NP Series - General purpose
NP 9-12 (12v 9Ah)

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

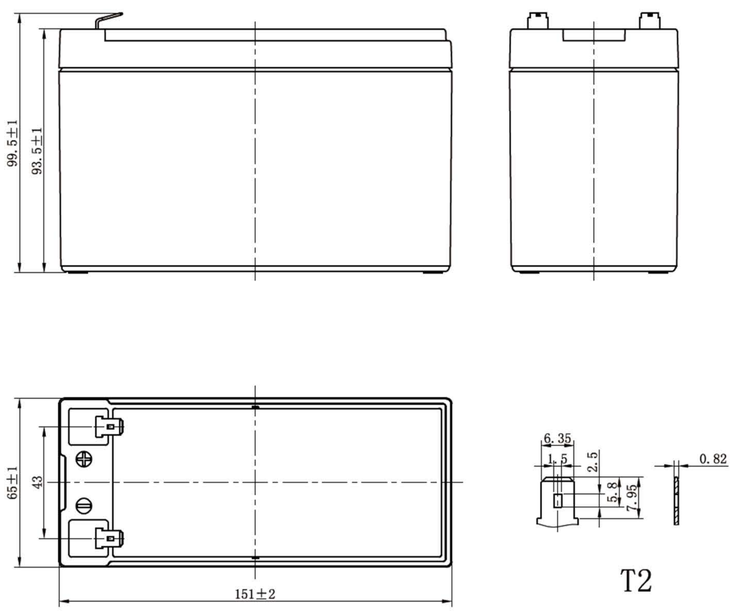
Standards

- 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	9.0 Ah	
Dimension	Length Width Container Height Total Height	151.5±2mm (5.95 inches) 65±1mm (2.56 inches) 93.5±1mm (3.68 inches) 93.5±1mm (3.92 inches)
Approx Weight		2.39kg (5.27 lbs)
Terminal		T1/T2
Container Material		ABS
Rated Capacity (25℃)	8.42 Ah 7.82 Ah 6.95 Ah 6.12 Ah 5.10 Ah	(20hr , 0.421 ,1.75V/cell) (10hr , 0.782A ,1.75V/cell) (5hr , 1.39A ,1.75V/cell) (3hr , 2.04A ,1.75V/cell) (1hr , 5.10A ,1.60V/cell)
Max. Discharge Current		128A (5s)
Internal Resistant (25℃)		Approx 18mΩ
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 2.55A. Voltage 14.4V~15.0V at 25℃ Temp. Coefficient -30mV	
Standby Use	Initial Charging Current less than 2.55A. 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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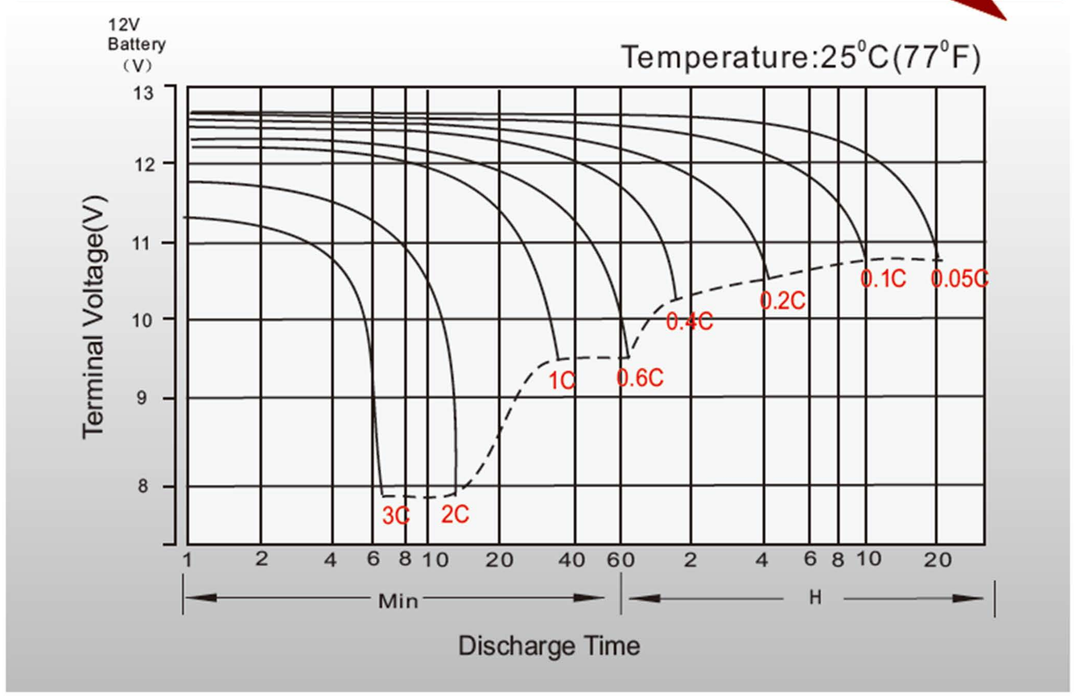
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	18.6	13.2	11.1	9.42	7.04	5.23	4.22	2.52	1.87	1.52	1.29	1.12	0.884	0.730	0.403
1.80V/cell	22.2	15.2	12.4	10.4	7.70	5.63	4.54	2.69	1.99	1.60	1.36	1.17	0.932	0.769	0.412
1.75V/cell	24.8	16.5	13.4	11.0	8.03	5.84	4.70	2.76	2.04	1.63	1.39	1.19	0.949	0.782	0.421
1.70V/cell	27.1	17.9	14.1	11.5	8.33	6.04	4.84	2.84	2.08	1.67	1.41	1.21	0.962	0.792	0.426
1.65V/cell	29.4	18.8	14.6	11.9	8.61	6.23	4.99	2.89	2.13	1.69	1.44	1.23	0.973	0.800	0.430
1.60V/cell	31.0	19.6	15.1	12.2	8.85	6.38	5.10	2.96	2.16	1.73	1.46	1.25	0.983	0.807	0.433

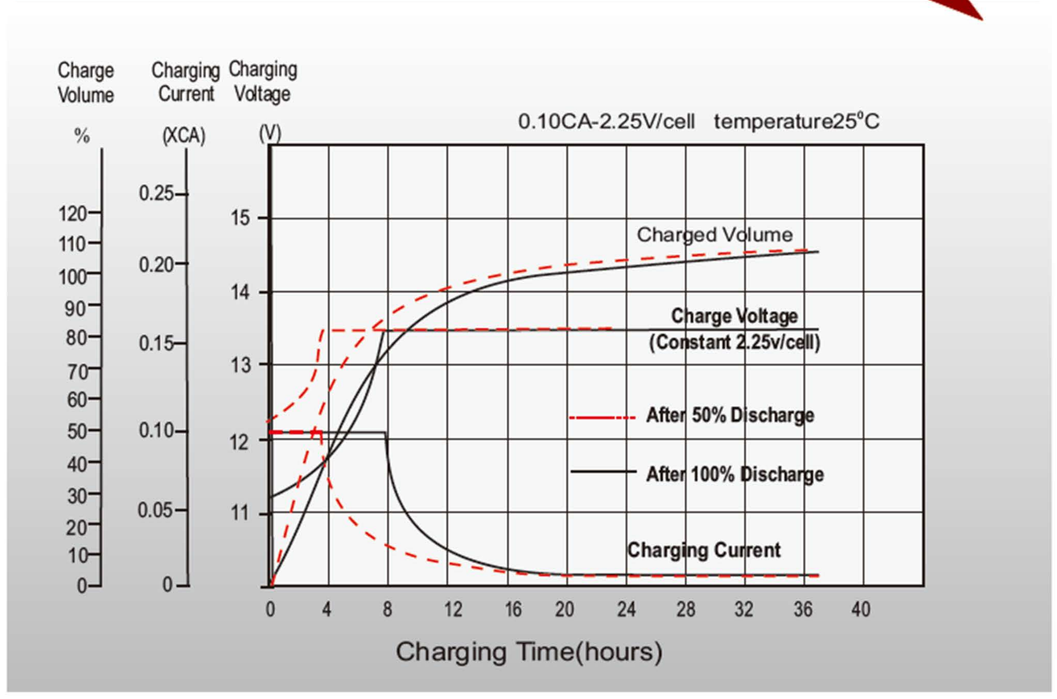
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	35.1	25.1	21.3	18.2	13.8	10.3	8.32	4.97	3.72	3.02	2.59	2.25	1.78	1.47	0.814
1.80V/cell	41.4	28.7	23.7	20.0	15.0	11.0	8.91	5.31	3.94	3.19	2.72	2.36	1.87	1.54	0.829
1.75V/cell	46.0	31.1	25.4	21.1	15.5	11.4	9.23	5.44	4.01	3.23	2.75	2.38	1.89	1.56	0.843
1.70V/cell	49.3	33.1	26.3	21.8	16.0	11.7	9.40	5.54	4.09	3.27	2.77	2.41	1.90	1.57	0.846
1.65V/cell	52.7	34.4	27.0	22.2	16.3	11.9	9.60	5.60	4.14	3.30	2.80	2.42	1.91	1.58	0.848
1.60V/cell	54.3	34.9	27.5	22.4	16.5	12.1	9.70	5.68	4.17	3.34	2.83	2.44	1.92	1.59	0.850

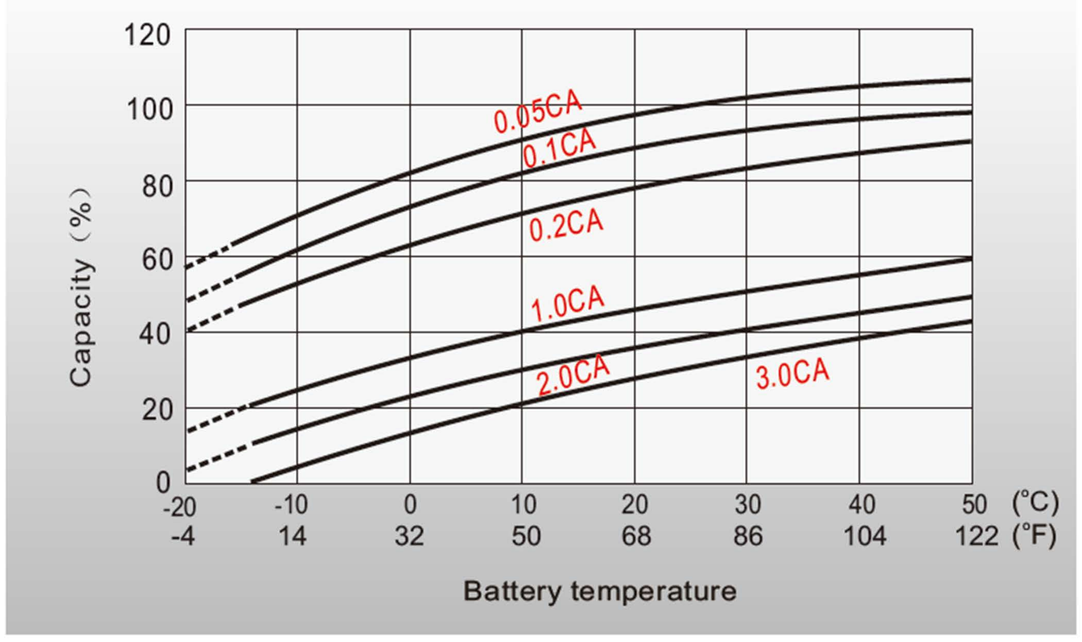
Discharge Characteristics



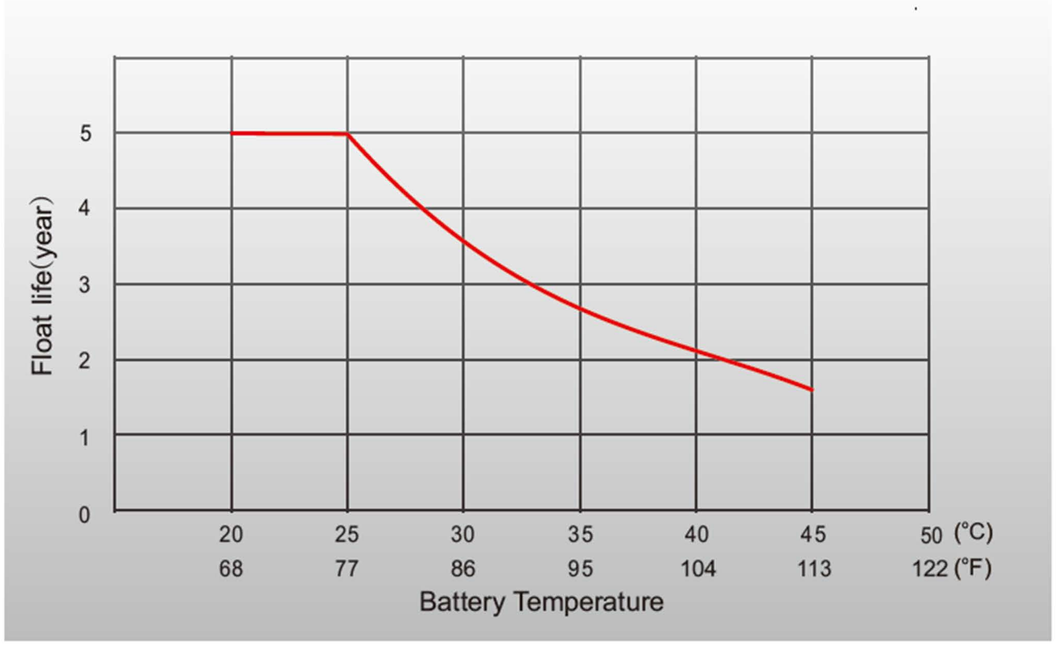
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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