

IONIZE 305 ULTRA

Specification

Nominal Voltage	12V
Nominal Capacity(20HR)	260AH
Dimensions	Length 520± 2mm (20.55 inches)
	Width 268± 2mm (10.55 inches)
	Container Height 220± 2mm (8.66 inches)
	Total Height (with Terminal) 225± 2mm (8.90 inches)
Approx Weight	Approx 77.0 kg (169.0 lbs)
Terminal	T5 (M8X16) / Torque: 9.6 ~ 10.7Nm
Container Material	ABS
Rated Capacity	305.0 AH/3.05A (100hr, 1.60V/cell, 25°C/77°F)
	260.0 AH/13.0A (20hr, 1.80V/cell, 25°C/77°F)
	250.0 AH/25.0A (10hr, 1.80V/cell, 25°C/77°F)
	215.0 AH/43.0A (5hr, 1.75V/cell, 25°C/77°F)
	195.3 AH/65.1A (3hr, 1.75V/cell, 25°C/77°F)
Max. Discharge Current	2500A (5s)
Internal Resistance	Approx 2.5mΩ
Operating Temp. Range	Discharge : -15~50°C (5~122°F)
	Charge : 0~40°C (32~104°F)
	Storage : -15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 75.0A. Voltage 14.4V~14.6V at 25°C(77°F)Temp. Coefficient -30mV/°C
	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Standby Use	
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 6 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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	336.4	286.1	239.3	190.2	143.9	117.9	75.1	59.4	48.5	39.1	34.0	27.6	23.6	12.9
1.80V/cell	429.8	345.7	282.9	224.4	167.4	132.0	81.9	63.9	51.8	42.0	36.5	29.3	25.0	13.0
1.75V/cell	472.3	377.6	304.3	233.0	173.7	138.1	85.0	65.1	52.9	43.0	37.5	29.8	25.3	13.1
1.70V/cell	/	403.1	319.8	242.5	180.7	142.5	88.4	66.9	54.3	44.2	38.3	30.2	25.5	13.4
1.65V/cell	/	428.6	339.7	255.8	185.2	147.3	90.8	69.7	56.2	45.4	39.1	30.7	26.0	13.5
1.60V/cell	/	458.4	361.9	270.1	193.0	152.5	93.9	71.9	58.0	46.9	40.0	31.0	26.3	13.6

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

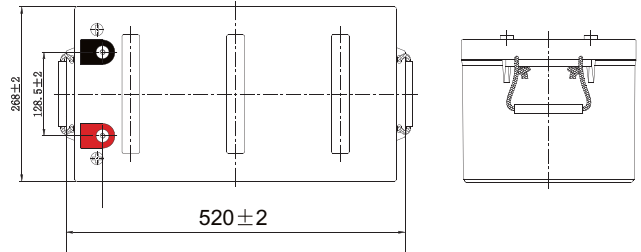
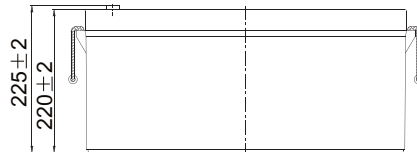
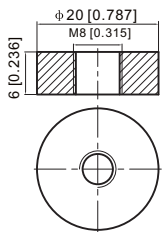
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	621.4	533.8	451.0	362.5	276.7	227.3	145.8	115.7	94.8	76.6	66.9	54.5	46.7	25.5
1.80V/cell	784.6	636.3	525.3	421.2	319.3	253.3	158.0	123.8	100.7	81.9	71.5	57.7	49.4	25.7
1.75V/cell	848.3	686.5	559.7	433.6	328.2	263.8	163.3	125.6	102.6	83.8	73.2	58.5	49.8	25.9
1.70V/cell	/	722.7	583.8	448.8	340.0	271.2	169.4	128.9	105.1	85.7	74.6	59.3	50.3	26.4
1.65V/cell	/	762.6	615.6	469.6	345.4	278.3	173.2	133.7	108.3	87.8	76.0	60.1	51.2	26.7
1.60V/cell	/	802.1	648.6	492.3	358.0	286.7	178.1	137.2	111.3	90.4	77.4	60.5	51.7	26.8

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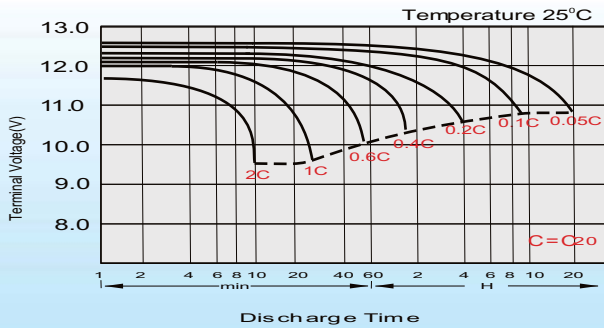
Dimensions

T5 Terminal

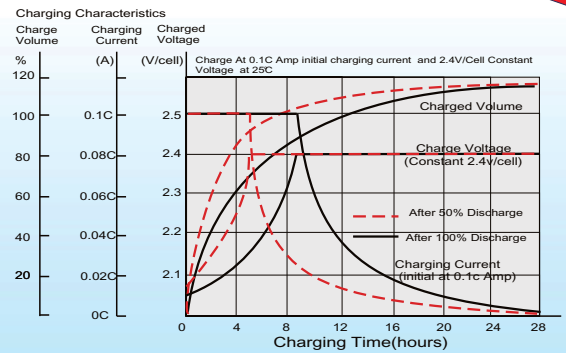
Unit: mm [inches]



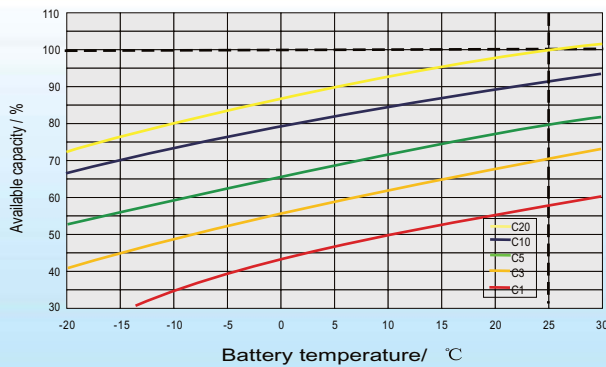
Discharge Characteristics



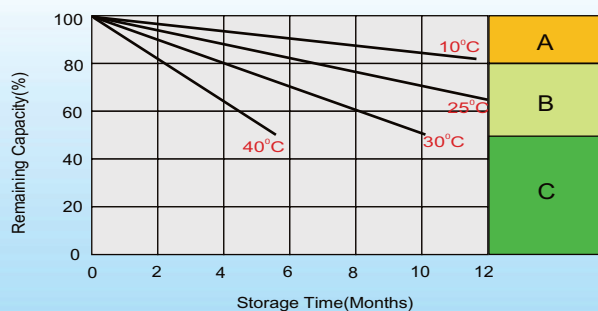
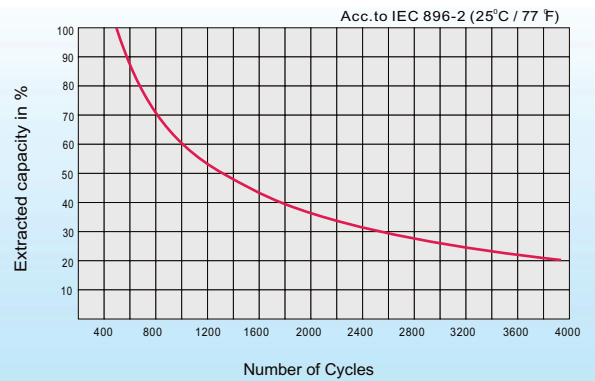
Charging Characteristics (cycle use)



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 voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8~10 hours 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.