54Ah
	10h rate (to 1.80V/Cell)	58Ah
	20h rate (to 1.85V/Cell)	62Ah
Nominal Weight (Kgs)		Approx. 14.8Kgs
Dimension (L X W X H, Total Height. mm)		(226mm±2) X (135mm±2) X (175mm±2), (175mm±2)
Container Material		Enhanced ABS
Charge Voltage	Float (V/Block)	13.50V - 13.80V
	Cycle (V/Block)	14.60V - 14.80V
Maximum Discharge Current (A)		310A (5s)
Maximum Charge Current (A)		5A
Working Temperature(℃)	Operation (maximum):	-20℃ to 50℃
	Operation (recommended):	20℃ to 30℃
Storage Temperature(℃)		-20℃ to 50℃

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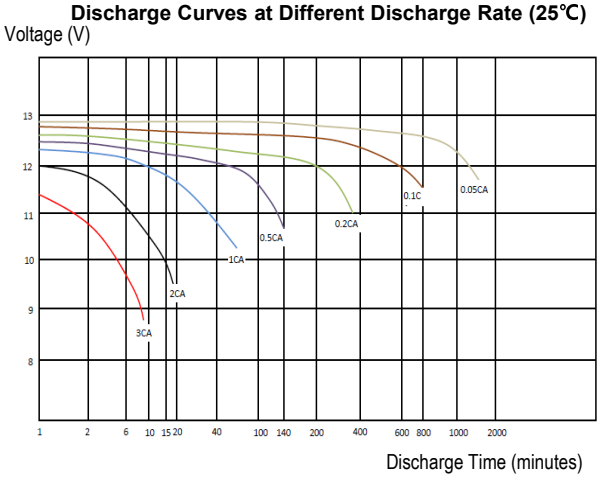
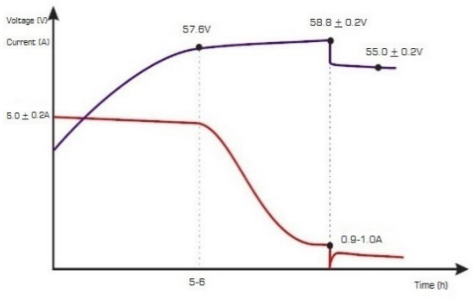
Discharge Curves at Different Discharge Rate (25℃)

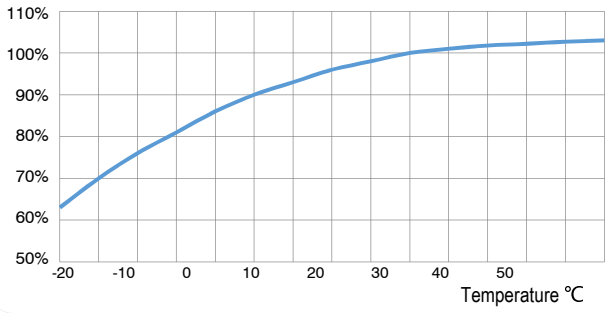


Charge Curve for 6-EVF-51 (4 Blocks/String)

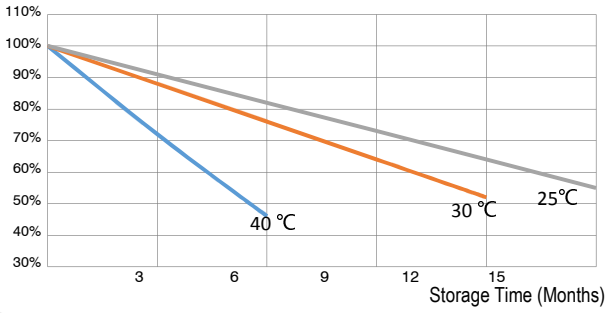


Phase 1: The Max. charge current is 5A, and the charge voltage is gradually risen up to 57.6V;
Phase 2: The charge voltage is gradually risen up to 58.8V+ 0.2V.When the charge current has dropped to 0.9A-1.0A,shifting to float charge.
Phase 3: The constant float charge voltage is 55.0V+ 0.2V.

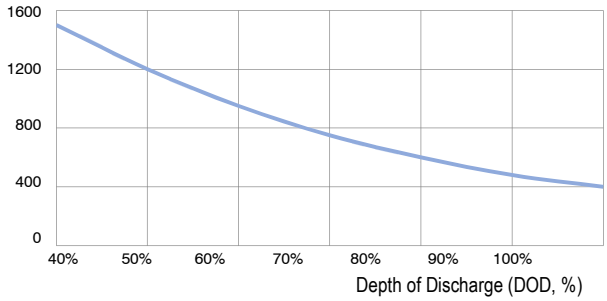
Effect of Temperature on Capacity



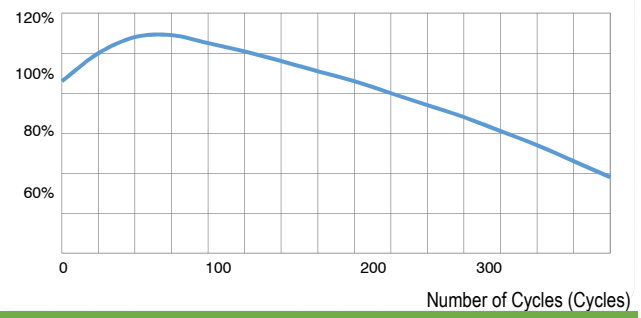
Capacity Retention Characteristics



Cycle Life vs. Depth of Discharge



Number of Cycles vs. Capacity



RECOMMENDED SETTING PARAMETERS

Item		48V Battery Bank	60V Battery Bank	72V Battery Bank
Charger Parameters	Max. Charge Voltage (V)	58.6V-59.0V	73.3V-73.7V	88.0V-88.2V
	Float Charge Voltage (V)	54.8V-55.2V	68.6V-69.0V	82.3V-82.7V
	Max. Charge Current (A)	4.5A-5.0A	4.5A-5.0A	4.5A-5.0A
	Shifting Current (A)	0.9A-1.0A	0.9A-1.0A	0.9A-1.0A
	Temperature Compensation Coefficient (mV/℃/Cell)	2.5～4.0mV/℃/Cell	2.5～4.0mV/℃/Cell	2.5～4.0mV/℃/Cell
Controller Parameters	Low-voltage Protection (V)	42V±0.5V	52.5V±0.5V	63V±0.5V
	Limited Current (A)	≤40A	≤40A	≤40A
	Turn-on Lock Current (A)	≤0.3A	≤0.3A	≤0.3A
Electric Motor Setting	Average Current (A)	≤22A	≤20A	≤20A
	Electric Motor Power (W)	≤600W	≤700W	≤800W

** All the data and technical curves are for customer's reference only. This information is subject to change without any prior notice.*

For More Information, please contact:

CHAOWEI POWER CO., LTD.
No. 12 Zhizhou Ave., Zhicheng New Industrial Park, Changxing County, Zhejiang Province, China. 313100
Tel: +86 572 6200283 Fax: +86 572 6054410
Web: www.cnchaowei.com Email: info@chaowei.biz