



ENERGY ALTERNATIVES
Powered By Nature

EA-POWER-TDG12-45 Lead-acid Solution

By combining the newly developed Nanometer Gel electrolyte, high tin content cathode plate, and AGM separator, TDG series battery enjoys excellent discharging performance, long cycle life, and stable performance at high and low-temperature surroundings. TDG series is suited for all kinds of ranges for energy storage, especially for renewable solar energy systems, etc.



AGM GEL DEEP CYCLE BATTERY

Application

| NO. | DETAIL |
|-----|---|
| 1 | UPS /EPS |
| 2 | Power systems |
| 3 | Telecommunications system |
| 4 | Emergency lighting, Auto control system |
| 5 | Solar / Wind generating storage cyclic |
| 6 | Other general purpose |

General Features

| NO. | DETAIL |
|-----|--|
| 1 | Nanosilica colloidal electrolyte and high tin positive plate alloy design to enhance battery performance |
| 2 | Relatively rich electrolyte, high temperature and low temperature performance is superior |
| 3 | Long cycle life, excellent deep cycle discharge ability |
| 4 | Excellent charge acceptance ability |
| 5 | Precision sealing technology |

Specification

| ITEM | | DETAIL |
|---------------------------|---------|--|
| Nominal Voltage | V | 12 V |
| Nominal Capacity | AH | 45 AH |
| Design Life | Years | 12 Years |
| Terminal | | M6 |
| Approx. Weight | Kg | Approx. 15.0 kg (33.1 lbs) |
| Container Material | | ABS |
| Rated Capacity | AH | 45.0 AH (10 Hour Rate : 4.50 A to 10.8 V) |
| | | 35.4 AH (3 Hour Rate : 11.8 A to 10.8 V) |
| | | 28.9 AH (1 Hour Rate : 28.9 A to 10.5 V) |
| Internal Resistance | | Full charged at 25 °C: 12.5 mΩ |
| Maximum Discharge Current | A | 540 A (5S) |
| Operating Temperature | °C / °F | Discharge: -40 ~ 60 °C (-40 ~ 140 °F) |
| | | Charge: -20 ~ 50 °C (-4 ~ 122 °F) |
| | | Storage: -20 ~ 50 °C (-4 ~ 122 °F) |
| Charge Method (25 °C) | | Charge Current: Maximum 11.3 A / Recommended 4.5 A) |
| | | Float Charge: 13.5 ~ 13.8 V / Recommended 13.8 V (-18mV / °C) |
| | | Equalize Charge: 13.8 ~ 14.1 V / Recommended 14.1 V (-24mV / °C) |
| | | Cycle Charge: 14.4 ~ 15.0 V / Recommended 14.7 V (-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 | 5M | 30M | 1H | 2H | 3H | 5H | 8H | 10H | 20H |
|-----------|------|------|------|------|------|------|------|------|------|
| 1.60 V | 82.6 | 50.3 | 29.7 | 17.0 | 12.4 | 8.30 | 5.45 | 4.66 | 2.45 |
| 1.65 V | 80.1 | 49.4 | 29.5 | 16.9 | 12.2 | 8.21 | 5.40 | 4.61 | 2.44 |
| 1.70 V | 78.4 | 48.6 | 29.3 | 16.8 | 12.1 | 8.12 | 5.36 | 4.57 | 2.43 |
| 1.75 V | 75.8 | 48.1 | 28.9 | 16.6 | 11.9 | 8.04 | 5.32 | 4.52 | 2.42 |
| 1.80 V | 70.7 | 46.0 | 28.1 | 16.2 | 11.8 | 7.82 | 5.27 | 4.50 | 2.40 |
| 1.85 V | 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)

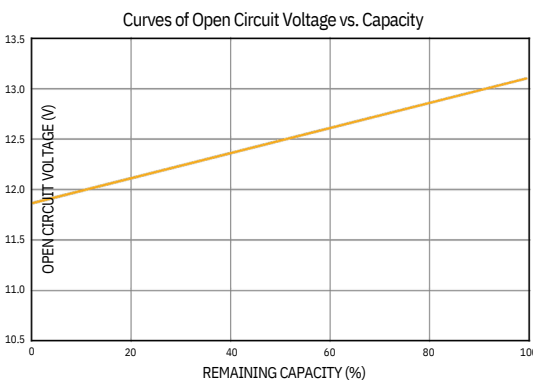
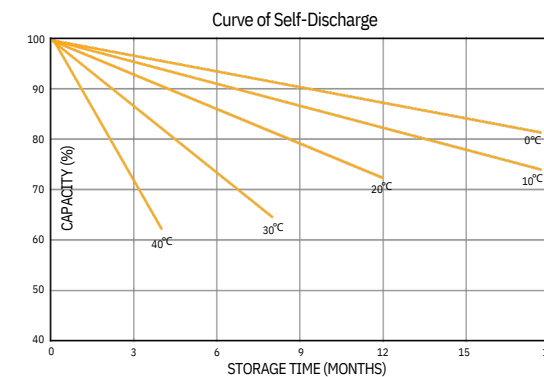
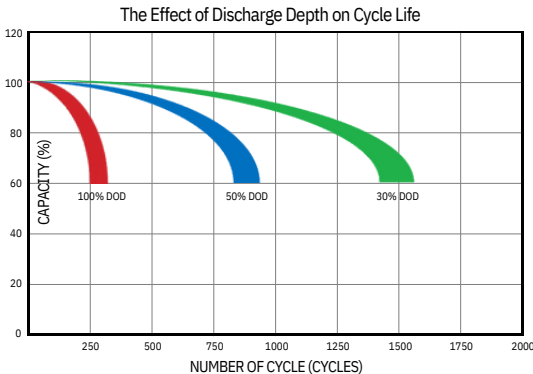
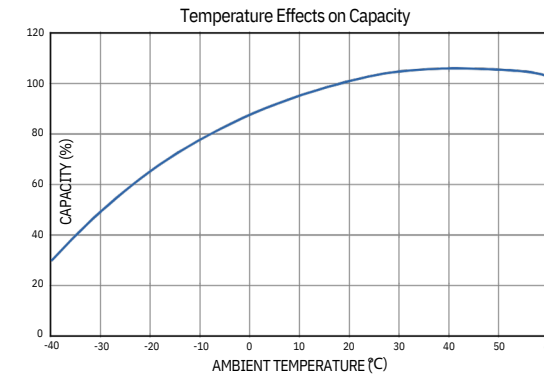
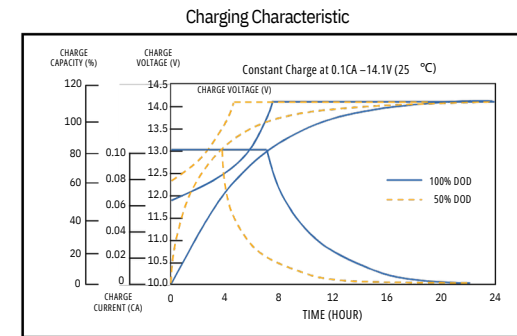
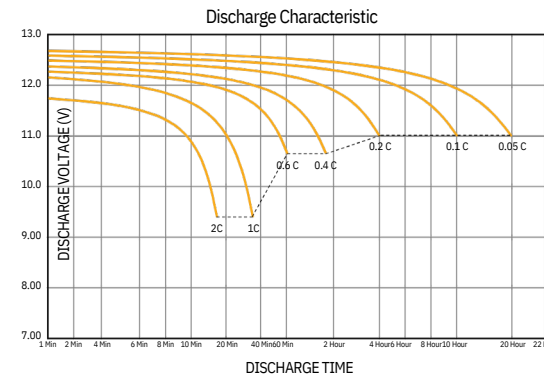
| FV / TIME | 5M | 10M | 15M | 30M | 5H | 6HH | 8H | 10H | 20H |
|-----------|-----|-----|------|------|------|------|------|------|------|
| 1.60 V | 146 | 91 | 56.1 | 32.2 | 23.5 | 15.7 | 10.6 | 8.96 | 4.85 |
| 1.65 V | 143 | 90 | 55.7 | 32.1 | 23.2 | 15.6 | 10.5 | 8.87 | 4.83 |
| 1.70 V | 141 | 90 | 55.3 | 32.0 | 23.1 | 15.5 | 10.5 | 8.78 | 4.81 |
| 1.75 V | 140 | 90 | 54.8 | 31.8 | 22.9 | 15.4 | 10.4 | 8.69 | 4.78 |
| 1.80 V | 133 | 88 | 54.4 | 31.7 | 22.9 | 15.3 | 10.3 | 8.60 | 4.76 |
| 1.85 V | 119 | 80 | 50.5 | 30.3 | 21.7 | 14.6 | 9.90 | 8.46 | 4.72 |

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.

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



PERFORMANCE CHARACTERISTICS



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