

# TECHNICAL DATA SHEET

## DLC8-160EV



### Applications



CYCLIC



STATIONARY



SOLAR



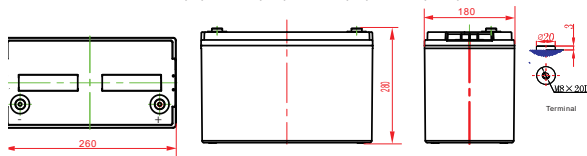
MARINE

### General Features

- › Lead-carbon composite negative plate, both capacitance and battery characteristics
- › Long cycle life, excellent deep cycle discharge ability
- › Excellent charge acceptance ability
- › Optimized capability of instant high-current discharging
- › Strong high and low temperature performance Precision
- › sealing technology



Dimension: 260(L)×180(W)×280(H)×280(TH) Unit: mm



### Specification

|                    |                         |
|--------------------|-------------------------|
| Nominal Voltage    | 8V                      |
| Nominal Capacity   | 185.6Ah                 |
| Design life        | 10 years                |
| Terminal           | M8                      |
| Approx. Weight     | Approx 33.5kg (73.9lbs) |
| Container Material | ABS                     |

**185.6Ah** 20Hour Rate (9.28A to 7V)

Rated Capacity **174Ah** 10 Hour Rate (17.4A to 7V)

**165Ah** 5Hour Rate (33A to 7V)

|                       |            |                       |
|-----------------------|------------|-----------------------|
| Operating Temperature | Discharge: | -20 ~50°C (-4 ~122°F) |
|                       | Charge:    | -20 ~50°C (-4 ~122°F) |
|                       | Storage:   | -20 ~50°C (-4 ~122°F) |

|                          |                 |                                     |
|--------------------------|-----------------|-------------------------------------|
| Charge Method<br>(25 °C) | Charge current: | Max. 30.0 A                         |
|                          | Float Charge:   | 9.0-9.2V, recom. 9.2V (-3mVpc/ °C)  |
|                          | Cycle charge:   | 9.52-9.6V, recom. 9.6V (-5mVpc/ °C) |

|                |                                           |
|----------------|-------------------------------------------|
| Self discharge | 3% of capacity declined per month at 25°C |
|----------------|-------------------------------------------|

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

| F.V/Time | 5Min | 15Min | 30Min | 1h  | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-----|------|------|------|------|------|------|
| 1.60V    | 638  | 343   | 209   | 125 | 69.9 | 51.8 | 34.1 | 21.8 | 17.9 | 9.42 |
| 1.65V    | 619  | 332   | 205   | 124 | 69.6 | 51.3 | 33.7 | 21.7 | 17.8 | 9.37 |
| 1.70V    | 594  | 325   | 201   | 123 | 69.0 | 50.6 | 33.4 | 21.5 | 17.6 | 9.32 |
| 1.75V    | 546  | 315   | 200   | 122 | 68.0 | 50.0 | 33.0 | 21.3 | 17.4 | 9.28 |
| 1.80V    | 490  | 293   | 191   | 119 | 66.7 | 49.7 | 32.1 | 21.1 | 17.3 | 9.23 |
| 1.85V    | 437  | 262   | 174   | 110 | 63.4 | 46.8 | 30.5 | 20.3 | 16.7 | 9.07 |

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

| F.V/Time | 5Min | 15Min | 30Min | 1h  | 2h  | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-----|-----|------|------|------|------|------|
| 1.60V    | 1070 | 604   | 377   | 237 | 132 | 98.6 | 64.6 | 42.4 | 34.5 | 18.6 |
| 1.65V    | 1029 | 593   | 374   | 235 | 132 | 97.3 | 64.3 | 42.1 | 34.2 | 18.5 |
| 1.70V    | 1024 | 586   | 374   | 233 | 131 | 96.8 | 63.7 | 41.9 | 33.8 | 18.5 |
| 1.75V    | 955  | 583   | 372   | 231 | 131 | 96.2 | 63.4 | 41.6 | 33.5 | 18.4 |
| 1.80V    | 877  | 551   | 363   | 229 | 130 | 95.9 | 62.7 | 41.2 | 33.1 | 18.3 |
| 1.85V    | 783  | 492   | 333   | 213 | 124 | 91.2 | 59.8 | 39.8 | 32.6 | 18.1 |

Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

### Charger recommendations

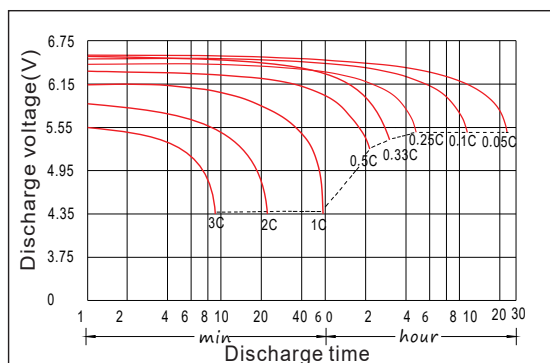
| Type of charger  | Zivan           | AQHF WP    | AQHF24-30FC G2 |
|------------------|-----------------|------------|----------------|
| Matching profile | AGM<br>=BA1+CU2 | AGM<br>SLA | AGM            |

**Max. charging voltage 2.4Vpc**

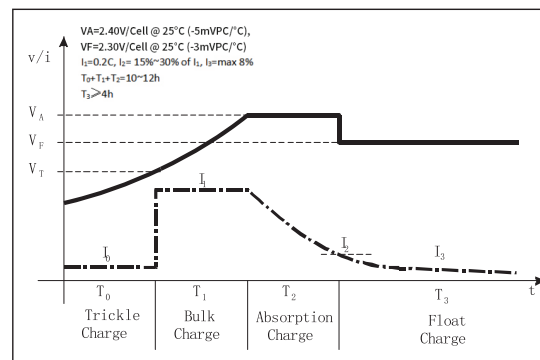
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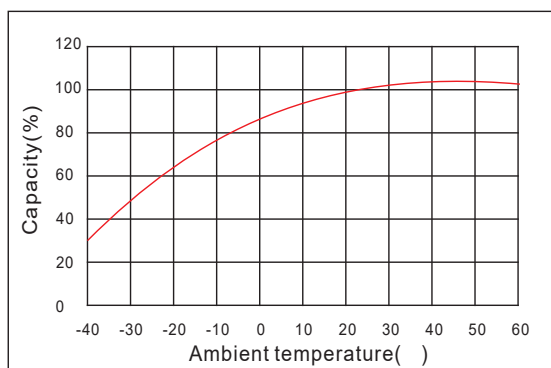
### Discharge characteristic



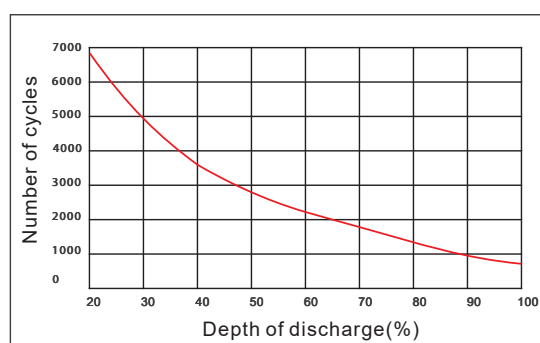
### Charging characteristic



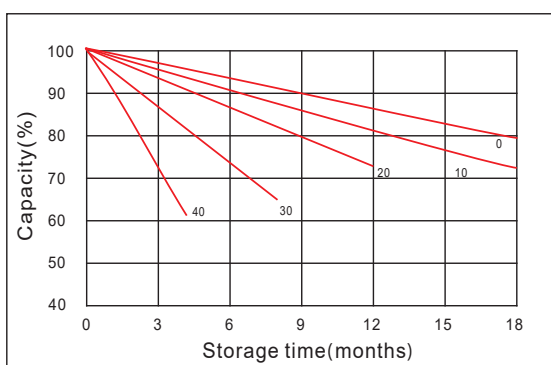
### The effect of temperature on capacity



### The effect of discharge depth on cycle life



### Curves of self-discharge



### Curves of open circuit voltage vs. capacity

