

**NP SERIES --Small-size batteries**

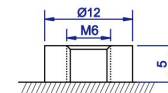
- 100% before shipment testing, stable and reliable long-term quality
- patented grid alloy formula and updated manufacturing technique
- completely sealed and maintenance-free, low self-discharge
- Excellent charging and re-charging acceptance
- Cycle use: More than 260 cycles at 100% DOD
- Floating & standby use: 3-5 years

**Application:**

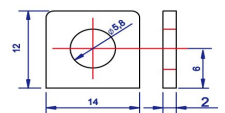
- Alarm System
- Cable Television
- Communication Equipment
- Emergency Power System
- Security System
- Medical Equipment
- UPS
- Power tools
- Control Equipment
- Toys

**Construction:**

- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....ABS
- Cover .....ABS
- Sealant .....Epoxy
- Safety valve .... Rubber
- Terminal .....Copper
- Separator .....Fiber glass
- Electrolyte .....Sulfuric acid



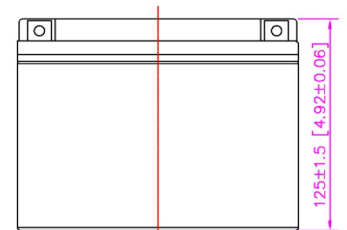
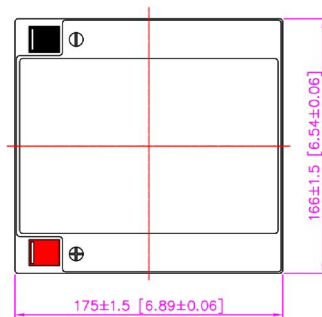
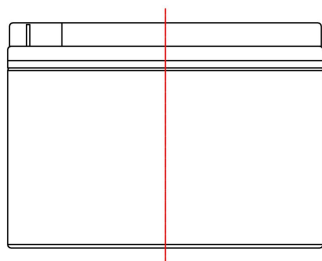
M6 Bolt



M5 Bolt & Nut

B2 Terminal

T3 Terminal

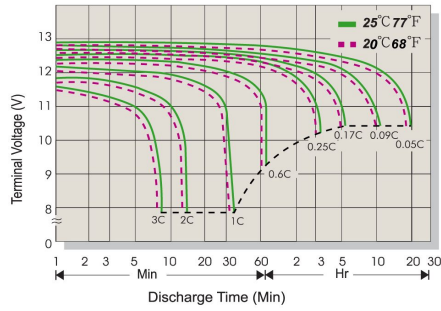


**Speification:**

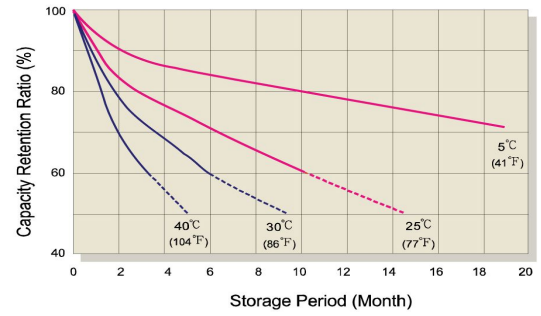
Battery Model	NP12280M			
Designed Floating Life	3~5 Years			
Capacity (25°C)	20HR(1.40A,10.5V)	10HR(2.694A,10.5V)	5HR(5.04A,10.5V)	1HR(16.87A,10.5V)
	28.00AH	26.94AH	25.20AH	16.87AH
Dimensions	Length	Width	Height	Total Height
	175mm (6.89inch)	166mm (6.54inch)	125mm (4.92inch)	125mm (4.92inch)
Approx. Weight	7.90KG(17.38lbs) ±5%			
Internal Resistance	Full charged at 25°C : ≤13.5mΩ			
Self Discharge	3% of capacity declined per month at (25°C)			
Capacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25oC)	Cycle use		Float use	
	14.4-15.0V(-30mV/°C), max. Current:8.40A		13.5-13.8V (-20mV/°C)	



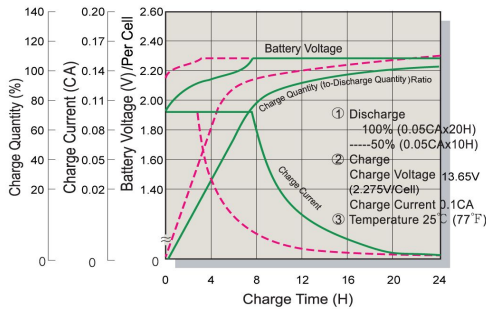
Terminal Voltage (V) and Discharge Time



Capacity Retention Characteristic



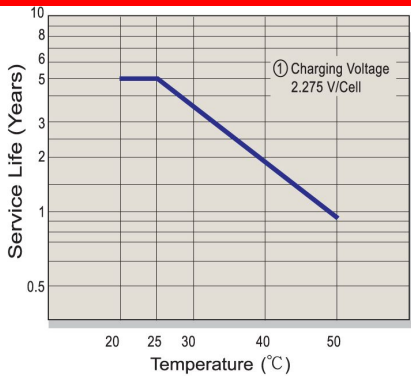
Battery Voltage and Charge Time for Standby Use



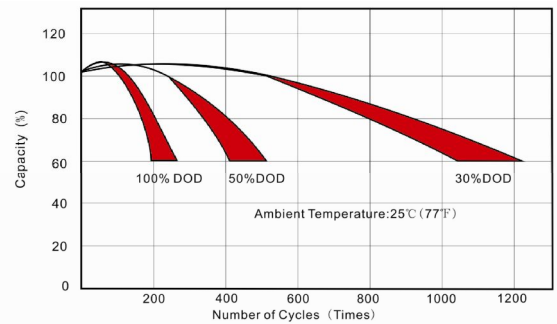
Battery Voltage and Charge Time for Cycle Use



Tickle(or Float) Service Life



Cycle Service Life



Constant Current Discharge(CC,Unit:A) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	92.06	54.34	42.71	27.84	16.25	9.39	7.21	5.923	4.854	3.957	2.595	1.348
1.80V/Cell	93.82	55.38	43.53	28.37	16.56	9.57	7.35	6.036	4.946	4.032	2.644	1.374
1.75V/Cell	95.58	56.42	44.34	28.91	16.87	9.75	7.49	6.149	5.039	4.108	2.694	1.400
1.70V/Cell	104.18	59.81	47.00	30.06	17.17	9.92	7.62	6.258	5.128	4.180	2.741	1.425
1.67V/Cell	114.69	64.88	51.00	31.74	17.35	10.03	7.70	6.325	5.183	4.225	2.771	1.440
1.60V/Cell	124.25	68.27	53.66	33.10	17.54	10.14	7.79	6.393	5.239	4.271	2.801	1.455

Constant Power Discharge (CP,Unit:W) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	179.52	105.97	83.29	54.29	31.69	18.32	14.07	11.55	9.46	7.72	5.06	2.63
1.80V/Cell	182.94	107.99	84.88	55.33	32.29	18.67	14.33	11.77	9.65	7.86	5.16	2.68
1.75V/Cell	186.37	110.02	86.47	56.37	32.90	19.02	14.60	11.99	9.83	8.01	5.25	2.73
1.70V/Cell	203.15	116.62	91.66	58.62	33.48	19.35	14.86	12.20	10.00	8.15	5.35	2.78
1.67V/Cell	223.65	126.52	99.44	61.89	33.83	19.56	15.02	12.33	10.11	8.24	5.40	2.81
1.60V/Cell	242.29	133.12	104.63	64.54	34.20	19.77	15.18	12.47	10.22	8.33	5.46	2.84