中国超威
CHILWEE

CHILWEE GROUP

The world's leading provider of green energy solutions.

超威 CHILWEE®

Leading technology,more electric vehicles in use

6-DZF-12

VRLA gel battery for electric bicycle

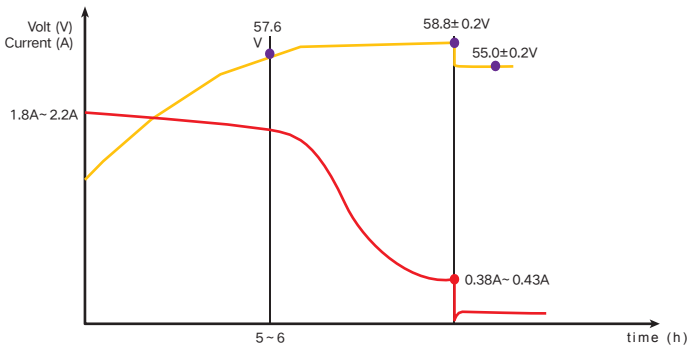
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 12A

2.Motor parameter
Running current: ≤7.0A
Motor power ≤350W

Specifications		
Rataed volt (V)		12 V
Rated capacity (2hr)		12 Ah
Dimensions	Length	151 mm
	Width	99 mm
	Height	98 mm
	Total height	98 mm
Ref.weight (kg)		3.8 Kg ±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(6A discharge): 12Ah	
Battery capacity at different temp. (2hr)	40℃	102%
	25℃	100%
	0℃	85%
	-15℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage charge(25℃)	Cycle use	max.charge current 1.8-2.2A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-DZF-12 (4pcs/group 25℃±2℃) charge curve

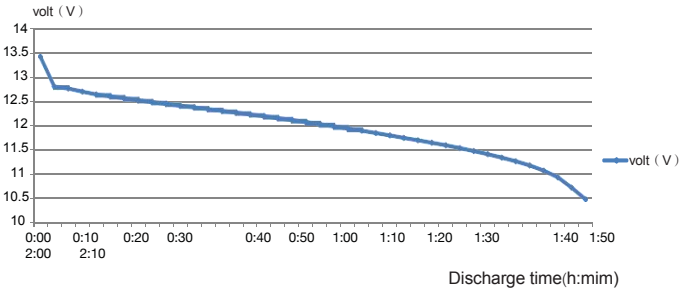


1st phase: max. current 1.8A~2.2A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.38~0.43A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5-4.0mV(singe cell ℃)

6-DZF-12 (25℃±2℃) discharge curve



CERTIFIED QUALITY

All products are tested and certified to multiple standard.

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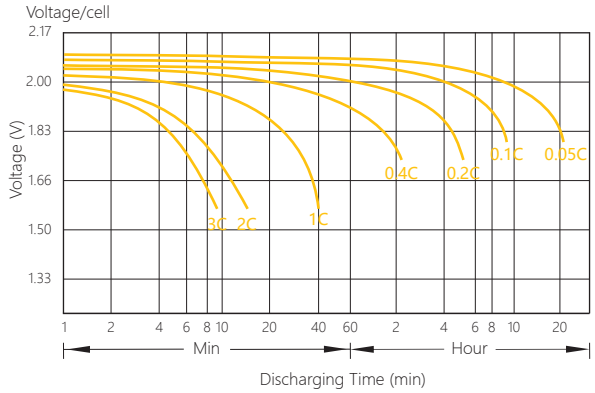
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001

IATA / SP 238 / CE

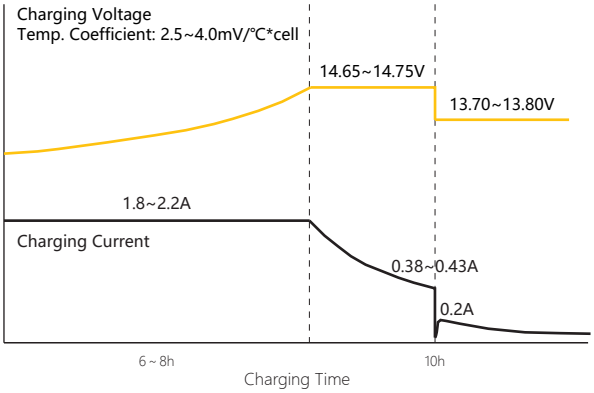
6-DZF-12

12V12Ah @2hr
12V15Ah @20hr

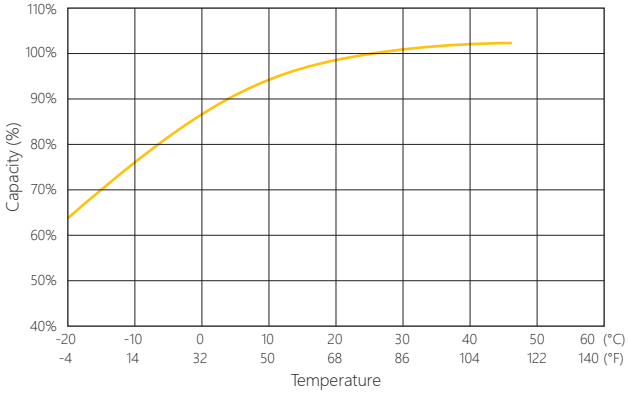
Discharging Characteristics (25°C/77°F)



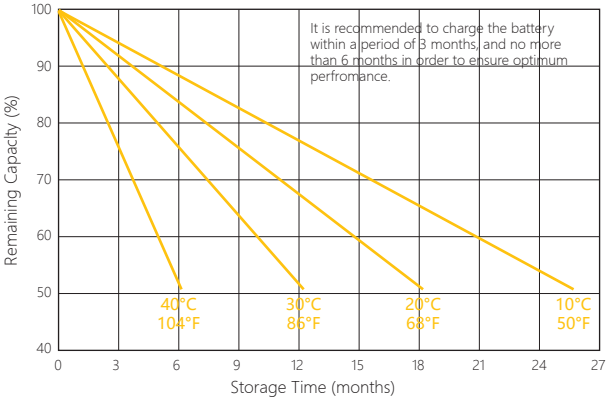
Charging Characteristics (25°C/77°F)



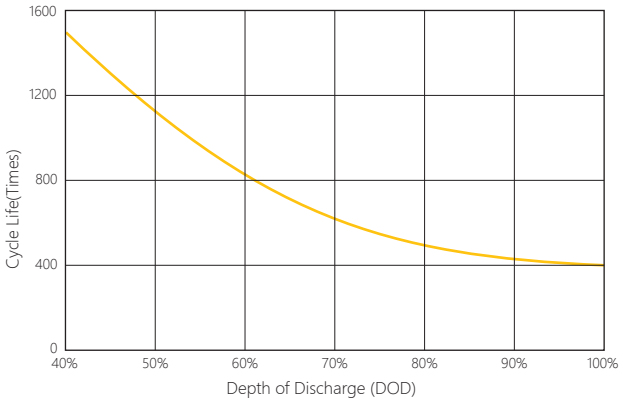
Capacity vs Temperature



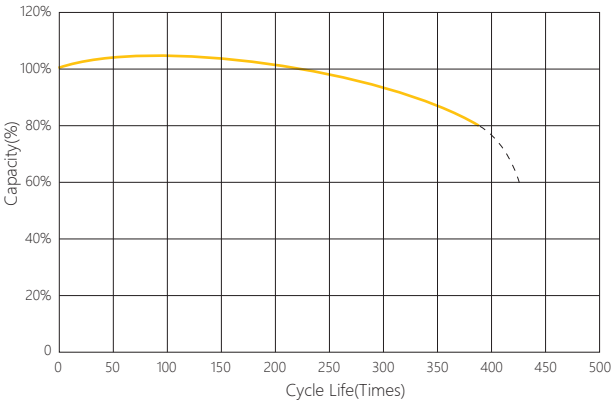
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

6-DZF-20

VRLA gel battery for electric bicycle

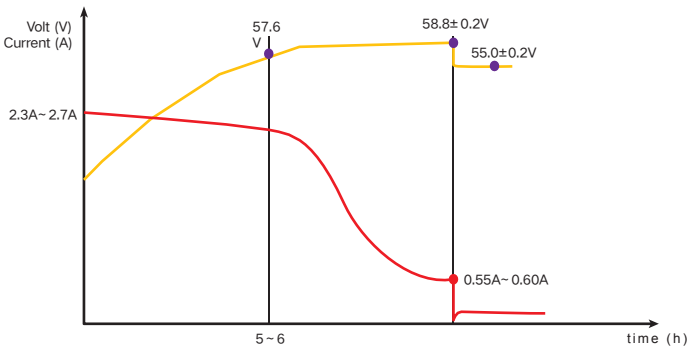
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 20A

2.Motor parameter
Running current: ≤10.0A
Motor power ≤450W

Specifications		
Rataed volt (V)		12 V
Rated capacity (2hr)		20 Ah
Dimensions	Length	179 mm
	Width	77 mm
	Height	165 mm
	Total height	170 mm
Ref.weight (kg)		6.0 ±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(10A discharge): 20Ah	
Battery capacity at different temp. (2hr)	40℃	102%
	25℃	100%
	0℃	85%
	-15℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage charge(25℃)	Cycle use	max.charge current 2.3-2.7A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-DZF-20 (4pcs/group 25℃±2℃) charge curve

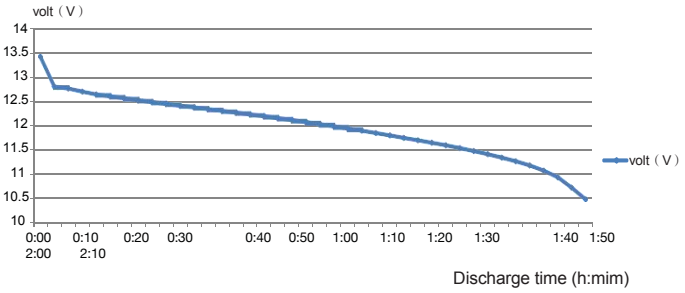


1st phase: max. current 2.3A~2.7A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.55~0.60A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5~4.0mV(singe cell ℃)

6-DZF-20 (25℃±2℃) discharge curve



Discharge time (h:mim)

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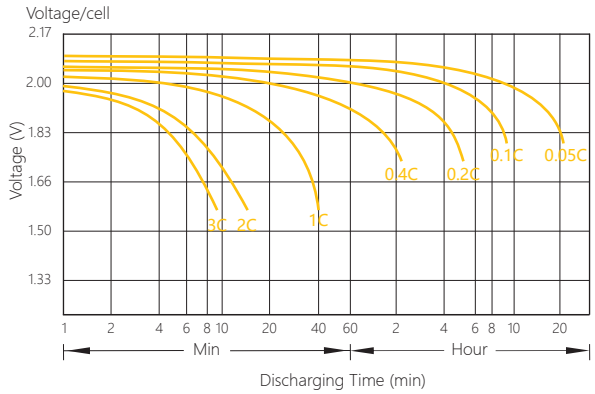
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

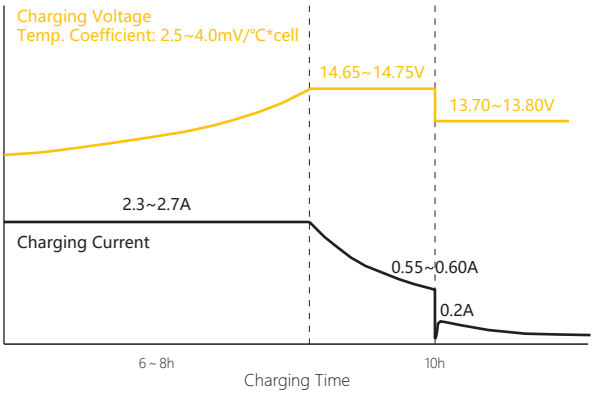
6-DZF-20

12V20Ah @2hr
12V25Ah @20hr

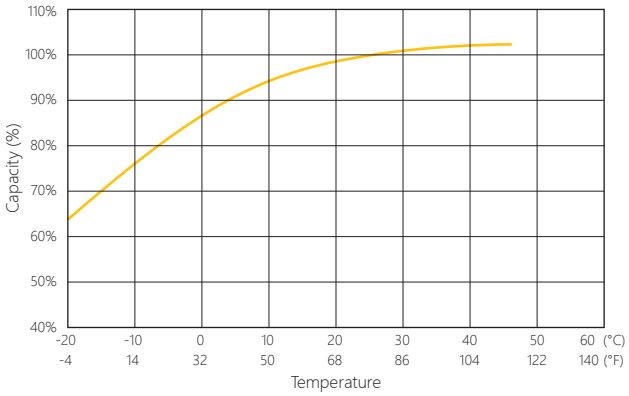
Discharging Characteristics (25°C/77°F)



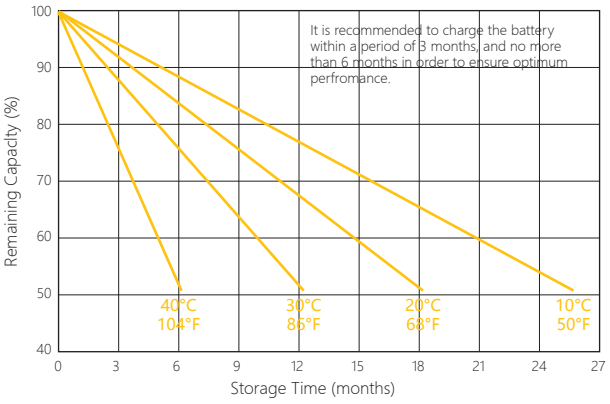
Charging Characteristics (25°C/77°F)



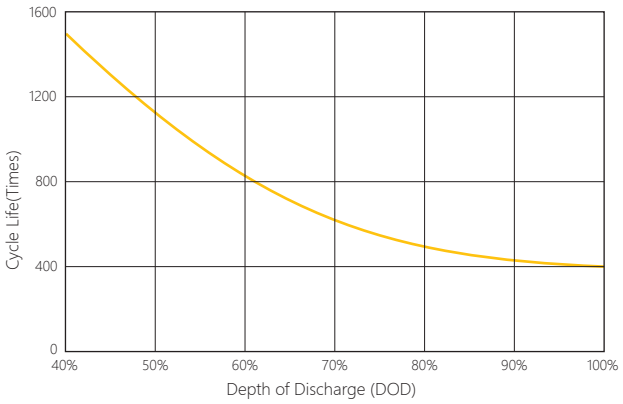
Capacity vs Temperature



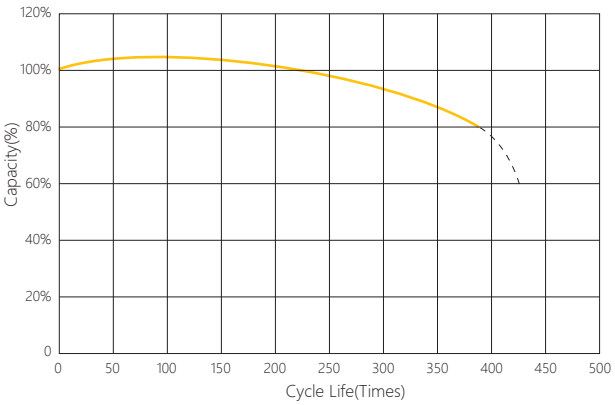
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

6-DZF-23

VRLA gel battery for electric bicycle

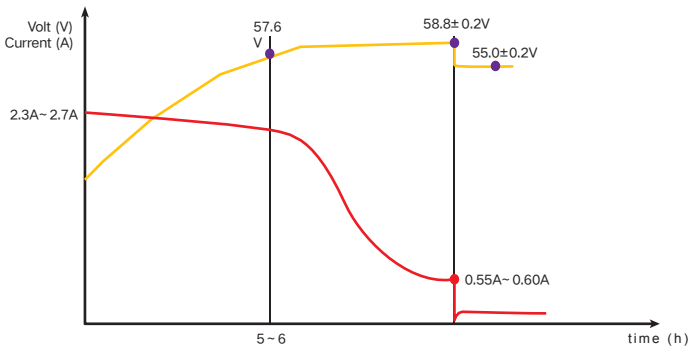
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 23A

2.Motor parameter
Running current: ≤10.0A
Motor power ≤450W

Specifications		
Rataed volt (V)		12 V
Rated capacity (2hr)		23 Ah
Dimensions	Length	189 mm
	Width	100 mm
	Height	130 mm
	Total height	130 mm
Ref.weight (kg)		7.0±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(11.5A discharge): 23Ah	
Battery capacity at different temp. (2hr)	40℃	102%
	25℃	100%
	0℃	85%
	-15℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage charge(25℃)	Cycle use	max.charge current 2.3-2.7A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-DZF-23 (4pcs/group 25℃±2℃) charge curve

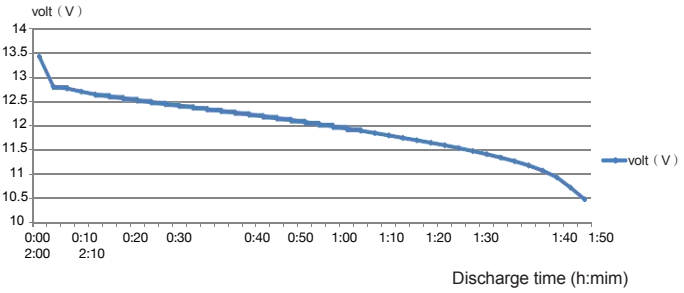


1st phase: max. current 2.3A~2.7A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.55~0.60A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5~4.0mV(singe cell ℃)

6-DZF-23 (25℃±2℃) discharge curve



CERTIFIED QUALITY

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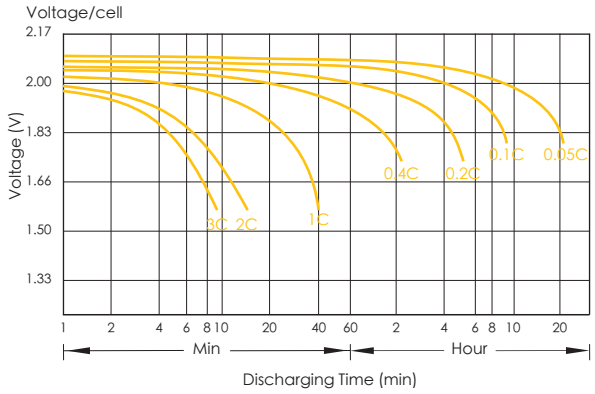
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

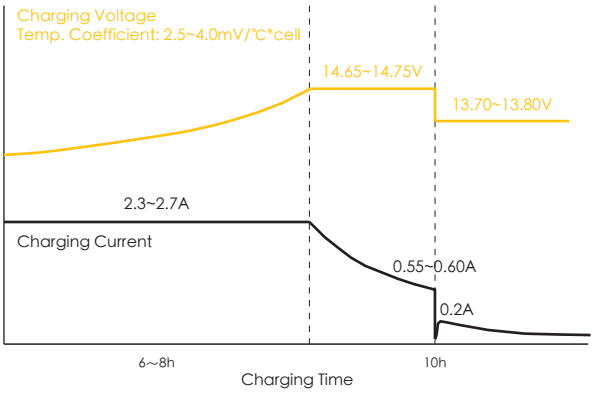
6-DZF-23

12V23Ah @2hr
12V28Ah @20hr

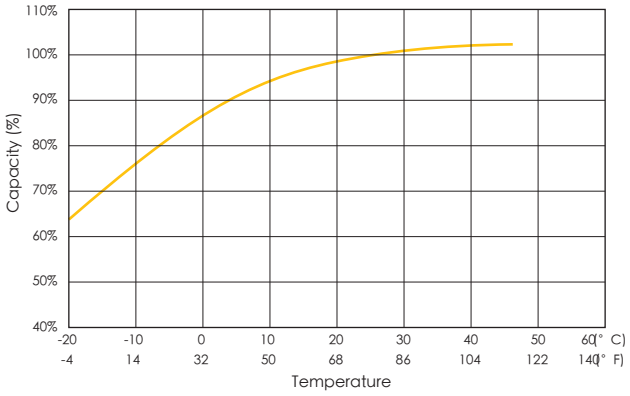
Discharging Characteristics (25° C/77° F)



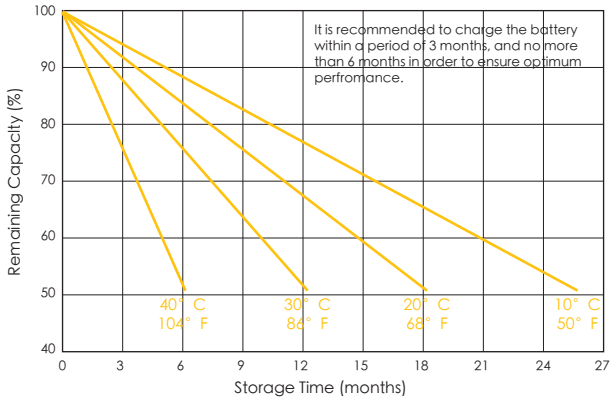
Charging Characteristics (25° C/77° F)



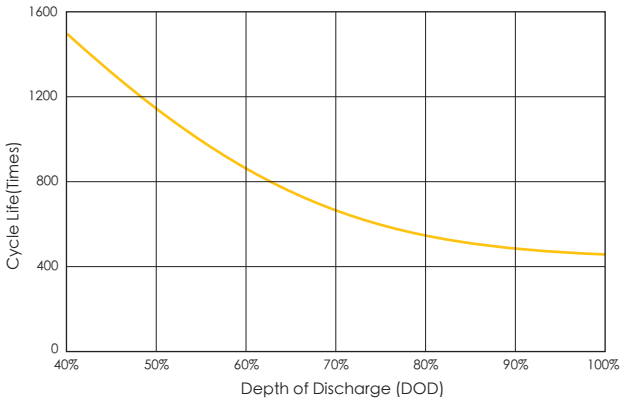
Capacity vs Temperature



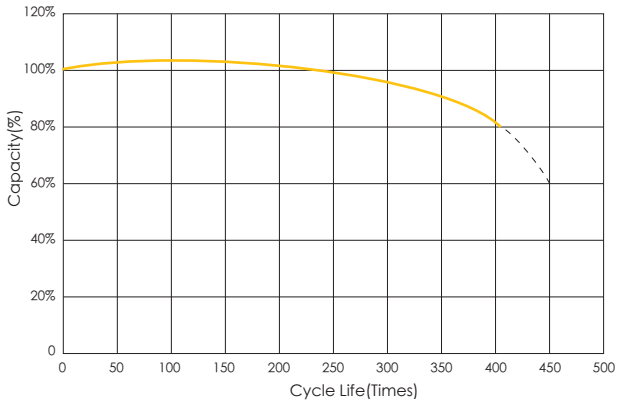
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25° C/77° F)



Cycle Life vs Remaining Capacity (25° C/77° F)



For more information, please contact us at info@cwpintl.com.

6-EVF-32

VRLA gel battery for electric vehicle

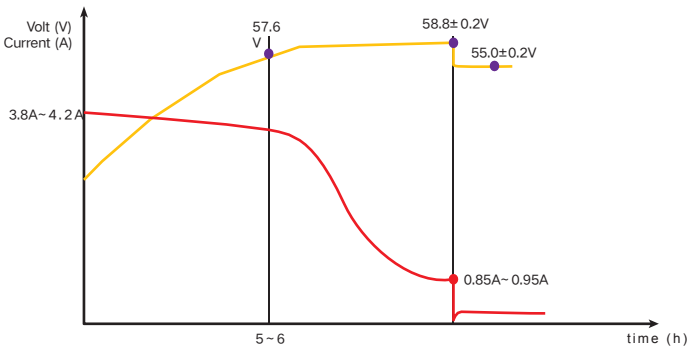
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 32A

2.Motor parameter
Running current: ≤15A
Motor power ≤700W

Specifications		
Rataed volt (V)		12 V
Rated capacity (3hr)		32 Ah
Dimensions	Length	267 mm
	Width	77 mm
	Height	165 mm
	Total height	170 mm
Ref.weight (kg)		9.0 ±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(15.0A discharge): 30Ah	
	3hr capacity(10.7A discharge): 32Ah	
	10hr capacity(3.5A discharge): 35Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	85%
	-18℃	60%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	65%
Limited voltage charge(25℃)	Cycle use	max.charge current 3.5-4.2A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-EVF-32 (4pcs/group 25℃±2℃) charge curve

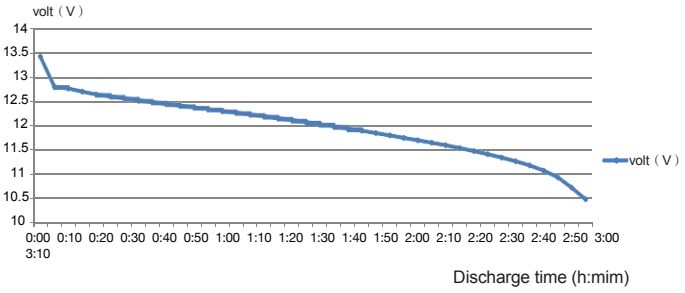


1st phase: max. current 3.8A~4.2A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.85~0.95A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5~4.0mV(singe cell ℃)

6-EVF-32（25℃±2℃）discharge curve



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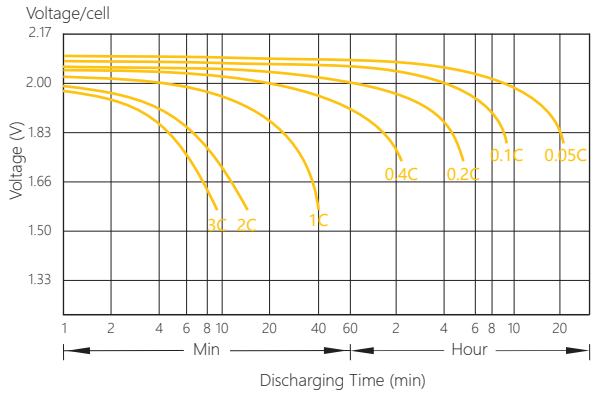
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

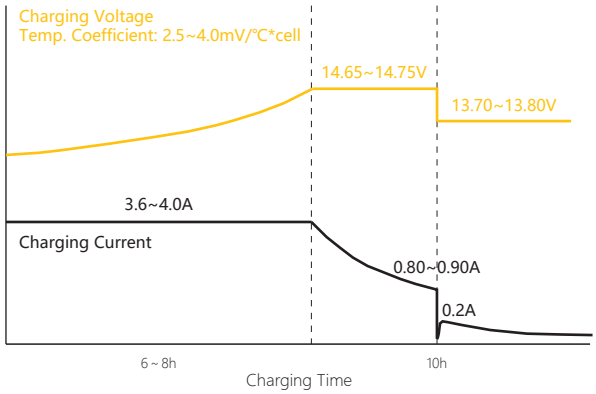
6-EVF-32

12V32Ah @3hr
12V39Ah @20hr

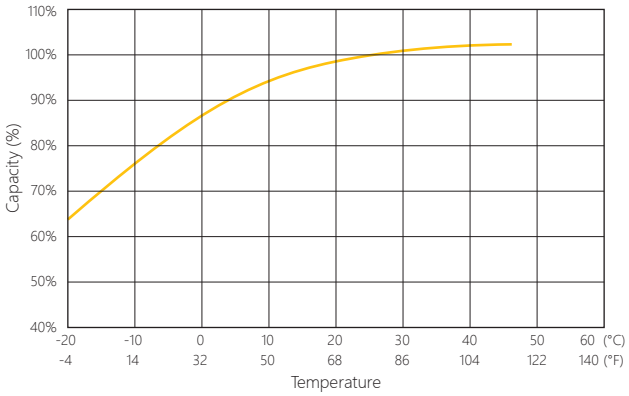
Discharging Characteristics (25°C/77°F)



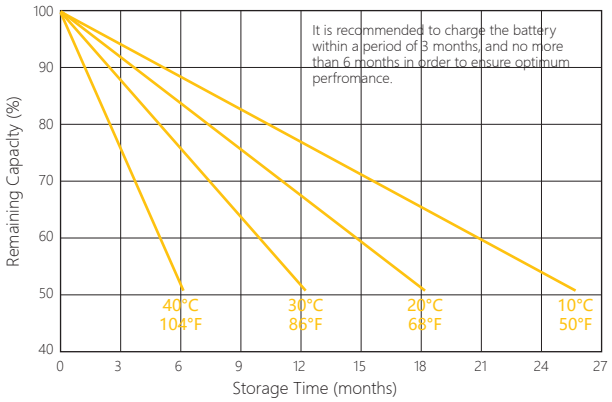
Charging Characteristics (25°C/77°F)



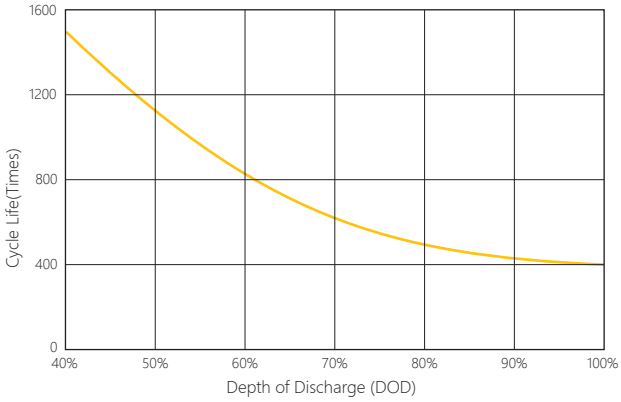
Capacity vs Temperature



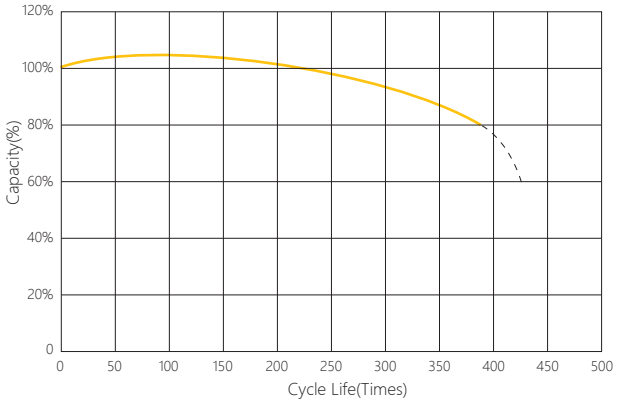
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

6-EVF-38

VRLA gel battery for electric vehicle

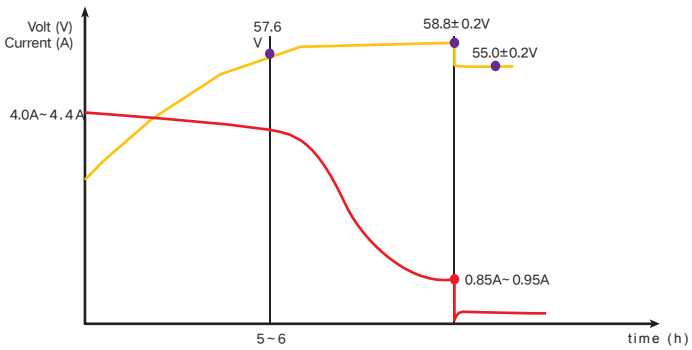
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 38A

2.Motor parameter
Running current: ≤18A
Motor power ≤800W

Specifications		
Rataed volt (V)		12 V
Rated capacity (3hr)		38 Ah
Dimensions	Length	222 mm
	Width	106 mm
	Height	167 mm
	Total height	175 mm
Ref.weight (kg)		10.5 ±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(17.5A discharge): 35Ah	
	3hr capacity(12.7A discharge): 38Ah	
	10hr capacity(4.0A discharge): 40Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	85%
	-18℃	60%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	65%
Limited voltage charge(25℃)	Cycle use	max.charge current 4.0-4.4A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-EVF-38 (4pcs/group 25℃±2℃) charge curve

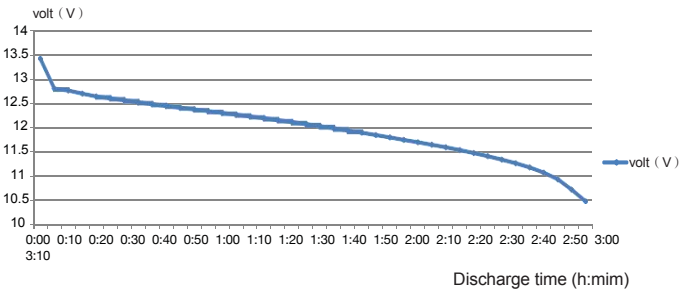


1st phase: max. current 4.0A~4.4A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.85~0.95A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5-4.0mV(singe cell ℃)

6-EVF-38（25℃±2℃）discharge curve



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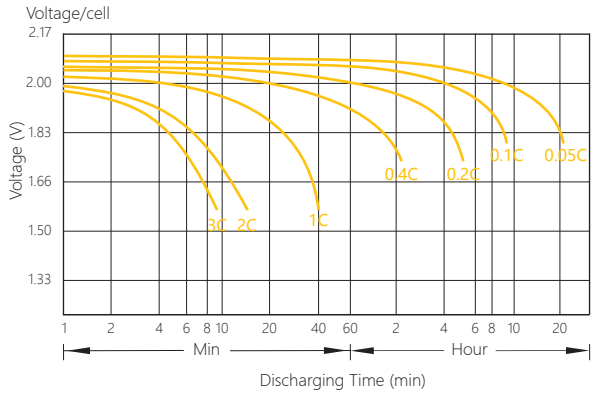
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

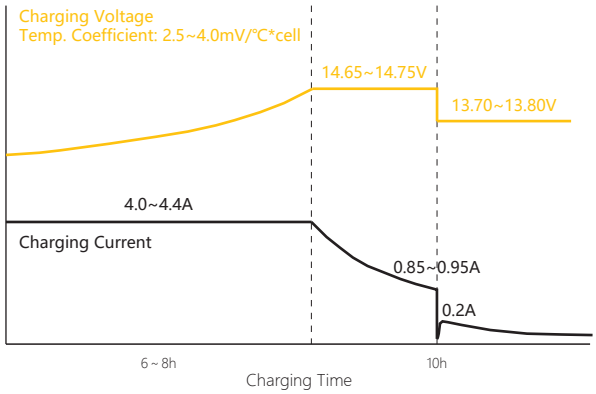
6-EVF-38

12V38Ah @3hr
12V46Ah @20hr

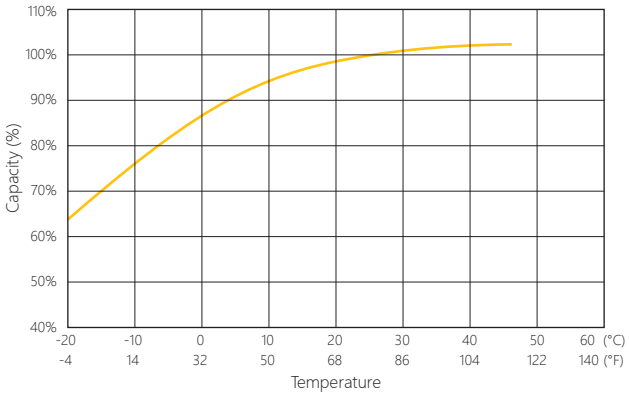
Discharging Characteristics (25°C/77°F)



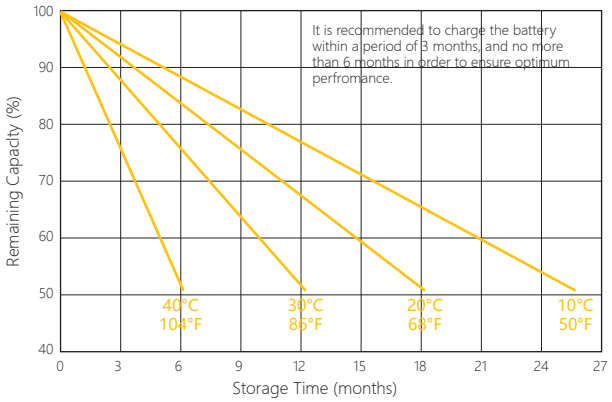
Charging Characteristics (25°C/77°F)



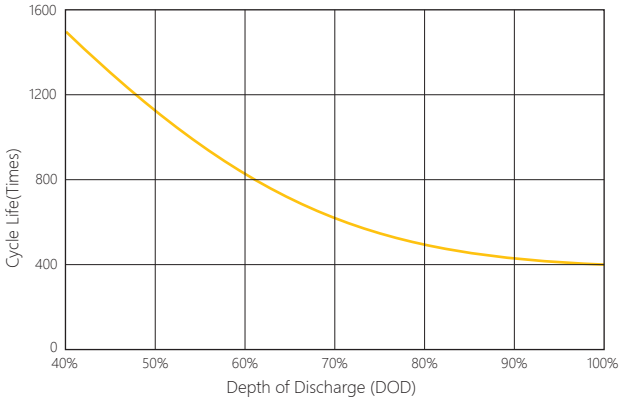
Capacity vs Temperature



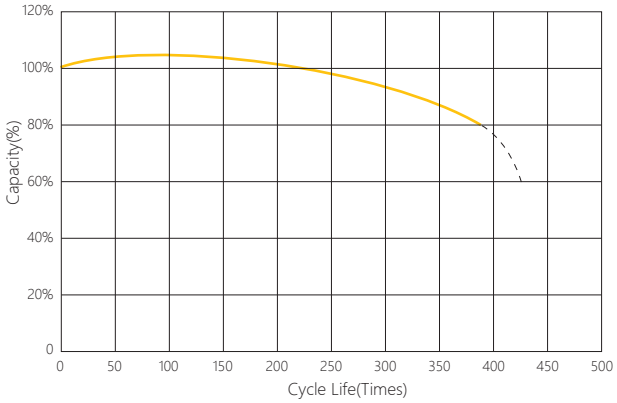
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

6-EVF-45

VRLA gel battery for electric vehicle

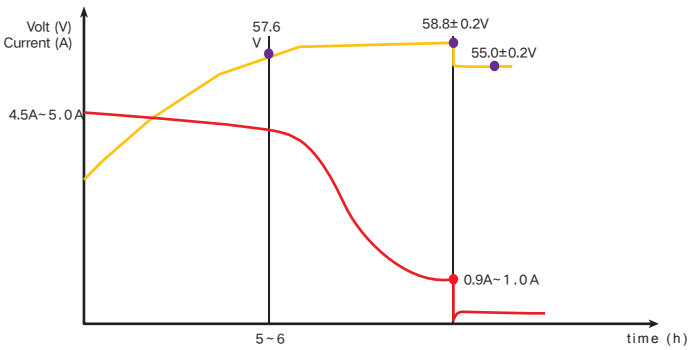
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 40A

2.Motor parameter
Running current: ≤20A
Motor power ≤850W

Specifications		
Rataed volt (V)		12 V
Rated capacity (3hr)		45 Ah
Dimensions	Length	226 mm
	Width	120 mm
	Height	168 mm
	Total height	175 mm
Ref.weight (kg)		12.0±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(20A discharge): 40Ah	
	3hr capacity(15A discharge): 45Ah	
	10hr capacity(4.8A discharge): 48Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	85%
	-18℃	60%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	65%
Limited voltage charge(25℃)	Cycle use	max.charge current 4.5-5.0A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-EVF-45 (4pcs/group 25℃±2℃) charge curve

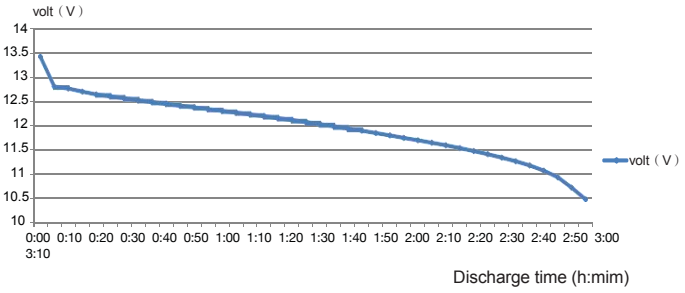


1st phase: max. current 4.5A~5.0A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.9~1.0A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5~4.0mV(singe cell ℃)

6-EVF-45（25℃±2℃）discharge curve



CERTIFIED QUALITY

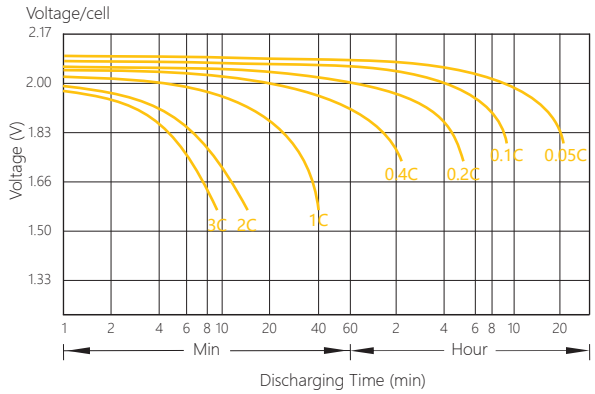
All products are tested and certified to multiple standard.
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

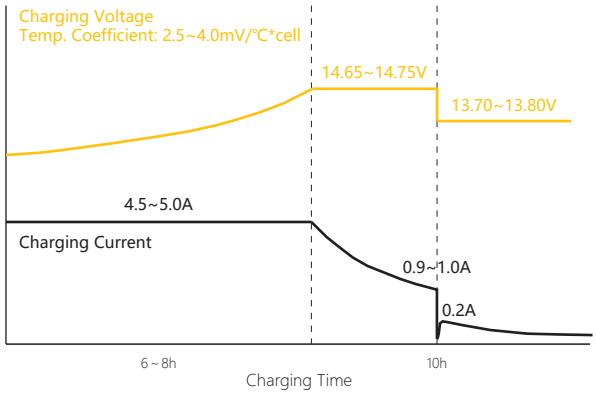
6-EVF-45

12V45Ah @3hr
12V52Ah @20hr

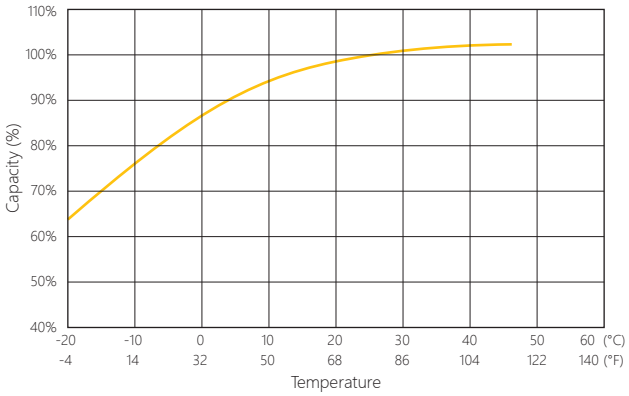
Discharging Characteristics (25°C/77°F)



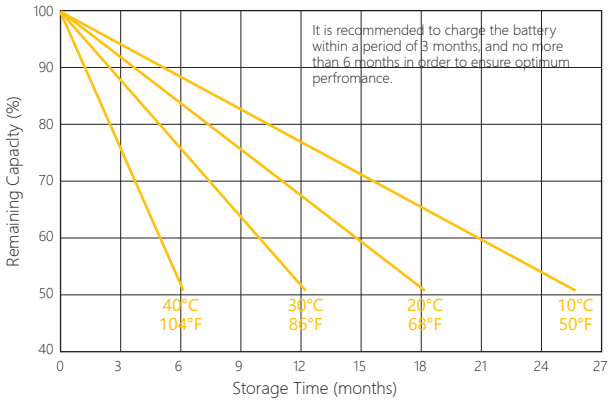
Charging Characteristics (25°C/77°F)



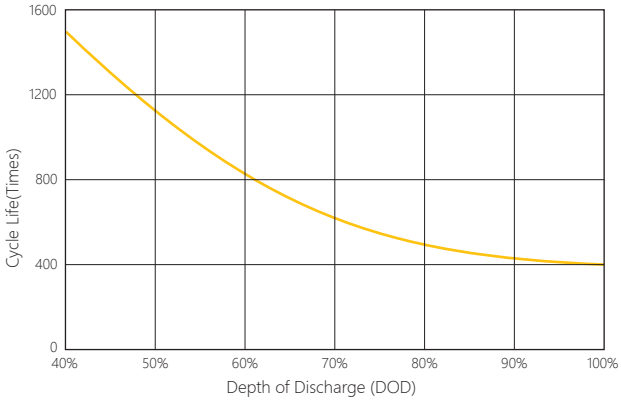
Capacity vs Temperature



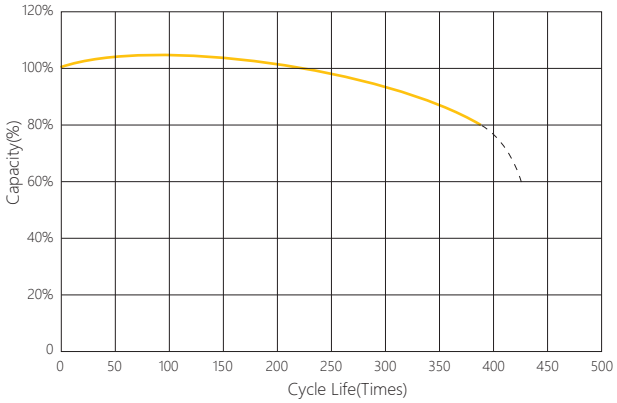
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

超威 CHILWEE®

Leading technology,more electric vehicles in use

6-EVF-52

VRLA gel battery for electric vehicle

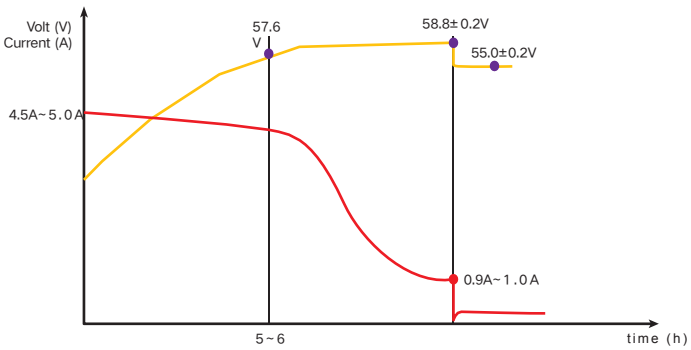
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 40A

2.Motor parameter
Running current: ≤20A
Motor power ≤1000W

Specifications		
Rataed volt (V)		12 V
Rated capacity (3hr)		52 Ah
Dimensions	Length	226 mm
	Width	136 mm
	Height	168 mm
	Total height	175 mm
Ref.weight (kg)		13.5 ±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(25.5A discharge): 45Ah	
	3hr capacity(17.3A discharge): 52Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	85%
	-18℃	60%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	65%
Limited voltage charge(25℃)	Cycle use	max.charge current 4.5-5.0A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-EVF-52 (4pcs/group 25℃±2℃) charge curve

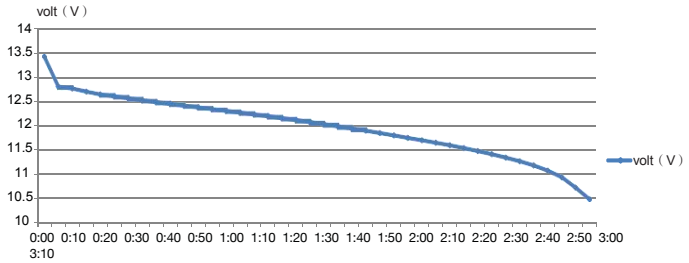


1st phase: max. current 4.5A~5.0A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.9~1.0A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5-4.0mV(singe cell ℃)

6-EVF-52（25℃±2℃）discharge curve



Discharge time (h:mim)

CERTIFIED QUALITY

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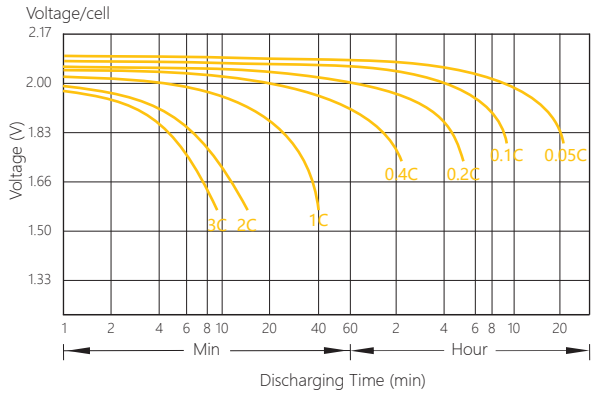
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

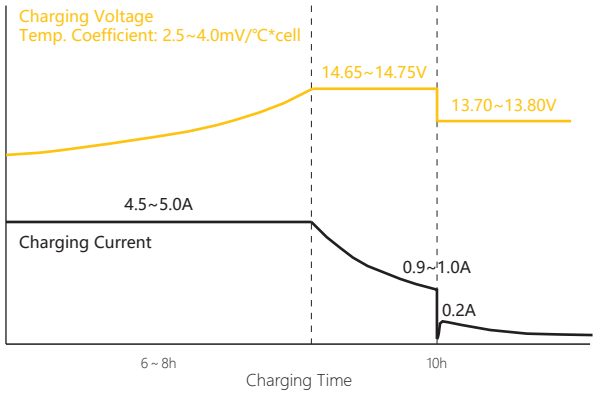
6-EVF-52

12V52Ah @3hr
12V58Ah @20hr

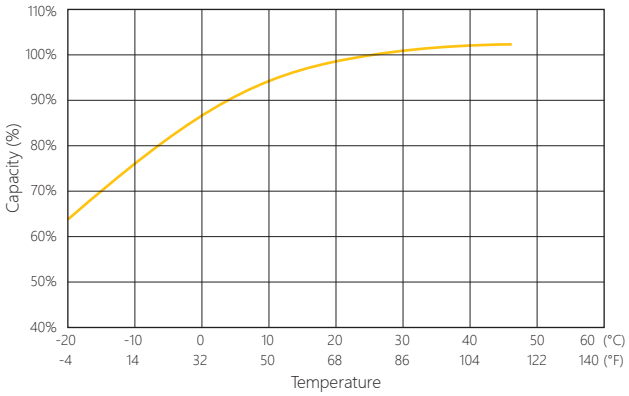
Discharging Characteristics (25°C/77°F)



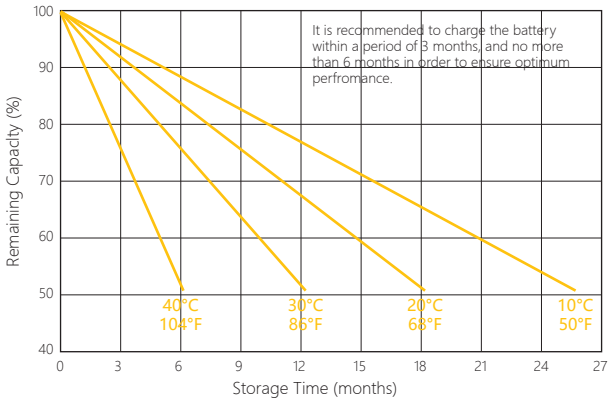
Charging Characteristics (25°C/77°F)



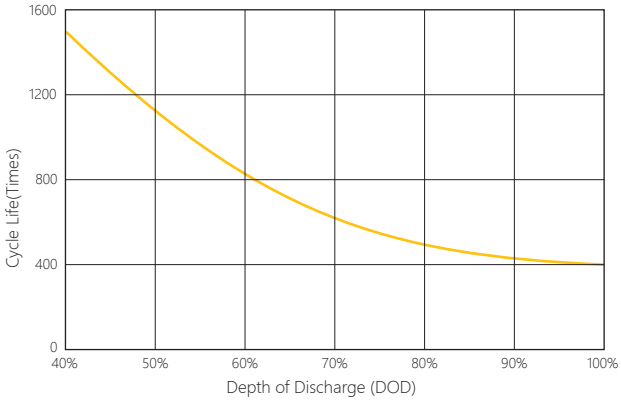
Capacity vs Temperature



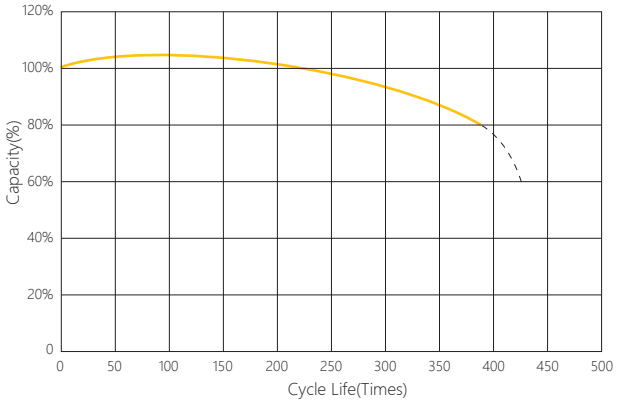
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

6-EVF-58

VRLA gel battery for electric vehicle

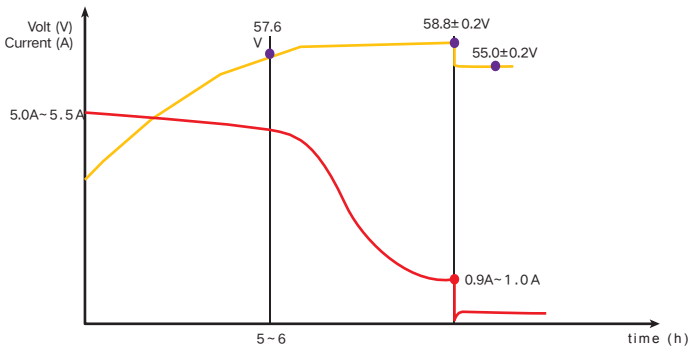
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 40A

2.Motor parameter
Running current: ≤20A
Motor power ≤1000W

Specifications		
Rataed volt (V)		12 V
Rated capacity (3hr)		58 Ah
Dimensions	Length	226 mm
	Width	148 mm
	Height	168 mm
	Total height	175 mm
Ref.weight (kg)		15.0 ±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(25.0A discharge): 50Ah	
	3hr capacity(19.3A discharge): 58Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	85%
	-18℃	60%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	65%
Limited voltage charge(25℃)	Cycle use	max.charge current 5.0-5.5A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

6-EVF-58 (4pcs/group 25℃±2℃) charge curve

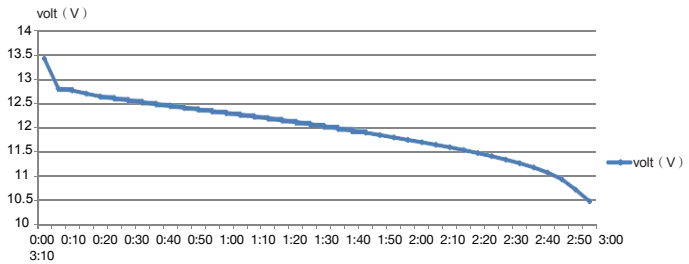


1st phase: max. current 5.0A~5.5A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.9~1.0A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5-4.0mV(singe cell ℃)

6-EVF-58 (25℃±2℃) discharge curve



Discharge time (h:mim)

CERTIFIED QUALITY

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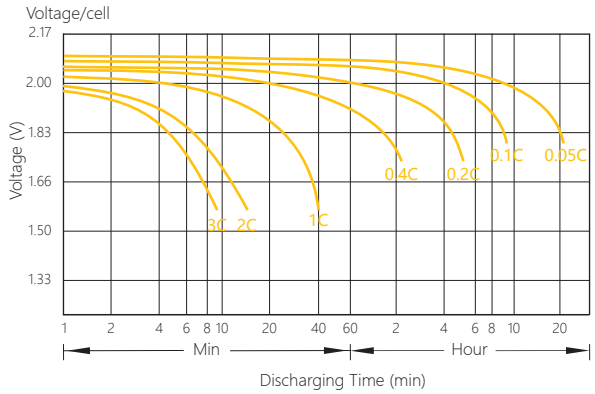
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

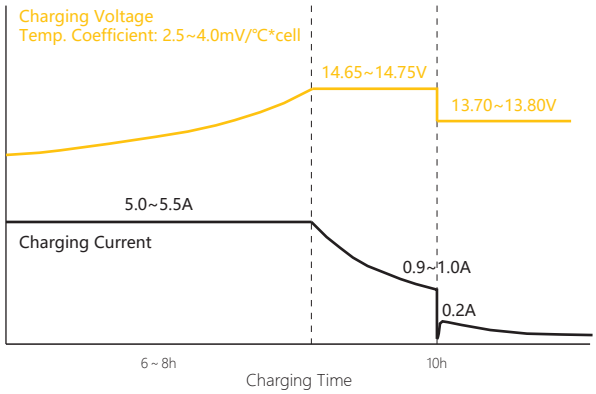
6-EVF-58

12V58Ah @3hr
12V65Ah @20hr

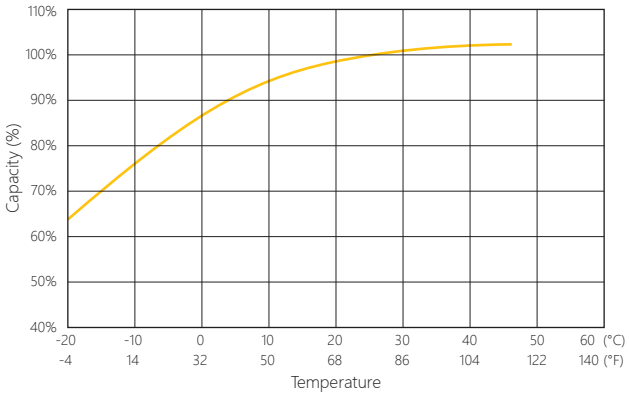
Discharging Characteristics (25°C/77°F)



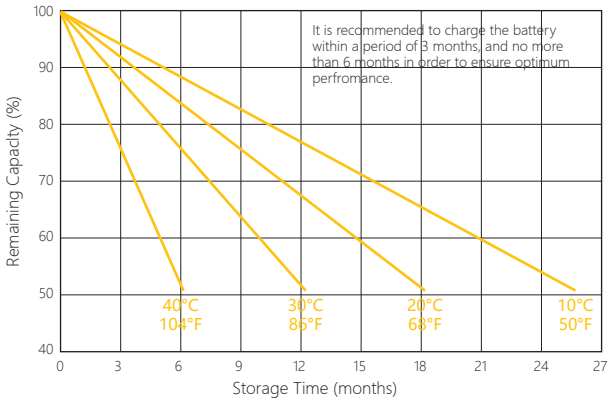
Charging Characteristics (25°C/77°F)



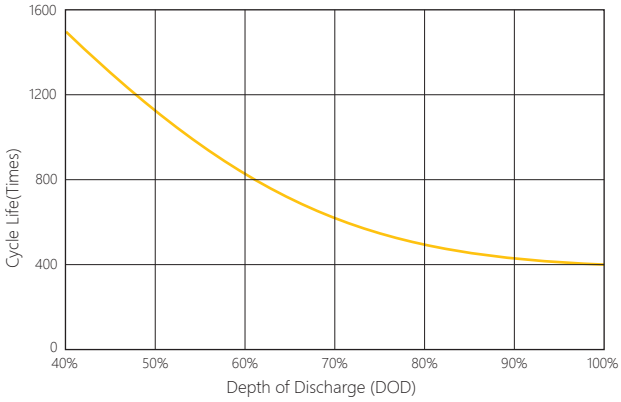
Capacity vs Temperature



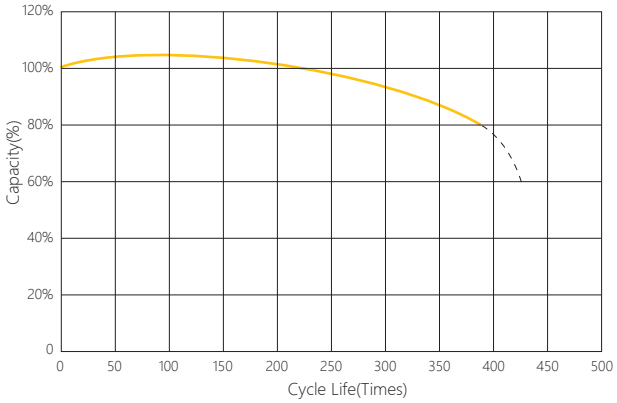
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



6-DZF-13 Premium series 12V 13Ah(2hr) GRAPHENE VRLA GEL BATTERY

Chilwee BG (BLACK GOLD) Series high energy VRLA gel Battery is specially designed based on Graphene Technology, which has obviously improve the battery's capacity, output power, cycle life and high/low temperature performance. The Chilwee BG (BLACK GOLD) Series provides longer range, larger power and extremely long life for motive power applications, i.e. electric bicycles, electric tricycles, electric motorcycles and other device require DC power source.

For more information,please contact us at info@cwpintl.com.

FEATURES & BENEFITS

* Designed based on Graphene Technology enables the BG (BLACK GOLD) series Battery with the the features of excellent long range, larger power and extremely long life.

* Unique structure of battery container and lid to ensure excellent gas recommendation efficiency, less gas released so that water loss rate is reduced.

* Sepcial grid alloy material and special lead paste prescription have been utilized to resist corrosion on plates, prolong the life of the battery.

* Increased positive active material to improve the battery's initial capacity and service life.

* Redesigned battery container and terminal, more attractive appearance and easy for installation.

COMPARISON BETWEEN BG SERIES AND STANDARD BATTERY

TESTING ITEM	STANDARD BATTERY	BLACK GOLD SERIES	COMPARISON
INITIAL CAPACITY, FOR THE FIRST 3 CYCLES	12.2AH	13AH	**10%** IMPROVED
CAPACITY , AFTER 69 CYCLES	13AH	15AH	**16%** IMPROVED
DISCHARGE TIME @ END-VOLTAGE : 12V	65 MINUTES	90 MINUTES	**34%** IMPROVED
WATER LOSS RATE	0.1 GRAM / CYCLE	0.06 GRAM/ CYCLE	**40%** DECREASED
DISCHARGE TIME @ -15 ℃	94 MINUTES	112 MINUTES	**18%** IMPROVED
CYCLE LIFE @ 100% DOD	400 CYCLES	550 CYCLES	**38%** IMPROVED

SPECIFICATION

Nominal Voltage (V)		12V
Open Circuit Voltage (V/Block)		13V - 13.45V
Number of Cells (Per Block)		6 Cells
Rated Capacity (Ah, 25℃)	2h rate (to 1.75V/Cell)	13Ah
	3h rate (to 1.75V/Cell)	14Ah
	5h rate (to 1.80V/Cell)	14.5Ah
	10h rate (to 1.80V/Cell)	15Ah
	20h rate (to 1.85V/Cell)	16Ah
Nominal Weight (Kgs)		Approx. 4.0 ±0.2 Kgs
Dimension (L X W X H, Total Height. mm)		151mmX99mmX98mm± 0.5X98mm
Container Material		Enhanced ABS
Charge Voltage	Float (V/Block)	13.50V - 13.80V
	Cycle (V/Block)	14.60V - 14.80V
Maximum Discharge Current (A)		100A (5s)
Maximum Charge Current (A)		2.0 A
Working Temperature(℃)	Operation (maximum):	-20℃ to 50℃
	Operation (recommended):	20℃ to 30℃
Storage Temperature(℃)		-20℃ to 50℃

CERTIFIED QUALITY

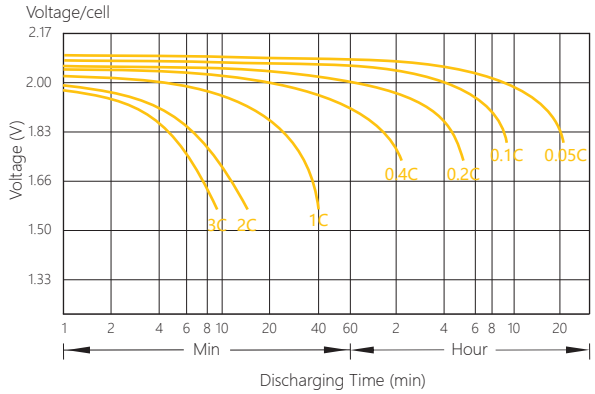
All products are tested and certified to multiple standard.
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

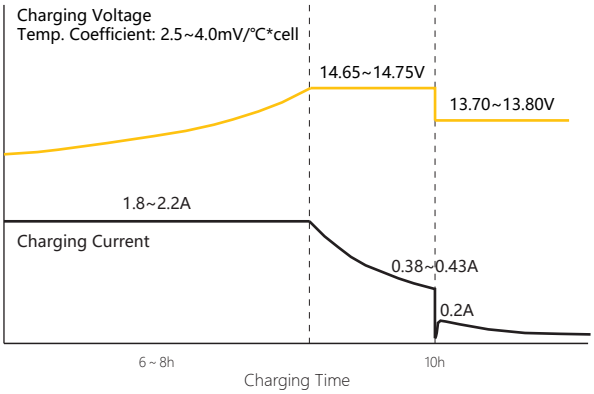
6-DZF -13

12V13Ah @2hr
12V16Ah @20hr

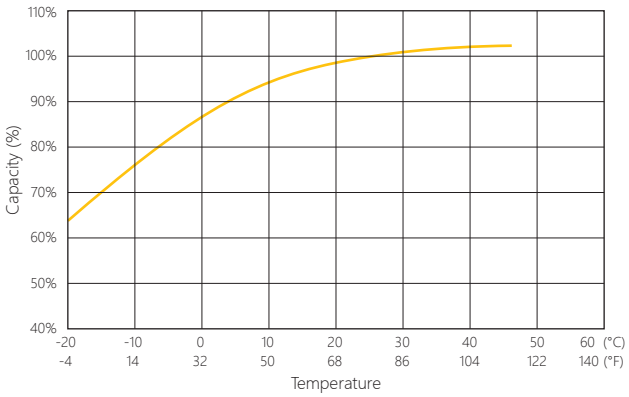
Discharging Characteristics (25°C/77°F)



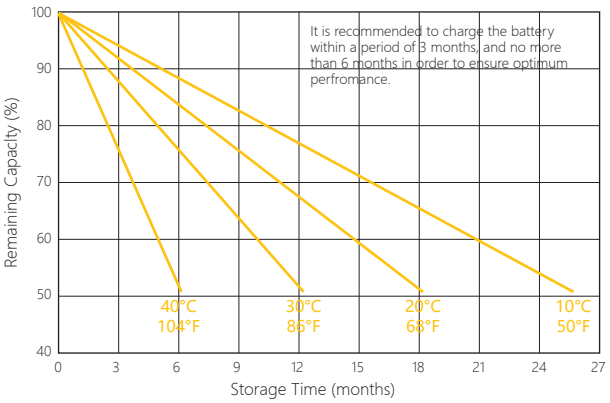
Charging Characteristics (25°C/77°F)



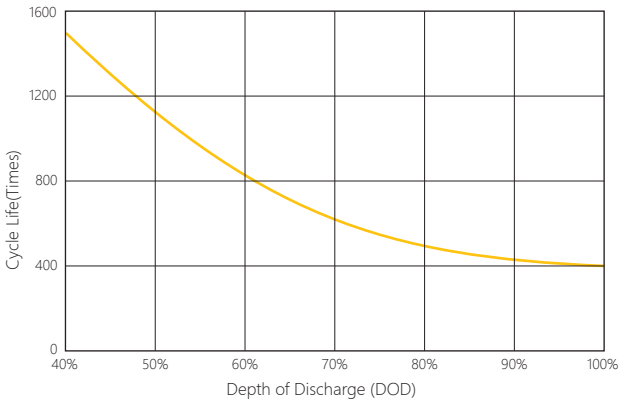
Capacity vs Temperature



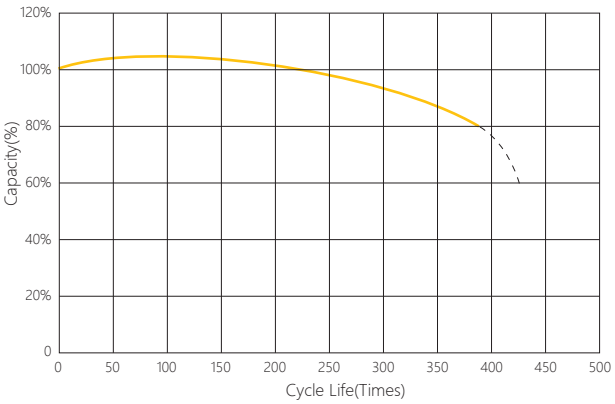
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

6-DZF-23 Premium series 12V 23Ah(2hr) GRAPHENE VRLA GEL BATTERY

Chilwee BG (BLACK GOLD) Series high energy VRLA Battery is specially designed based on Graphene Technology, which has obviously improve the battery's capacity, output power, cycle life and high/low temperature performance. The Chilwee BG (BLACK GOLD) Series provides longer range, larger power and extremely long life for motive power applications, i.e. electric bicycles, electric tricycles, electric motorcycles and other device require DC power source.

For more details please contact info@cwpintl.com;

FEATURES & BENEFITS

* Designed based on Graphene Technology enables the BG (BLACK GOLD) series Battery with the the features of excellent long range, larger power and extremely long life.

* Unique structure of battery container and lid to ensure excellent gas recommendation efficiency, less gas released so that water loss rate is reduced.

* Sepcial grid alloy material and special lead paste prescription have been utilized to resist corrosion on plates, prolong the life of the battery.

* Increased positive active material to improve the battery's initial capacity and service life.

* Redesigned battery container and terminal, more attractive appearance and easy for installation.

COMPARISON BETWEEN BG SERIES AND STANDARD BATTERY

TESTING ITEM	STANDARD BATTERY	BLACK GOLD SERIES	COMPARISON
INITIAL CAPACITY, FOR THE FIRST 3 CYCLES	20.2AH	23AH	**10%** IMPROVED
CAPACITY , AFTER 69 CYCLES	21AH	24.5AH	**16%** IMPROVED
DISCHARGE TIME @ END-VOLTAGE : 12V	65 MINUTES	90 MINUTES	**34%** IMPROVED
WATER LOSS RATE	0.1 GRAM / CYCLE	0.06 GRAM/ CYCLE	**40%** DECREASED
DISCHARGE TIME @ -15 ℃	94 MINUTES	112 MINUTES	**18%** IMPROVED
CYCLE LIFE @ 100% DOD	400 CYCLES	500 CYCLES	**25%** IMPROVED

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)	23Ah
	3h rate (to 1.75V/Cell)	24Ah
	5h rate (to 1.80V/Cell)	25Ah
	10h rate (to 1.80V/Cell)	26Ah
	20h rate (to 1.85V/Cell)	28Ah
Nominal Weight (Kgs)		Approx. 6.6 ±0.2 Kgs
Dimension (L X W X H, Total Height. mm)		181mmX 77mm X 170mm X 171mm
Container Material		Enhanced ABS
Charge Voltage	Float (V/Block)	13.50V - 13.80V
	Cycle (V/Block)	14.60V - 14.80V
Maximum Discharge Current (A)		150A (5s)
Maximum Charge Current (A)		2.9 A
Working Temperature(℃)	Operation (maximum):	-20℃ to 50℃
	Operation (recommended):	20℃ to 30℃
Storage Temperature(℃)		-20℃ to 50℃

CERTIFIED QUALITY

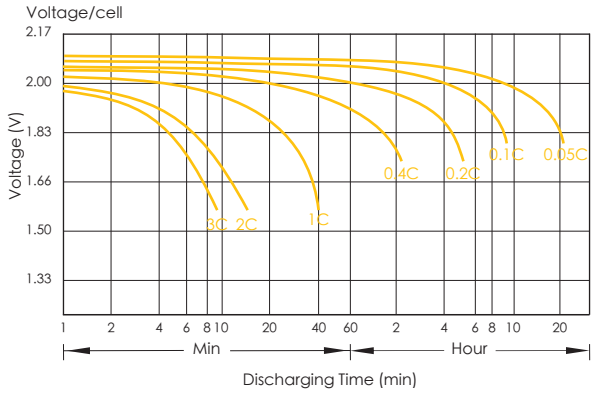
All products are tested and certified to multiple standard.
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

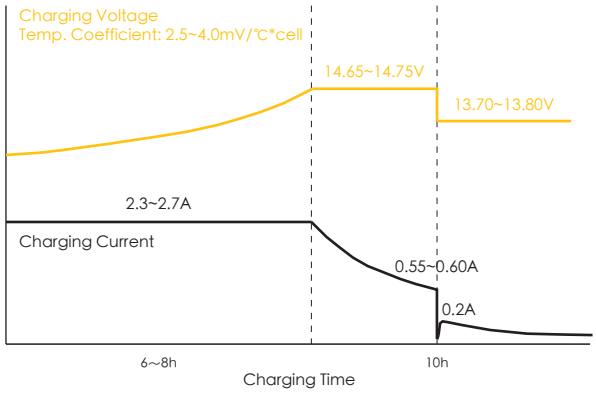
6-DZF-23

12V23Ah @2hr
12V28Ah @20hr

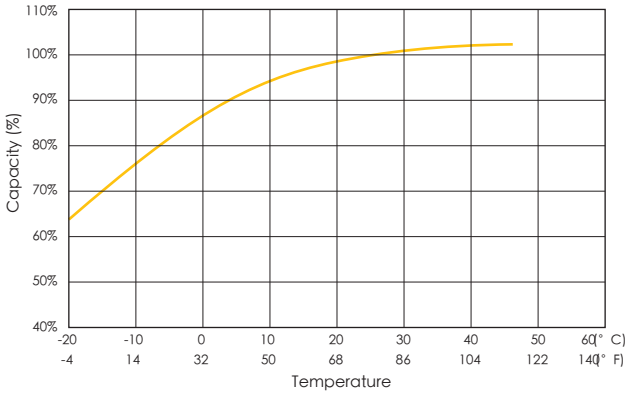
Discharging Characteristics (25° C/77° F)



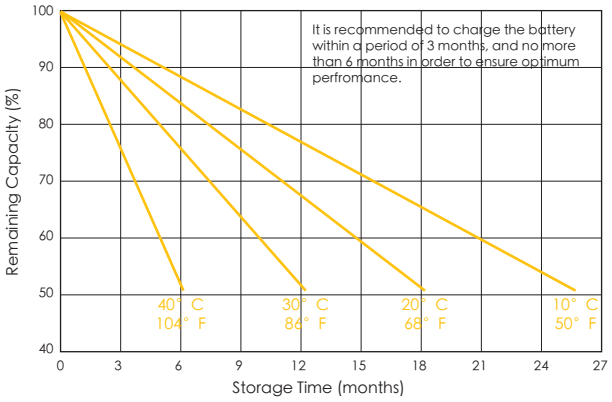
Charging Characteristics (25° C/77° F)



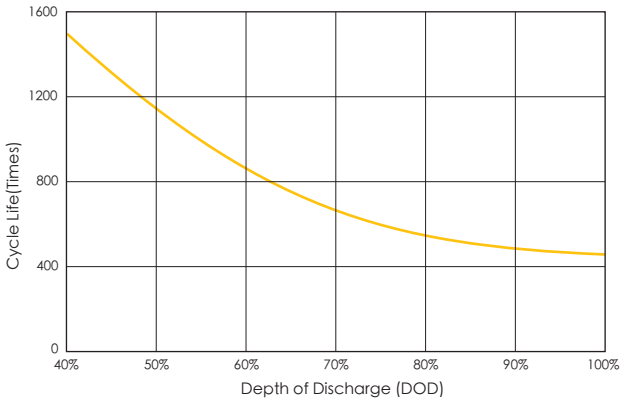
Capacity vs Temperature



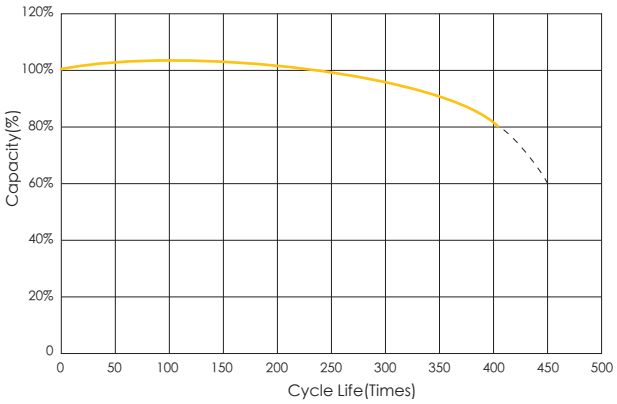
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25° C/77° F)



Cycle Life vs Remaining Capacity (25° C/77° F)



For more information, please contact us at info@cwpintl.com.

6-DZF-23

Premium series

VRLA gel battery for electric bicycle

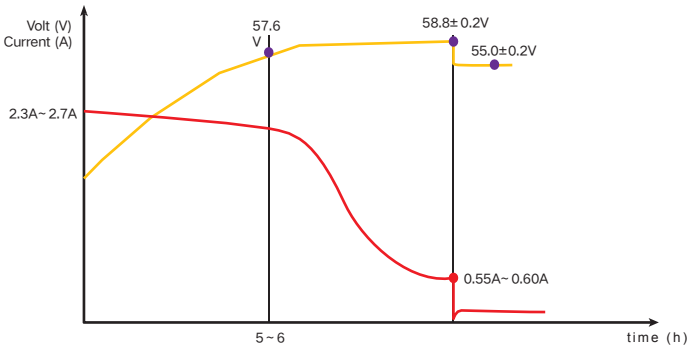
Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 23A

2.Motor parameter
Running current: ≤10.0A
Motor power ≤450W

Specifications		
Rataed volt (V)		12 V
Rated capacity (2hr)		23 Ah
Dimensions	Length	181 mm
	Width	77 mm
	Height	170 mm
	Total height	171 mm
Ref.weight (kg)		7.0 ±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	2hr capacity(10A discharge): 23Ah	
Battery capacity at different temp. (2hr)	40℃	102%
	25℃	100%
	0℃	85%
	-15℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage charge(25℃)	Cycle use	max.charge current 2.3-2.7A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

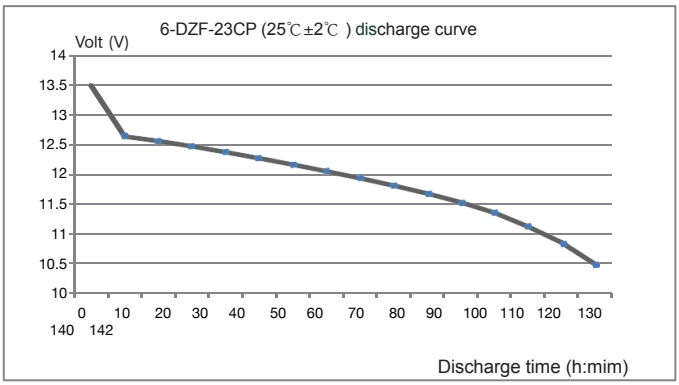
6-DZF-23 (4pcs/group 25℃±2℃) charge curve



1st phase: max. current 2.3A~2.7A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V ,
Current continuously decreased to 0.55~0.60A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5-4.0mV(singe cell ℃)



CERTIFIED QUALITY

All products are tested and certified to multiple standard.
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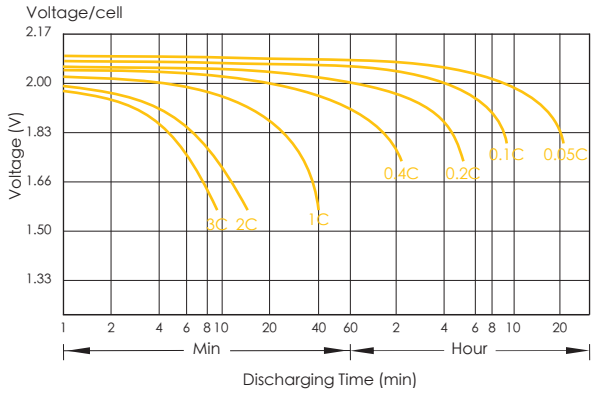
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

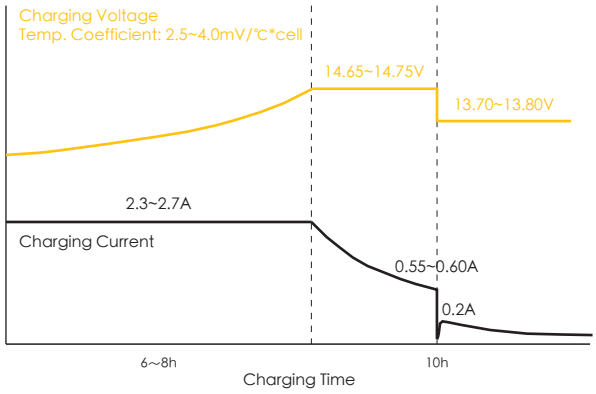
6-DZF-23

12V23Ah @2hr
12V29Ah @20hr

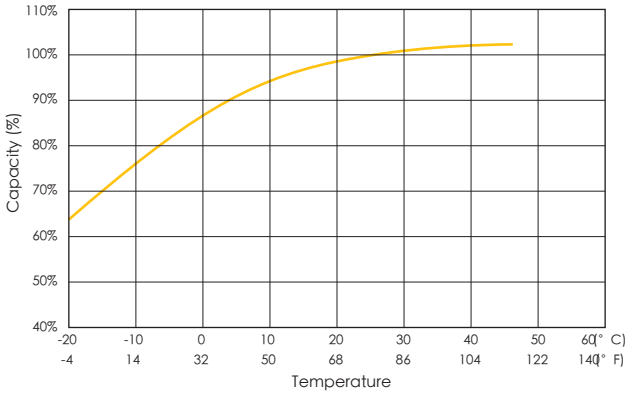
Discharging Characteristics (25° C/77° F)



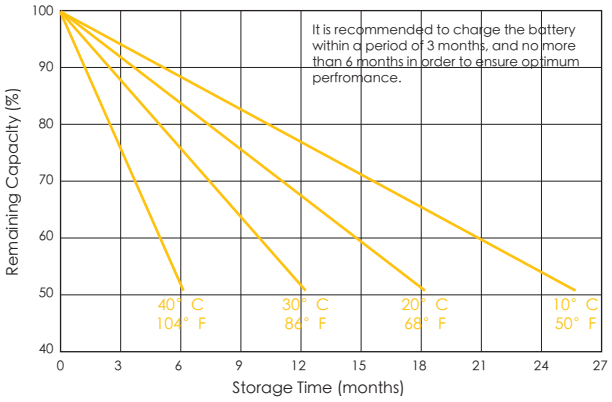
Charging Characteristics (25° C/77° F)



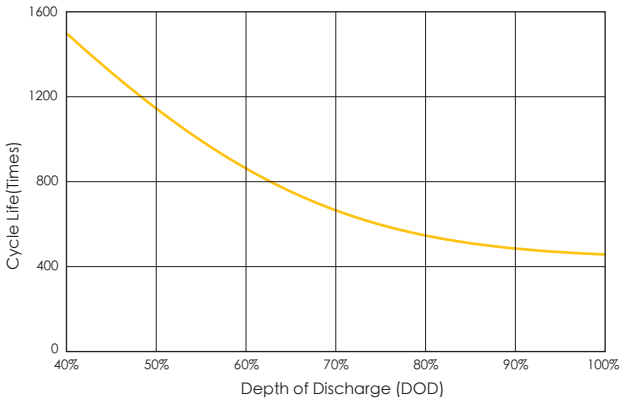
Capacity vs Temperature



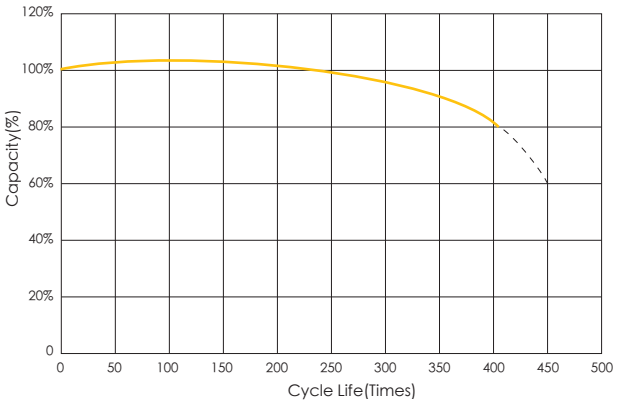
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25° C/77° F)



Cycle Life vs Remaining Capacity (25° C/77° F)



For more information, please contact us at info@cwpintl.com.

6-EVF-26

Premium series

VRLA gel battery for electric bicycle

Product usage configuration requirements:

1.Controller parameters

under voltage protection: 10.50V/pc

over current protection: 25A

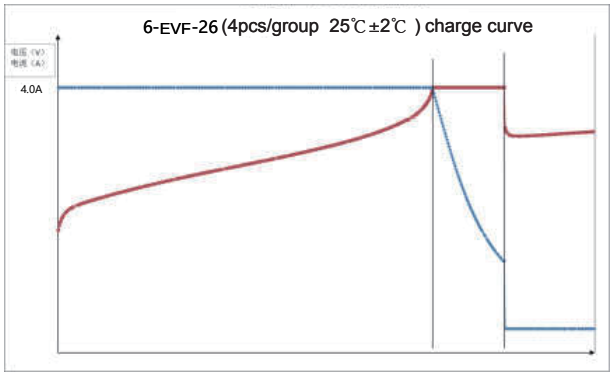
2.Motor parameter

Running current: ≤10.0A

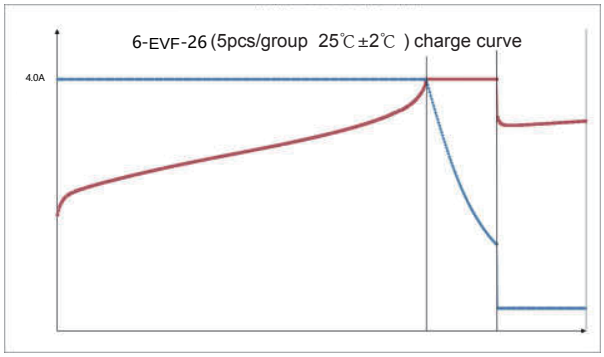
Motor power ≤450W

Specifications		
Rataed volt (V)	12V	
Rated capacity (3hr)	26Ah	
Dimensions (mm)	Length	181mm
	Width	77mm
	Height	170mm
	Total height	171mm
Ref.weight (kg)	7.2 ±0.2 Kgs	

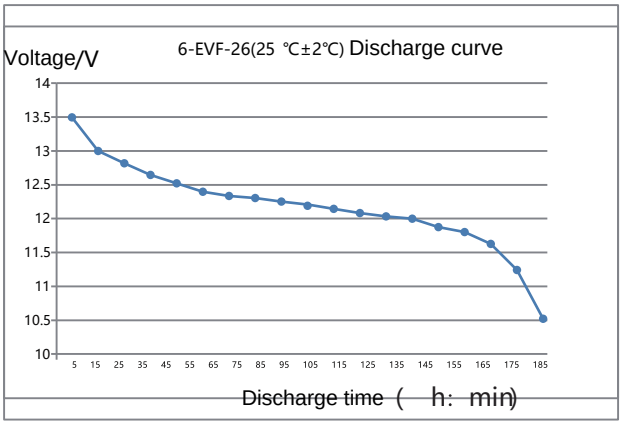
Performance parameter		
Rated capacity (25℃)	3hr capacity(8.67A discharge): 26Ah (15次循环内3hr容量达到26Ah)	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	85%
	-15℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage charge(25℃)	Cycle use	max.charge current 3.0-4.0A
		14.65V-14.75V/pc
	Floating use	13.7V-13.8V/pc



1st phase: 4.0±0.1A constant current to 57.6± 0.30v or time to 5h, static for 5min
2nd phase: 4.0±0.05A constant current and voltage 58.8± 0.3V for 1.6h or current is lower than 0.72A±0.05A
3rd phase: the current is reduced to 0.36A, voltage is 62.4±0.3V, charge for 1.5h.
Temp. compensation coefficient: 2.5-3.0mV(singe cell℃)



1st phase: 4.0±0.1A constant current to 72.0± 0.20v or time to 5h, static for 5min
2nd phase: 4.0±0.05A constant current and voltage 73.5± 0.2V for 1.6h or current is lower than 0.72A±0.05A
3rd phase: the current is reduced to 0.36A, voltage is 78.0±0.2V, charge for 1.5h.
Temp. compensation coefficient: 2.5-3.0mV(singe cell℃)



Notes for charger:

1. Charger has temp.compensation function that will reduce constant charge voltage during high temp. while increase constant voltage during low temp, compensation coefficient is 2.5~3.0mV/single cell. For example, 48V charger, environment temp. is 30°C, then the volt during constant voltage charging process is 58.8-(30-25)*(0.0025~0.003)*24=58.44~58.5V.
2. Charger has the function to avoid thermol run-away.
3. Charger can automatically stop charging after fully charged.
4. Charger self-protection function option: refer to ebike maker's requests.

CERTIFIED QUALITY

All products are tested and certified to multiple standard.

Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

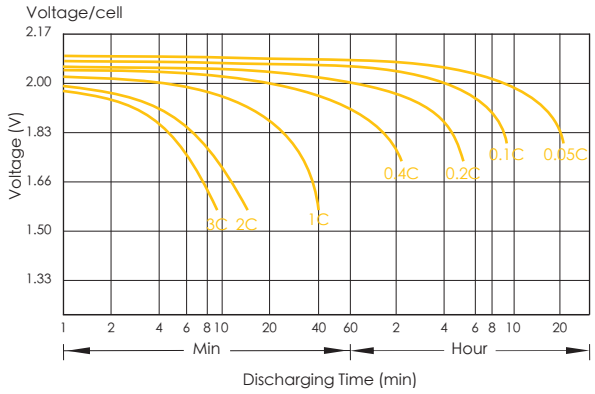
ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001

IATA / SP 238 / CE

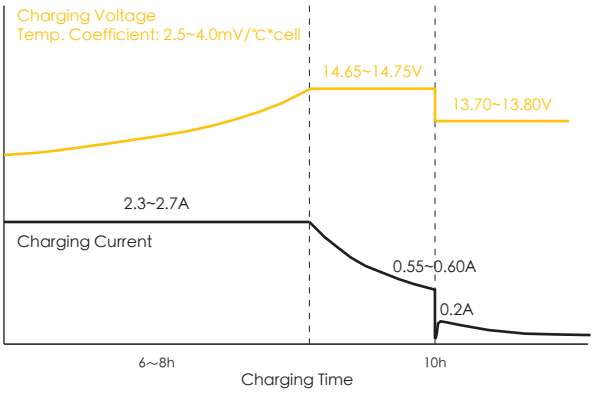
6-EVF-26

12V26Ah @3hr
12V29Ah @20hr

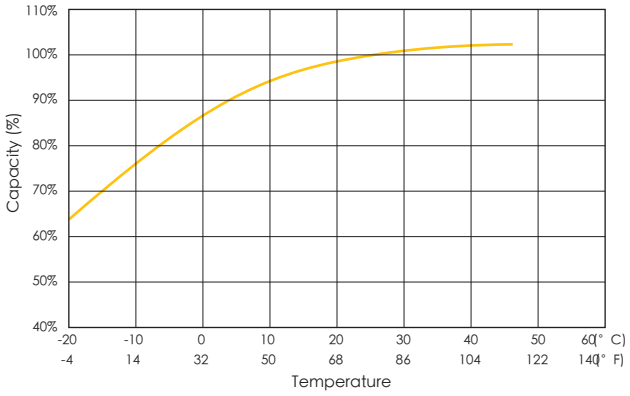
Discharging Characteristics (25° C/77° F)



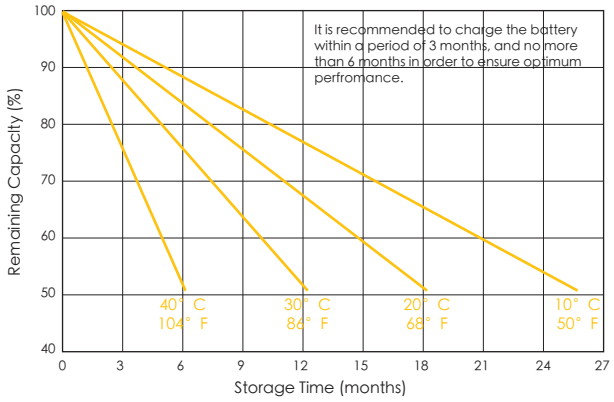
Charging Characteristics (25° C/77° F)



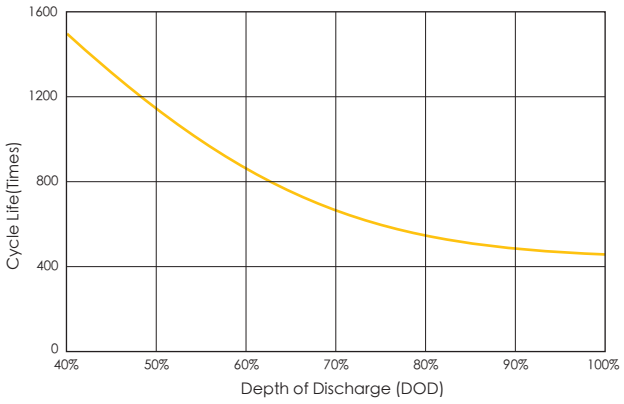
Capacity vs Temperature



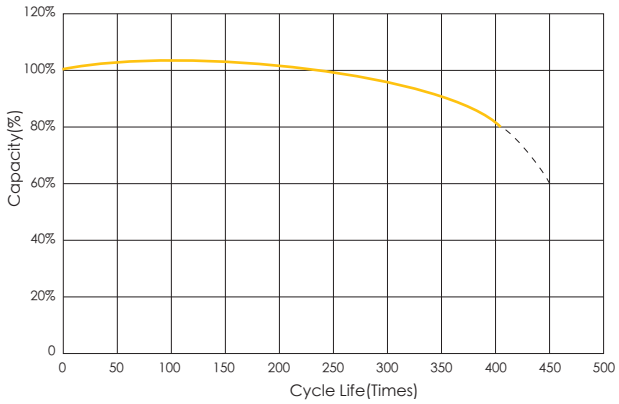
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25° C/77° F)



Cycle Life vs Remaining Capacity (25° C/77° F)



For more information, please contact us at info@cwpintl.com.

6-EVF-35

Premium series

VRLA gel battery for electric bicycle

Specifications		
Rataed volt (V)		12 V
Rated capacity (3hr)		35Ah
Dimensions	Length	267mm
	Width	77 mm
	Height	171mm
	Total height	171 mm
Ref.weight (kg)		10.2±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	3hr capacity(11.7A discharge): 3 5 Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	90%
	-20℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage charge(25℃)	Cycle use	max.charge current 5.9-6.1A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

CERTIFIED QUALITY

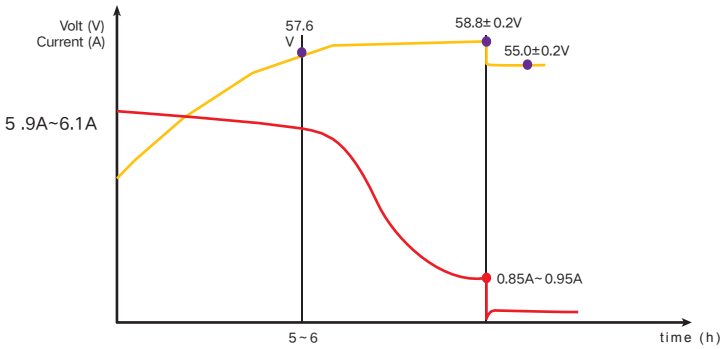
All products are tested and certified to multiple standard.
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

Product usage configuration requirements:

Controller parameters
ıder voltage protection: 10.50V/pc
/er current protection: 3 5 A

.Motor parameter
unning current: ≤15A
lotor power ≤700W

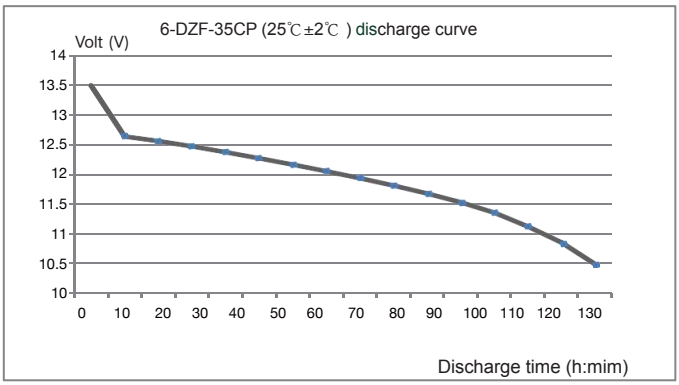
6-DZF-35(5pcs/group 25℃±2℃) charge curve



1st phase: max. current 5 .9A~6.1A voltage continuously increases to 57.

6V 2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V , Current continuously decreased to 0.85~0.95A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5-4.0mV(singe cell ℃)

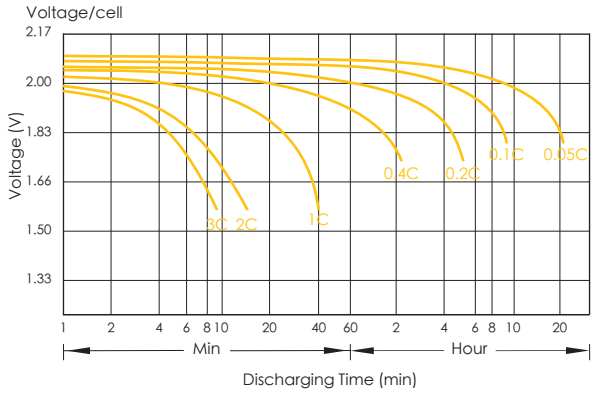


ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

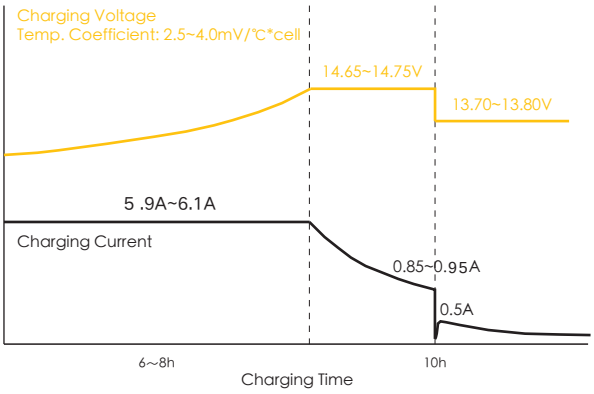
6-EVF-35

12V35Ah @3hr
12V42Ah @10hr

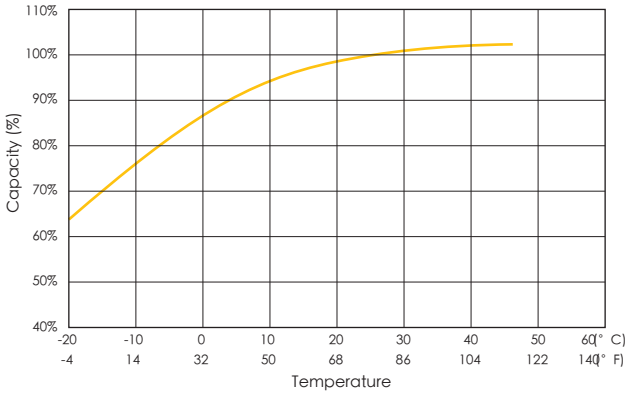
Discharging Characteristics (25° C/77° F)



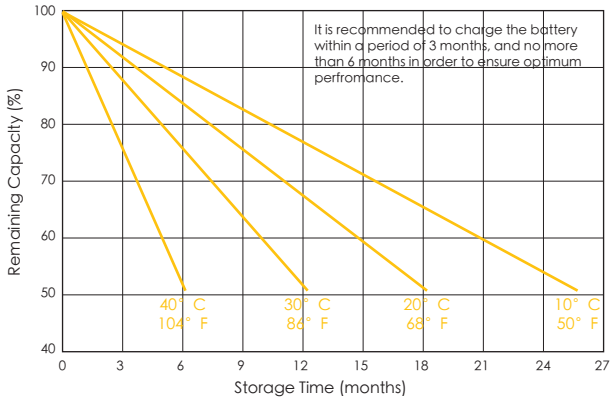
Charging Characteristics (25° C/77° F)



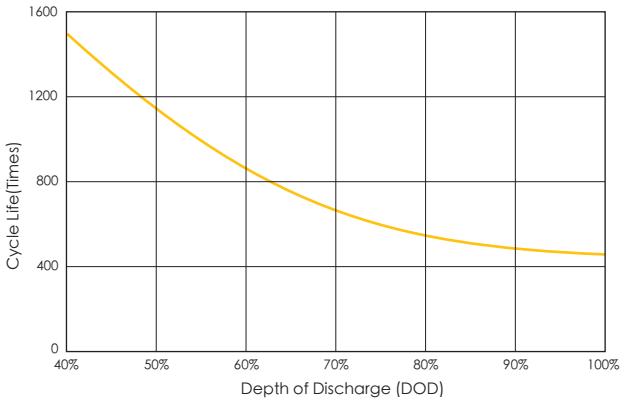
Capacity vs Temperature



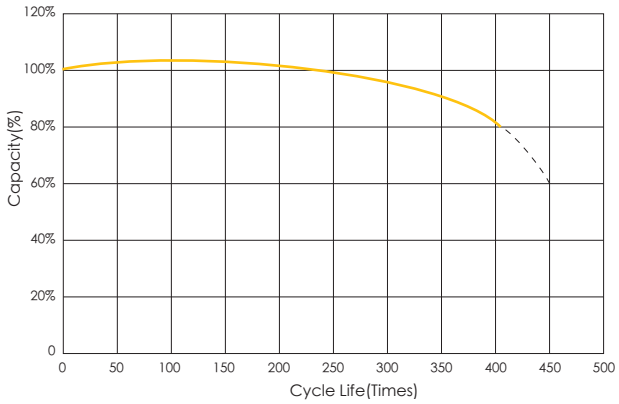
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25° C/77° F)



Cycle Life vs Remaining Capacity (25° C/77° F)



For more information, please contact us at info@cwpintl.com.

超威 CHILWEE®

Leading technology,more electric vehicles in use

6-EVF-36 Premium series 12V 36Ah(3hr) GRAPHENE VRLA BATTERY

Chilwee BG (BLACK GOLD) Series high energy VRLA Battery is specially designed based on Graphene Technology, which has obviously improve the battery's capacity, output power, cycle life and high/low temperature performance. The Chilwee BG (BLACK GOLD) Series provides longer range, larger power and extremely long life for motive power applications, i.e. electric bicycles, electric tricycles, electric motorcycles and other device require DC power source.

For more details please contact info@cwpintl.com;

FEATURES & BENEFITS

* Designed based on Graphene Technology enables the BG (BLACK GOLD) series Battery with the the features of excellent long range, larger power and extremely long life.

* Unique structure of battery container and lid to ensure excellent gas recommendation efficiency, less gas released so that water loss rate is reduced.

* Sepcial grid alloy material and special lead paste prescription have been utilized to resist corrosion on plates, prolong the life of the battery.

* Increased positive active material to improve the battery's initial capacity and service life.

* Redesigned battery container and terminal, more attractive appearance and easy for installation.

COMPARISON BETWEEN BG SERIES AND STANDARD BATTERY

TESTING ITEM	STANDARD BATTERY	BLACK GOLD SERIES	COMPARISON
INITIAL CAPACITY, FOR THE FIRST 3 CYCLES	32AH	36AH	**10%** IMPROVED
CAPACITY , AFTER 69 CYCLES	33AH	36.5AH	**16%** IMPROVED
DISCHARGE TIME @ END-VOLTAGE : 12V	65 MINUTES	90 MINUTES	**34%** IMPROVED
WATER LOSS RATE	0.1 GRAM / CYCLE	0.06 GRAM/ CYCLE	**40%** DECREASED
DISCHARGE TIME @ -15 ℃	94 MINUTES	112 MINUTES	**18%** IMPROVED
CYCLE LIFE @ 100% DOD	400 CYCLES	500 CYCLES	**25%** IMPROVED

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)	33Ah
	3h rate (to 1.75V/Cell)	36Ah
	5h rate (to 1.80V/Cell)	37Ah
	10h rate (to 1.80V/Cell)	40Ah
	20h rate (to 1.85V/Cell)	42Ah
Nominal Weight (Kgs)		Approx. 9.6±0.2 Kgs
Dimension (L X W X H, Total Height. mm)		267mm X 77mm X 165mm X 170mm
Container Material		Enhanced ABS
Charge Voltage	Float (V/Block)	13.50V - 13.80V
	Cycle (V/Block)	14.60V - 14.80V
Maximum Discharge Current (A)		225A (5s)
Maximum Charge Current (A)		4.4 A
Working Temperature(℃)	Operation (maximum):	-20℃ to 50℃
	Operation (recommended):	20℃ to 30℃
Storage Temperature(℃)		-20℃ to 50℃

CERTIFIED QUALITY

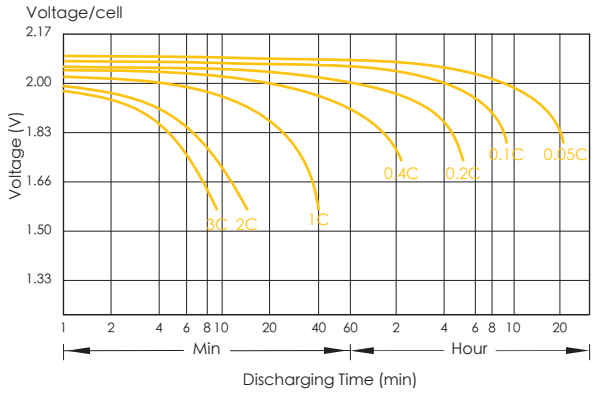
All products are tested and certified to multiple standard.
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

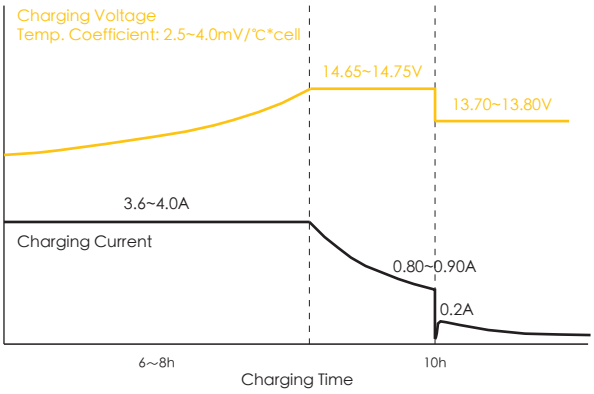
6-EVF-36

12V35Ah @3hr
12V42Ah @20hr

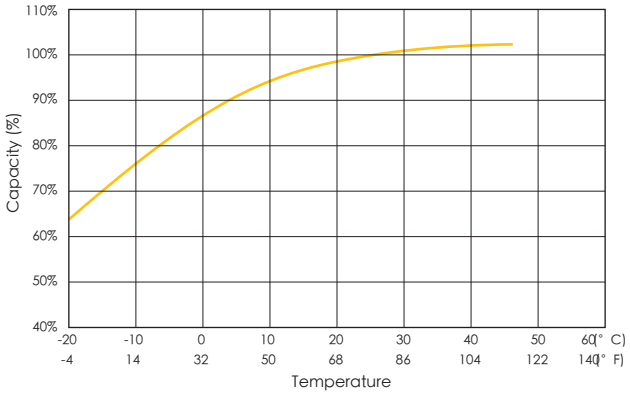
Discharging Characteristics (25° C/77° F)



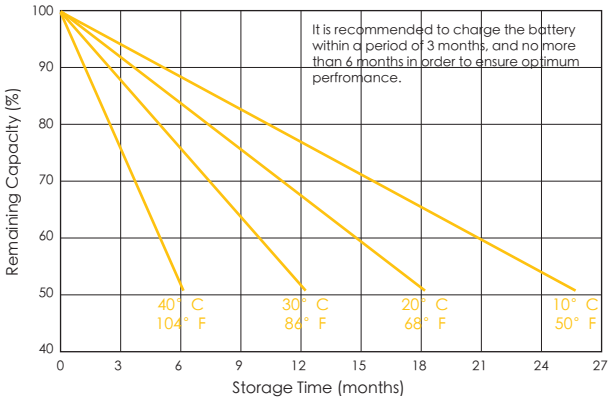
Charging Characteristics (25° C/77° F)



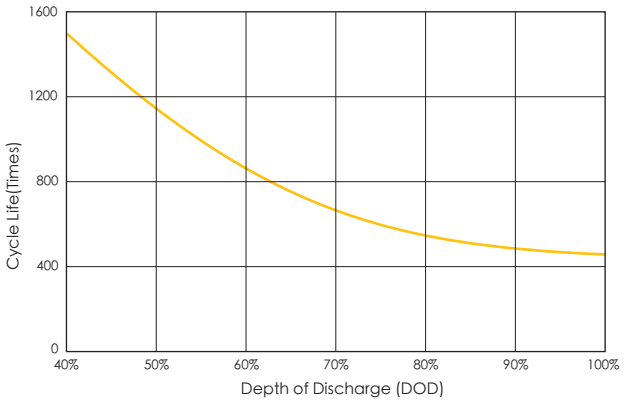
Capacity vs Temperature



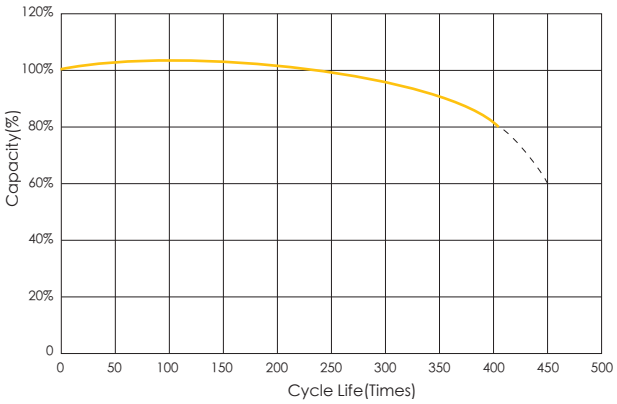
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25° C/77° F)



Cycle Life vs Remaining Capacity (25° C/77° F)



For more information, please contact us at info@cwpintl.com.

超威 CHILWEE

Leading technology,more electric vehicles in use

6-EVF-47

Premium series

VRLA gel battery for electric bicycle

Product usage configuration requirements

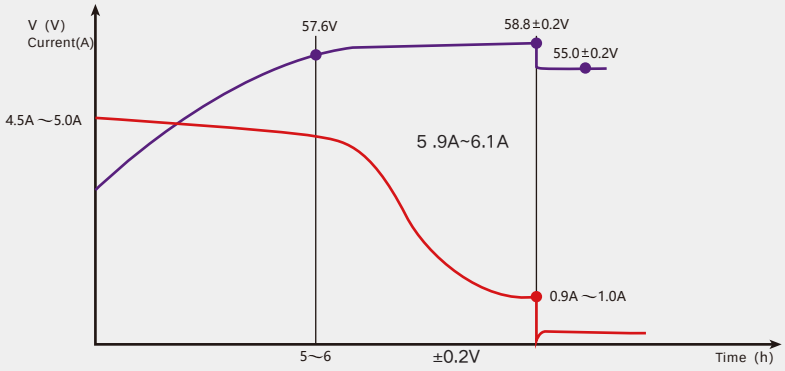
1.Controller parameters
under voltage protection: 10.50V/pc
over current protection:40A

2.Motor parameter
Running current: ≤20A
Motor power ≤800W

Specifications		
Rataed volt (V)	12V	
Rated capacity (3hr)	47Ah	
Dimension (±2mm)	Length	226mm
	Width	120mm
	Height	171mm
	Total heigh	175mm
Ref.weight (kg)	12.9kg±2%	

Performance parameter		
Rated capacity (25℃)	2hr (21A discharge): 42Ah	
	3hr (15.7A discharge): 47Ah	
	10hr (5.0Adischage): 50Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	90%
	-20℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage (25℃)	Cycle use	Max.charge current: 4.5-5A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

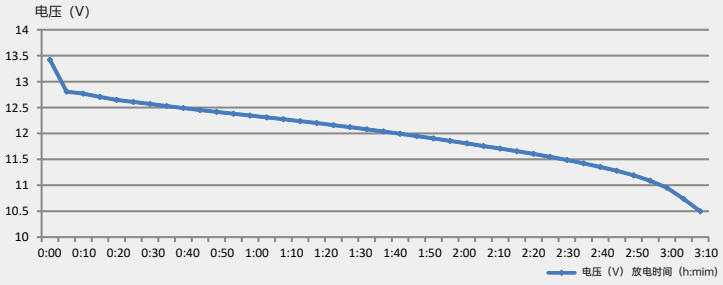
6-EVF-47(4pcs/set 25℃±2℃) charge curve



1st phase: max. current 4.5A~5.0A, voltage continously increased to 57.6V.
2nd phase: voltage continuously increases from 57.6V to 58.8, current continuously decreased to 0.9A~1.0A, then converted to fload charge(trickle charge).
3rd phase: float charge constant voltage 55

Temp.compensation coefficient: 2.5-4.0mv/ (cell·℃)

6-EVF-47(25℃±2℃) discharge curve



CERTIFIED QUALITY

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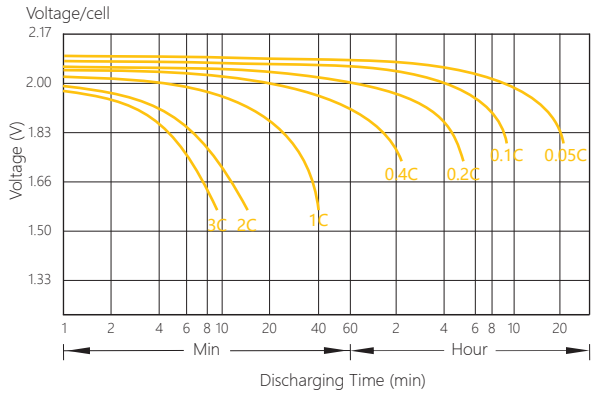
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

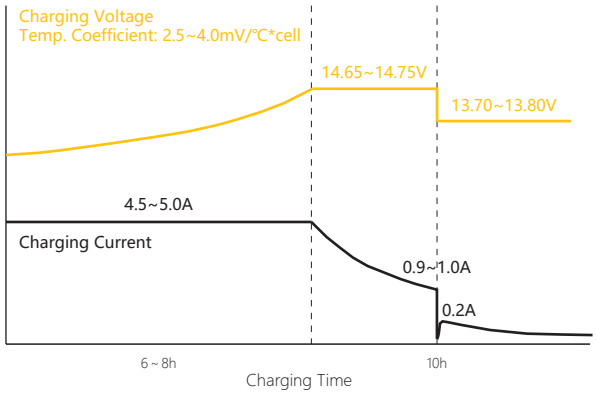
6-EVF-47

12V47Ah @3hr
12V55Ah @20hr

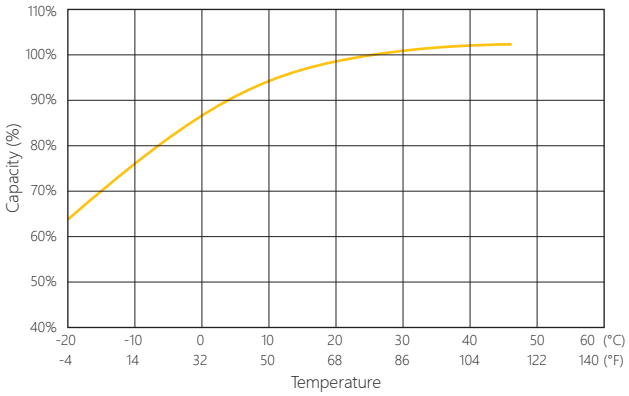
Discharging Characteristics (25°C/77°F)



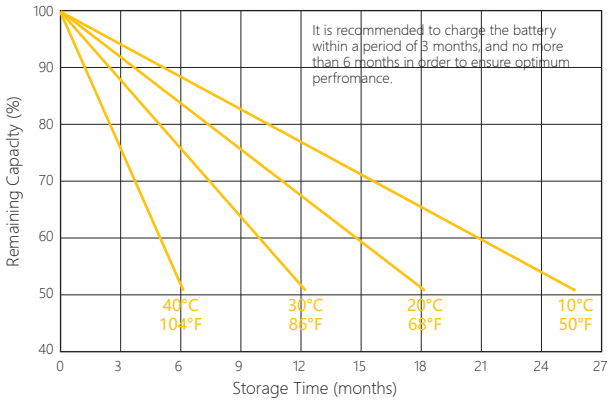
Charging Characteristics (25°C/77°F)



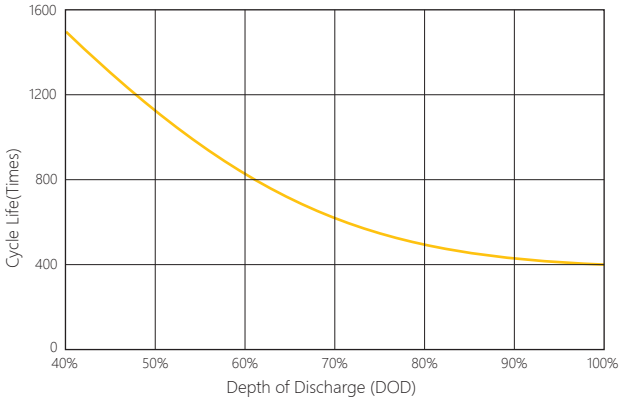
Capacity vs Temperature



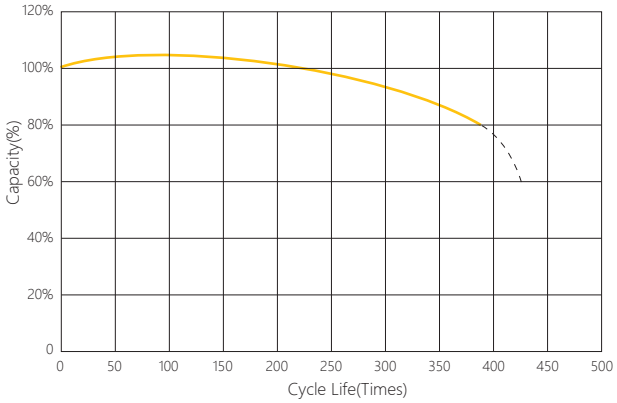
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25°C/77°F)



Cycle Life vs Remaining Capacity (25°C/77°F)



For more information, please contact us at info@cwpintl.com.

6-EVF-38

Premium series

VRLA gel battery for electric bicycle

Specifications		
Rataed volt (V)		12 V
Rated capacity (3hr)		38Ah
Dimensions	Length	267mm
	Width	77 mm
	Height	171mm
	Total height	171 mm
Ref.weight (kg)		10.5±0.2 Kgs
Performance parameter		
Rated capacity (25℃)	3hr capacity(12.6A discharge): 3 8 Ah	
Battery capacity at different temp. (3hr)	40℃	102%
	25℃	100%
	0℃	90%
	-20℃	70%
Storage capacity (25℃)	3 months	90%
	6 months	80%
	9 months	60%
Limited voltage charge(25℃)	Cycle use	max.charge current 5 .9-6.1A
		14.65V-14.75V/pc
	Float charge	13.7V-13.8V/pc

CERTIFIED QUALITY

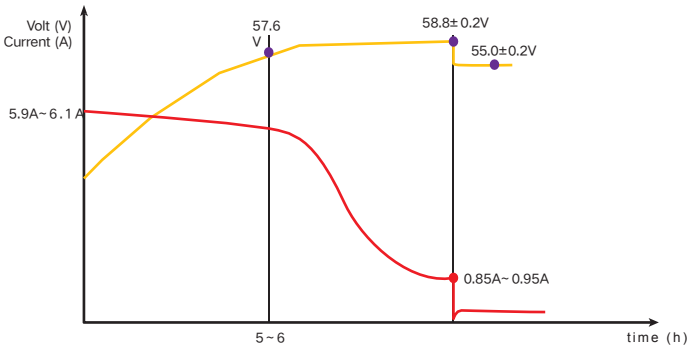
All products are tested and certified to multiple standard.
Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

Product usage configuration requirements:

1.Controller parameters
under voltage protection: 10.50V/pc
over current protection: 3 8 A

2.Motor parameter
Running current: ≤15A
Motor power ≤700W

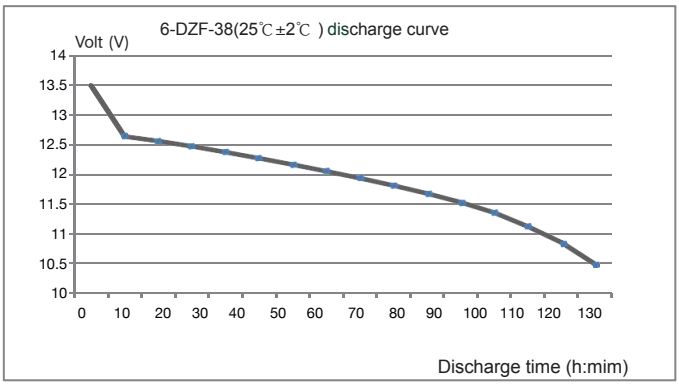
6-DZF-38(5pcs/group 25℃±2℃) charge curve



1st phase: max. current 5 .9A~6.1A voltage continuously increases to 57.6V

2nd phase: voltage continuously increases from 57.6V to 58.8±0.2V , Current continuously decreased to 0.85~0.95A, then converted to float charge (trickle charge).

3rd phase: float charge constant voltage 55±0.2V Temp. compensation coefficient: 2.5-4.0mV(singe cell ℃)

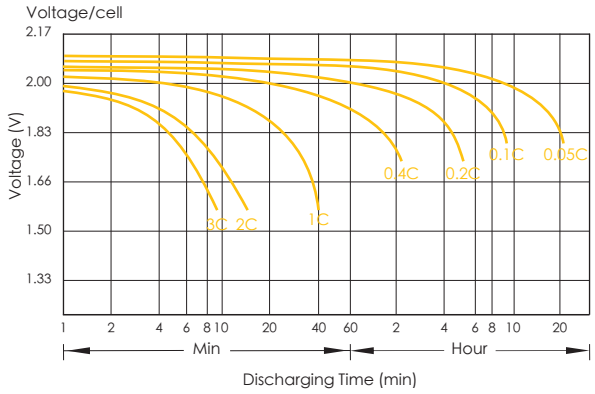


ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001
IATA / SP 238 / CE

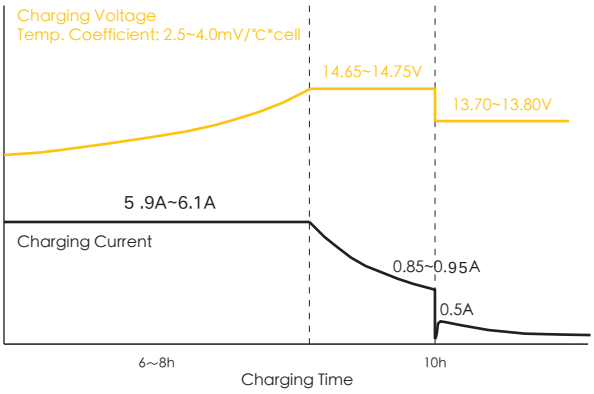
6-EVF-38

12V38Ah @3hr
12V44Ah @10hr

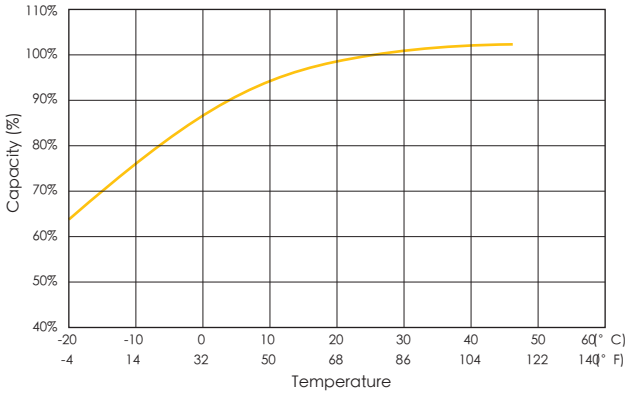
Discharging Characteristics (25° C/77° F)



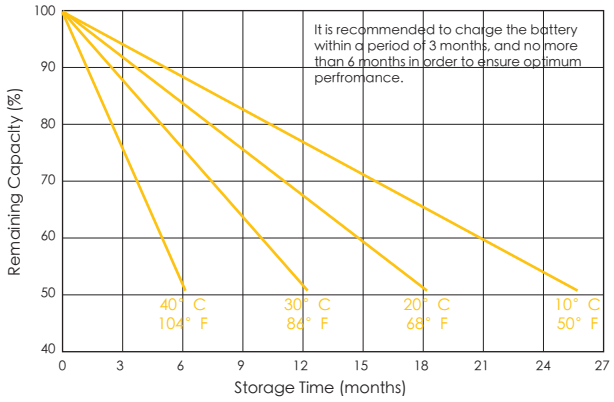
Charging Characteristics (25° C/77° F)



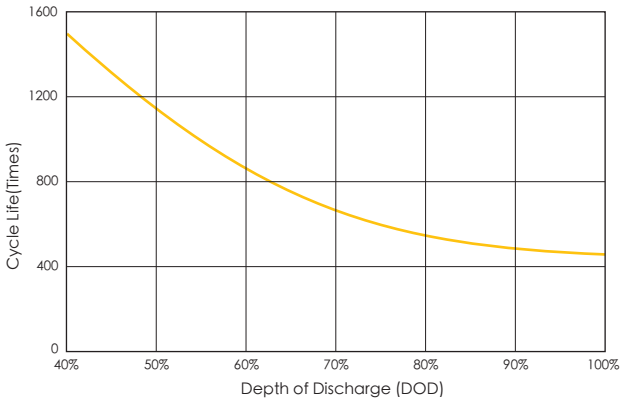
Capacity vs Temperature



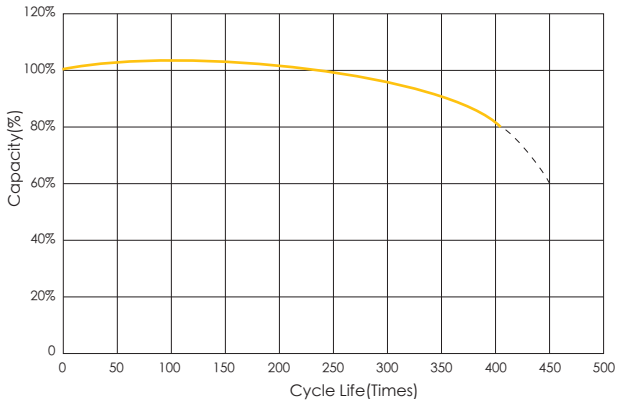
Self-discharge vs Time



Cycle Life vs Depth of Discharge (25° C/77° F)



Cycle Life vs Remaining Capacity (25° C/77° F)



For more information, please contact us at info@cwpintl.com.

6-EVF-72 12V 72Ah(3hr) VRLA GEL BATTERY

Chilwee EVF Series VRLA Gel Battery is specially designed for electric vehicles, i.e. electric automobiles, electric road vehicles, golf cart, low speed electric cart,etc. and other devices require DC power source. The EVF 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.

For more details please contact info@cwpintl.com;

FEATURES

Extra Long Life: Chilwee EVF Series are designed with high quality grid alloy enables the grid with features of anti-corrosion, low gas emission and excellent deep cycle performance, as well as hign density and special deep cycle lead paste prescription is adopted to ensure extra long cycle life. The cycle life may reach 600+ cycles @ 80% DOD.

High Reliability and Safety: High strength ABS battery container and lid, perfect safety valve design, and high strength & excellent large current electroconductivity copper terminal design are adopted to ensure the Chilwee EVF Series with high reliability and safety at extreme condition.

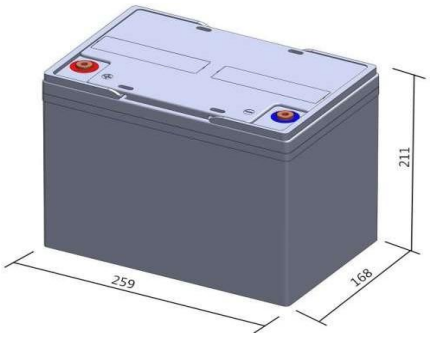
High Environmental Adaptability: Chilwee EVF Series adopts special fumed silica Gel in electrolyte and special Gel type separator to prevent electrolyte sratification. This can significantly improve the battery's service life and environmental adptability.

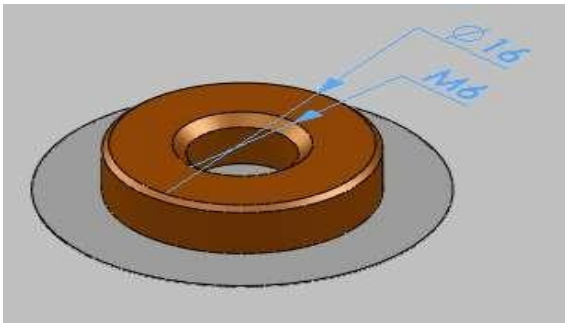
Non-Cadmium Design, Environment-friendly: Chilwee Battery has adopted internationally leading technology - container formation non-cadmium production technology, which is in the leading position in the industry. It helps to save energy 28.5%, save water 90%, and non-discharge of waste water.

SPECIFICATION

Nominal Voltage (V)		12V
Open Circuit Voltage (V/Block)		12.8V - 13.4V
Number of Cells (Per Block)		6 Cells
Rated Capacity (Ah, 25℃)	2h rate (to 1.75V/Cell)	63Ah
	3h rate (to 1.75V/Cell)	72Ah
	5h rate (to 1.70V/Cell)	78Ah
	10h rate (to 1.80V/Cell)	82Ah
Nominal Weight (Kgs)		Approx. 23.5 ±0.3 Kgs
Dimension (L X W X H, Total Height. mm)		259mmX168mm X 211mm X211mm
Container Material		Enhanced ABS
Charge Voltage	Float (V/Block)	13.80V
	Cycle (V/Block)	14.65V - 14.75V
Maximum Discharge Current (A)		350A (5s)
Maximum Charge Current (A)		12A

Dimension & Terminals





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