

### **NP SERIES - GENERAL PURPOSE**

## NP 12-100 (12V100AH)

## **Specification**

Nominal Voltage

Nominal Capacity(10HR)

Dimensions

Approx Weight
Terminal
Container Material

Rated Capacity

Max. Discharge Current
Internal Resistance

Operating Temp.Range

Nominal Operating Temp. Range

Cycle Use

Standby Use

Capacity affected by Temperature

Self Discharge

12V

100.0AH

Length $330\pm3$ mm (12.99 inches)Width $173\pm2$ mm (6.81 inches)Container Height $212\pm3$ mm (8.35 inches)Total Height (with Terminal) $220\pm3$ mm (8.66 inches)

Approx 30.6 kg (67.5lbs)

T11

ABS

 104.0 AH/5.20A
 (20hr ,1.80V/cell,25°C/77°F)

 100.0 AH/10.0A
 (10hr,1.80V/cell,25°C/77°F)

 88.0 AH/17.6A
 (5hr,1.75V/cell,25°C/77°F)

 76.2 AH/25.4A
 (3hr,1.75V/cell,25°C/77°F)

 63.8 AH/63.8A
 (1hr,1.60V/cell,25°C/77°F)

1200A (5s)

Approx 4.9mΩ

Discharge :  $-15\sim50^{\circ}\text{C} \ (5\sim122^{\circ}\text{F})$ Charge :  $0\sim40^{\circ}\text{C} \ (32\sim104^{\circ}\text{F})$ Storage :  $-15\sim40^{\circ}\text{C} \ (5\sim104^{\circ}\text{F})$ 

25±3°C (77±5°F)

Initial Charging Current less than 30.0A.Voltage

14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C

No limit on Initial Charging Current Voltage

13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C

40°C (104°F) 103% 25°C (77°F) 100% 0°C (32°F) 86%

Innova Ups NP 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
- ♦ Emergency light
- ♦ Railway signal
- ♦ Aircraft signal
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply
- ♦ DC power supply
- ♦ Auto control system













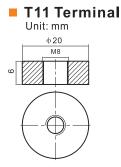
## Constant Current Dischange (Amperes) at 25°C (77°F)

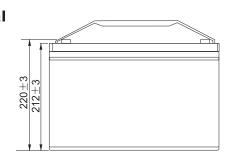
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	173.6	146.4	130.2	115.3	87.5	65.2	52.4	31.3	23.5	19.2	16.4	14.4	11.6	9.65	5.13
1.80V/cell	210.0	167.6	143.7	123.5	92.1	68.7	55.1	33.1	24.6	20.2	17.2	15.0	12.0	10.0	5.20
1.75V/cell	237.0	186.3	154.0	130.8	96.5	71.3	57.1	34.4	25.4	20.7	17.6	15.3	12.2	10.1	5.29
1.70V/cell	261.6	199.5	165.1	138.9	101.8	74.6	59.5	35.3	26.0	21.2	17.9	15.6	12.4	10.2	5.34
1.65V/cell	291.7	215.1	178.5	146.6	106.7	77.4	61.9	36.3	26.7	21.7	18.3	15.9	12.6	10.3	5.40
1.60V/cell	330.8	232.5	188.5	154.3	112.3	80.5	63.8	37.5	27.6	22.2	18.6	16.2	12.7	10.5	5.45

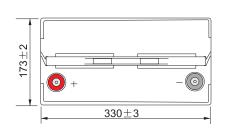
## Constant Power Dischange (Watts/cell) at 25°C (77°F)

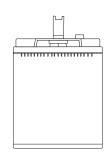
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	322.5	274.9	247.1	220.5	168.5	126.4	102.2	60.8	45.7	37.5	32.2	28.2	22.9	19.1	10.2
1.80V/cell	386.4	312.2	271.0	235.1	176.8	132.7	107.2	63.8	47.7	39.2	33.6	29.4	23.7	19.8	10.3
1.75V/cell	431.3	344.9	288.7	247.8	184.3	137.3	110.8	66.0	49.1	40.1	34.3	29.9	24.0	19.9	10.4
1.70V/cell	470.9	366.5	307.7	261.8	193.6	143.0	115.0	67.6	50.1	41.0	34.8	30.4	24.3	20.1	10.5
1.65V/cell	519.3	391.4	330.2	274.5	201.9	147.7	119.1	69.2	51.3	41.8	35.3	30.8	24.6	20.3	10.6
1.60V/cell	578.9	418.2	345.1	286.6	211.1	152.9	122.4	71.1	52.7	42.6	35.9	31.3	24.8	20.5	10.7

### **Dimensions**

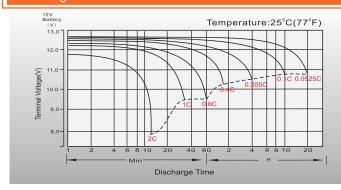




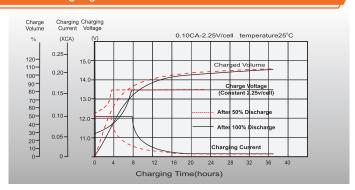




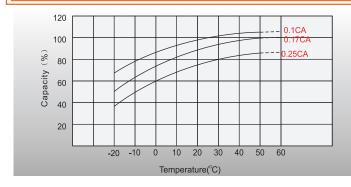
### Dischage Characteristics



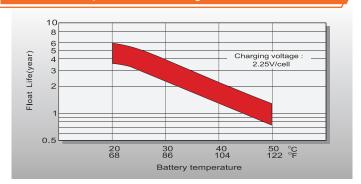
#### Float Charging Characteristics



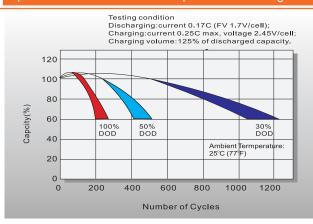
#### Temperature Effects in Relation to Battery Capacity



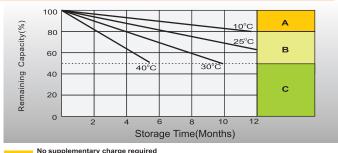
#### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Dischange



#### Self Discharge Characteristics



No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use. Optional charging way as below: 1. Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell. 2. Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell. 3.Charged for 8~10hours at limted current 0.05CA

Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.