

## 12 YEAR - 100AH 12V SOLAR BATTERY

### PVC GEL BATTERY NG Series



**NG12-100X (12V 100Ah)**

New Power PVC GEL Series is manufactured with PVC/SiO<sub>2</sub> separator and fumed Silica. Gel battery is featured with low self-discharge, strong ability to recover from deep discharging, it has long service life and 50% more deep cycle life and excellent performance at cold ambient temperatures than conventional VRLA.

#### Battery Construction

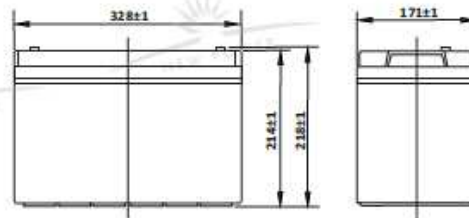
COMPONENT	POSITIVE PLATE	NEGATIVE PLATE	CONTAINER	COVER	SAFETY VALVE	TERMINAL	SEPARATOR	ELECTROLYTE
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	PVC/SiO <sub>2</sub>	Gelled Acid

#### Performance Characteristics

- **Nominal Voltage** ..... 12V
- **Number of Cell** ..... 6
- **Nominal Capacity (77°F/25°C)**
  - 100 Hour rate (1.04A, 10.8V) ..... 104Ah
  - 20 Hour rate (4.3A, 10.8V) ..... 86Ah
  - 10 Hour rate (8.0A, 10.5V) ..... 80Ah
  - 5 Hour rate (13.8A, 10.5V) ..... 69Ah
- **Internal Resistance**
  - Fully charged battery (77°F/25°C) ..... 10mΩ
- **Capacity affected by temperature (10 hour rate)**
  - 104°F (40°C) ..... 102%    32°F (10°C) ..... 85%
  - 77°F (25°C) ..... 100%    5°F (-15°C) ..... 65%
- **Self-Discharge 68°F (20°C)**
  - Capacity after 3 month storage ..... 90%
  - Capacity after 6 month storage ..... 80%
  - Capacity after 12 month storage ..... 60%
- **Max. discharge current 77°F/25°C** ..... 500A(5S)
- **Charge Methods: constant voltage charge 77°F/25°C**
  - Cycle use ..... 14.28 ~ 14.52V
  - Max. Current ..... 17A
  - Standby use ..... 13.38 ~ 13.5V

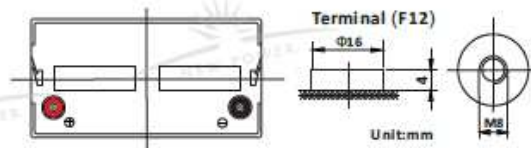
#### General Features

- **Micro millimeter SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> technology for efficient gas recombination of up to 99%, free from electrolyte maintenance or water add.**
- **Not restricted for air transport-complies with IATA/ICAO Special Provision A67.**
- **A recognized component of CE and UL**
- **Computer designed lead, calcium tin alloy grid for high power density.**
- **Long service life, float or cyclic applications.**
- **Maintenance-free operation.**
- **Low self discharge**
- **Design life 12 years**



#### Dimensions and Weight

Type	Length	Width	Height	Total Height	Approx. Weight
SI Units	328mm	171mm	214mm	218mm	28.5Kg
English Units	12.9inch	6.74inch	8.43inch	8.85inch	62.8lbs



#### Constant Current Discharge (Amperes at 77°F/25°C)

V/cell	10min	15min	30min	1h	3h	5h	10h	20h	100h
1.60	185	145	87.0	50.0	21.6	14.4	8.15	4.39	1.10
1.65	177	139	83.5	48.4	21.1	14.2	8.10	4.37	1.08
1.70	168	132	79.3	47.0	20.5	14.0	8.05	4.35	1.06
1.75	158	124	74.6	45.6	20.0	13.8	8.00	4.33	1.05
1.80	148	115	69.4	44.1	19.5	13.6	7.95	4.30	1.04

#### Constant Power Discharge (Watts at 77°F/25°C)

V/cell	10min	15min	30min	45min	1h	2h	3h	5h	100h
1.60	323	274	156	122	100	56.0	40.8	27.9	2.14
1.65	311	260	154	120	97.8	54.9	37.9	27.4	2.10
1.70	299	246	151	117	96.0	53.9	37.2	27.0	2.09
1.75	287	232	149	114	94.1	52.9	36.5	26.4	2.08
1.80	275	218	146	111	92.3	52.0	35.8	25.8	2.07

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