

DZM-50

Electric vehicle battery expert

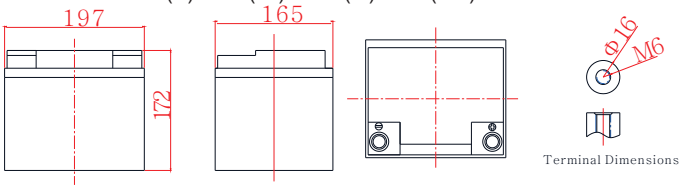


General Features

- > Nanosilica colloidal electrolyte and high tin positive plate alloy design to enhance battery performance
- > Relatively rich electrolyte, high temperature and low temperature performance is superior
- > Long cycle life, excellent deep cycle discharge ability
- > Excellent charge acceptance ability
- > Precision sealing technology
- > Long life



Dimension: 197(L)×165(W)×172(H)×172(TH) Unit: mm



Applications

- > Electric vehicle
- > Electric wheelchair
- > Electric scooter
- > Electric play car for children
- > Garbage truck
- > Patrol car

Specification

Nominal Voltage	12V
Nominal Capacity	50Ah C20 1,6V 2,48A
Design life	12 years
Terminal	M6
Approx. Weight	Approx 15.0kg (33.1lbs)
Container Material	ABS
Rated Capacity	45.0Ah → 10Hour Rate (4.50A to 10.8V)
	35.4Ah → 3Hour Rate (11.8A to 10.8V)
	28.9Ah → 1Hour Rate (28.9A to 10.5V)
Internal resistance	Full charged at 25°C: 12.0 mΩ
Max. Discharge Current	540A(5S)
Operating Temperature	Discharge: -40 ~60°C(-40~ 140°F)
	Charge: -20 ~50°C(-4~ 122°F)
	Storage: -20 ~50°C(-4~ 122°F)
Charge current:	Max. 11.3A ; Recom.4.5A
Charge Method (25 °C)	Float Charge:13.5-13.8V,recom.13.8V(-18mV/ °C)
	Equalize charge:13.8-14.1V,recom.14.1V(-24mV/ °C)
	Cycle charge:14.4-15.0V,recom.14.7V(-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

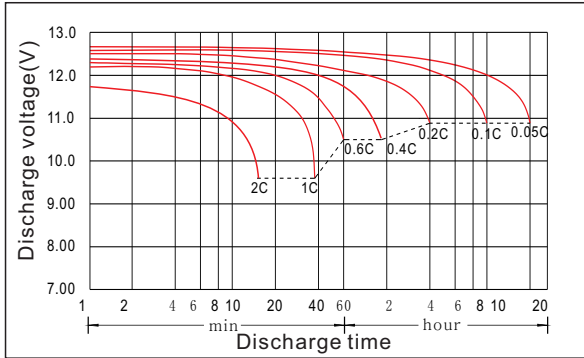
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	82.6	50.3	29.7	17.0	12.4	8.30	5.45	4.66	2.48
1.65V	80.1	49.4	29.5	16.9	12.2	8.21	5.40	4.61	2.44
1.70V	78.4	48.6	29.3	16.8	12.1	8.12	5.36	4.57	2.43
1.75V	75.8	48.1	28.9	16.6	11.9	8.04	5.32	4.52	2.42
1.80V	70.7	46.0	28.1	16.2	11.8	7.82	5.27	4.50	2.40
1.85V	63.1	42.0	26.1	15.4	11.2	7.43	5.05	4.34	2.36

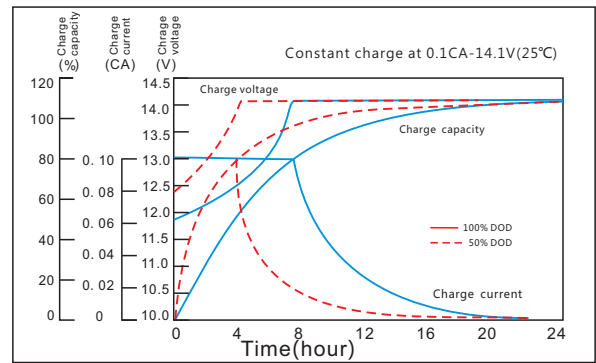
Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	146	91	56.1	32.2	23.5	15.7	10.6	8.96	4.85
1.65V	143	90	55.7	32.1	23.2	15.6	10.5	8.87	4.83
1.70V	141	90	55.3	32.0	23.1	15.5	10.5	8.78	4.81
1.75V	140	90	54.8	31.8	22.9	15.4	10.4	8.69	4.78
1.80V	133	88	54.4	31.7	22.9	15.3	10.3	8.60	4.76
1.85V	119	80	50.5	30.3	21.7	14.6	9.90	8.46	4.72

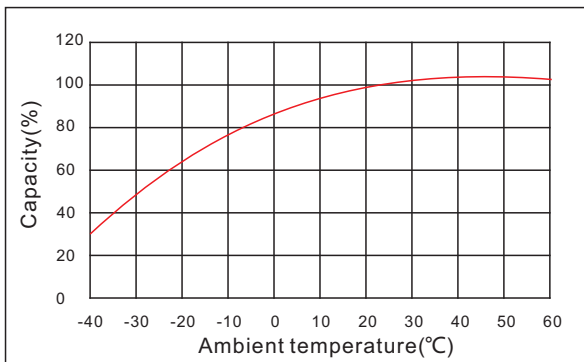
Discharge characteristic



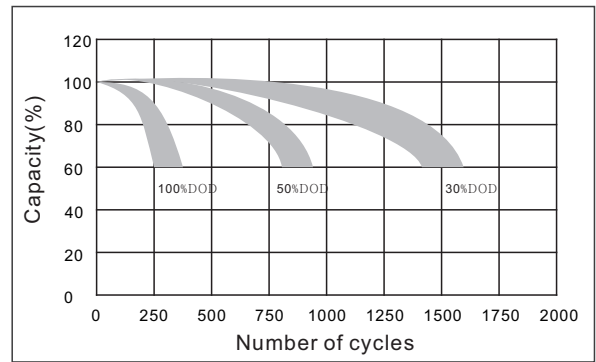
Charging characteristic



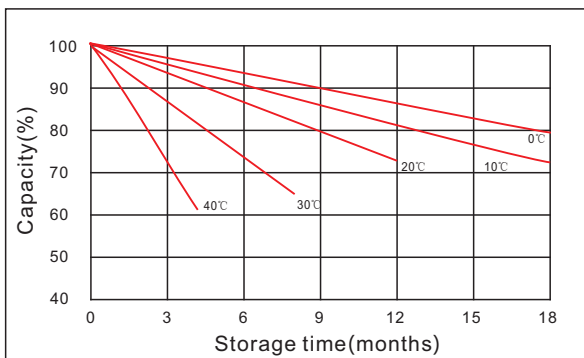
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

