

# FZA 140-12

12V 140AH

General



## FZA 140-12 / VRLA GEL



## Physical Specification

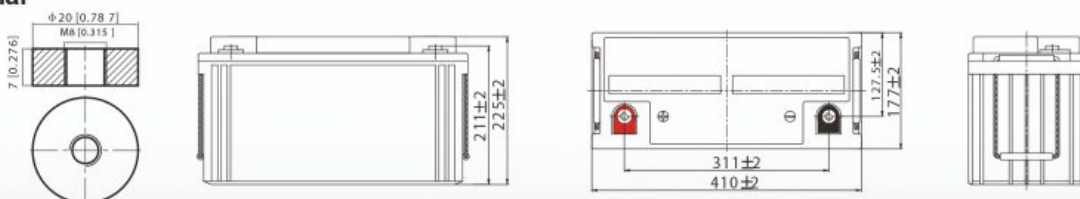
Part Number:	FZA 140-12
Length:	410 ± 2 mm (16.14 inches)
Width:	177 ± 2 mm (6.97 inches)
Container Height:	225 ± 2 mm (8.86 inches)
Total Height (with terminal):	225 ± 2 mm (8.86 inches)

## Specifications

Terminal Type	Nominal Voltage	12V
	Nominal Capacity (10HR)	140 AH
	Standard Terminal	F11
Container Material	Optional Terminal	-
	Standard Option	ABS
Rated Capacity	Flame Retardant Option (FR)	ABS (UL94:VO)
	124.8 AH/6.24A	(20hr, 1.80V/cell, 25°C / 77°F)
	120.0 AH/12.0A	(10hr, 1.80V/cell, 25°C / 77°F)
	104.5 AH/20.9A	(5hr, 1.75V/cell, 25°C / 77°F)
Max Discharge Current	92.1 AH/30.7A	(3hr, 1.75V/cell, 25°C / 77°F)
	1300A (5s)	
Internal Resistance	Approx 4.0mΩ	
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 36.0A. 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)
25°C (77°F)		100%
0°C (32°F)		86%
Design Floating Life at 20°C	10 Years	

## Dimensions

### F11 Terminal



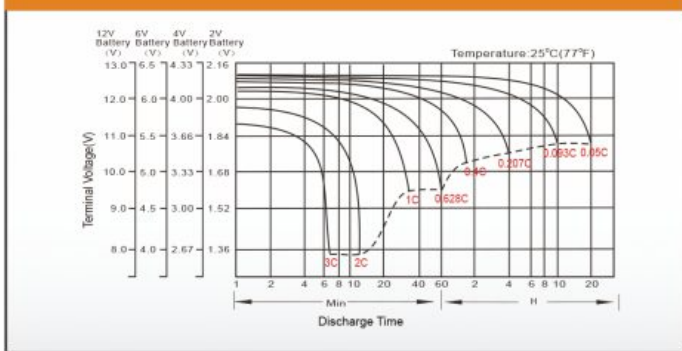
## Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	250.6	193.7	163.7	140.4	104.2	75.8	60.1	36.5	28.0	23.0	19.5	17.0	13.7	11.5	6.15
1.80V/cell	295.2	216.0	181.0	151.9	111.1	81.0	64.4	39.3	30.0	24.3	20.5	17.8	14.3	12.0	6.24
1.75V/cell	334.1	236.9	194.4	161.6	117.6	85.3	68.0	40.8	30.7	24.8	20.9	18.1	14.5	12.1	6.35
1.70V/cell	381.6	257.8	209.3	172.1	123.6	89.6	71.5	42.4	31.7	25.4	21.3	18.4	14.7	12.2	6.41
1.65V/cell	427.7	278.6	222.7	181.8	130.1	93.9	74.9	43.6	32.5	26.1	21.7	18.8	14.9	12.4	6.47
1.60V/cell	486.7	305.3	236.6	191.9	137.3	98.2	78.1	45.2	33.3	26.6	22.2	19.1	15.1	12.5	6.54

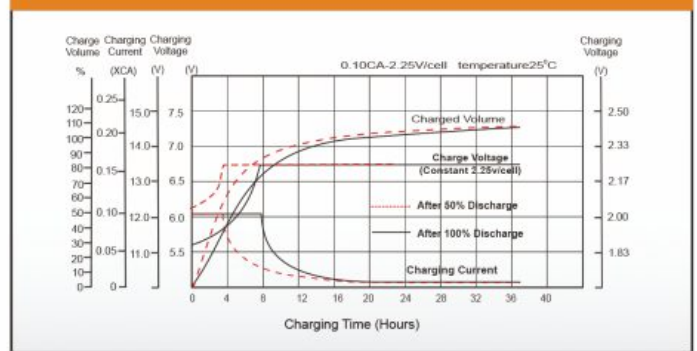
## Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	458.1	357.8	305.4	264.7	198.5	145.8	116.0	71.0	54.7	45.1	38.3	33.4	27.0	22.8	12.2
1.80V/cell	534.0	394.3	333.1	282.2	208.6	154.4	123.6	75.9	58.2	47.3	39.9	34.9	28.1	23.7	12.3
1.75V/cell	591.5	425.5	353.5	297.3	218.9	161.1	129.9	78.4	59.2	48.1	40.7	35.4	28.4	23.9	12.5
1.70V/cell	656.8	452.5	375.2	314.2	228.8	168.6	136.2	81.3	61.1	49.2	41.4	35.9	28.8	24.1	12.7
1.65V/cell	725.7	484.7	396.3	329.4	238.8	175.2	141.5	83.1	62.4	50.2	42.1	36.5	29.2	24.4	12.8
1.60V/cell	806.8	518.9	414.1	343.9	250.3	182.2	146.9	85.8	63.6	51.2	42.7	37.0	29.5	24.6	12.9

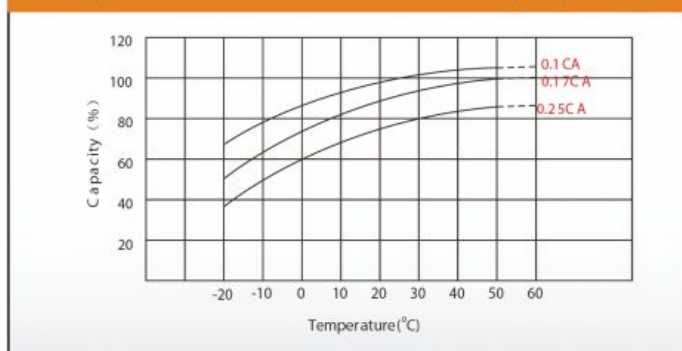
### Discharge Characteristics



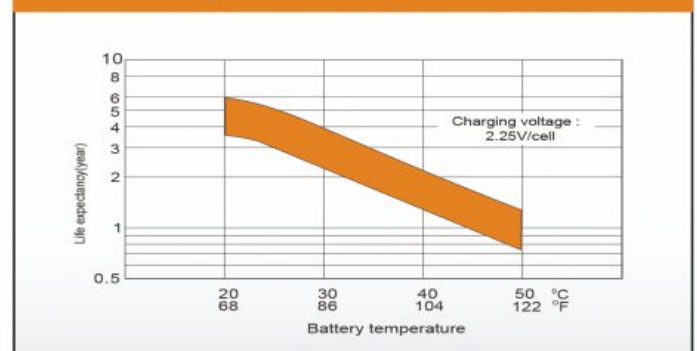
### Float Charging Characteristics



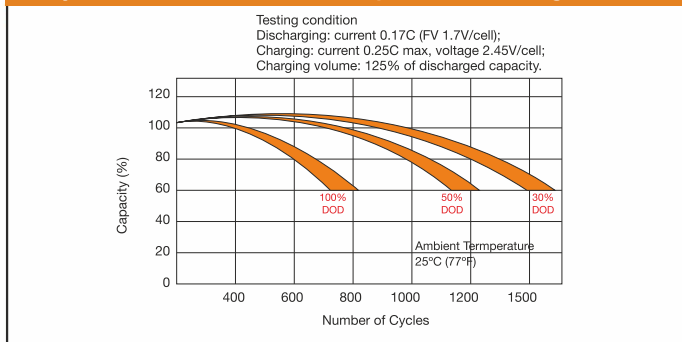
### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### Self Discharge Characteristics

