



# PVC GEL BATTERY

## NG Series

**NG12-80X (12V 80Ah)**



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

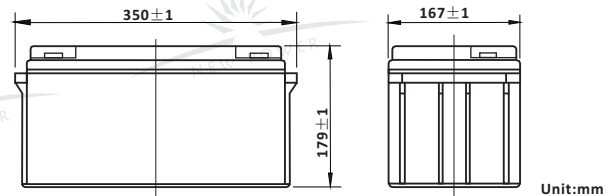
COMPONENT	POSITIVE PLATE	NEGATIVE PLATE	CONTAINER	COVER	SAFETY VALVE	TERMINAL	SEPARATOR	ELECTROLYTE
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	PVC/SiO <sub>2</sub>	Gelled Acid

### Performance Characteristics

- **Nominal Voltage** ..... 12V
- **Number of Cell** ..... 6
- **Nominal Capacity (77°F /25°C)**
  - 100 Hour rate (0.80A, 1.85V)..... 80Ah
  - 10 Hour rate (6.6A,1.80V) ..... 66Ah
  - 5 Hour rate (11.2A,1.75V) ..... 56Ah
  - 1 Hour rate (38.0A, 1.60V)..... 38Ah
- **Internal Resistance**
  - Fully charged battery (77°F /25°C) ..... 11mΩ
- **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** ..... 800A(5S)
- **Charge Methods: constant voltage charge 77°F /25°C**
  - Cycle use ..... 14.28 ~ 14.52V
  - Max. Current ..... 13.2A
  - Standby use ..... 13.38 ~ 13.5V

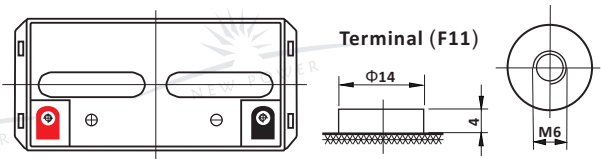
### General Features

- **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	350mm	167mm	179mm	179mm	24Kg
English Units	13.8inch	6.57inch	7.05inch	7.05inch	52.7lbs



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

V/cell	10min	15min	30min	1h	3h	5h	10h	100h
1.60	118	90.7	63.7	38.0	17.6	12.08	6.94	0.87
1.65	111	86.1	60.7	36.6	17.1	11.88	6.81	0.86
1.70	105	81.5	58.0	35.3	16.5	11.61	6.74	0.85
1.75	99.0	76.8	54.8	33.6	15.6	11.20	6.64	0.84
1.80	92.4	76.6	51.8	32.0	15.0	10.69	6.60	0.83
1.85	85.8	67.9	48.8	30.6	14.3	9.97	6.40	0.80

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

V/cell	10min	15min	30min	1h	3h	5h	10h	100h
1.60	200	154	110	69.1	32.8	22.8	13.42	1.72
1.65	193	150	106	67.0	32.1	21.7	13.33	1.71
1.70	186	144	103	64.7	31.7	21.3	13.20	1.69
1.75	180	140	100	62.7	30.6	20.6	13.07	1.68
1.80	173	134	96.4	60.7	29.4	20.1	13.01	1.67
1.85	162	129	93.2	58.8	27.9	19.5	12.88	1.62

(Note: The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.)



