NP Series - General purpose
NP 150-12 (12v 150Ah)

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

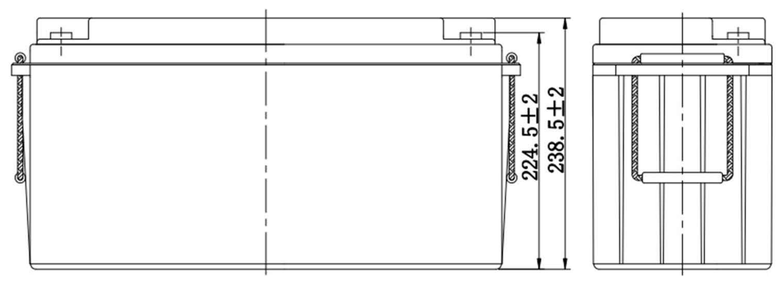
Standards

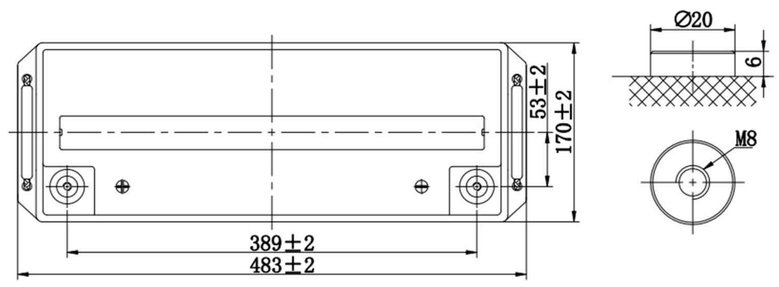
- Compliance with IEC 60896 standards, EU Battery Directive
- UL , CE Certified
- Manufactured in Leoch®IATF16949, ISO45001,ISO 9001 and ISO 14001 certified production facilities

Specifications

Rated Voltage		12V
Nominal Capacity	150.0 Ah	(C_{10} ,1.80V/cell)
Dimension	Length Width Container Height Total Height	483±2mm (19.0 inches) 170±2mm (6.69 inches) 238±2mm (9.39 inches) 238±2mm (9.39 inches)
Approx Weight		43.2 kg (95.3 lbs)
Terminal		M8
Container Material		ABS
Rated Capacity (25℃)	157.6 Ah 150.0 Ah 136.5 Ah 124.2 Ah 95.6 Ah	(20hr , 7.88A ,1.80V/cell) (10hr , 15.0A ,1.80V/cell) (5hr , 27.3A ,1.75V/cell) (3hr , 41.4A ,1.75V/cell) (1hr , 95.6A ,1.60V/cell)
Max. Discharge Current		1500A (5s)
Internal Resistant (25℃)		Approx 3.5mΩ
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 45.0A. Voltage 14.4V~15.0V at 25℃ Temp. Coefficient -30mV	
Standby Use	Initial Charging Current less than 45.0A. 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 C(77 F) and then a freshening charge is required For higher temperatures the time interval will be shorter	

Layout





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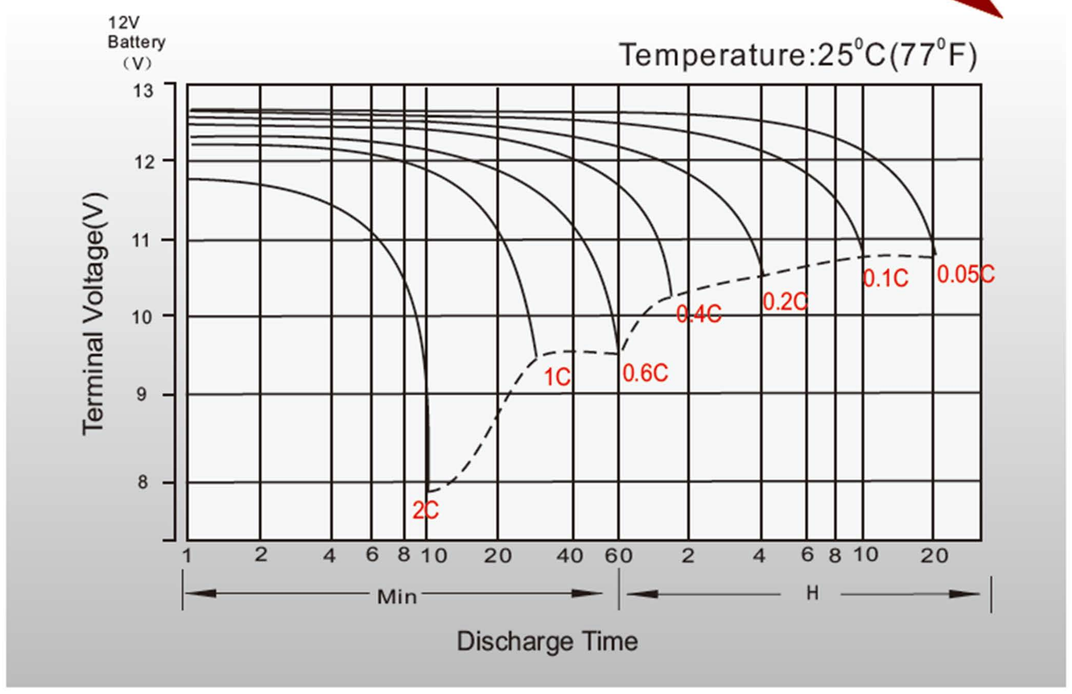
Constant Current Discharge (Amperes) at 25˚C (77˚F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	305.9	217.5	192.4	151.3	135.3	98.9	83.8	60.7	51.1	37.5	29.4	25.5	22.5	17.3	14.3	7.60
1.80V/cell	347.8	246.9	218.0	171.1	147.3	104.8	86.8	62.8	52.7	40.7	31.4	26.8	24.2	18.2	15.0	7.88
1.75V/cell	377.8	267.7	236.0	184.7	150.3	108.6	91.1	66.0	55.5	41.4	32.0	27.3	24.3	18.3	15.2	7.95
1.70V/cell	403.9	285.4	250.7	195.8	153.3	110.8	92.9	67.3	56.6	42.2	32.5	27.8	24.5	18.6	15.3	8.03
1.67V/cell	418.0	294.5	258.0	201.2	155.6	112.4	94.3	68.3	57.4	42.6	33.0	28.3	24.6	18.8	15.5	8.13
1.60V/cell	432.8	304.5	266.0	206.3	157.8	114.0	95.6	69.3	58.3	43.0	33.4	28.7	24.8	19.1	15.7	8.23

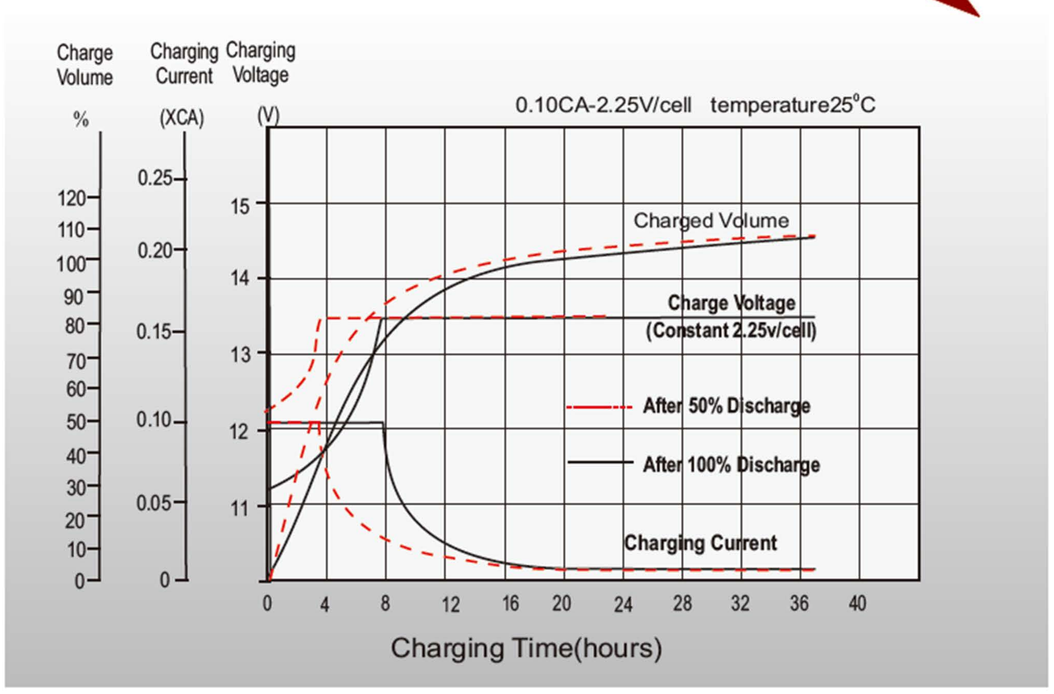
Constant Power Discharge (Watts/cell) at 25˚C (77˚F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	559.6	400.8	364.3	287.8	258.5	190.2	162.1	117.8	99.3	73.2	57.6	50.2	44.4	34.3	28.5	15.1
1.80V/cell	625.9	448.3	407.5	321.9	279.2	200.2	167.0	121.2	102.1	79.1	61.3	52.6	47.5	36.0	29.8	15.7
1.75V/cell	668.0	478.5	434.9	343.6	282.8	206.2	174.4	126.8	107.0	80.4	62.2	53.4	47.8	36.1	30.1	15.8
1.70V/cell	702.3	503.0	457.2	361.2	286.0	208.9	177.0	128.8	108.7	81.6	63.1	54.1	47.9	36.6	30.3	15.9
1.67V/cell	713.7	511.2	464.7	367.1	288.0	210.8	178.6	130.0	109.8	82.1	63.8	55.0	48.0	37.0	30.7	16.1
1.60V/cell	723.7	518.4	471.2	372.2	289.3	211.8	179.9	131.0	110.7	82.4	64.3	55.5	48.2	37.4	31.0	16.3

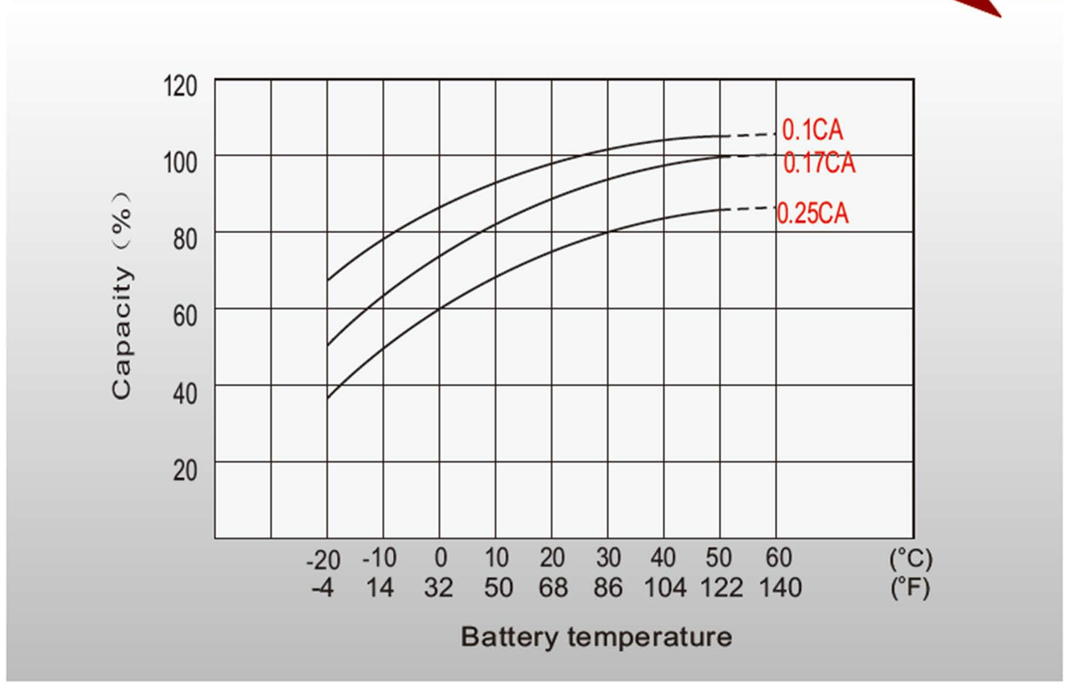
Discharge Characteristics



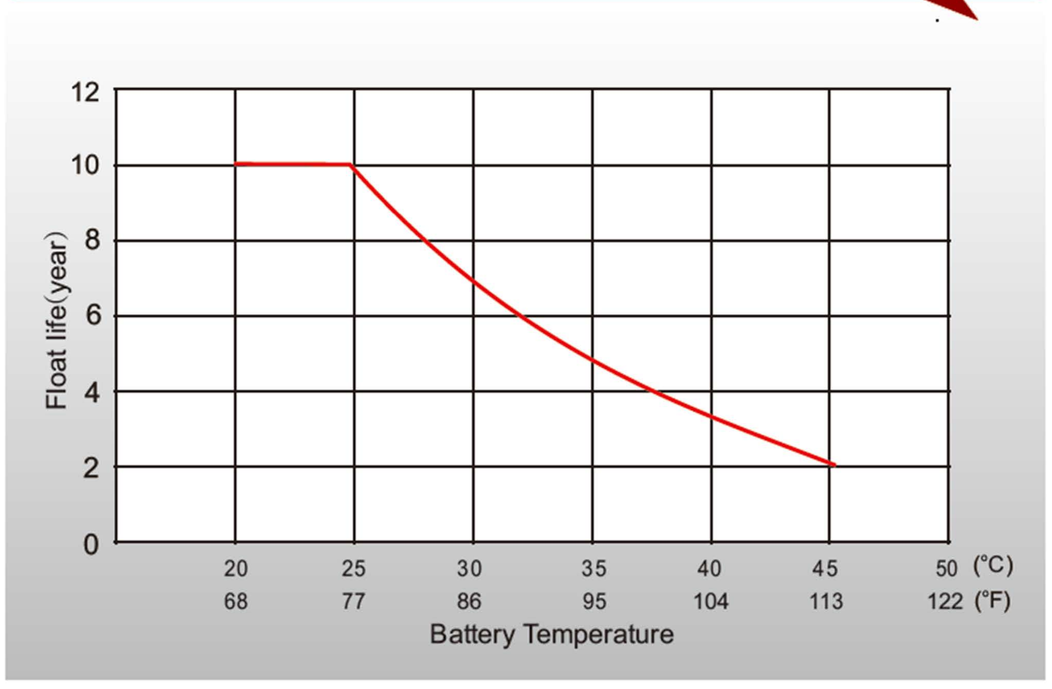
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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