

# RF12-100

## (12V100Ah)



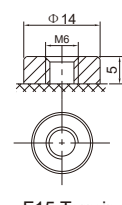
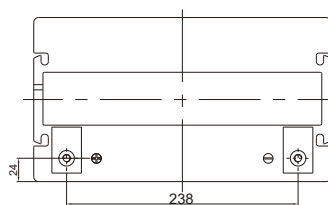
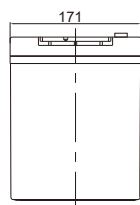
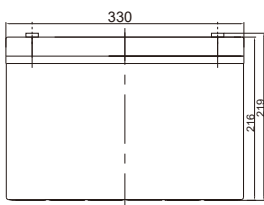
- Non-Spillable Sealed Construction
- Absorbent Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
- Gas Recombination
- Maintenance-Free Operation
- Low Pressure Venting System
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature Range
- High Recovery Capability



### SPECIFICATION

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	100Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 27.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 5.5 mΩ
Terminal	F15(M6)/F12(M8)
Max. Discharge Current	1000A (5 sec)
Short Circuit Current	2200A
Design Life	12 years (Float charging)
Max. Charging Current	30.0 A
Reference Capacity	C3 77.4AH C5 87.0AH C10 100.0AH C20 106.0AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: -10°C~60°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ±5°C
Self Discharge	Restar Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

### DIMENSIONS



F15 Terminal

Length	330±2mm (12.99 inches)
Width	171±2mm (6.73 inches)
Height	216±2mm (8.50 inches)
Total Height	219±2mm (8.62 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

#### Constant Current Discharge Characteristics : A (25°C)

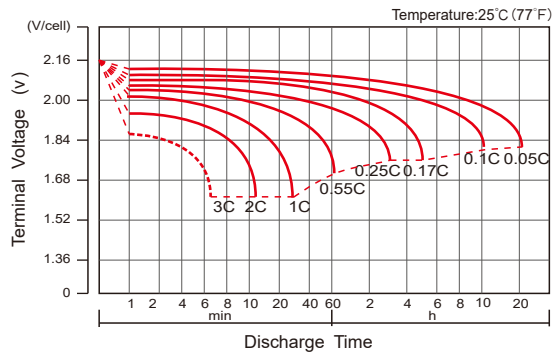
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	218.2	174.4	105.2	61.1	36.4	28.2	22.2	18.9	12.7	10.5	5.52
1.65V	195.2	166.8	101.0	59.0	35.2	27.3	21.6	18.4	12.5	10.4	5.43
1.70V	179.7	156.2	96.5	57.1	34.1	26.6	21.0	17.9	12.3	10.3	5.36
1.75V	164.5	145.4	92.2	55.0	32.9	25.8	20.4	17.4	12.2	10.1	5.30
1.80V	148.9	134.2	88.2	52.9	31.7	25.0	19.9	17.0	12.0	10.0	5.25
1.85V	121.7	111.4	75.9	47.4	29.1	23.1	18.5	15.9	11.2	9.41	4.98

#### Constant Power Discharge Characteristics : WPC (25°C)

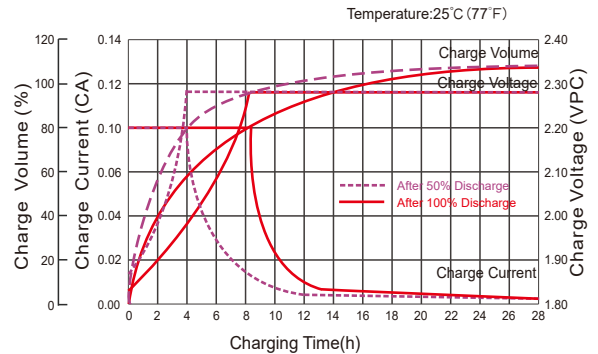
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	351.2	317.7	194.9	114.8	69.0	53.9	42.6	36.4	24.8	20.7	10.9
1.65V	338.3	308.2	189.1	111.5	67.1	52.4	41.6	35.6	24.5	20.5	10.7
1.70V	317.1	293.0	182.6	108.6	65.3	51.2	40.6	34.8	24.2	20.2	10.6
1.75V	295.5	276.6	176.3	105.2	63.3	49.9	39.7	34.0	23.9	20.0	10.5
1.80V	272.2	259.0	170.2	101.8	61.3	48.6	38.7	33.2	23.6	19.8	10.4
1.85V	226.4	218.0	148.1	91.9	56.5	45.1	36.1	31.1	22.2	18.6	9.87

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C<sub>10</sub> should reach 95% after the first cycle and 100% after the third cycle.

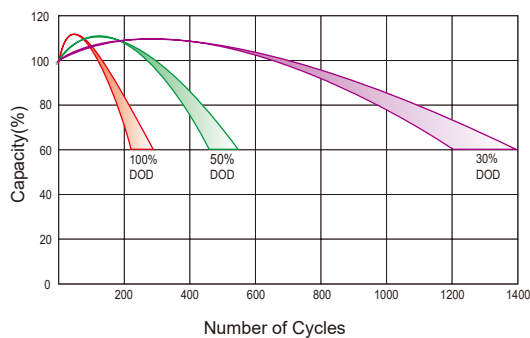
### Discharge Characteristics Curve



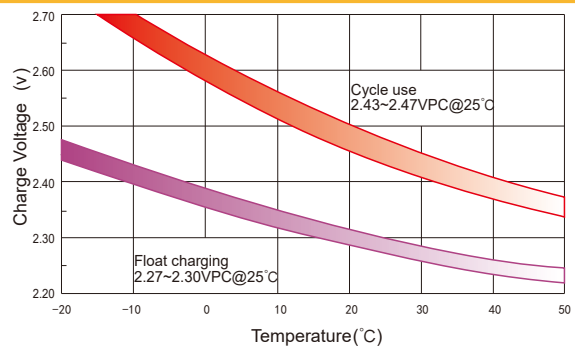
### Charge Characteristic Curve For Standby Use



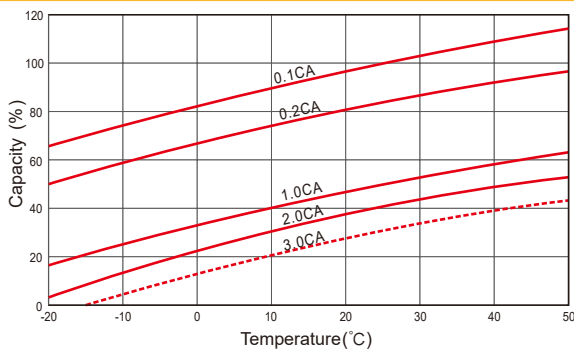
### Cycle Life In Relation To Depth Of Discharge



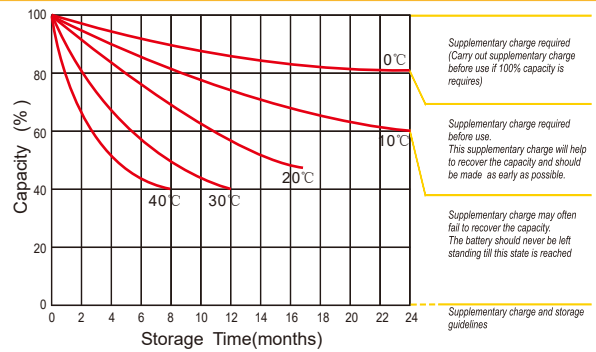
### Relationship Between Charging Voltage And Temperature



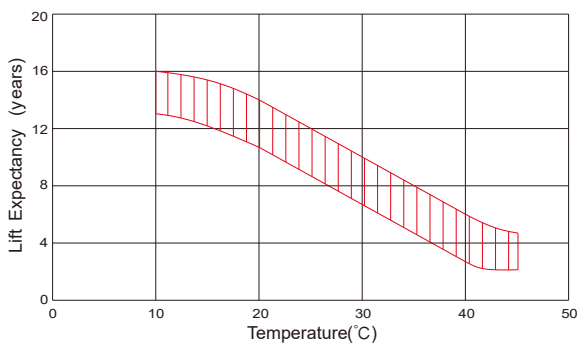
### Temperature Effects On Capacity



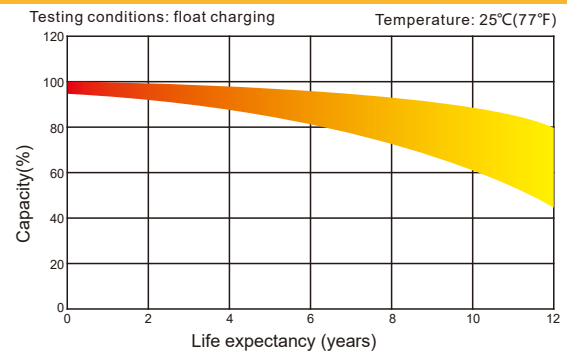
### Storage Characteristics



### Effect Of Temperature On Long Term Life



### Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice, Restar reserves the right to explain and update the latest information

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