

FZA 35-12

12V 35AH



FZA 35-12 / VRLA GEL



Physical Specification

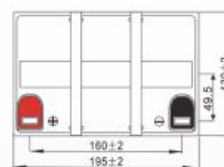
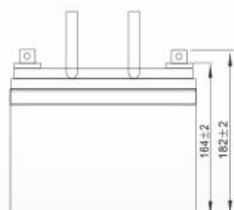
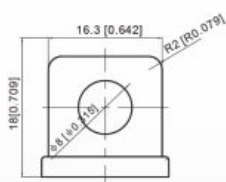
Part Number:	FZA 35-12
Length:	195 ± 2 mm (7.68 inches)
Width:	130 ± 2 mm (5.12 inches)
Container Height:	164 ± 2 mm (6.46 inches)
Total Height (with terminal):	182 ± 2 mm (7.17 inches)

Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	35 AH
Terminal Type	Standard Terminal	F5
	Optional Terminal	
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS(UL94:VO)
Rated Capacity	35.4 AH/1.77A	(20hr, 1.80V/cell, 25°C / 77°F)
	33.0 AH/3.30A	(10hr, 1.80V/cell, 25°C / 77°F)
	28.9 AH/5.79A	(5hr, 1.75V/cell, 25°C / 77°F)
	26.2 AH/8.75A	(3hr, 1.75V/cell, 25°C / 77°F)
	21.3 AH/21.3A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	495A (5s)	
Internal Resistance	Approx 11.0mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (32 ~ 104°F)
		Storage: -15 ~ 40°C (5 ~ 104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 9.9A. Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40°C (104°F) 103%	
	25°C (77°F) 100%	
	0°C (32°F) 86%	
Design Floating Life at 20°C	12 Years	

Dimensions

F5 Terminal



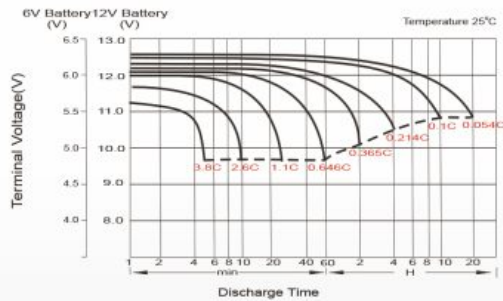
Constant Current Discharge (Amperes) at 25°C (77°F)

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	48.3	40.7	35.5	25.6	20.3	16.5	10.2	7.98	6.46	5.25	4.58	3.74	3.12	1.75
1.80V/cell	61.7	49.1	42.0	30.2	23.6	18.5	11.2	8.59	6.90	5.64	4.91	3.97	3.30	1.77
1.75V/cell	67.8	53.7	45.2	31.3	24.5	19.3	11.6	8.75	7.06	5.79	5.05	4.04	3.33	1.79
1.70V/cell	73.9	57.3	47.5	32.6	25.5	19.9	12.0	8.99	7.24	5.93	5.15	4.09	3.37	1.82
1.65V/cell	79.8	60.9	50.4	34.4	26.1	20.6	12.4	9.37	7.49	6.10	5.27	4.16	3.44	1.84
1.60V/cell	86.6	65.1	53.7	36.3	27.2	21.3	12.8	9.66	7.73	6.30	5.38	4.20	3.47	1.85

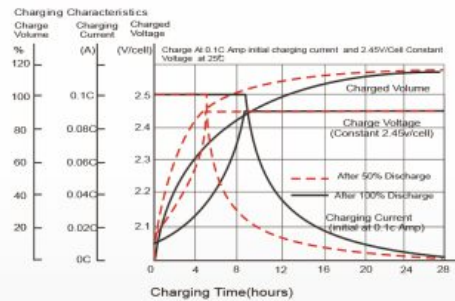
Constant Power Discharge (Watts) at 25°C (77°F)

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	90.1	76.6	67.7	49.1	39.3	32.0	19.9	15.6	12.7	10.3	9.05	7.40	6.17	3.51
1.80V/cell	113.6	91.2	78.8	57.3	45.3	35.6	21.6	16.7	13.4	11.0	9.67	7.84	6.53	3.53
1.75V/cell	123.3	98.7	84.1	59.2	46.8	37.1	22.4	17.0	13.7	11.3	9.92	7.96	6.59	3.56
1.70V/cell	132.6	104.6	87.9	61.3	48.5	38.2	23.2	17.4	14.1	11.6	10.1	8.07	6.65	3.63
1.65V/cell	142.0	110.5	92.9	64.4	49.6	39.3	23.8	18.1	14.5	11.9	10.3	8.19	6.78	3.67
1.60V/cell	151.6	116.8	97.9	67.3	51.2	40.4	24.4	18.5	14.9	12.2	10.5	8.26	6.85	3.68

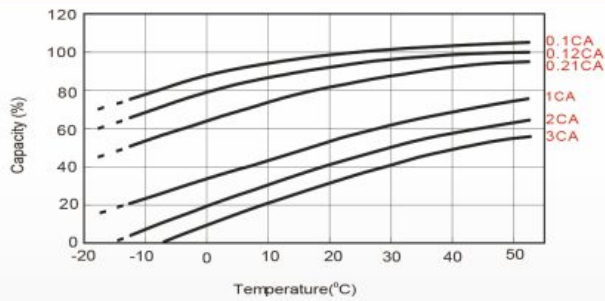
Discharge Characteristics



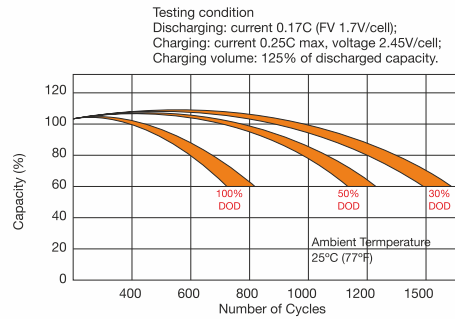
Charging Characteristics (cycle use)



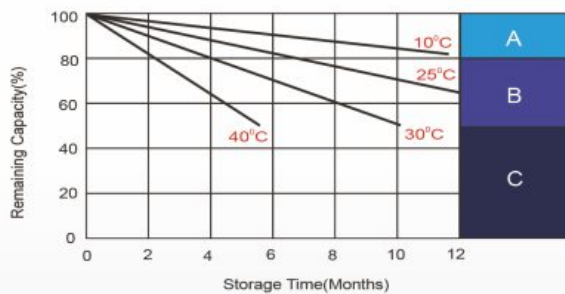
Temperature Effects in Relation to Battery Capacity



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.