



PVC GEL BATTERY

NG Series



NG12-40X (12V 40Ah)

New Power PVC GEL Series is manufactured with PVC/SiO₂ 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 Raw material	POSITIVE PLATE Lead dioxide	NEGATIVE PLATE Lead	CONTAINER ABS	COVER ABS	SAFETY VALVE Rubber	TERMINAL Copper	SEPARATOR PVC/SiO ₂	ELECTROLYTE Gelled Acid
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Performance Characteristics

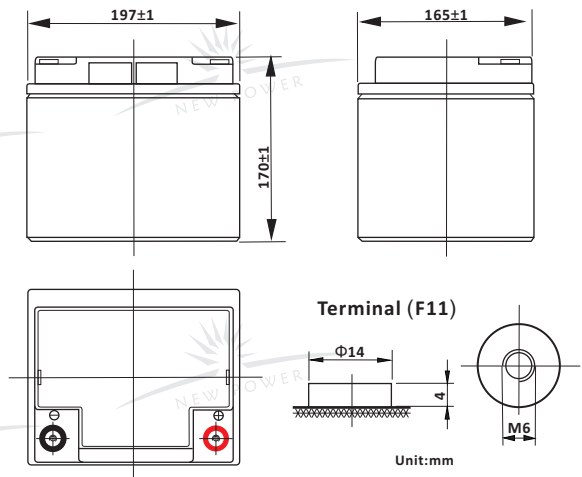
- **Nominal Voltage** 12V
- **Number of Cell** 6
- **Nominal Capacity (77°F / 25°C)**
 - 100 Hour rate (0.66A, 1.85V) 40Ah
 - 10 Hour rate (3.3A, 1.80V) 33Ah
 - 5 Hour rate (5.8A, 1.75V) 29Ah
 - 1 Hour rate (21.2A, 1.60V) 21.2Ah
- **Internal Resistance**
 - Fully charged battery (77°F / 25°C) 9mΩ
- **Capacity 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** 330A(5S)
- **Charge Methods: constant voltage charge 77°F / 25°C**
 - Cycle use 14.28 ~ 14.52V
 - Max. Current 6.6A
 - Standby use 13.38 ~ 13.5V

General Features

- **Micro millimeter SiO₂ and H₂SO₄ 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	197mm	165mm	170mm	170mm	13.2Kg
English Units	7.76inch	6.5inch	6.69inch	6.69inch	29.0lbs



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

V/cell	5min	10min	15min	30min	1h	3h	5h	10h	100h
1.60	109	81.5	63.8	35.9	21.2	8.76	6.02	3.41	0.48
1.65	106	77.6	62.4	35.3	20.7	8.68	5.98	3.39	0.47
1.70	103	74.9	61.5	34.8	20.2	8.50	5.94	3.36	0.46
1.75	94.7	69.8	59.3	34.3	19.6	8.43	5.90	3.33	0.44
1.80	86.5	64.5	55.2	33.8	19.1	8.26	5.86	3.30	0.42
1.85	75.4	58.3	50.2	33.2	18.6	8.05	5.80	3.23	0.40

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

V/cell	5min	10min	15min	30min	1h	3h	5h	10h	100h
1.60	195	146	116	63.5	39.2	16.5	11.40	6.51	0.91
1.65	189	141	114	62.7	38.5	16.3	11.35	6.49	0.90
1.70	186	137	113	62.1	37.8	16.1	11.30	6.47	0.88
1.75	174	129	109	61.8	36.6	15.9	11.25	6.45	0.86
1.80	163	121	102	61.4	35.9	15.7	11.20	6.43	0.84
1.85	143	110	95.0	60.7	35.2	15.5	11.14	6.41	0.81

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



