

IONIZE 136 PERFORMANCE

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	120.0AH	
Dimension	Length	328 ±2mm (12.8 inches)
	Width	174 ±2mm (6.81 inches)
	Container Height	217 ±2mm (8.35 inches)
	Total Height (with Terminal)	222 ±2mm (8.66 inches)
Approx Weight	Approx 33.0kg (72.6lbs)	
Terminal	T4 (M8X16) / Torque: 6.6 ~ 8.3Nm	
Container Material	ABS	
Rated Capacity	136.0 AH/1.36A	(100hr, 1.80V/cell, 25°C/77°F)
	108.0 AH/10.8A	(10hr, 1.80V/cell, 25°C/77°F)
	90.0 AH/18.0A	(5hr, 1.75V/cell, 25°C/77°F)
	76.2 AH/25.4A	(3hr, 1.75V/cell, 25°C/77°F)
	63.8 AH/63.8A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 5.0m Ω	
Operating Temp. Range	Discharge	-20~55°C (-4~131°F)
	Charge	0~40°C (32~104°F)
	Storage	-20~50°C (-4~122°F)
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)	
Cycle Use	Initial Charging Current less than 28.0A. Voltage	
	14.4V~14.6V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Battery may be stored for up to 10 months at 25°C and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Applications

- ◆ Railway and marine systems
- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golf cart
- ◆ Electric toys
- ◆ Portable power Wheelchairs
- ◆ Medical equipments
- ◆ Solar / wind power system



ISO9001 ISO14001

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	154.0	121.1	103.0	86.1	68.5	51.8	42.4	27.0	21.4	17.5	14.1	12.2	9.95	8.50	4.90
1.80V/cell	206.8	154.7	124.4	101.8	80.8	60.3	47.5	29.5	23.0	18.6	15.1	13.1	10.5	9.00	5.50
1.75V/cell	233.1	170.0	135.9	109.5	83.9	62.5	49.7	30.6	23.4	19.1	15.5	13.5	10.7	9.09	5.80
1.70V/cell	256.7	185.3	145.1	115.1	87.3	65.0	51.3	31.8	24.1	19.6	15.9	13.8	10.9	9.18	6.00
1.65V/cell	283.1	200.0	154.3	122.3	92.1	66.7	53.0	32.7	25.1	20.2	16.3	14.1	11.1	9.37	6.20
1.60V/cell	312.2	217.1	165.0	130.3	97.2	69.5	54.9	33.8	25.9	20.9	16.9	14.4	11.2	9.47	6.40

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

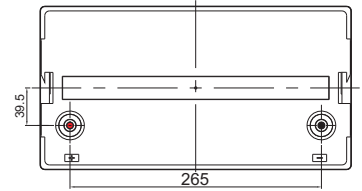
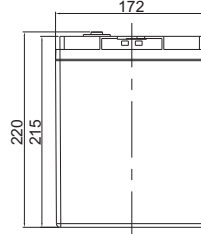
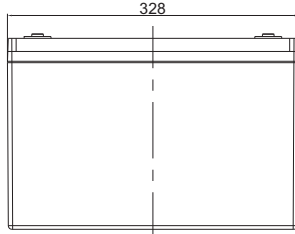
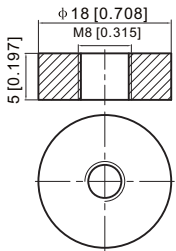
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	281.6	223.7	192.2	162.4	130.5	99.6	81.8	52.5	41.6	34.1	27.6	24.1	19.6	16.8	9.18
1.80V/cell	374.0	282.5	229.1	189.1	151.6	114.9	91.2	56.9	44.6	36.2	29.5	25.7	20.8	17.8	9.26
1.75V/cell	412.7	305.4	247.1	201.5	156.1	118.1	95.0	58.8	45.2	36.9	30.2	26.4	21.1	17.9	9.33
1.70V/cell	441.9	325.3	260.2	210.2	161.6	122.4	97.6	61.0	46.4	37.8	30.9	26.9	21.3	18.1	9.51
1.65V/cell	480.4	347.9	274.5	221.6	169.1	124.3	100.2	62.3	48.1	39.0	31.6	27.4	21.6	18.4	9.62
1.60V/cell	517.6	369.1	288.7	233.5	177.2	128.9	103.2	64.1	49.4	40.1	32.5	27.9	21.8	18.6	9.66

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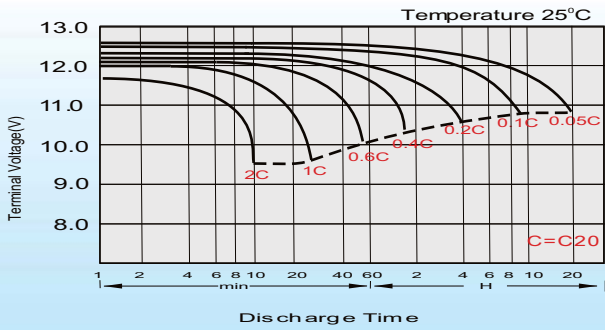
Dimensions

T4 Terminal

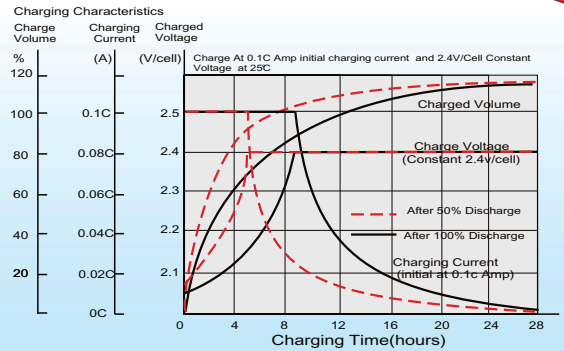
Unit: mm [inches]



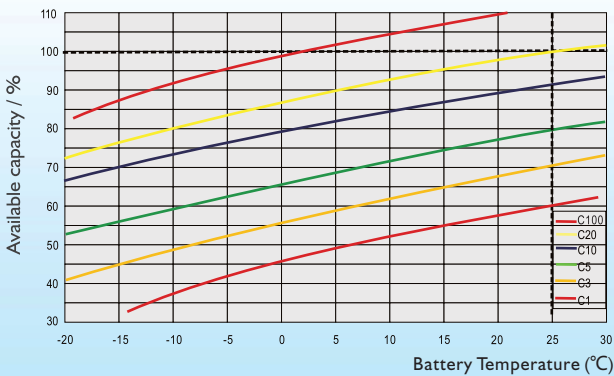
Discharge Characteristics



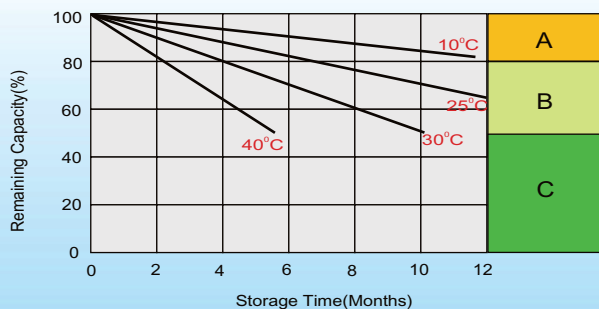
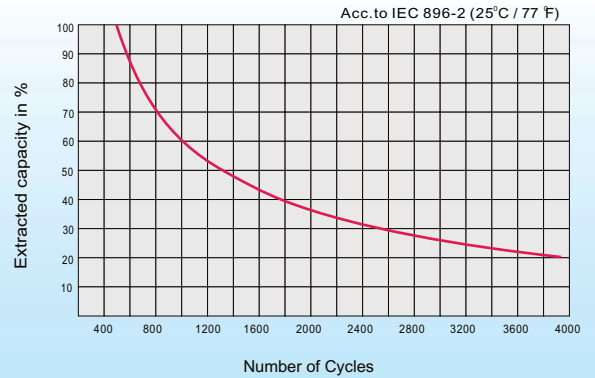
Charging Characteristics (cycle use)



Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

A

No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

B

Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
3. Charged for 8~10hours at limited current 0.05CA .

C

Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.