

Specification ORB 12-40 (12V40AH/10Hr)

Nominal Voltage		12V
Rated Capacity (10 hour rate)		40AH
Dimension	Length	196±2mm (7.72in)
	Width	166±2mm (6.54in)
	Height	170±2mm (6.70in)
	Total Height (with terminals)	170±2mm (6.70in)
Weight		Approx 12.5kg ±2%(27.6lbs)

Characteristic

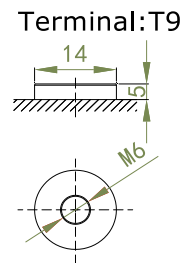
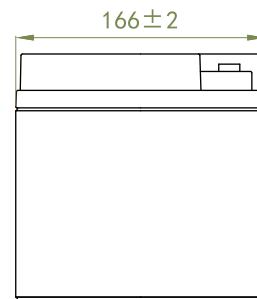
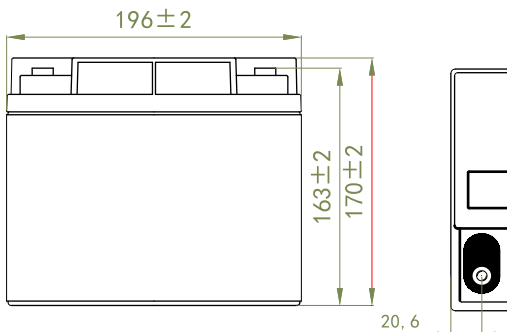
Capacity 25°C(77°F)	10 hour rate (4.0A)	40AH
	5 hour rate (6.8A)	34AH
	1 hour rate (24A)	24AH
Internal Resistance	Full charged Battery 25°C(77°F)	8.2mΩ
Capacity affected by Temperature (10 hour rate)	40°C(104°F)	103%
	25°C(77°F)	100%
	0°C(32°F)	85%
	-15°C(5°F)	65%
Self-Discharge 25°C(77°F)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
	Capacity after 12 month storage	65%
Max. Discharge Current	600A (5S) 25°C(77°F)	
Terminal	Standard	T9
	Optional	T6
Charging (Constant Voltage)	Cycle	Initial Charging Current 10A or small 14.40~15.00V 25°C(77°F)
	Float	13.50~13.80V 25°C(77°F)



Applications

- ★ All purpose
- ★ Uninterruptable Power Supply(UPS)
- ★ Electric Power System(EPS)
- ★ Emergency backup power supply
- ★ Emergency light
- ★ Railway signal
- ★ Aircraft signal
- ★ Alarm and security system
- ★ Electronic apparatus and equipment
- ★ Communication power supply
- ★ DC power supply
- ★ Auto control system

Unit:mm Dimension:196(L)×166(W)×170(H)



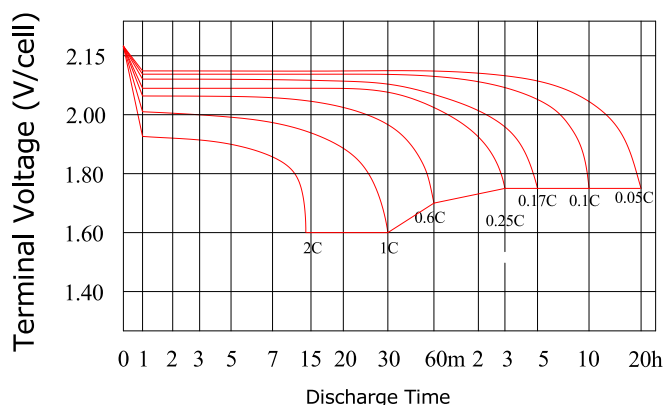
Constant Current Discharge(Amperes) at 25°C(77°F)

F.V/Time	15min	30min	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	56.0	33.9	20.6	12.8	9.56	7.84	6.68	5.44	4.52	3.88	2.02
1.80V/cell	61.3	36.5	22.0	13.5	10.0	8.16	6.96	5.84	4.68	4.00	2.07
1.75V/cell	65.5	38.6	23.0	14.0	10.4	8.44	7.16	6.00	4.80	4.08	2.12
1.70V/cell	68.8	40.2	23.8	14.4	10.6	8.64	7.32	6.12	4.88	4.16	2.14
1.65V/cell	71.3	41.4	24.4	14.7	10.8	8.76	7.40	6.28	4.96	4.24	2.17
1.60V/cell	73.2	42.4	24.9	14.9	11.0	8.88	7.52	6.40	5.00	4.28	2.19

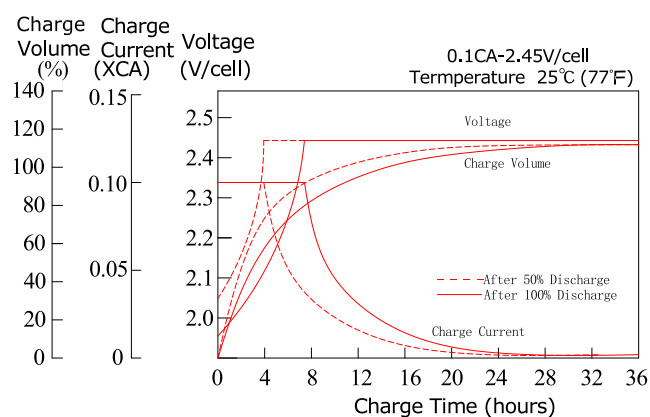
Constant Power Discharge(Watts/cell) at 25°C(77°F)

F.V/Time	15min	30min	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	107	65.6	40.4	25.4	19.0	15.6	13.3	10.7	9.08	7.80	4.08
1.80V/cell	115	70.0	42.8	26.5	19.7	16.2	13.8	11.4	9.36	8.04	4.16
1.75V/cell	122	73.6	44.4	27.4	20.3	16.6	14.1	11.7	9.60	8.20	4.24
1.70V/cell	126	75.6	46.0	28.0	20.7	17.0	14.4	11.9	9.76	8.36	4.32
1.65V/cell	129	77.6	46.8	28.4	21.1	17.2	14.6	12.2	9.88	8.44	4.34
1.60V/cell	130	78.0	47.2	28.7	21.2	17.3	14.7	12.4	9.92	8.52	4.36

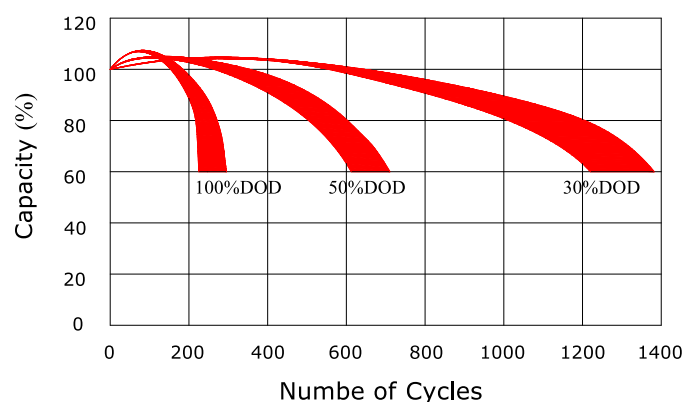
Discharge Characteristics



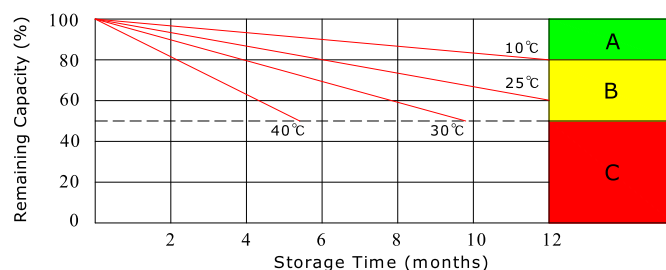
Float Charge Characteristics



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 20 hours at limited current 0.2CA and constant voltage 2.45V/cell.
2. 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