



# RA12-150F (12V150Ah)

RA12-150F is front terminal type, designed for Telecom and UPS use with 10 years life time based Eurobat standard. As with all Ritar batteries, all front terminal models are rechargeable, highly efficient, leak proof and maintenance free.



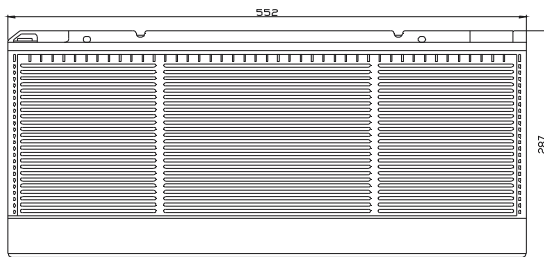
## Specification

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Capacity</b>	150Ah @ 10hr-rate to 1.75V per cell @ 25°C
<b>Weight</b>	Approx. 45 Kg
<b>Max. Discharge Current</b>	750 A (5 sec)
<b>Internal Resistance</b>	Approx. 4 mΩ
<b>Operating Temperature Range</b>	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
<b>Normal Operating Temperature Range</b>	25°C±5°C
<b>Float charging Voltage</b>	13.6 to 13.8 VDC/unit Average at 25°C
<b>Recommended Maximum Charging Current Limit</b>	45 A
<b>Equalization and Cycle Service</b>	14.4 to 15.0 VDC/unit Average at 25°C
<b>Self Discharge</b>	RITAR batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
<b>Terminal</b>	Terminal F9/Thread insert & Bolt (M8)
<b>Container Material</b>	A.B.S. (UL94-HB) Flammability resistance of UL94-V1 can be available upon request.

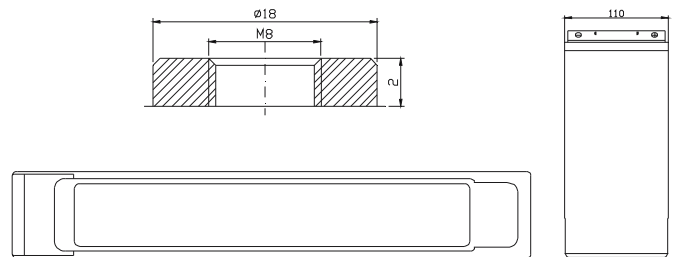


## Dimensions

Unit: mm



Terminal F9



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

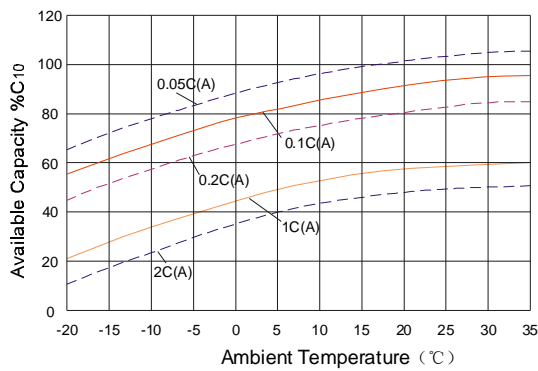
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	561	402	293	173	97.5	59.9	39.2	32.4	25.5	18.5	15.6	8.3
1.67V	546	383	287	170	97.1	59.4	39.0	32.3	25.4	18.3	15.5	8.1
1.70V	515	369	282	168	96.2	59.0	38.7	32.1	25.2	18.2	15.3	8.0
1.75V	462	341	269	164	95.3	58.5	38.6	31.8	24.9	18.0	15.2	7.8
1.80V	417	311	248	157	93.0	57.5	37.5	31.1	24.5	17.7	15.0	7.7
1.85V	363	278	222	147	88.4	54.9	35.9	29.6	23.4	17.0	14.6	7.2

### Constant Power Discharge Characteristics Unit: W(25°C)

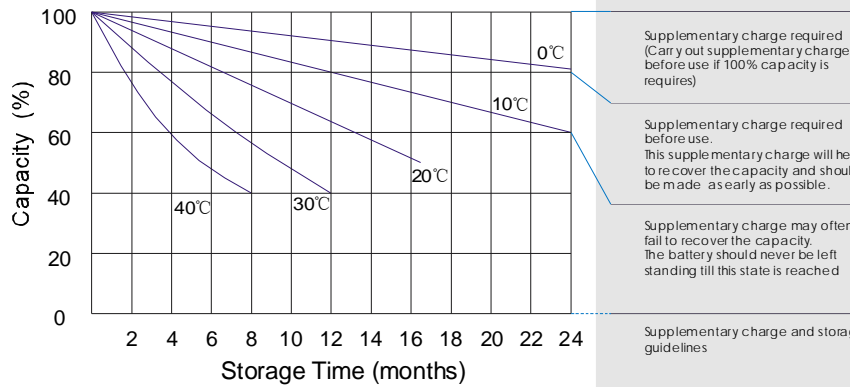
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1006	735	542	324	185.9	114.8	75.3	62.4	49.2	35.7	29.3	15.5
1.67V	985	702	530	320	185.0	114.3	75.2	62.3	48.9	35.6	29.0	15.3
1.70V	930	679	523	317	183.6	113.3	74.7	62.0	48.8	35.3	28.8	15.2
1.75V	837	627	499	309	181.8	112.2	74.3	61.5	48.3	35.0	28.5	15.0
1.80V	753	570	458	295	177.3	110.6	72.5	59.9	47.6	34.2	28.2	14.9
1.85V	650	506	409	277	168.0	105.5	68.9	57.0	45.2	33.0	27.3	14.3

All mentioned values are average values.

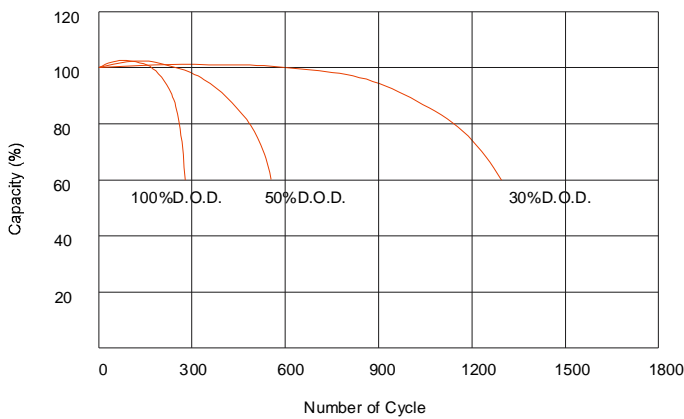
### Temperature effects curve



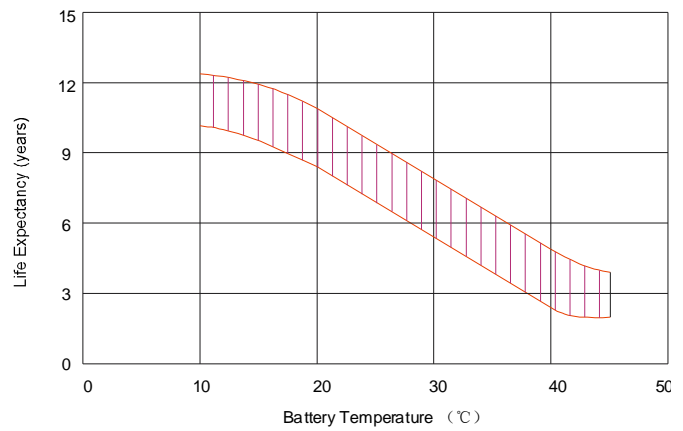
### Storage characteristics



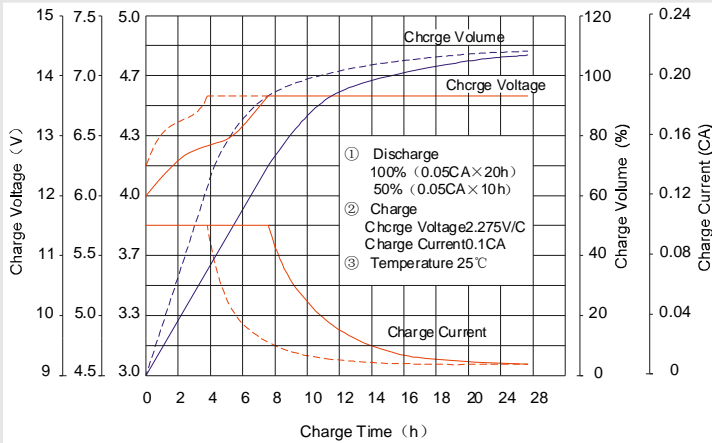
### Life characteristics of cyclic use



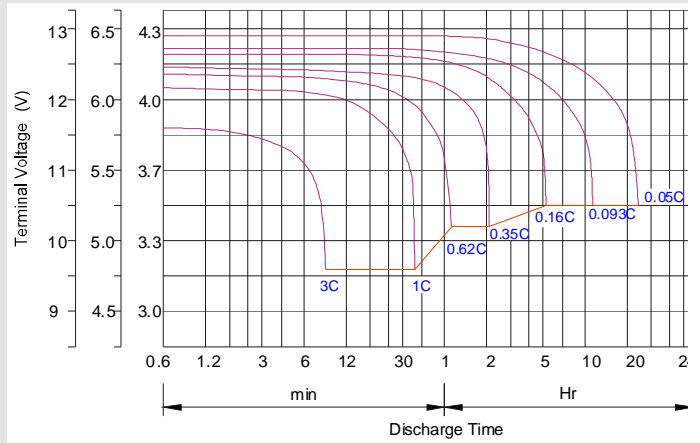
### Effect of temperature on long term float life



### Charge characteristic Curve for standby use



### Discharge characteristic Curve



### Charging Procedures(12V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.7	14.4~15.0	0.3C
Standby	25°C	13.7	13.6~13.8	0.3C

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h +14.4~15.0V,24h,Max. Current 0.3CA
Constant Current	-0.2Cx2h +0.1CAx12h

### Charging Procedures(6V series)

Application	Charge Voltage (V)			Max. Char Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	7.35	7.25~7.45	0.3C
Standby	25°C	6.85	6.8~6.9	0.3C