

FZA 110-12

12V 110AH

General



FZA 110-12 / VRLA GEL



Physical Specification

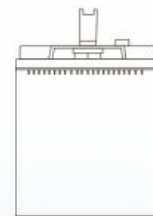
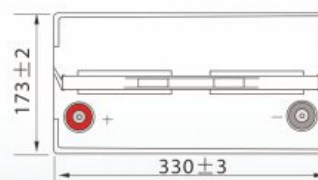
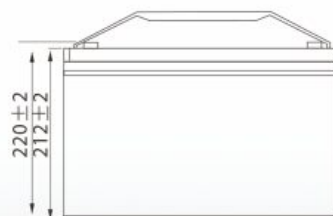
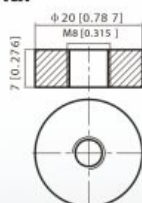
Part Number:	FZA 110-12
Length:	330 ± 2 mm (12.99 inches)
Width:	173 ± 2 mm (6.81 inches)
Container Height:	212 ± 2 mm (8.35 inches)
Total Height (with terminal):	220 ± 2 mm (8.66 inches)

Specifications

	Nominal Voltage	12V
	Nominal Capacity (10HR)	110 AH
Terminal Type	Standard Terminal	F11
	Optional Terminal	-
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	104.0 AH/5.20A	(20hr, 1.80V/cell, 25°C / 77°F)
	100.0 AH/10.0A	(10hr, 1.80V/cell, 25°C / 77°F)
	88.0 AH/17.6A	(5hr, 1.75V/cell, 25°C / 77°F)
	76.2 AH/25.4A	(3hr, 1.75V/cell, 25°C / 77°F)
Max Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (5 ~ 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 30.0A. 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	10 Years	

Dimensions

F11 Terminal



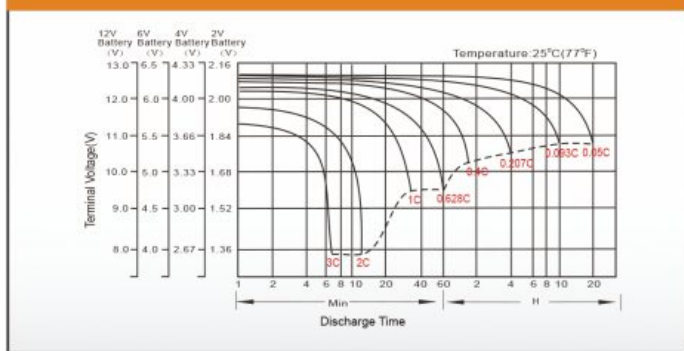
Constant Current Discharge (Amperes) at 25 °C (77 °F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	208.8	161.4	136.4	117.0	88.4	65.7	53.0	31.3	23.5	19.2	16.4	14.4	11.6	9.65	5.13
1.80V/cell	246.0	180.0	150.8	126.6	94.2	69.6	55.9	33.1	24.6	20.2	17.2	15.0	12.0	10.0	5.20
1.75V/cell	278.4	197.4	162.0	134.7	99.0	72.7	58.0	34.4	25.4	20.7	17.6	15.3	12.2	10.1	5.29
1.70V/cell	318.0	214.8	174.4	143.4	104.6	76.0	60.4	35.3	26.0	21.2	17.9	15.6	12.4	10.2	5.34
1.65V/cell	356.4	232.2	185.6	151.5	110.0	79.2	63.0	36.3	26.7	21.7	18.3	15.9	12.6	10.3	5.40
1.60V/cell	405.6	254.4	197.2	159.9	115.8	82.4	65.1	37.5	27.6	22.2	18.6	16.2	12.7	10.5	5.45

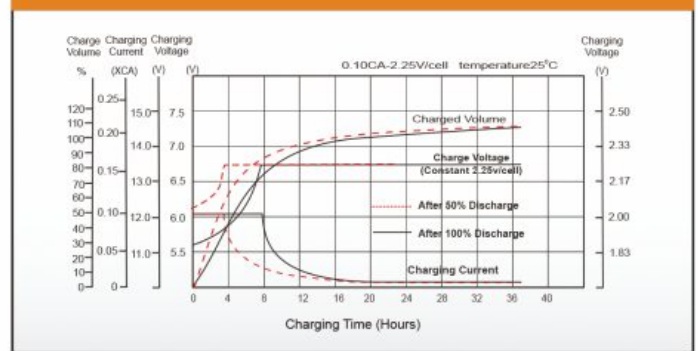
Constant Power Discharge (Watts) at 25 °C (77 °F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	381.8	298.1	254.5	220.5	168.5	126.4	102.2	60.8	45.7	37.5	32.2	28.2	22.9	19.1	10.15
1.80V/cell	445.0	328.6	277.6	235.1	176.8	132.7	107.2	63.8	47.7	39.2	33.6	29.4	23.7	19.8	10.29
1.75V/cell	492.9	354.6	294.6	247.8	184.3	137.3	110.8	66.0	49.1	40.1	34.3	29.9	24.0	19.9	10.45
1.70V/cell	547.4	377.1	312.7	261.8	193.6	143.0	115.0	67.6	50.1	41.0	34.8	30.4	24.3	20.1	10.54
1.65V/cell	604.8	403.9	330.2	274.5	201.9	147.7	119.1	69.2	51.3	41.8	35.3	30.8	24.6	20.3	10.64
1.60V/cell	672.4	432.4	345.1	286.6	211.1	152.9	122.4	71.1	52.7	42.6	35.9	31.3	24.8	20.5	10.73

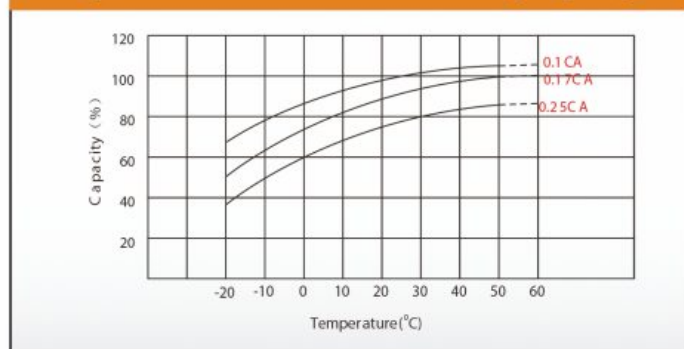
Discharge Characteristics



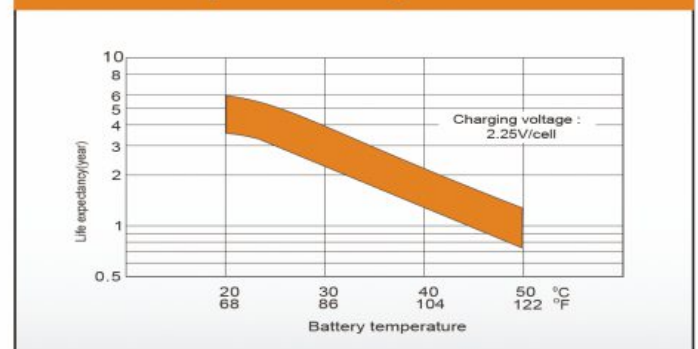
Float Charging Characteristics



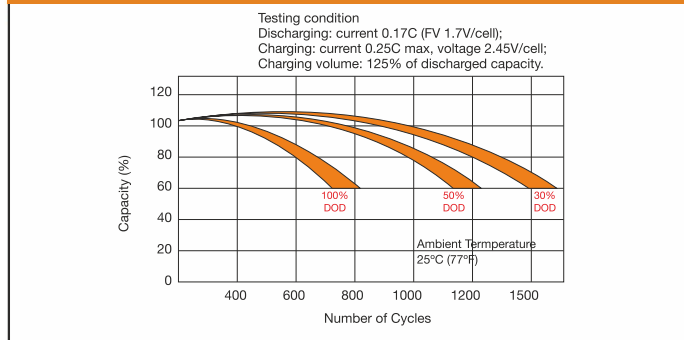
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

