

FULL FORCE

BATTERY



FFD120-12

CYCLING CAPACITY

20 Hour Rate **120 Amp Hours**

RESERVE CAPACITY

Reserve @25 AMPS **223 Minutes** Reserve @75 AMPS **52 Minutes**

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12 Volt
C100	132 AH
C20	120 AH
C10	108 AH
C5	98.5 AH
CCA	780 Amps
CA or MCA	930 Amps
Internal Resistance	4.5 mΩ

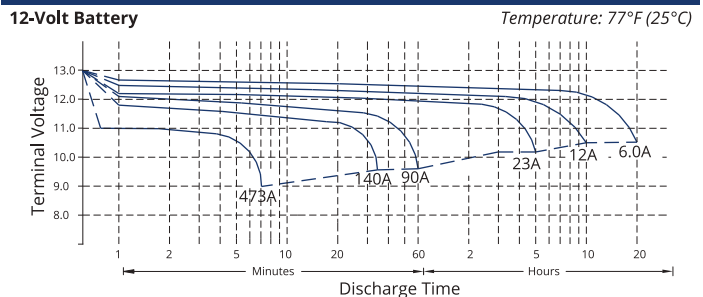
MECHANICAL SPECIFICATIONS

Group Size	-	
Terminal Type	L Terminal	
Terminal Torque	5.8 - 6.7 ft/lbs 62 - 80 lbs/in 7 - 9 Nm	
Height (top of handle)	9.29"	236 mm
Height (case only)	8.15"	207 mm
Width	6.85"	174 mm
Length	16.02"	407 mm
Weight	84.2 lbs	38.2 kg
Case Type	ABS Plastic Flame Res. Rating UL94-HB	

DISCHARGE TABLE (Constant Current)

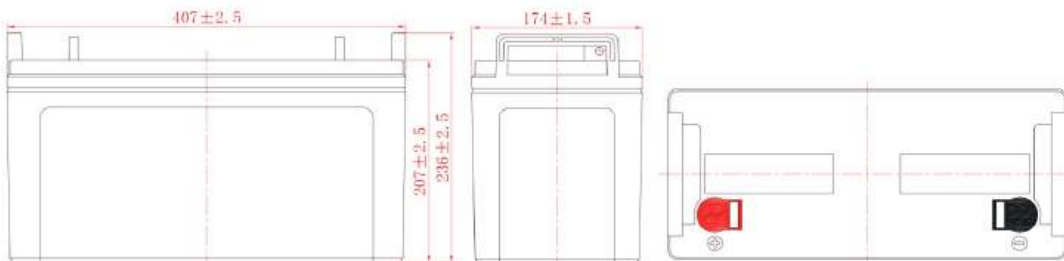
Time	Amps	Rate
20hr	6.0	0.05 CA
10hr	12.0	0.10 CA
8hr	13.0	0.13 CA
5hr	23.0	0.20 CA
3hr	31.6	0.33 CA
2hr	44.3	0.50 CA
1hr	90.0	1.00 CA

DISCHARGE PROFILE (Constant Current)

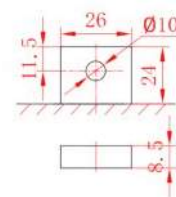


- All listed ratings are @ 100% SoC, T=77°F (25°C), 1.75VPC unless otherwise specified.
 - Specifications listed are for estimation purposes only. Battery performance can vary depending on application. Battery design subject to change.

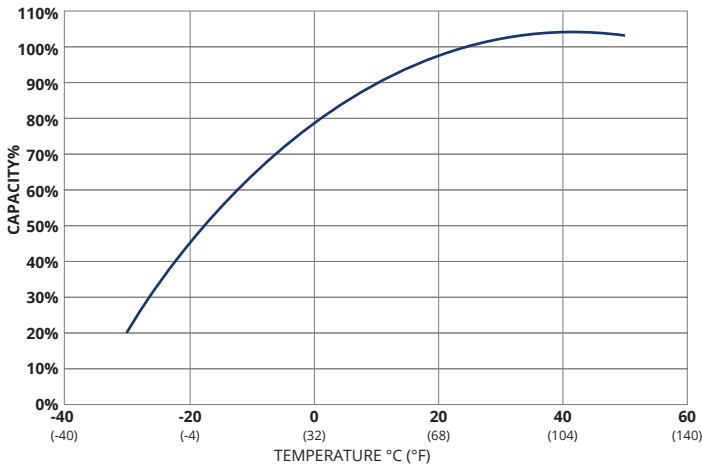
BATTERY & TERMINAL DIMENSIONS (All units shown in mm)



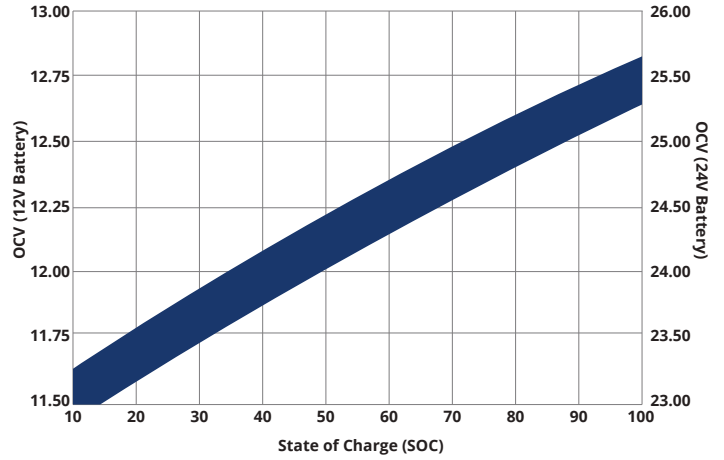
Terminal: LT



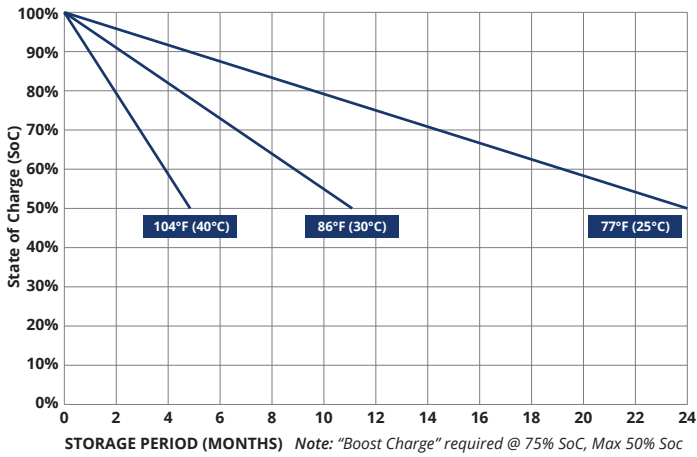
TEMPERATURE vs CAPACITY



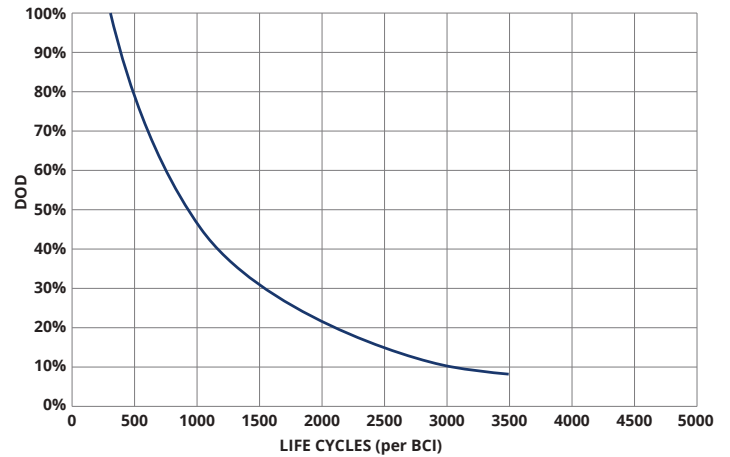
STATE of CHARGE (SOC) vs OPEN CIRCUIT VOLTAGE (OCV)



SELF DISCHARGE vs TIME/TEMPERATURE



CYCLE LIFE vs DEPTH of DISCHARGE (DOD)



TEMPERATURE RANGE SPECIFICATIONS

Condition	Recommended	Maximum	Recommended	Maximum
Storage	5°F to 122°F	-40°F to 160°F	-15°C to 50°C	-40°C to 71°C
Operation	5°F to 104°F	-40°F to 160°F	-15°C to 40°C	-40°C to 71°C
Charge with TC	5°F to 122°F	-40°F to 160°F	-15°C to 50°C	-40°C to 71°C
Charge w/o TC	32°F to 104°F	5°F to 122°F	0°C to 40°C	-15°C to 50°C

*TC= Temperature Compensation

CHARGE VOLTAGES

Charge Stage	Battery Voltages			
	12V	24V	36V	48V
Bulk	14.40V	28.80V	43.00V	58.00V
Absorption	14.00V	28.00V	42.00V	56.00V
Float	13.50V	27.00V	40.50V	54.00V

TC Factor: (-2mV°F/cell) or (-4mV°C/cell)

TERMINAL TORQUE SPECS

M5TAS	M6	M8	M10	M6M (Stud)	M8M (Stud)	M10M (Stud) & 3/8" Stud	FR45	TP06 (AP)	TP08/TP68 (AP)	AP
1.67-2.5ft-lbs	3.3-4.8ft-lbs	5.2-6.7ft-lbs	8.1-10.3ft-lbs	2.6-3.7ft-lbs	4.4-5.9ft-lbs	7.4-8.8ft-lbs	4.8-6.3ft-lbs	2.6-3.3ft-lbs	4.6-6.3ft-lbs	4.2-5.8ft-lbs
20-30lbs-in	40-57.5lbs-in	62-80lbs-in	97-124lbs-in	31-44lbs-in	53-71lbs-in	88.5-106lbs-in	57-75lbs-in	31-40lbs-in	55-75lbs-in	50-70lbs-in
2.26-3.39Nm	4.5-6.5Nm	7-9Nm	11-14Nm	3.5-5Nm	6-8Nm	10-12Nm	6.5-8.5Nm	3.5-4.5Nm	6.2-8.5Nm	5.6-7.9Nm



9001:2008 Quality Management System
 14001:2004 Environmental Management System
 18001:2007 Occupational Health & Safety Management System

DELIVERY APPROVED!
**LAND, SEA
 & AIR**

Fullriver batteries are sealed lead acid batteries made with Absorbed Glass Mat (AGM) technology. The electrolyte is absorbed into the fiberglass separator material rather than in a free-flowing liquid form. Fullriver batteries are non-spillable electric storage batteries. They are exempted from the requirements of DOT's hazardous materials regulations, since they adhere to the requirements of code 49 CFR Section 173.159(D) - (CLASSIFIED APPROVED: DOT, CFR, HMR49, IATA, ICAO67, IMDG27)