

RA12-180F (12V180Ah)

RA12-180F 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.

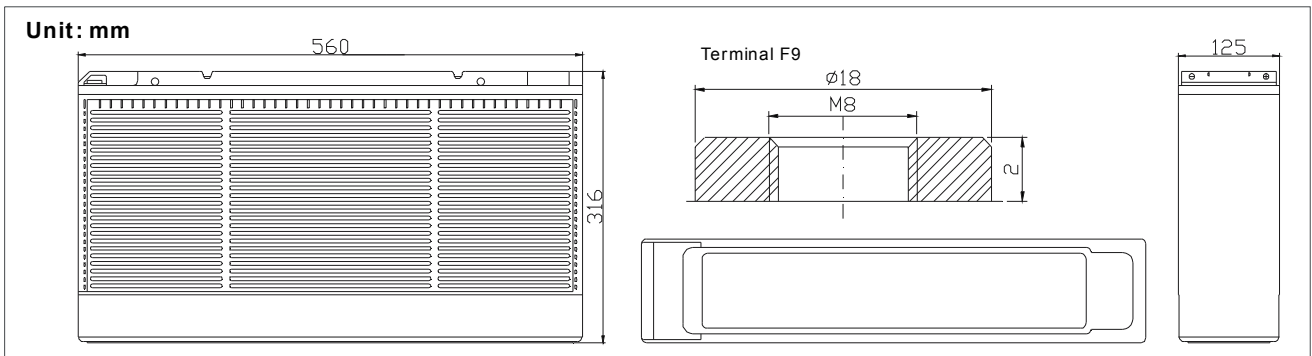


Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	180Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 54.0 Kg
Max. Discharge Current	750A (5 sec)
Internal Resistance	Approx. 4 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	45 A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C
Self Discharge	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.
Terminal	Terminal F9/Thread insert & Bolt (M8)
Container Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V1 can be available upon request.



Dimensions



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	673	482	351	207	117	71.8	47.0	38.9	30.6	22.1	18.7	9.9
1.67V	655	459	344	204	116	71.3	46.8	38.7	30.4	22.0	18.5	9.7
1.70V	617	443	338	202	115	70.7	46.4	38.5	30.2	21.8	18.4	9.5
1.75V	554	409	322	197	114	70.2	46.3	38.2	29.9	21.6	18.2	9.4
1.80V	500	373	297	188	112	68.9	45.0	37.3	29.3	21.2	18.0	9.2
1.85V	436	333	266	176	106	65.9	43.0	35.5	28.1	20.3	17.5	8.6

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	1207	883	650	389	223	138	90.4	74.9	59.0	42.8	35.1	18.5
1.67V	1182	843	636	384	222	137	90.2	74.7	58.7	42.7	34.7	18.4
1.70V	1116	815	628	380	220	136	89.6	74.3	58.5	42.3	34.6	18.2
1.75V	1005	753	599	371	218	135	89.1	73.8	58.0	41.9	34.2	18.0
1.80V	904	684	550	354	213	133	86.9	71.8	57.1	41.0	33.8	17.8
1.85V	780	607	491	332	202	127	82.6	68.4	54.2	39.6	32.8	17.1

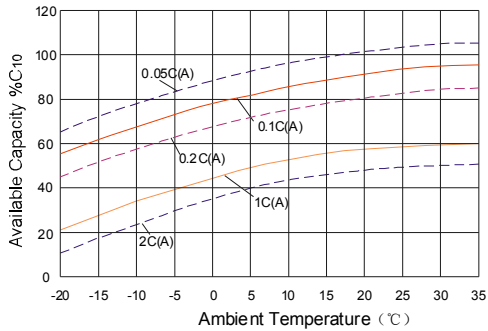
All mentioned values are average values.

RA12-180F

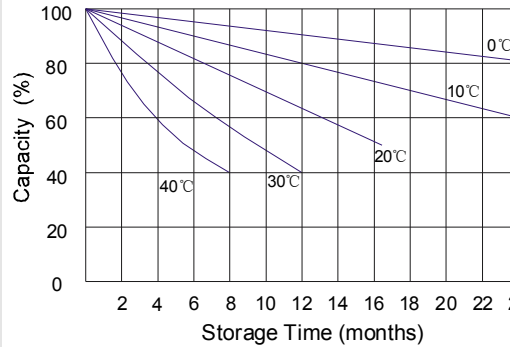
12V180Ah



Temperature effects curve



Storage characteristic



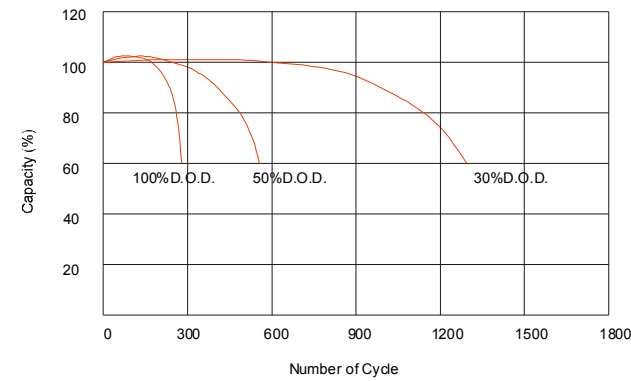
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

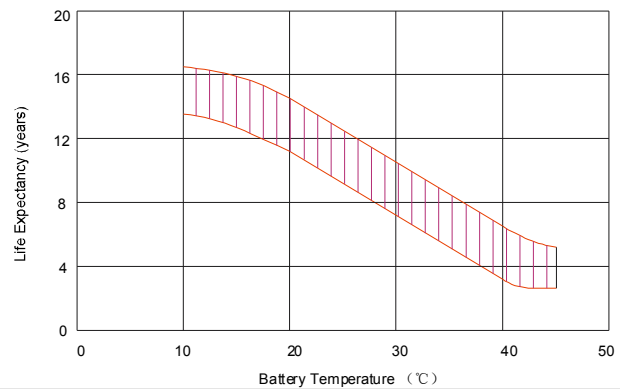
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

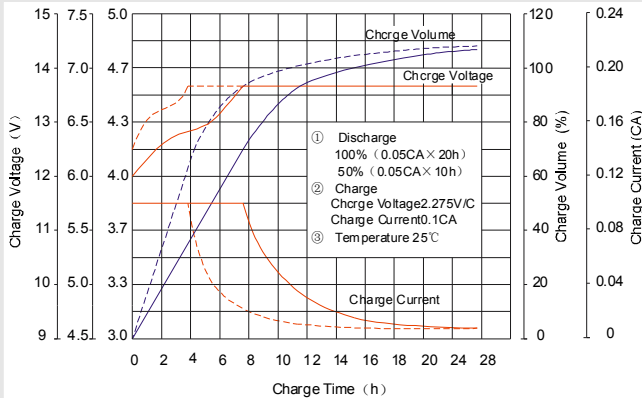
Life characteristics of cyclic use



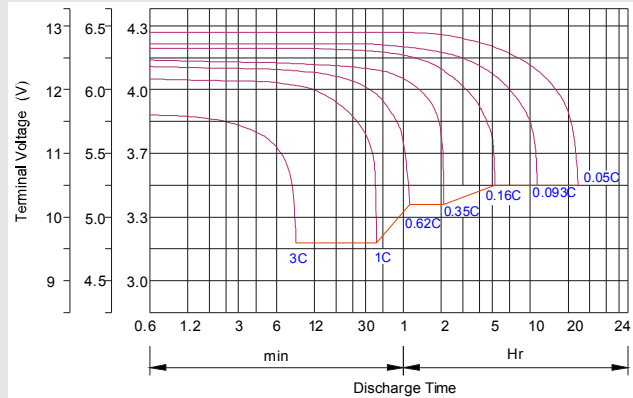
Effect of temperature on long term float life



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	14.4~15.0V, 5~11h, Max. Current 0.1CA
Constant Current	0.1CA × 5h
Fast	0.3CA × 1.7h

Charging Procedures(6V series)

Application	Charge Voltage (V)			Max. Charge 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

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