



**CYCLING CAPACITY**

20 Hour Rate **225 Amp Hours**

**RESERVE CAPACITY**

Reserve @25 AMPS **450 Minutes**

Reserve @75 AMPS **115 Minutes**

**ELECTRICAL SPECIFICATIONS**

Nominal Voltage	<b>12 Volt</b>
C100	<b>238 AH</b>
C20	<b>225 AH</b>
C5	<b>192 AH</b>
Short Circuit Current	<b>5000 Amps</b>
CCA	<b>1450 Amps</b>
CA or MCA	<b>1950 Amps</b>
PHCA	<b>2400 Amps</b>
Internal Resistance	<b>3.3 mΩ</b>

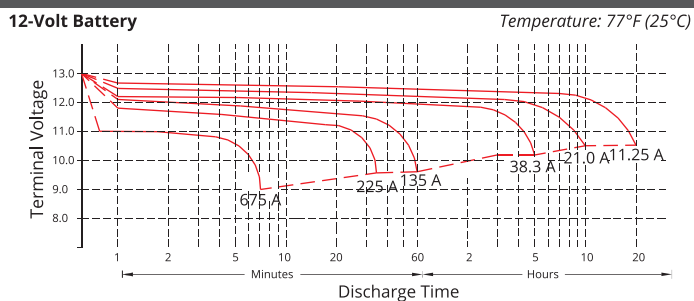
**MECHANICAL SPECIFICATIONS**

Group Size	<b>8D</b>	
Terminal Type	<b>M8 + TP28 (SAE)</b>	
Terminal Torque	<b>See reverse side</b>	
Height (w/ terminal)	<b>9.57"</b>	<b>243 mm</b>
Height (case only)	<b>8.58"</b>	<b>218 mm</b>
Width	<b>10.79"</b>	<b>274 mm</b>
Length	<b>20.35"</b>	<b>517 mm</b>
Weight	<b>161.2 lbs</b>	<b>73.1 kg</b>
Case Type	<b>ABS Plastic - Flame Res. Rating UL94-HB</b>	

**DISCHARGE TABLE (Constant Current)**

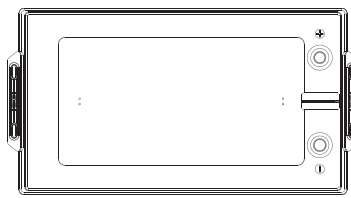
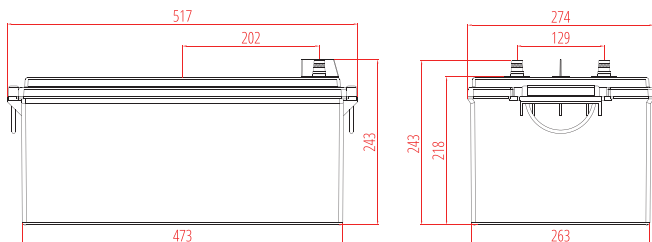
Time	Amps	Rate
20hr	11.3	0.05 CA
10hr	21.0	0.093 CA
8hr	25.6	0.114 CA
5hr	38.3	0.17 CA
3hr	56.3	0.25 CA
2hr	76.5	0.34 CA
1hr	135.3	0.60 CA

**DISCHARGE PROFILE (Constant Current)**

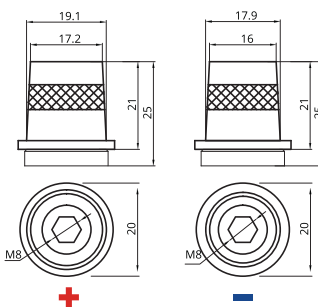


- All listed ratings are @ 100% SoC, T=77°F (25°C), 1.75VPC unless otherwise specified.  
- Specifications listed are for estimation purposes only. Battery performance can vary depending on application. Battery design subject to change.

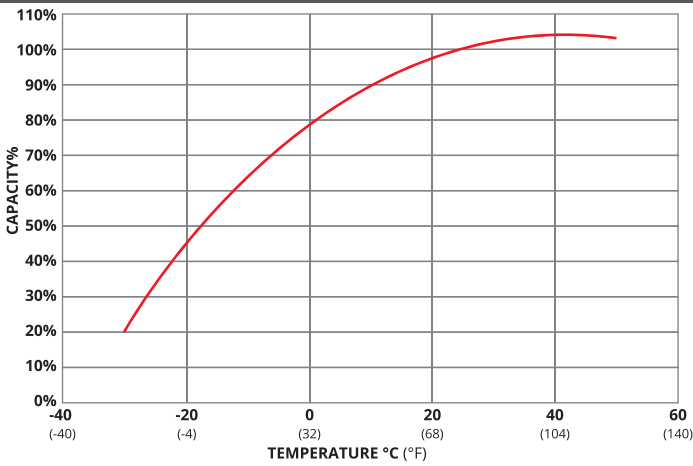
**BATTERY & TERMINAL DIMENSIONS (All units shown in mm)**



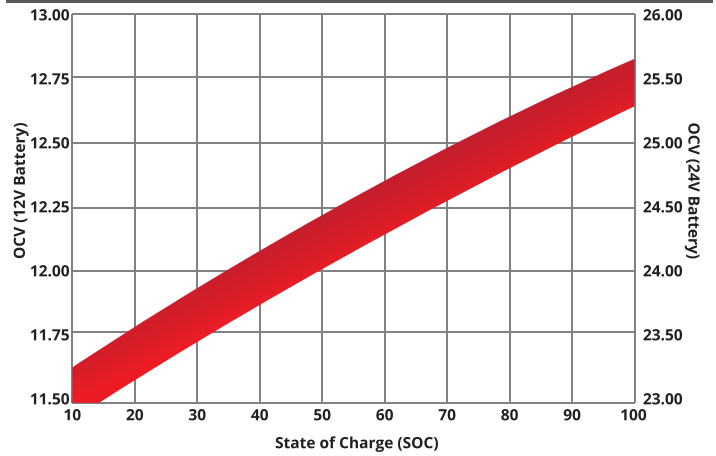
**Terminal: M8 + TP28**



## TEMPERATURE vs CAPACITY

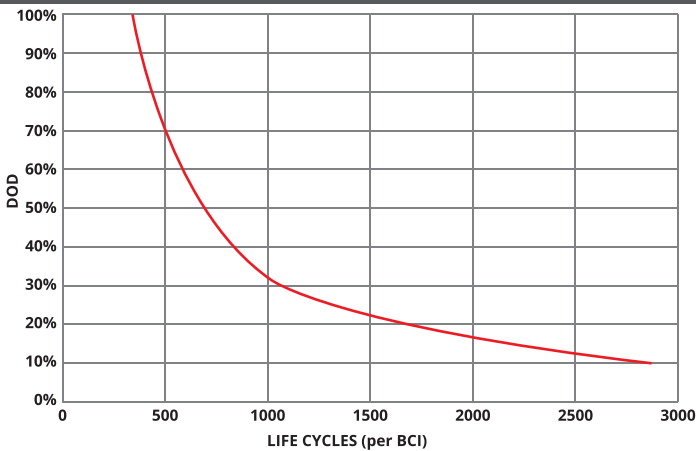


## STATE of CHARGE (SOC) vs OPEN CIRCUIT VOLTAGE (OCV)

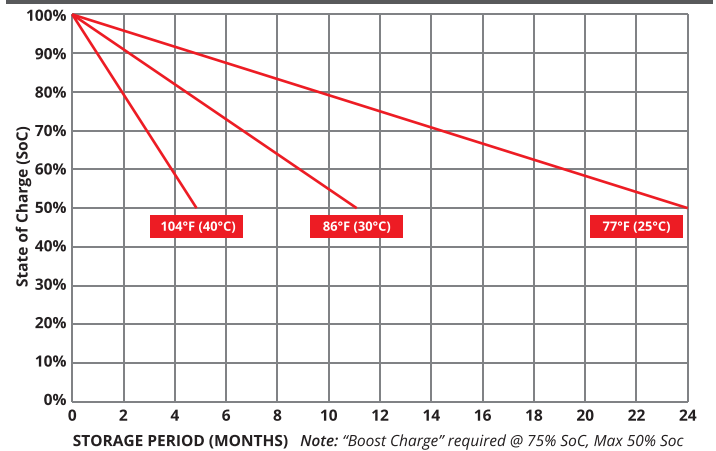


## CYCLE LIFE vs DEPTH of DISCHARGE (DOD)

\*(Based on BCI Testing @ 2-hr Rate)



## SELF DISCHARGE vs TIME/TEMPERATURE



## 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	14.4 - 14.7V	28.8 - 29.4V	43.2 - 44.1V	57.6 - 58.8V
Absorption	14.4 - 14.7V	28.8 - 29.4V	43.2 - 44.1V	57.6 - 58.8V
Float	13.6V	27.2V	40.8V	54.6V

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

## TERMINAL TORQUE SPECS

Terminal Type	ft-lbs	in-lbs	Nm
AP, DT (AP), M6, M6M (Stud), TP07 (AP), TP08 (AP)	4.2 - 6.0	50-70	5.6 - 7.9
FR45	6.0 - 7.5	70-90	7.9 - 10.1
M8	7.1 - 8.0	85-95	9.6 - 10.7
DT (Stud), M10M (Stud)	9.2 - 10.4	110-125	12.2 - 14



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



TPPL TECHNOLOGY

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)