NP Series - General purpose
NP 5-12 (12v 5Ah)

RYOTA
The Power of Dragons

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

General Features

- 10 years design life(25℃)
- 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

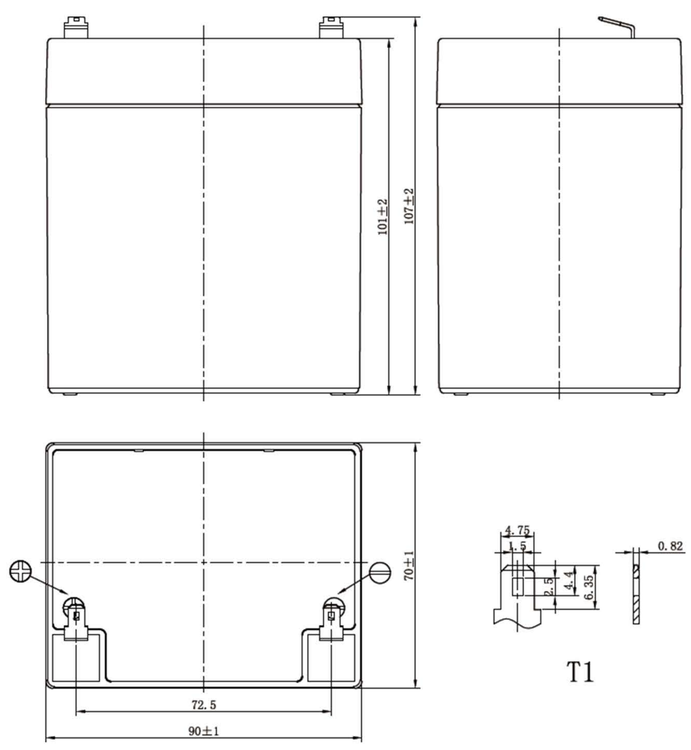
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL , CE Certified
- Manufactured in Leoch®IATF16949, ISO45001,ISO 9001 and ISO 14001 certified production facilities

Specifications

Rated Voltage			12V
Nominal Capacity	5.0 Ah		
Dimension	Length Width Container Height Total Height	90±1mm 70±1mm 101±2mm 105±2mm	(3.94 inches) (2.76 inches) (3.98 inches) (4.21 inches)
Approx Weight			1.39kg (3.06 lbs)
Terminal			T1/T2
Container Material			ABS
Rated Capacity (25℃)	5.0 Ah 4.19 Ah 3.83 Ah 3.39 Ah 2.66 Ah	(20hr , 0.225A ,1.75V/cell) (10hr , 0.419A ,1.75V/cell) (5hr , 0.765A ,1.75V/cell) (3hr , 1.13A ,1.75V/cell) (1hr , 2.66A ,1.60V/cell)	
Max. Discharge Current			75A (5s)
Internal Resistant (25℃)			Approx 48mΩ
Operating Temp.Range	Discharge Charge Storage	-15~50℃ (5~122℉) -20~40℃ (-4~104℉) -15~40℃ (5~104℉)	
Nominal Operating Temp.Range			25±3℃ (77±5℉)
Cycle Use	Initial Charging Current less than 1.35A. Voltage 14.4V~15.0V at 25℃ Temp. Coefficient -30mV		
Standby Use	Initial Charging Current less than 1.35A. Voltage 13.5V~13.8V at 25℃ Temp. Coefficient -20mV		
Effect of Temp. to Capacity	40℃ (104℉) 25℃ (77℉) 0℃ (32℉)	103% 100% 86%	
Self Discharge	LP series batteries may be stored for up to 6 months at 25℃(77℉) and then a freshening charge is required For higher temperatures the time interval will be shorter		

Layout



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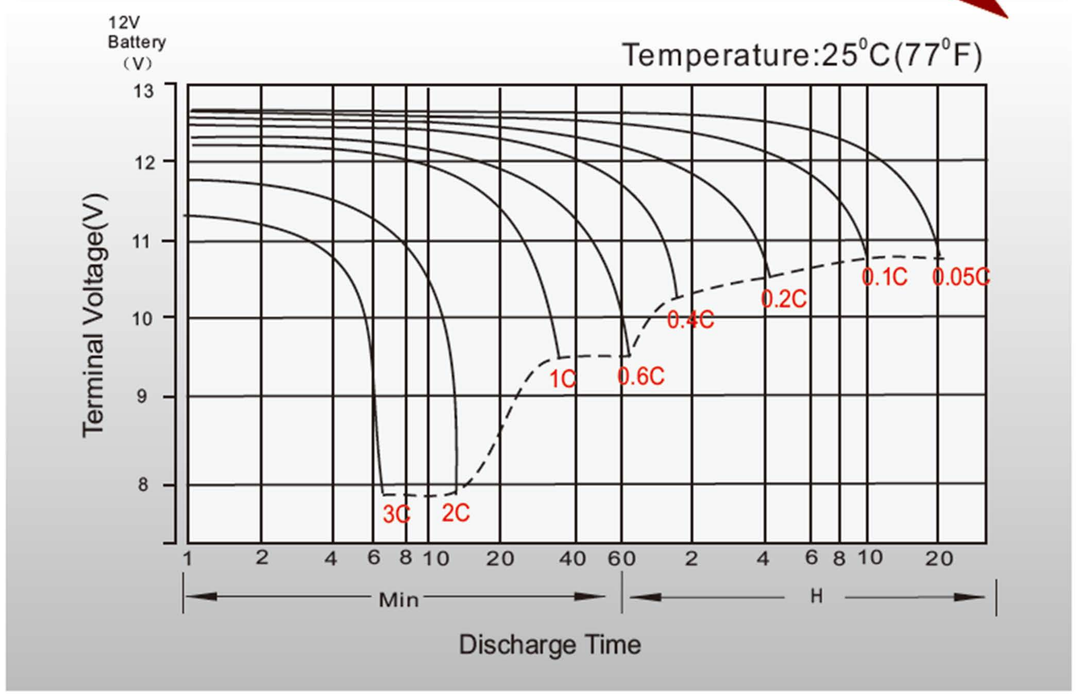
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	11.3	8.26	6.55	5.35	4.07	2.99	2.44	1.84	1.53	1.09	0.876	0.744	0.637	0.500	0.409	0.220
1.80V/cell	12.2	8.69	6.81	5.51	4.17	3.04	2.48	1.87	1.56	1.11	0.888	0.755	0.645	0.507	0.413	0.222
1.75V/cell	13.1	9.10	7.06	5.68	4.27	3.11	2.53	1.90	1.58	1.13	0.900	0.765	0.653	0.513	0.419	0.225
1.70V/cell	14.1	9.50	7.31	5.84	4.37	3.16	2.57	1.94	1.61	1.14	0.910	0.775	0.662	0.519	0.424	0.227
1.67V/cell	14.8	9.80	7.46	5.95	4.43	3.20	2.60	1.95	1.62	1.15	0.920	0.780	0.667	0.523	0.427	0.229
1.60V/cell	16.0	10.40	7.80	6.17	4.56	3.29	2.66	2.00	1.66	1.17	0.940	0.795	0.679	0.532	0.433	0.231

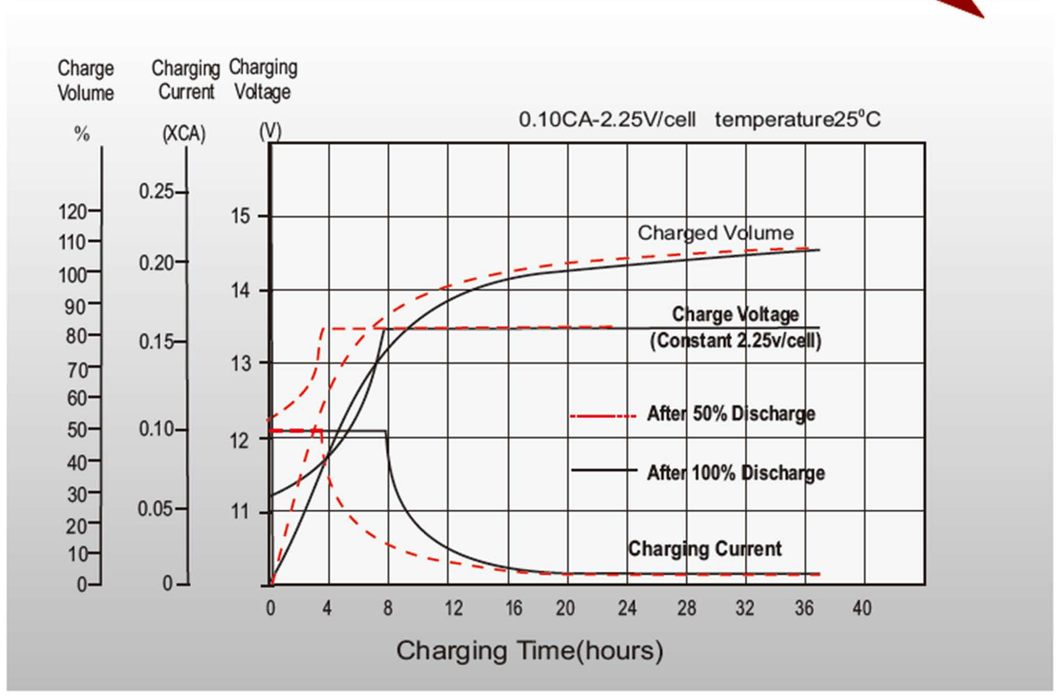
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	21.3	15.8	12.6	10.3	7.86	5.79	4.74	3.59	3.01	2.15	1.73	1.47	1.26	0.990	0.812	0.489
1.80V/cell	23.0	16.5	13.1	10.5	8.02	5.89	4.82	3.65	3.04	2.18	1.75	1.49	1.28	1.01	0.821	0.494
1.75V/cell	24.7	17.2	13.4	10.8	8.18	5.98	4.89	3.69	3.09	2.21	1.76	1.50	1.29	1.02	0.831	0.499
1.70V/cell	26.4	17.9	13.9	11.1	8.33	6.07	4.96	3.74	3.12	2.23	1.79	1.52	1.31	1.03	0.840	0.504
1.67V/cell	27.4	18.4	14.0	11.3	8.42	6.13	5.00	3.77	3.15	2.25	1.80	1.53	1.31	1.04	0.845	0.507
1.60V/cell	29.5	19.3	14.6	11.6	8.63	6.26	5.09	3.83	3.20	2.29	1.83	1.56	1.33	1.05	0.858	0.515

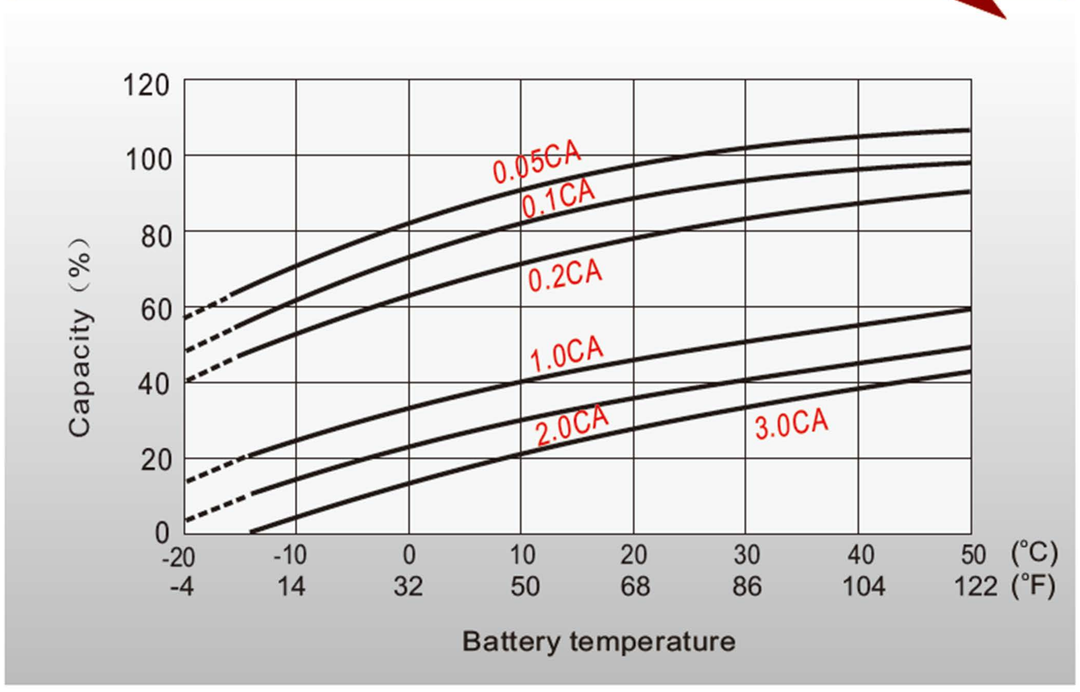
Discharge Characteristics



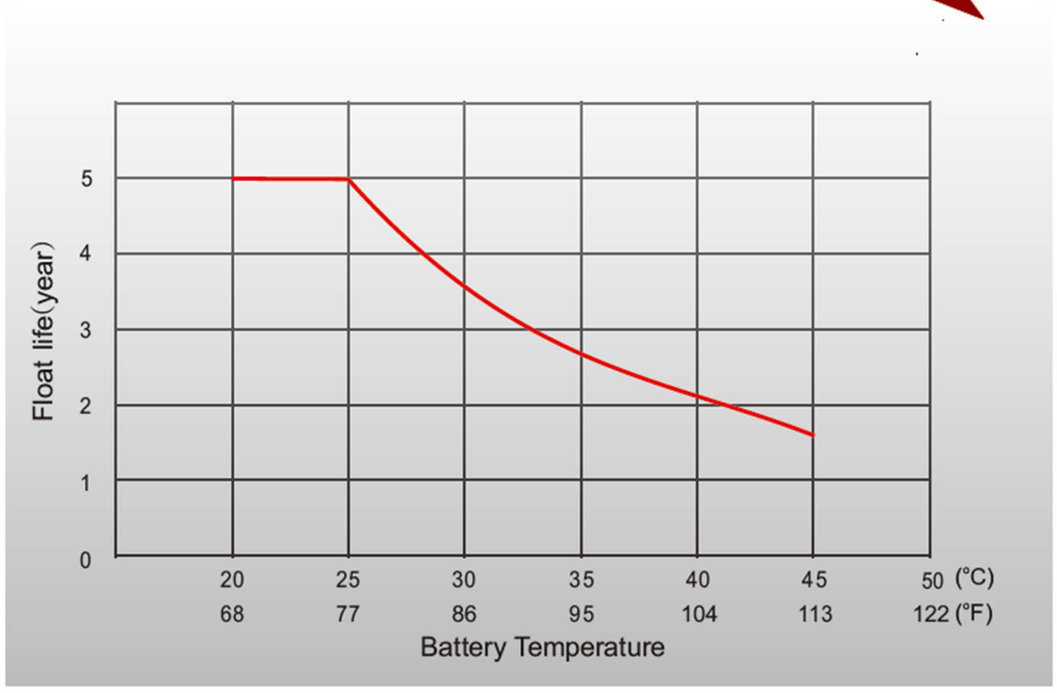
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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