



### SPECIFICATIONS

Cells Per Unit	6
Voltage Per Unit	12
Capacity	4.5Ah@20hr-rate to 1.75V per cell@25°C
Weight	Approx. 1.3kg
Max. Discharge Current	67.5A (5sec)
Internal Resistance	Approx. 36mΩ
Operating Temperature Range	Discharge: -20°C~50°C Charge: -20°C~50°C Storage: -20°C~50°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.50 to 13.80V DC/unit Average at 25°C
Max. Charging Current	1.35A
Equalization and Cycle service	14.70 to 15.00V DC/unit Average at 25°C
Self Discharge	The batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For high temperature, the time interval will be shorter.
Terminal	Faston Tab 187(T1)
Container Material	ABS(UL94-HB) Flammability resistance of UL94-V0 is available on request.

### APPLICATION

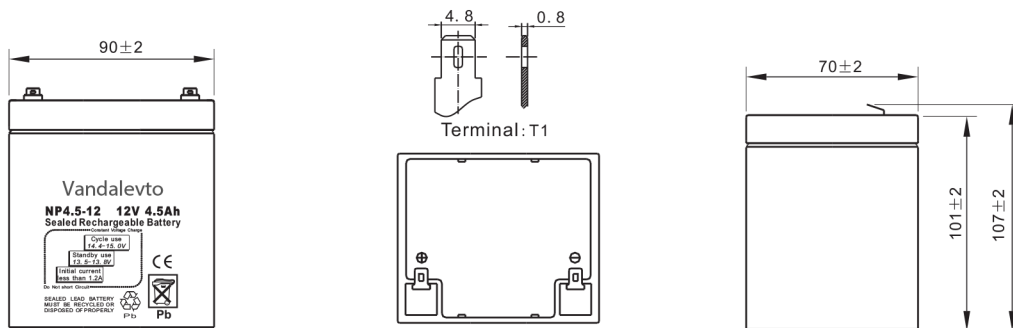
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Aircraft signal
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply
- Auto control system



ISO9001

### DIMENSIONS

Unit: mm



### Constant Current Discharge Characteristics Unit:A(25°C,77°F)

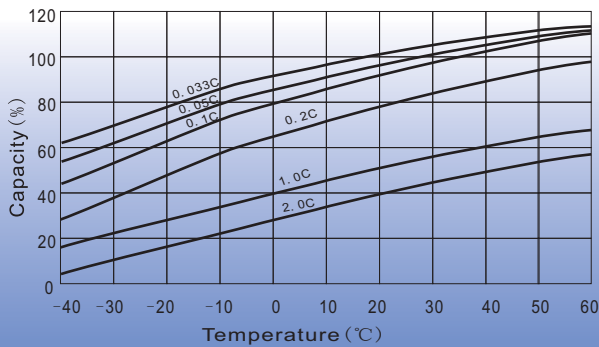
F.V/Time	5min	10min	15min	30min	45min	1h	3h	5h	10h	20h
1.60V/cell	15.69	10.78	7.78	4.70	3.44	2.81	1.14	0.78	0.43	0.231
1.65V/cell	15.05	9.77	7.61	4.62	3.40	2.78	1.14	0.78	0.42	0.228
1.70V/cell	13.66	9.43	7.50	4.58	3.36	2.77	1.13	0.77	0.42	0.226
1.75V/cell	12.35	8.68	7.29	4.55	3.25	2.74	1.13	0.77	0.41	0.225
1.80V/cell	11.21	8.06	6.76	4.28	3.22	2.71	1.09	0.74	0.40	0.206

### Constant Power Discharge Characteristics Unit:W(25°C,77°F)

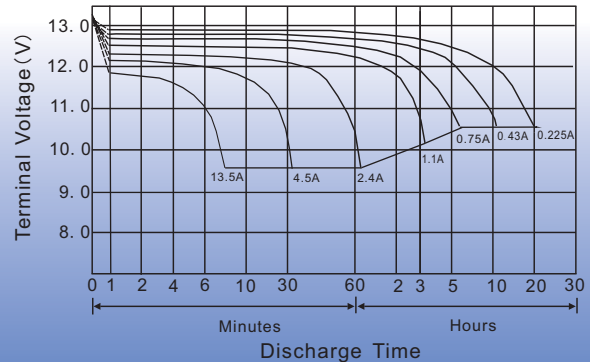
F.V/Time	5min	10min	15min	30min	45min	1h	3h	5h	10h	20h
1.60V/cell	25.85	17.82	14.04	8.91	6.72	5.54	2.28	1.50	0.85	0.46
1.65V/cell	24.83	17.71	13.95	8.64	6.66	5.52	2.25	1.48	0.84	0.46
1.70V/cell	23.23	17.28	13.68	8.46	6.48	5.40	2.24	1.47	0.83	0.45
1.75V/cell	21.54	16.20	12.78	8.01	6.42	5.36	2.21	1.45	0.82	0.44
1.80V/cell	19.44	15.12	12.06	7.92	6.24	5.22	2.16	1.43	0.80	0.41

All mentioned values are average values.

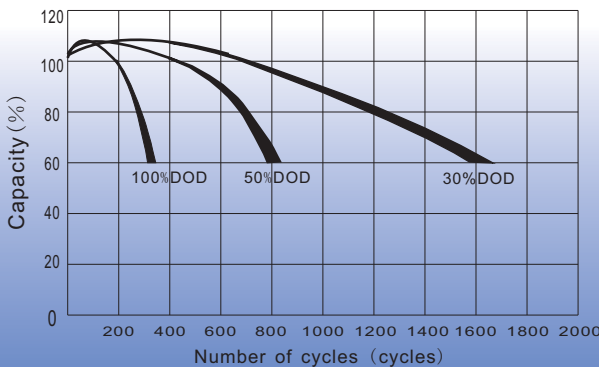
### TEMPERATURE EFFECTS CURVE



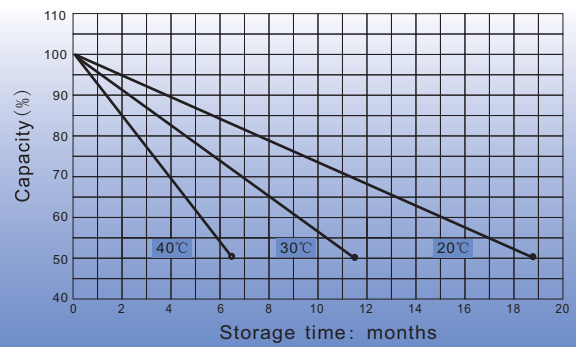
### DISCHARGE TIME VS. DISCHARGE CURRENT (25°C)



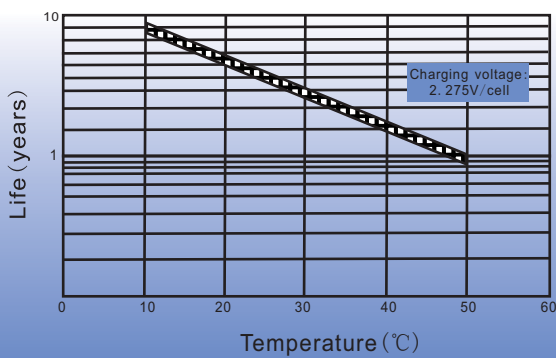
### LIFE CHARACTERISTICS OF CYCLIC USE



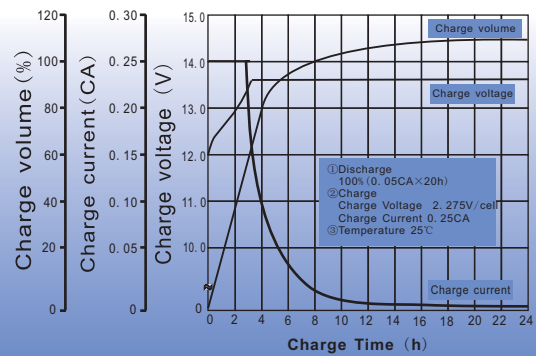
### SELF-DISCHARGE CHARACTERISTIC



### EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



### CHARGE CHARACTERISTIC CURVE FOR STANDBY USE



### Charging Procedures

Application	Charge Voltage (V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C	2.475	2.45~2.50	0.3C
Standby Use	25°C	2.275	2.25~2.30	

Charge the batteries at least once every 6 months, if they are stored at 25°C.

#### Charging Method

Constant Voltage	14.7~15.0V, 5~11h, Max. Current 0.3CA
Constant Current	0.1CA x 5h
Fast	0.3CA x 1.7h

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75	1.7	1.6	1.3
Discharge Current (A)	0.2C > (A)	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C	(A) > 1.0C