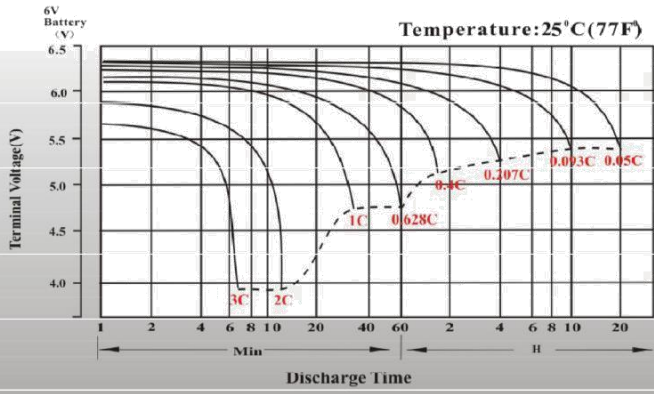
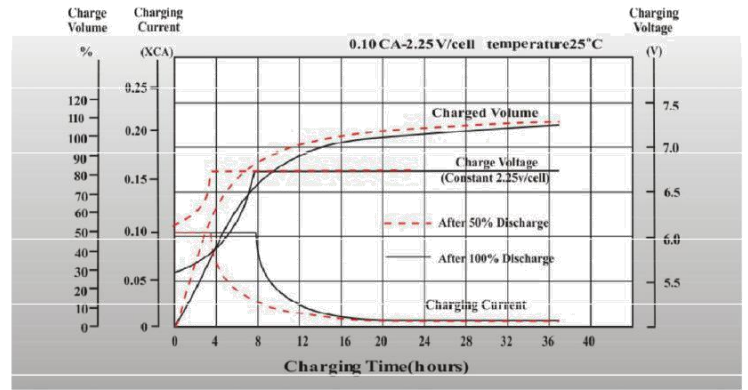


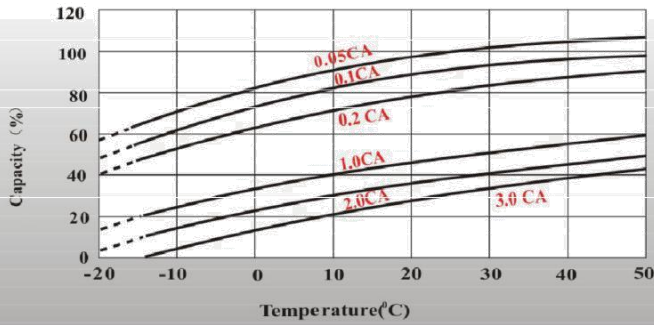
Discharge Characteristics



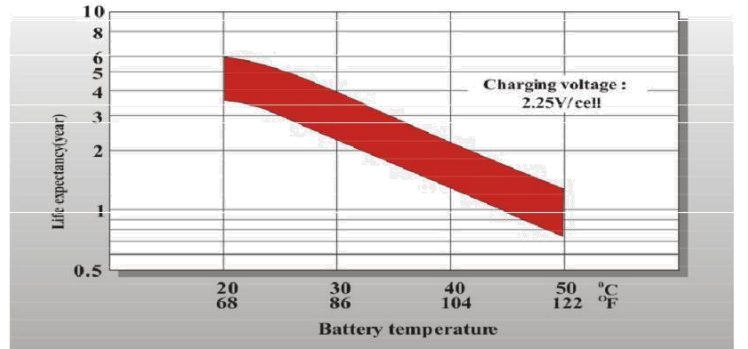
Float Charging Characteristics



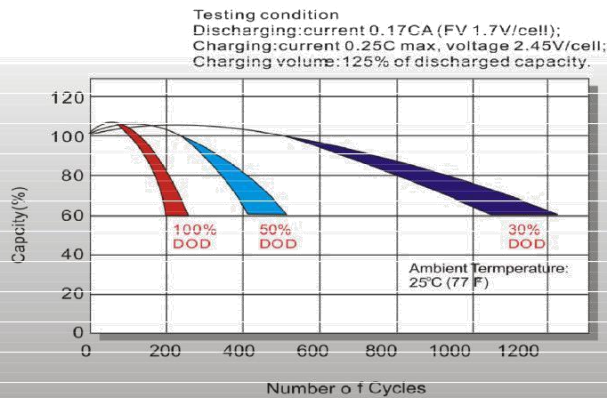
Temperature Effects in Relation to Battery Capacity



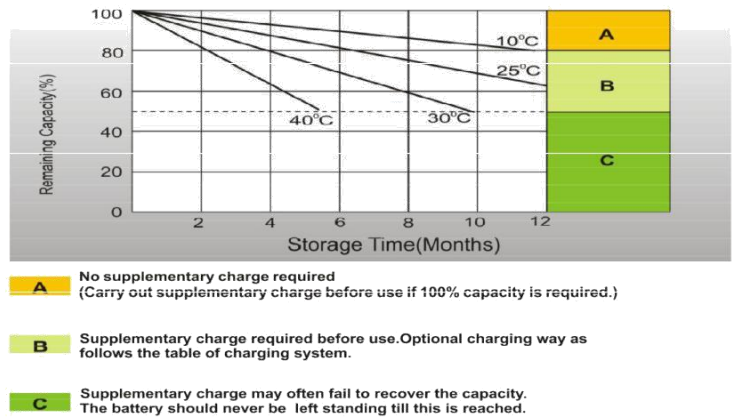
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



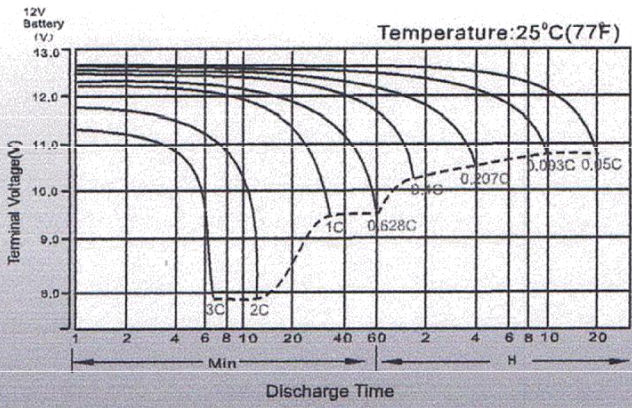
Charging System

D o D	Current Limit (A)	Constant Voltage (V)	Fully Charged Time (h)
20	0.15C ₁₀	13.5-13.8 vpc (12V)	10
	0.20C ₁₀	6.75-6.9 vpc (6V)	8
50	0.15C ₁₀	13.5-13.8 vpc (12V)	15
	0.20C ₁₀	6.75-6.9 vpc (6V)	12
80	0.15C ₁₀	13.5-13.8 vpc (12V)	16
	0.20C ₁₀	6.75-6.9 vpc (6V)	14
100	0.15C ₁₀	13.5-13.8 vpc (12V)	20
	0.20C ₁₀	6.75-6.9 vpc (6V)	18

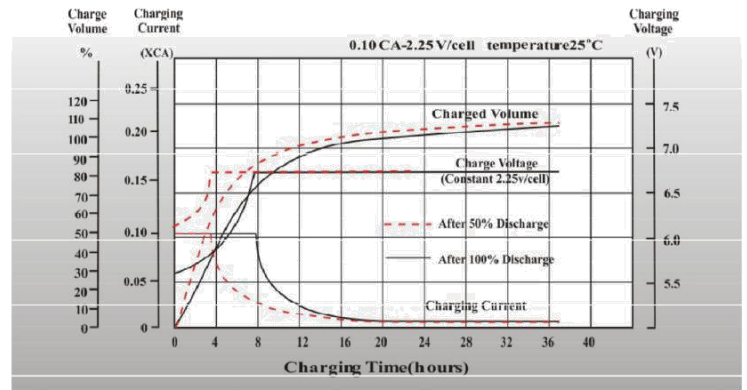
State of Charge (SOC)

Open Circuit Voltage (V/cell)	Open Circuit Voltage (12V Battery)	Open Circuit Voltage (6V Battery)	State of Charge (% of full charge capacity)
2.14-2.15	12.84-12.90	6.42-6.46	100
2.12-2.13	12.72-12.78	6.36-6.39	90
2.11	12.66	6.33	80
2.09	12.54	6.27	70
2.07	12.42	6.21	60
2.05	12.30	6.15	50

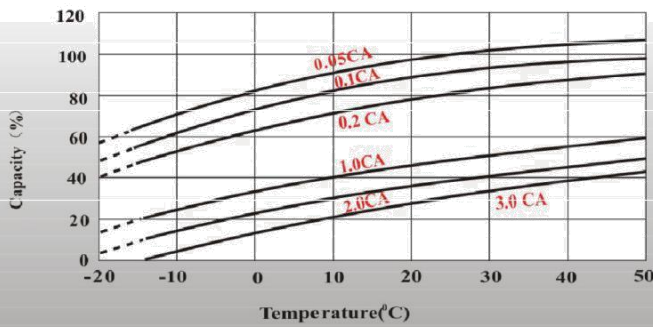
Discharge Characteristics



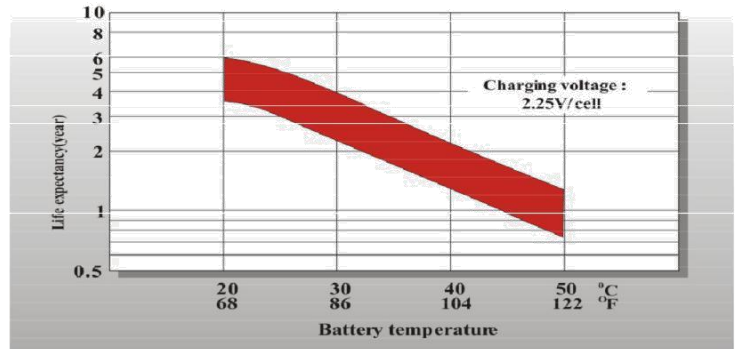
Float Charging Characteristics



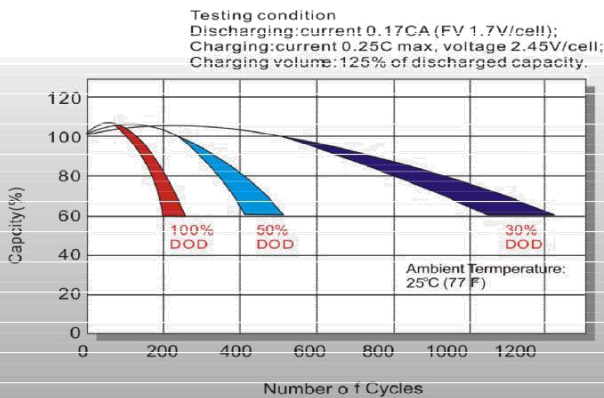
Temperature Effects in Relation to Battery Capacity



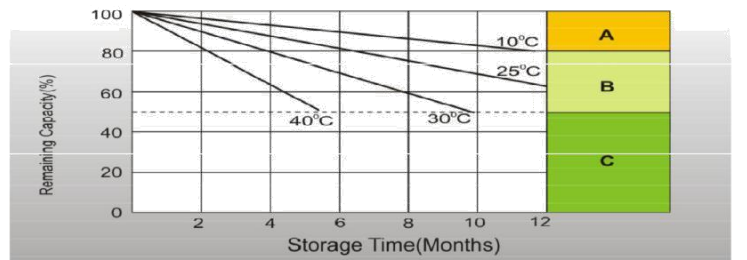
Effect of Temperature on Long Term Float Life



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 follows the table of charging system.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

Charging System

D o D	Current Limit (A)	Constant Voltage (V)	Fully Charged Time (h)
20	0.15C ₁₀	13.5-13.8 vpc (12V)	10
	0.20C ₁₀	6.75-6.9 vpc (6V)	8
50	0.15C ₁₀	13.5-13.8 vpc (12V)	15
	0.20C ₁₀	6.75-6.9 vpc (6V)	12
80	0.15C ₁₀	13.5-13.8 vpc (12V)	16
	0.20C ₁₀	6.75-6.9 vpc (6V)	14
100	0.15C ₁₀	13.5-13.8 vpc (12V)	20
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State of Charge (SOC)

Open Circuit Voltage (V/cell)	Open Circuit Voltage (12V Battery)	Open Circuit Voltage (6V Battery)	State of Charge (% of full charge capacity)
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2.12-2.13	12.72-12.78	6.36-6.39	90
2.11	12.66	6.33	80
2.09	12.54	6.27	70
2.07	12.42	6.21	60
2.05	12.30	6.15	50

Product Specification

Nominal Voltage Nominal	12V	
Capacity (20HR)	100 AH	
Dimensions	Length	330±1mm (12.99 inches)
	Width	172±1mm (6.77 inches)
	Container Height	217±1mm (8.54 inches)
	Total Height (with terminal)	220±1mm (8.66 inches)
Approx Weight	Approx 30.00 kg(66.15 lbs)	
Terminal	T11	
Container Material	ABS Plastic	
Lead Material	Purity Lead 99.995%	
Sulfuric Acid	Distilled Sulfuric Acid (Zero metal content)	
Separator	AGM	
Rated Capacity	104.0 AH/5.20A	(20hr, 1.80V/cell,25°C/77°F)
	100.0 AH/10.0A	(10hr, 1.80V/cell,25°C/77°F)
	88.0 AH/17.6A	(5hr, 1.75V/cell,25°C/77°F)
	76.2 AH/25.4A	(3hr, 1.75V/cell,25°C/77°F)
	65.1 AH/65.1A	(1hr, 1.60V/cell,25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9mΩ	
	Discharge: -15~50°C (5~122°F) Charge : 0~40°C (32~104°F)	
Operating Temp.Range	Storage : -15~40°C (5~104°F)	
	25±3°C (77±5°F)	
Nominal Operating	Initial Charging Current less than 30.0A. Voltage	
Temp.Range Cycle Use	14.4V~15.0V at 25°C (77°F) Temp.Coefficient -30mV/°C	
	No limit on Initial Charging Current Voltage	
Standby Use	13.5V~13.8V at 25°C (77°F) Temp.Coefficient -20mV/°C	
	40°C (104°F)	103%
Capacity affected by Temperature	25°C (77°F)	100%
	0°C (32°F)	86%
	Kayaba series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required.	

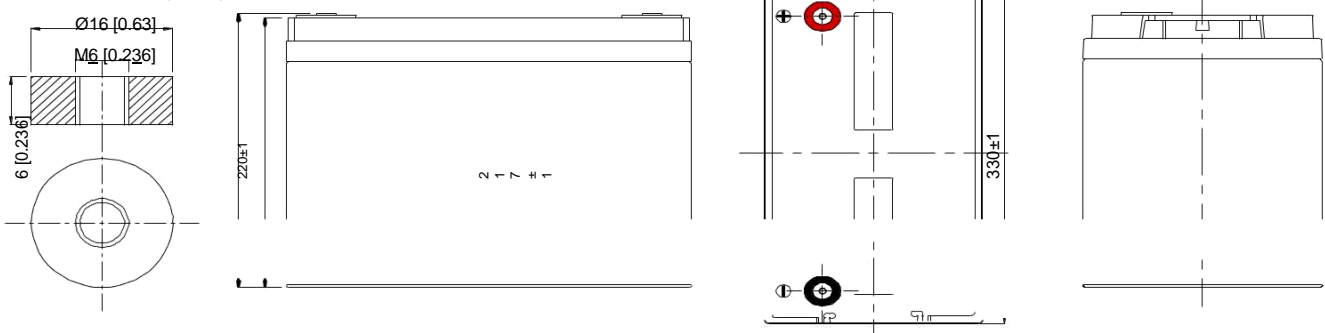


- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Aircraft signal
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply
- Auto control system

Dimensions

T11 Terminal

Unit : mm (inches)



136.4 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	208,8	161,4		117,0	88,4	65,7	53,0	31,3	23,5	19,2	16,4	14,4	11,6	9,65	5,13
1.80V/cell	246,0	180,0	150,8	126,6	94,2	69,6	55,9	33,1	24,6	20,2	17,2	15,0	12,0	10,0	5,20
1.75V/cell	278,4	197,4	162,0	134,7	99,0	72,7	58,0	34,4	25,4	20,7	17,6	15,3	12,2	10,1	5,29
1.70V/cell	318,0	214,8	174,4	143,4	104,6	76,0	60,4	35,3	26,0	21,2	17,9	15,6	12,4	10,2	5,34
1.65V/cell	356,4	232,2	185,6	151,5	110,0	79,2	63,0	36,3	26,7	21,7	18,3	15,9	12,6	10,3	5,40
1.60V/cell	405,6	254,4	197,2	159,9	115,8	82,4	65,1	37,5	27,6	22,2	18,6	16,2	12,7	10,5	5,45

254.5 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	381,8	298,1		220,5	168,5	126,4	102,2	60,8	45,7	37,5	32,2	28,2	22,9	19,1	10,15
1.80V/cell	445,0	328,6	277,6	235,1	176,8	132,7	107,2	63,8	47,7	39,2	33,6	29,4	23,7	19,8	10,29
1.75V/cell	492,9	354,6	294,6	247,8	184,3	137,3	110,8	66,0	49,1	40,1	34,3	29,9	24,0	19,9	10,45
1.70V/cell	547,4	377,1	312,7	261,8	193,6	143,0	115,0	67,6	50,1	41,0	34,8	30,4	24,3	20,1	10,54
1.65V/cell	604,8	403,9	330,2	274,5	201,9	147,7	119,1	69,2	51,3	41,8	35,3	30,8	24,6	20,3	10,64
1.60V/cell	672,4	432,4	345,1	286,6	211,1	152,9	122,4	71,1	52,7	42,8	35,9	31,3	24,8	20,5	10,73

