

FZA 160-12 / JEL

12V 160AH

General



FZA 160-12 / VRLA GEL



Physical Specification

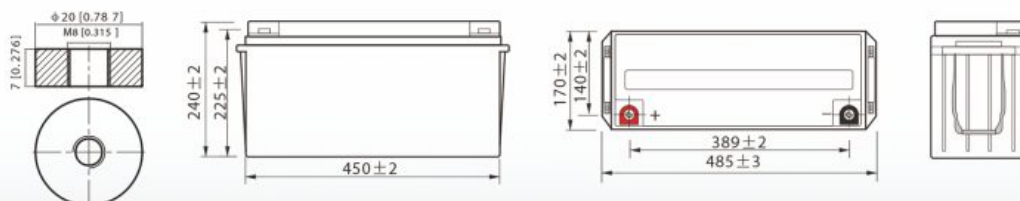
Part Number:	FZA 160-12
Length:	485 ± 2 mm (13.5 inches)
Width:	170 ± 2 mm (6.73 inches)
Container Height:	240 ± 2 mm (10.79 inches)
Total Height (with terminal):	240 ± 2 mm (11.02 inches)

Specifications

Terminal Type	Nominal Voltage	12V
	Nominal Capacity (10HR)	160 AH
	Standard Terminal	F11
Container Material	Optional Terminal	-
	Standard Option	ABS
Rated Capacity	Flame Retardant Option (FR)	ABS (UL94:VO)
	156.0 AH/7.80A	(20hr, 1.80V/cell, 25°C / 77°F)
	150.0 AH/15.0A	(10hr, 1.80V/cell, 25°C / 77°F)
	130.5 AH/26.1A	(5hr, 1.75V/cell, 25°C / 77°F)
Max Discharge Current	115.2 AH/38.4A	(3hr, 1.75V/cell, 25°C / 77°F)
	1500A (5s)	
Internal Resistance	Approx 3.5mΩ	
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 45.0A. 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



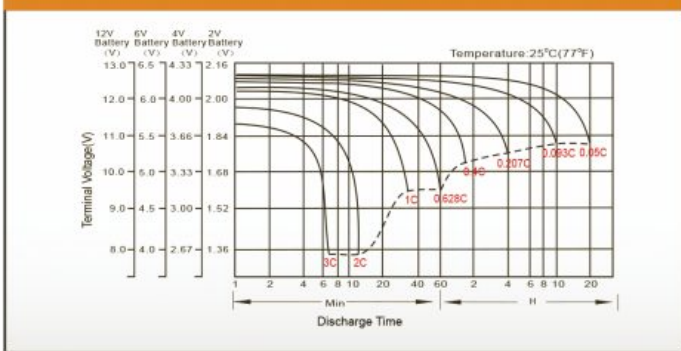
Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	259.2	211.5	185.4	156.6	118.5	90.2	74.3	46.5	35.1	28.8	24.4	21.3	17.1	14.4	7.69
1.80V/cell	311.4	243.0	205.8	171.9	129.9	97.4	79.2	49.2	37.6	30.4	25.6	22.3	17.8	15.0	7.80
1.75V/cell	365.4	267.3	223.2	184.5	137.7	102.4	83.1	51.0	38.4	31.0	26.1	22.7	18.1	15.2	7.94
1.70V/cell	401.4	291.6	238.8	198.9	146.7	107.4	86.7	53.0	39.7	31.8	26.6	23.1	18.4	15.3	8.01
1.65V/cell	435.6	315.0	254.4	210.6	154.2	112.2	90.0	54.5	40.7	32.6	27.2	23.5	18.6	15.5	8.09
1.60V/cell	477.0	339.3	269.4	223.2	162.3	117.6	93.9	56.3	41.7	33.3	27.7	23.9	18.9	15.7	8.18

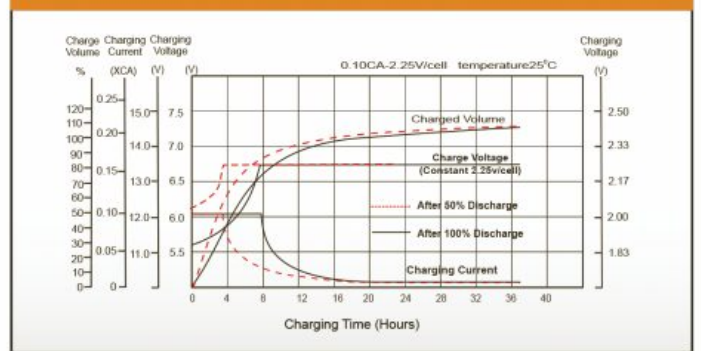
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	473.9	390.7	346.0	295.2	225.9	173.4	143.2	90.3	68.3	56.3	47.9	41.8	33.7	28.5	15.2
1.80V/cell	563.3	443.6	378.9	319.3	243.8	185.8	152.0	94.8	72.8	59.1	49.9	43.6	35.1	29.6	15.4
1.75V/cell	646.9	480.1	405.8	339.4	256.3	193.4	158.7	98.0	74.0	60.1	50.9	44.2	35.5	29.9	15.7
1.70V/cell	690.9	511.9	428.2	363.1	271.5	202.1	165.1	101.7	76.4	61.4	51.7	44.9	36.0	30.2	15.8
1.65V/cell	739.2	547.9	452.6	381.6	283.1	209.3	170.1	103.9	78.0	62.8	52.6	45.6	36.5	30.5	16.0
1.60V/cell	790.7	576.7	471.4	400.0	295.9	218.1	176.5	106.9	79.6	64.0	53.4	46.3	36.8	30.8	16.1

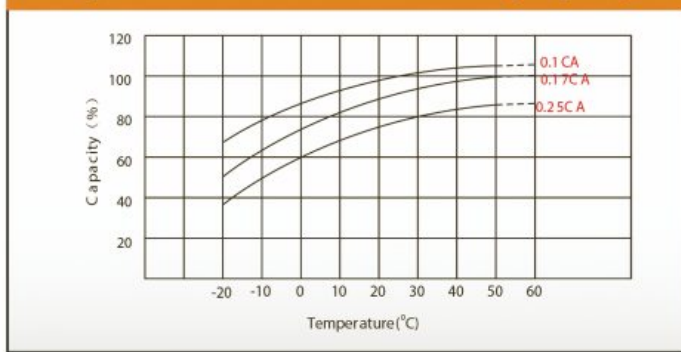
Discharge Characteristics



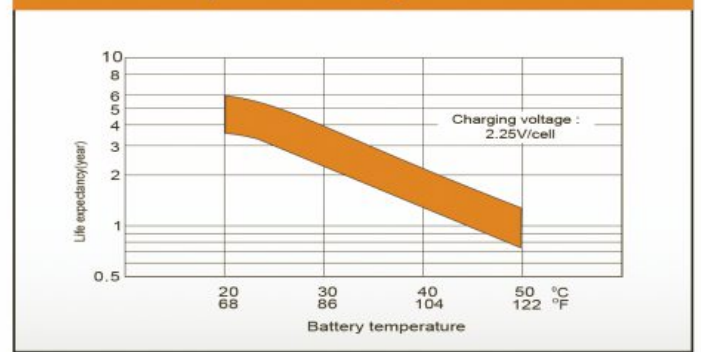
Float Charging Characteristics



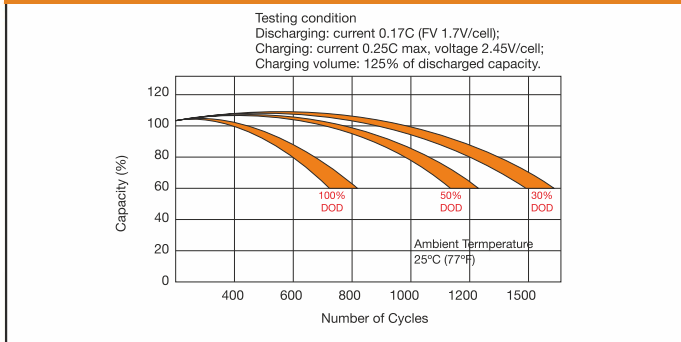
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

