

SPECIFICATIONS

Rated Voltage	12V
Nominal Capacity	45.0Ah (C ₁₀ , 1.80V/cell)
Dimension	Length 197±2mm (7.76 inches)
	Width 165±2mm (6.50 inches)
	Container Height 170±2mm (6.69 inches)
	Total Height 170±2mm (6.69 inches)
Approx Weight	14.2 Kg (31.3 lbs)
Terminal	M6
Container Material	ABS
	47.8 Ah (20hr, 2.39A, 1.80V/cell)
	45.0 Ah (10hr, 4.50A, 1.80V/cell)
Rated Capacity (25°C)	39.4 Ah (5hr, 7.88A, 1.75V/cell)
	35.7 Ah (3hr, 11.9A, 1.75V/cell)
	30.2 Ah (1hr, 30.2A, 1.60V/cell)
Max. Discharge Current	450A (5s)
Internal Resistance (25°C)	Approx 9.0mΩ
	Discharge -15~50°C (5~122°F)
Operating Temp. Range	Charge -20~40°C (-4~104°F)
	Storage -15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 13.5A. Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
Standby Use	Initial Charging Current less than 13.5A. Voltage 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
	40°C (104°F) 103%
Capacity affected by Temperature	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	N series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.



APPLICATIONS

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- UL & CE Certified
- Manufactured in IATF 16949, ISO 9001 and ISO 14001 certified production facilities

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	93.7	69.9	58.2	48.9	37.6	28.1	23.7	17.8	14.2	10.7	8.55	7.15	6.21	5.04	4.22	2.26
1.80V/cell	109.2	82.4	67.7	56.4	42.5	31.4	26.2	19.5	15.5	11.6	9.22	7.70	6.66	5.40	4.50	2.39
1.75V/cell	119.1	88.4	71.6	59.2	44.4	32.7	27.2	20.1	16.0	11.9	9.45	7.88	6.80	5.50	4.57	2.42
1.70V/cell	129.0	94.3	75.7	62.3	46.4	33.9	28.2	20.8	16.5	12.3	9.69	8.05	6.94	5.60	4.64	2.45
1.67V/cell	134.7	97.7	78.1	64.0	47.6	34.7	28.8	21.2	16.7	12.5	9.82	8.15	7.02	5.65	4.68	2.46
1.60V/cell	148.5	105.8	83.7	68.2	50.3	36.5	30.2	22.1	17.4	12.9	10.1	8.40	7.22	5.79	4.78	2.51

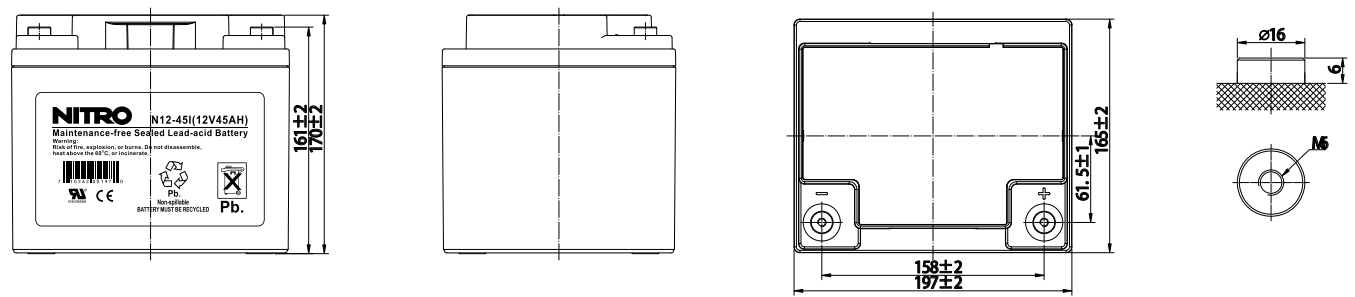
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	178.0	133.8	111.9	94.3	72.7	54.4	46.1	34.7	27.8	21.0	16.8	14.1	12.2	10.0	8.34	4.49
1.80V/cell	204.3	155.9	128.7	107.6	81.5	60.4	50.7	37.7	30.1	22.7	18.1	15.1	13.1	10.6	8.89	4.74
1.75V/cell	219.5	165.2	134.8	111.8	84.5	62.4	52.2	38.8	30.9	23.2	18.4	15.4	13.3	10.8	9.02	4.79
1.70V/cell	233.9	173.8	140.8	116.5	87.4	64.2	53.7	39.8	31.7	23.8	18.8	15.7	13.6	11.0	9.14	4.85
1.67V/cell	241.9	178.8	145.6	119.0	89.1	65.4	54.6	40.4	32.1	24.0	19.0	15.9	13.7	11.1	9.21	4.88
1.60V/cell	259.9	189.5	151.9	124.8	92.9	68.0	56.7	41.8	33.2	24.8	19.6	16.3	14.0	11.3	9.38	4.97

GENERAL FEATURES

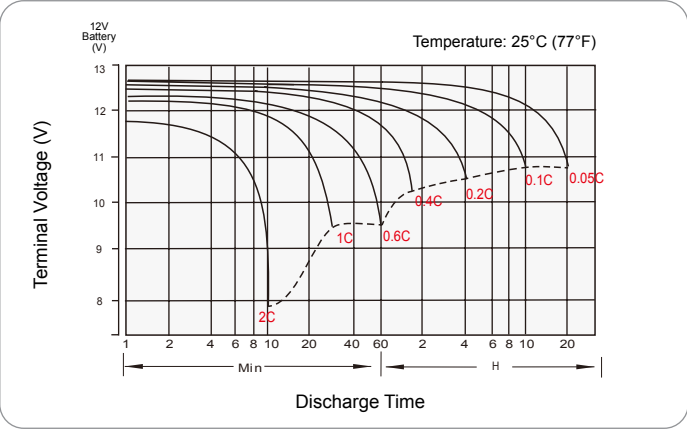
- 10 years design life (25°C)
 - Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
 - PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
 - High purity raw material: ensure low self discharge rate

DIMENSIONS

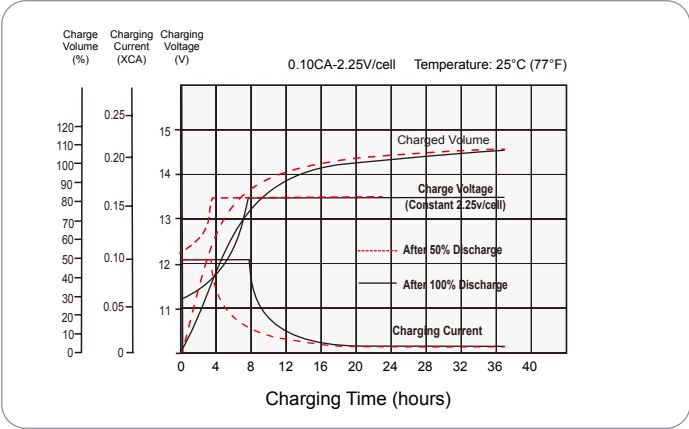


PERFORMANCE CHARACTERISTICS

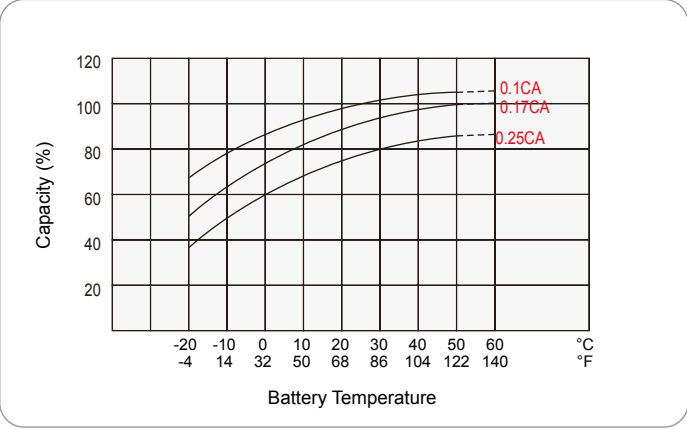
Discharge Characteristics



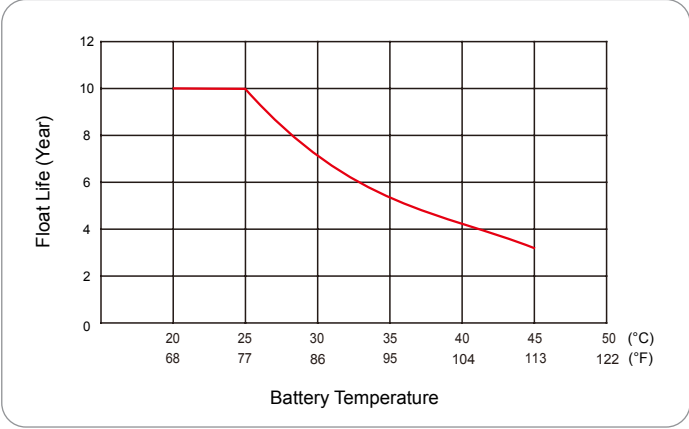
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



NITRO

VALVE REGULATED LEAD-ACID BATTERY
N12-45I