

WESTERN

Electrical Corporation



(SECTION 5)



GENERAL CATALOGUE

MOTIVE POWER BATTERIES

DZM Series



INTRODUCTION

Western Electrical DZM battery series is specially designed for motive power applications, i.e. electric bikes/scooters, electric tricycles, electric motorcycles and other device require deep cycle power source. By adopting the most advanced battery technologies, these batteries are feature with great ability of long cycle life, large current discharge capability, reliability and eco-friendly.

This light weight battery series is functional and safe. It is valve regulated which makes it impossible to spill, and with its tightly sealed construction, it can be operated from any angle. With its hard plastic case, it can take severe amounts of high impact and not do any damage. It even has a low pressure safety release valve. This battery will last a long time both physically and chemically.

APPLICATION

- Electric Bikes/Electric Scooters.
- Electric Motorcycles.
- Electric Tricycles.
- Electric Tools, i.e. electric sweeper, electric cooler/heater, etc.
- Other electric devices require DC power supply.

STANDARDS

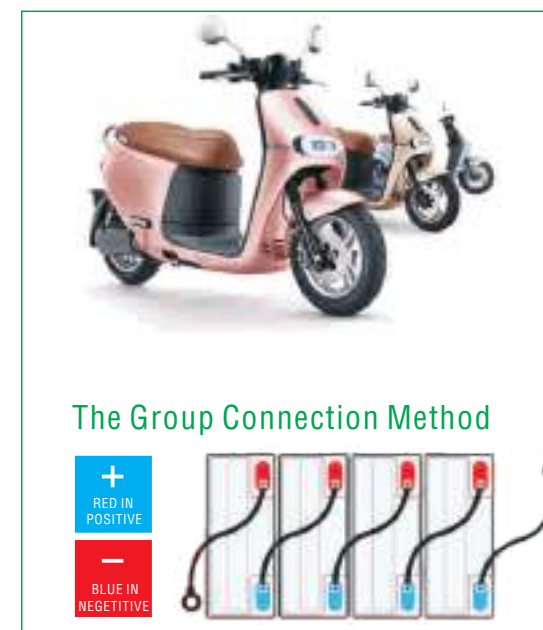
- ISO9001, ISO14001
- GB/T-28001
- CE, ROHS
- GB/T221999-2008,
- GB/T18332.1-2009.

FEATURES & BENEFITS

- | | |
|---|--|
| Fast charging
Super fast charging capabilities | Cold temperature performance
Impressive cold cranking performance |
| Multi-positioning mounting
Up to 180°C | Ready to use
No need for preparation, just plug and play |
| Very safe and environmental friendly
None-spillable, no leakage risk, no toxic | Robust brass terminals
For enhanced electrical and mechanical performance |
| Extensive cycle life
Over 1000 cycles under normal usage condition | Heat resistance
Heat temperature resistance up to 70°C |
| Very low self-discharge
Can start engine after a long period of storage | Lighter weight
Perfect application for racing, off-road and heavy bikes |

SPECIFICATION

No.	Model No.	Voltage	Capacity	Dimension(mm)				Battery Weight
		V	Ah/20hr	Length	Width	Height	Total Height	Kg±3%
1	6-DZM-12	12	12	151	100	99	99	4.1
2	6-DZM-20	12	20	180	76	170	170	6.4
3	6-DZM-12I	12	13.1	151	100	99	99	4.3
4	6-DZM-20I	12	22.1	180	76	170	170	6.8
5	6-DZM-12II	12	13.3	151	100	99	99	4.5
6	6-DZM-20II	12	22.3	180	76	170	170	6.9
7	6-DZM-22	12	22	180	76	170	170	7.1
8	6-DZM-24	12	24	185	105	130	130	7.3
9	6-DZM-28	12	28	175	166	125	125	9.5
10	6-DZM-32	12	32	175	166	125	125	10.3
11	8-DZM-14	16	14	201	112	100	100	6.5
12	8-DZM-20	16	20	250	100	130	130	9.5



REGULAR BATTERY CHARGER SETTING

Battery Model	Quantity Each Group	Charger Setting			
		Max Voltage (V)	Floating Voltage (V)	Max Current (A)	Switch Current (A)
6-DZM-12	3	43.8-44.2	41.0-41.4	1.8-2.2	0.38-0.43
6-DZM-12	4	58.6-59.0	54.8-55.2	1.8-2.2	0.38-0.43
6-DZM-20	4	58.6-59.0	54.8-55.2	2.3-2.7	0.55-0.60
6-DZM-20	5	73.3-73.7	68.6-69.0	2.3-2.7	0.55-0.60
6-DZM-20	6	88.0-88.4	82.3-82.7	2.3-2.7	0.55-0.60
6-DZM-32	4	58.6-59.0	54.8-55.2	4.0-4.4	0.80-0.90
6-DZM-32	5	73.3-73.7	68.6-69.0	4.0-4.4	0.80-0.90
6-DZM-32	6	88.0-88.4	82.3-82.7	4.0-4.4	0.80-0.90



EVF Series



INTRODUCTION

Western Electrical EVF battery range is a high performance deep cycle gel battery range that similar to the DZM range but with special design to suit various types of Electric Vehicles that requiring larger capacity than the DZM battery range.

The EVF battery rang is a closed, valve regulated lead battery with gel electrolyte. The imbedding of the electrolyte in a gel prevents leaks and the problem of acid stratification. And by using recombination technology, the life of the battery remains unaffected by water losses. The sealed battery system prevents electrolyte leakage and minimum self-discharge means that the EVF battery range can be stored for longer periods than standard lead-acid batteries.

APPLICATION

- Electric vehicles, i.e. electric car, tricycles, etc.
- Low speed road vehicles, i.e. golf cart, electric resort car, etc.
- Electric engineering machines, i.e. forklift, lifting platform, sweeper, scraper, etc.
- Renewable energy storage system.
- Other devices require DC power supply

STANDARDS

- ISO9001, ISO14001
- GB/T-28001
- CE, ROHS
- GB18332.1-2009, QC/T 742-2006

FEATURES & BENEFITS

• Extra Long Life:

Western Electrical EVF battery range is 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 high density and special deep cycle lead paste prescription is adopted to ensure extra long cycle life. The cycle life may reach over 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 electro conductivity copper terminal design are adopted to ensure this battery range with high reliability and safety at extreme condition.

• High Environmental Adaptability:

Western Electrical EVF battery range adopts special fumed silica Gel in electrolyte and special Gel type separator to prevent electrolyte stratification, which significantly improved the battery's service life and environmental adaptability.

• Non-Cadmium Design, Environment-friendly:

By adopting the container formation without 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

No.	Model No.	Voltage	Capacity	Dimension(mm)				Battery Weight
		V	Ah/3hr	Length	Width	Height	Total Height	Kg±3%
1	3-EVF-170	6	170	260	180	245	250	30.0
2	3-EVF-180	6	180	260	180	270	275	32.5
3	3-EVF-200	6	200	260	180	270	275	35.0
4	3-EVF-200S	6	200	330	180	222	222	34.0
5	4-EVF-150	8	150	260	180	280	285	36.0
6	6-EVF-32A	12	32	267	77	170	170	9.6
7	6-EVF-32B	12	32	222	93	175	175	9.8
8	6-EVF-38	12	38	223	108	175	175	11.5
9	6-EVF-40	12	40	223	120	175	175	12.3
10	6-EVF-45	12	45	223	120	175	175	13.2
11	6-EVF-50	12	50	223	135	177	177	14.5
12	6-EVF-55	12	55	230	150	178	178	15.6
13	6-EVF-60	12	60	262	165	170	170	19.5
14	6-EVF-70	12	70	260	168	215	220	24.0
15	6-EVF-80	12	80	260	168	215	220	26.5
16	6-EVF-100	12	100	330	170	215	215	32.5
17	6-EVF-120	12	120	407	170	240	240	41.0
18	6-EVF-150	12	150	482	170	240	240	50.0
19	6-EVF-200	12	200	522	240	220	228	68.0

Main Product Character Chart

No.	Item	Character
1	Regular temperature capacity	≥ 100%
2	Low temperature capacity at -0°C	≥ 90%
3	Low temperature capacity at -20°C	≥ 70%
4	High temperature capacity at 45°C	≥ 110%
5	30d charging holding capacity	≥ 90%
6	Discharge capacity under 1h quick charging	≥ 96%
7	80% DOD cycle life	≥ 600 times
8	100% DOD cycle life	≥ 400 times
9	Others	Meet or exceed GB/T18332.1-2009 China national standard.



First choice for efficient fuel-saving driving, the green power for the world!

EVG Series



Specially designed for electric rickshaws, the EVG battery series is the answer to the e-rickshaw owner that requires a steady and continuous power source. Combine with the special tubular technology with years of experience in the battery manufacturing, this superior battery series was engineered to guarantee enormous power, durability and safety to meet the severe operating conditions.

As a semi-traction battery, this EVG battery series is not only just play a role for starting but also acts as a fuel for the same, which require its capacity and unique features to ensure its reliability in application, prevent plate shedding during strenuous vibration, extend in service life and make sure the continuously power output, which all further lead to better savings for the e-rickshaw owner.

FEATURES

- Low antimony design for lead alloys grid and plate reduce the corrosion and the rate of maintenance frequency.
- Correctly balanced active materials ensure long life & continuously power output performance.
- High pressure die casted spine grids for tubular positive plates to reduce early corrosion failures rate.
- Superior woven tubular gauntlets for tubular plates to prevent the rupture of plate active material, ensure the excellent deep cycling and quick power recovery ability.
- Specially fire safe vent plugs with ceramic inserts to trap water loss end ensure handling safety.
- High conductive anti corrosion terminals with corrosion resistant bolts.

BENIFITS



Cranking Efficiency

A perfect blend of the grid structure and plate chemistry ensures higher cranking power.



Higher Safety Standard

Specially engineered with flame arresters at venting locations to ensure high-level safety.



Low Maintenance

Special designed to reduce water loss and the rate of maintenance frequency.



Designed For Long Life

Robust grid and special tubular plates offer long life and excellent deep cycle ability.

No.	Model No.	Voltage	Capacity		Dimension				Weight(Kg±5%)	
		(V)	5HR	20HR	Length	Width	Height	Total Height	W/O Acid	With Acid
1	6-EVG-100	12	80	100	365	172	265	265	20.5	30.5
2	6-EVG-110	12	85	110	365	172	265	265	21.5	31.5
3	6-EVG-120	12	95	120	365	172	272	272	23	33.5
4	6-EVG-140	12	110	140	365	172	285	285	26.5	36
5	6-EVG-150	12	120	150	365	172	285	285	28	38
6	6-EVG-160	12	130	160	365	172	300	300	29.5	39.5

QWT Series



Vehicles for hire, like three wheeler auto-rickshaws that require frequent start stop functionality and the ability to travel through rough roads and the complex traffic situation, which need their batteries that offer reliable starting power, long lasting performance and the capability for the daily runs and quick start in city traffic.

Specially designed and improved for three wheeler auto-rickshaws application, Western Electrical EVT series three wheeler battery come with more cranking amps and higher amp-hour capacity to deliver reliable starting power, optimized structure for protection from corrosion & vibrations, and the unique grid design to lower internal resistance and enhance the fast re-charging ability.



BENIFITS



Faster Cranking

Designed perfectly to start your engine every time, anywhere.



Low Maintenance

Special designed to reduce water loss and the rate of maintenance frequency.



All Weather Performance

Designed to meet extreme hot and cold weather operation.

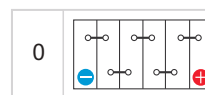


Designed For Long Life

Robust grid and special tubular plates offer long life and excellent deep cycle ability.

No.	Model No.	Voltage	Capacity	Dimension(mm)				Terminal		Battery Weight (Kg±5%)	
		V	Ah(20hr)	L	W	H	TH	Layout	Type	Dry	With Acid
Dry Charged Type											
1	6-QWT-28	12	28	185	125	160	173	1	LT	5.5	8
2	6-QWT-32	12	32	195	128	198	220	1	A	6.3	9.5
3	6-QWT-60	12	60	259	174	202	225	0	A	10.4	16.5
Maintenance Free											
4	6-QWT-28MF	12	28	185	125	160	173	1	LT	5.5	8.2
5	6-QWT-32MF	12	30	195	128	198	220	1	A	6.3	9.6
6	6-QWT-60MF	12	120	259	174	202	225	0	A	10.5	16.7

Terminal Layout



Terminal Type



A LT



EV Series



INTRODUCTION

If there is one thing we should know about the golf cart, that it's battery must be able to deliver consistent power day in and day out.

Engineered specifically to handle the rigors of continuous discharge and recharge, and with the clear purpose to deliver superior power supply, durability and reliability, the EV battery series is manufactured by utilize the highest quality components, higher-density active material plates and optimized internal current flow design to enable them to withstand the stresses of deep cycling and meet the challenges of the toughest, hilliest courses in the battery world, no matter it's for golf cart, utility vehicle and low-speed passenger vehicle, as well as hunting buggies.

TECHNICAL

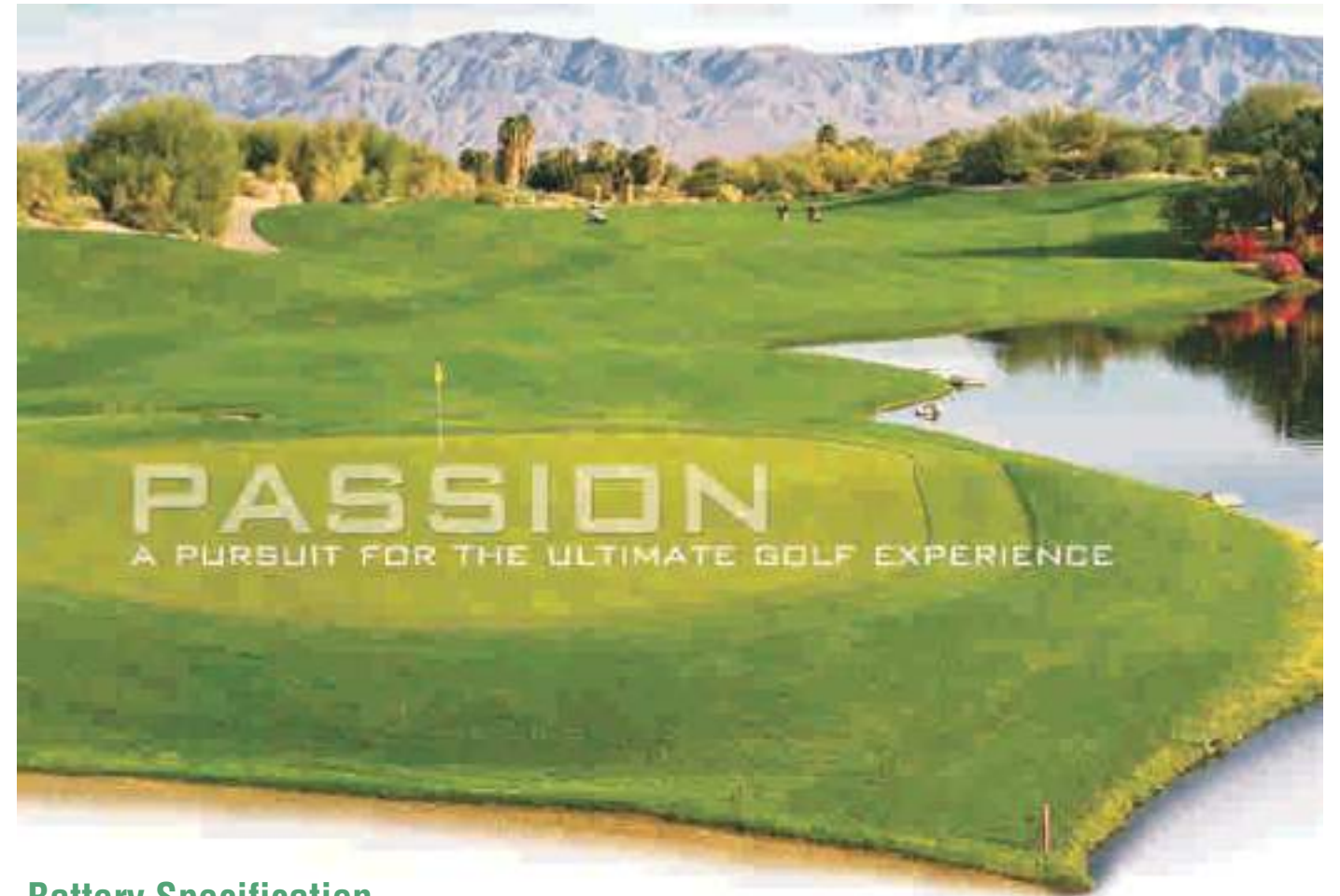
- The battery consists of high-performance paste plate, compound low resistance separators, high-impact resistant polypropylene plastic tank.
- Positive plates of lead-based alloy with multiple, high-density lead paste processing, manufacturing, corrosion resistance, high-rate discharge capacity, good durability.
- Negative plates with a special formulation and double paste process, excellent low temperature discharge, charge acceptance ability, anti-sulfate and anti-off-performance.
- Tight assembly, through partition connectors, discharge stable, safe and reliable.
- Adaptability to temperature range from -40°C to 60°C under normal use.

TECHNICAL

- Very thick positive and negative plates
- Special plate design for improved active mass adhesion and improved conduction
- Innovative separators
- Electrolyte: diluted sulphuric acid
- Casing material: polypropylene
- Special, patented active mass composition

APPLICATION

- Small stackers,
- Lifting platforms,
- E-vehicles, Cleaning machines,
- Golf carts, Etc.



Battery Specification

Model No.	Voltage (V)	Amp-Hour Rate(Ah)		Capacity(min)		Dimensions			Weight(kg)	
		5hr	3hr	@25Amp	@75Amp	L	W	H	Dry	Wet
3-EV-180	6	180	150	460	115	260	180	290	23.5	30.5
4-EV-180	8	180	150	450	115	260	183	305	30	38.8
3-EV-210	6	210	175	530	145	260	182	308	26	33.8
4-EV-145	8	145	108	295	117	260	183	290	23.5	30

Note:

- The number of minutes a battery can deliver when discharged at a constant rate at 80°F (27°C) and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
- The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 30°C (86°F) for the 5-Hour rate and maintain a voltage above 1.75V/cell. Capacities are based on peak performance.
- Dimensions are based on maximum size. Dimensions may vary depending on type of handle or terminal.
- Dimensions taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.

Available Terminal



Golf carts



Haulers



Small stackers



Sweeping machines



Lifting platforms



Electric Forklifts

» MOTIVE BATTERY TYPICAL APPLICATION FIELD

Electric Scooter /Bike/Motorcycle : DZM Battery Series



Electric Cars/Vehicles : EVF Battery Series



Electric Mobility Wheelchairs: DZM Battery Series



Golf Carts/ Electric Haulers/Hunting Buggy: EV and EVF Battery Series



THE RIGHT POWER JUST WHEN YOU NEED IT.

Sweeping Machines: EVF Battery Series



Electric Stacker/Lift Platforms/Forklifts/Wheel loader: EV and EVF Battery Series



Electric Rickshaw/Auto Rickshaw/Three Wheeler Vehicle: EVF/EVG/QWT Battery Series



Electric Tour Train/ Tour Boat, Motor Home: EVF Battery Series



Power. Driven.



Taking more people to their game...
and job...than any other battery.

MOTIVE
BATTERIES