



**ENERGY ALTERNATIVES**

Powered By Nature

# EA-POWER-TDG12-40 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	40 AH
Design Life	Years	12 Years
Terminal		M6
Approx. Weight	Kg	Approx. 13.2 kg (29.1 lbs)
Container Material		ABS
Rated Capacity	AH	40.0 AH (10 Hour Rate : 4.00 A to 10.8 V)
		32.1 AH (3 Hour Rate : 10.7 A to 10.8 V)
		26.2 AH (1 Hour Rate : 26.2 A to 10.5 V)
Internal Resistance		Full charged at 25 °C: 12.5 mΩ
Maximum Discharge Current	A	480 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 10 A / Recommended 4.0 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)

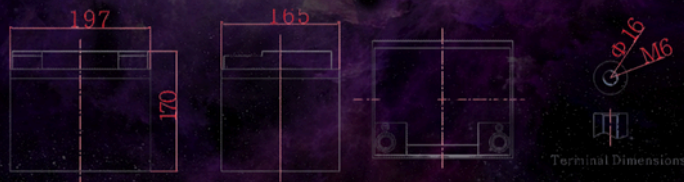
FV / TIME	5M	30M	1H	2H	3H	5H	8H	10H	20H
1.60 V	75.7	46.1	26.9	15.4	11.2	7.53	4.94	4.16	2.18
1.65 V	73.4	45.3	26.8	15.4	11.1	7.45	4.90	4.12	2.17
1.70 V	71.9	44.5	26.6	15.2	10.9	7.37	4.86	4.08	2.16
1.75 V	69.5	44.1	26.2	15.0	10.8	7.29	4.82	4.04	2.15
1.80 V	64.8	42.2	25.5	14.7	10.7	7.10	4.78	4.00	2.14
1.85 V	57.8	38.5	23.6	14.0	10.1	6.74	4.58	3.88	2.10

## Constant Power Discharge Characteristics - UNIT W/CELL (25°C, 77°F)

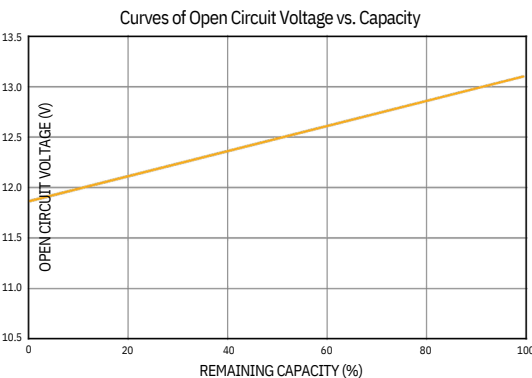
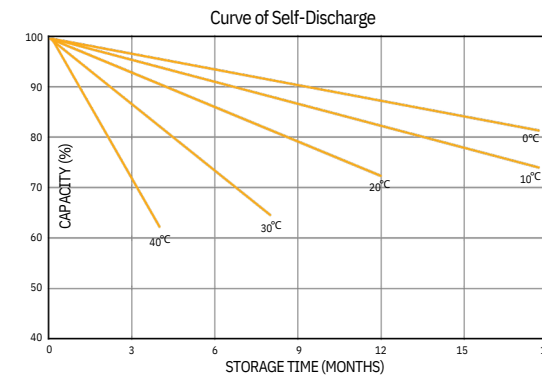
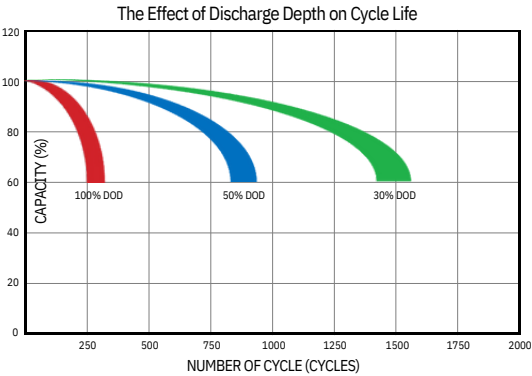
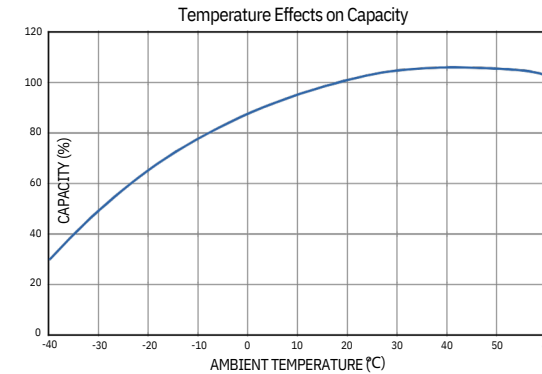
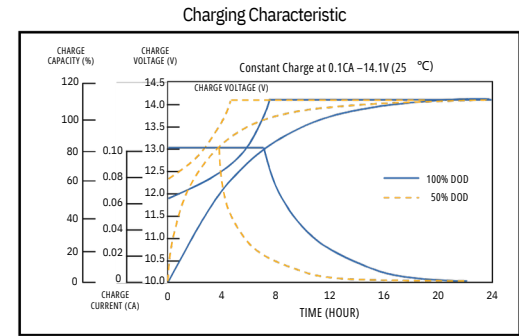
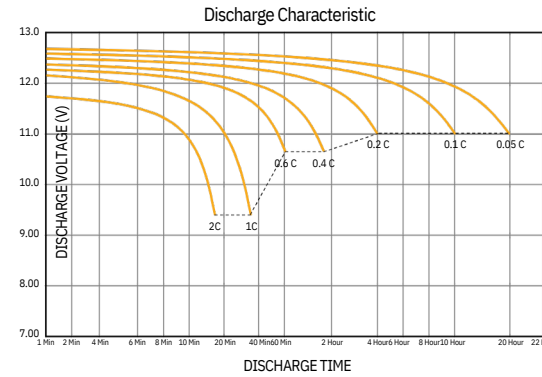
FV / TIME	5M	10M	15M	30M	5H	6HH	8H	10H	20H
1.60 V	133	83.3	50.9	29.2	21.3	14.3	9.60	8.00	4.32
1.65 V	131	82.6	50.5	29.1	21.1	14.2	9.52	7.92	4.30
1.70 V	129	82.6	50.1	29.0	20.9	14.1	9.48	7.84	4.28
1.75 V	129	82.2	49.7	28.9	20.8	14.0	9.41	7.76	4.26
1.80 V	122	80.2	49.4	28.8	20.7	13.8	9.33	7.68	4.24
1.85 V	109	73.5	45.8	27.5	19.7	13.2	9.01	7.56	4.20

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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