

NP150-12 (12V150Ah)

Maintenance-Free Rechargeable Battery

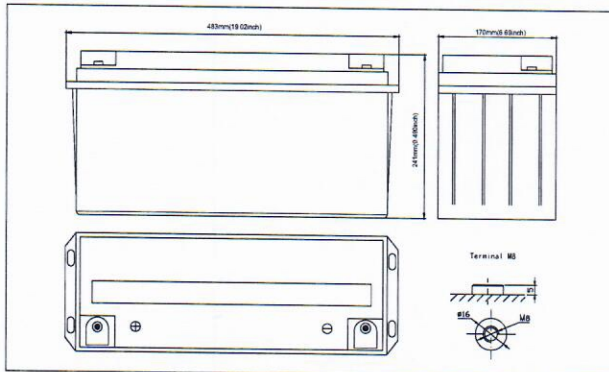


General Features

- Absorbent Glass Mat(AGM) technology for efficient gas recombination of up to 99% and freedom free electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead,calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications
- Maintenance-free operation.
- Low self discharge

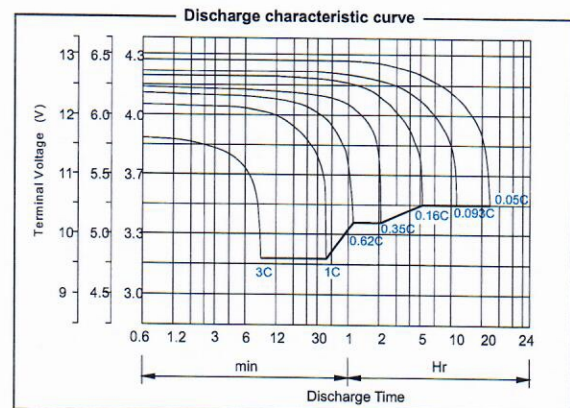
Dimensions

Lenth×Width×Height	483X170X241mm
Weight	Approx. 44.5 Kg (Tolerance ±0.5%)
Terminal	Terminal F5
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



Specification

Nominal Voltage	12V
Number of Cell	6
Design life	5 years
Nominal Capacity	
20 hour rate(8.0A, 10.8V)	160AH
10 hour rate(15.0A, 10.8V)	150AH
5 hour rate(28.0A, 10.8V)	140AH
1 hour rate(90A, 10.5V)	90AH
Internal Resistance	
Fully Charged battery	3.6mΩ
Self-Discharge	
3% of capacity declined per month at 20℃(average)	
Operating Temperature Range	
Discharge	-20~60℃
Charge	-10~60℃
Storage	-20~60℃
Max.Discharge Current(5S)	1500A
Charge Methods: Constant Voltage Charge	
Cycle use	14.4-14.8V
Maximum charging current	45A
Temperature compensation	-30mV/℃
Standby use	13.6~13.8V
Temperature compensation	-20mV/℃



Constant Current Discharge Characteristics: A (25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	452.4	337.8	272.1	150.7	93.63	57.81	39.28	31.68	26.29	17.32	15.61	8.26
10.0V	439.3	321.4	266.5	148.8	92.38	56.64	38.56	31.23	26.06	17.25	15.46	8.11
10.2V	426.3	310.1	262.4	146.5	91.50	56.04	38.21	30.91	25.89	17.10	15.30	7.95
10.5V	382.8	286.1	249.8	142.5	90.38	55.31	37.87	30.46	25.67	16.94	15.15	7.80
10.8V	345.5	260.9	230.3	137.8	89.12	54.85	37.43	29.41	25.55	16.87	15.01	7.72
11.1V	295.0	233.2	206.5	132.5	87.01	52.65	36.70	28.99	25.36	16.74	14.84	7.41

Constant Power Discharge Characteristics: W (25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	4679	3598	2993	1725	1085	677.4	462.5	379.1	315.0	207.4	187.2	99.54
10.0V	4587	3487	2945	1707	1075	669.1	455.6	373.8	312.2	206.6	185.7	97.81
10.2V	4534	3395	2912	1692	1069	664.4	453.6	370.3	310.3	205.0	184.1	96.00
10.5V	4128	3162	2778	1658	1062	656.0	449.9	365.3	307.8	203.3	182.2	94.19
10.8V	3760	2914	2567	1619	1048	651.1	444.9	353.0	306.4	202.4	180.4	93.28
11.1V	3302	2635	2311	1574	1033	626.7	437.4	347.9	305.3	201.0	178.5	89.94

All mentioned values are average values (Tolerance ±2%).

NP200-12 (12V200Ah/10hr)

Maintenance-Free Rechargeable Battery
Deep Cycle for solar use

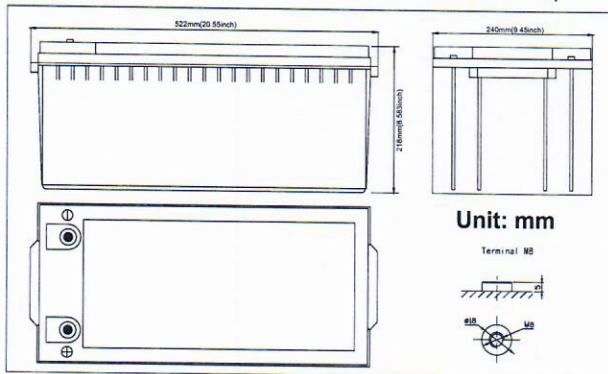


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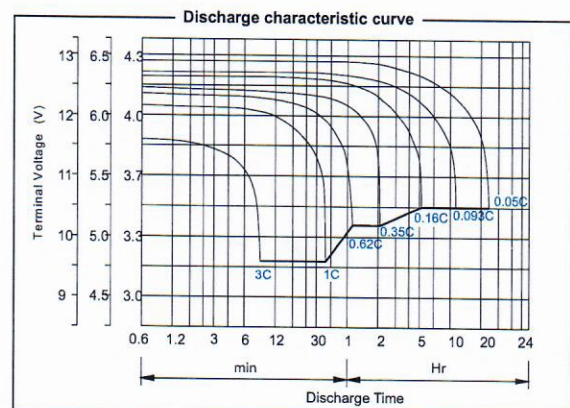
Dimensions

Lenth×Width×Height 522X240X218X222mm
Weight Approx. 58 Kg (Tolerance ±0.5%)
Terminal Insert Terminal M8
Container Material A.B.S. UL94-HB, UL94-V0 Optional.



Specification

Nominal Voltage	12V
Number of Cell	6
Design life	5 years
Nominal Capacity	
20 hour rate(11.0A, 10.8V)	220AH
10 hour rate(20.0A, 10.8V)	200AH
5 hour rate(34.4A, 10.8V)	172AH
1 hour rate(115A, 10.5V)	115AH
Internal Resistance	
Fully Charged battery	3.2mΩ
Self-Discharge	
3% of capacity declined per month at 20℃(average)	
Operating Temperature Range	
Discharge	-20~60℃
Charge	-10~60℃
Storage	-20~60℃
Max.Discharge Current(5S)	2000A
Charge Methods: Constant Voltage Charge	
Cycle use	14.1-14.4V
Maximum charging current	60A
Temperature compensation	-30mV/ C
Standby use	13.6~13.8V
Temperature compensation	-20mV/ C



Constant Current Discharge Characteristics: A (25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	569.6	425.7	343.7	210.9	124.8	75.07	52.38	42.23	35.06	23.56	20.60	10.90
10.0V	553.2	405.0	336.6	208.4	123.2	72.52	51.41	41.63	34.75	23.23	20.52	10.80
10.2V	536.8	390.7	331.3	205.3	119.0	70.72	50.95	41.22	34.82	22.89	20.40	10.58
10.5V	482.0	360.4	317.4	200.0	114.5	68.74	50.50	40.61	34.20	22.69	20.20	10.40
10.8V	435.1	328.6	290.7	183.7	110.8	66.14	49.91	39.22	34.40	22.60	20.00	10.26
11.1V	371.5	293.6	260.6	175.7	105.0	62.20	48.93	38.65	33.80	22.42	19.30	9.98

Constant Power Discharge Characteristics: W (25℃)

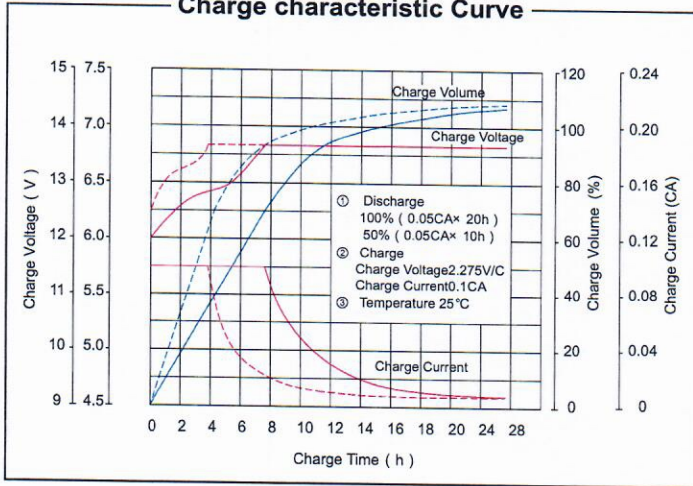
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	5892	4544	3792	2300	1447	903.2	616.7	505.5	420.0	276.5	246.6	128.4
10.0V	5776	4405	3731	2276	1433	892.2	607.5	498.4	416.2	275.5	243.6	127.3
10.2V	5710	4289	3689	2257	1425	885.8	604.8	493.7	413.7	273.4	241.4	126.0
10.5V	5198	3994	3518	2211	1416	874.6	599.9	487.1	410.4	271.1	238.0	124.6
10.8V	4734	3681	3252	2158	1398	868.1	593.2	470.6	408.5	269.9	236.6	123.4
11.1V	4159	3328	2927	2099	1377	835.6	583.2	463.9	407.0	268.0	229.0	119.9

All mentioned values are average values (Tolerance ±2%).

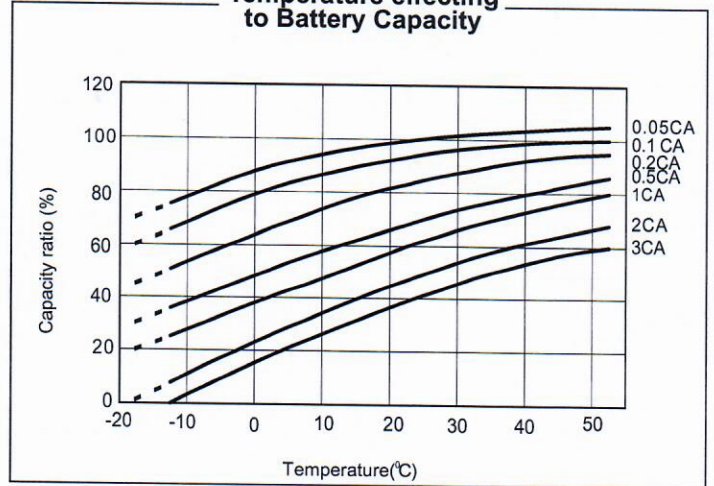
NP200-12 (12V200Ah/10hr)

Maintenance-Free Rechargeable Battery
Deep Cycle for solar use

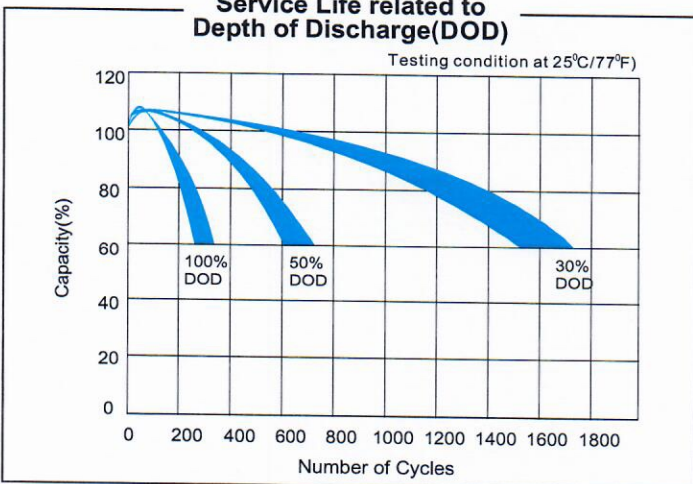
Charge characteristic Curve



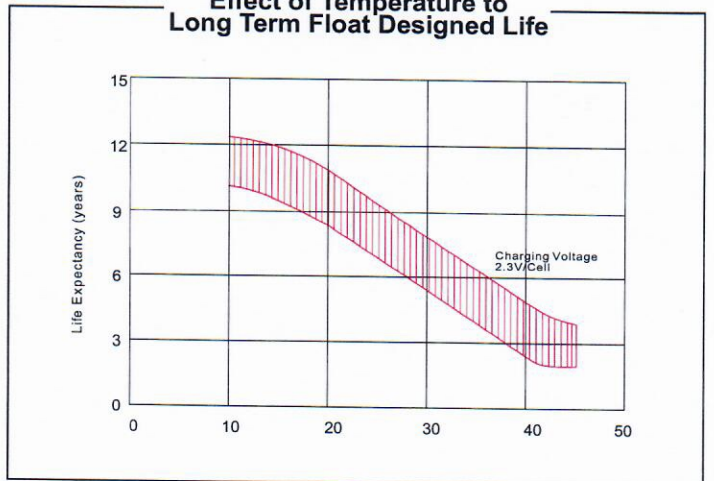
Temperature effecting to Battery Capacity



Service Life related to Depth of Discharge(DOD)



Effect of Temperature to Long Term Float Designed Life



Self Discharge Characteristic

