FZA 14-12 *(E-BIKE)*
12V 14AH

FZA 14-12 / VRLA GEL

Physical Specification

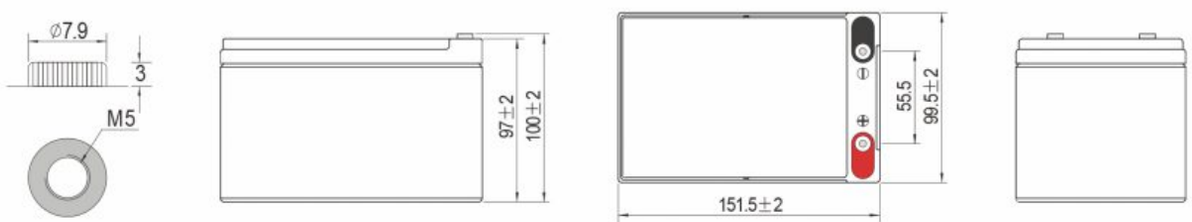
Part Number	FZA 14-12
Length	151.5 ± 2 mm
Width	99.5 ± 2 mm
Container Height	97 ± 2 mm
Total Height (with terminal)	100 ± 2 mm

Specifications

	Nominal Voltage	12V
	Nominal Capacity (10HR)	14AH
Terminal Type	Standard Terminal	F1 (Optional Terminal F2)
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94-V0
Rated Capacity	20hr, 1.80V/cell, 25°C	13.9 AH/0.70A
	10hr, 1.80V/cell, 25°C	13.0 AH/1.30A
	5hr, 1.75V/cell, 25°C	11.4 AH/2.28A
	3hr, 1.75V/cell, 25°C	10.3 AH/3.45A
	1hr, 1.60V/cell, 25°C	8.40 AH/8.40A
Max Discharge Current	195A (5s)	
Internal Resistance	Approx 14m Ω	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C
		Charge: 0 ~ 40°C
		Storage: -15 ~ 40°C
	Nominal Operating Temp. Range	25 ± 3°C
	Cycle Use	Initial Charging Current less than 3.9A Voltage 14.4V ~ 15.0V Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V Temp. Coefficient -20mV/°C
	Capacity affect by Temperature	40°C 103%
		25°C 100%
		0°C 86%
Design Floating Life at 20°C	12 Years	

Dimensions

F1 Terminal



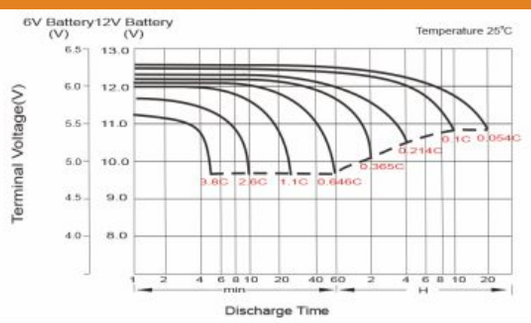
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	19.0	16.0	14.0	10.1	8.00	6.49	4.03	3.14	2.55	2.07	1.81	1.47	1.23	0.690
1.80V/cell	24.3	19.4	16.5	11.9	9.30	7.27	4.40	3.38	2.72	2.22	1.94	1.56	1.30	0.697
1.75V/cell	26.7	21.1	17.8	12.3	9.65	7.61	4.56	3.45	2.78	2.28	1.99	1.59	1.31	0.703
1.70V/cell	29.1	22.6	18.7	12.8	10.0	7.85	4.75	3.54	2.85	2.34	2.03	1.61	1.33	0.716
1.65V/cell	31.4	24.0	19.9	13.5	10.3	8.11	4.88	3.69	2.95	2.40	2.07	1.64	1.35	0.725
1.60V/cell	34.1	25.7	21.2	14.3	10.7	8.40	5.04	3.81	3.04	2.48	2.12	1.65	1.37	0.729

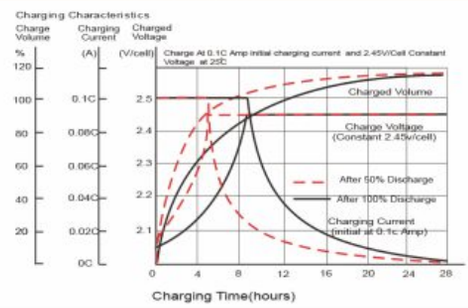
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	35.5	30.2	26.7	19.4	15.5	12.6	7.86	6.14	4.99	4.06	3.57	2.91	2.43	1.381
1.80V/cell	44.8	35.9	31.0	22.6	17.8	14.0	8.52	6.58	5.30	4.35	3.81	3.09	2.57	1.391
1.75V/cell	48.6	38.9	33.1	23.3	18.4	14.6	8.81	6.68	5.41	4.46	3.91	3.14	2.60	1.404
1.70V/cell	52.2	41.2	34.6	24.2	19.1	15.0	9.14	6.85	5.54	4.56	3.98	3.18	2.62	1.429
1.65V/cell	56.0	43.5	36.6	25.4	19.5	15.5	9.37	7.12	5.72	4.68	4.07	3.23	2.67	1.445
1.60V/cell	59.7	46.0	38.6	26.5	20.2	15.9	9.63	7.30	5.87	4.81	4.15	3.25	2.70	1.451

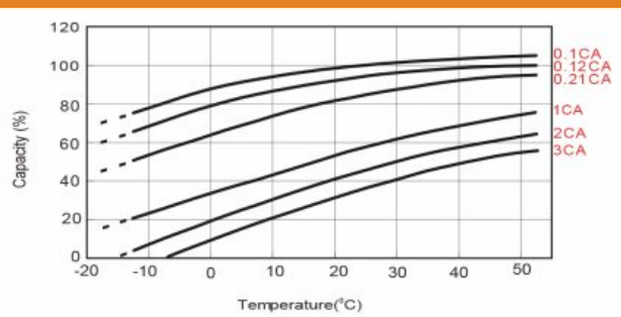
Discharge Characteristics



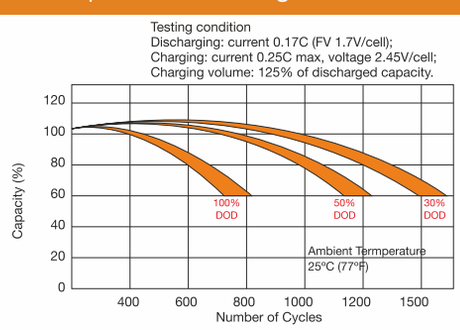
Float Charging Characteristics



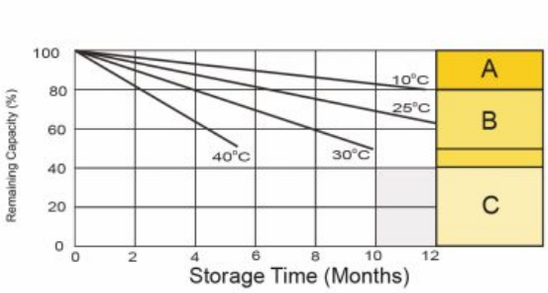
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2.Charged for above 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
3.Charged for 8~10hours 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.