

# INFINITY

## BATTERY

# IT45-12

RECHARGEABLE SEALED LEAD ACID (VRLA) BATTERY



**Nominal Voltage** 12 Volt

**20 Hour Rate Capacity** 45 Ah

Dimensions	Inches	mm
Length	7.80	198
Width	6.54	166
Case Height	6.73	171
Terminal Height	6.73	171

Weight (Approx.)	Lbs.	Kg
	31.81	14.43

Constant Current Discharge Characteristics at 73.4°F (23°C)

**Case Material** A.B.S. (UL94-HB)

**Terminal** NUT & BOLT (M6)

Maximum Short Duration Discharge Current	
(5 Seconds or Less)	675 Amperes
(10 Seconds or Less)	450 Amperes
(60 Seconds or Less)	270 Amperes

**Internal Resistance** (Fully Charged Battery)  
(Approximately) 6 mOhm

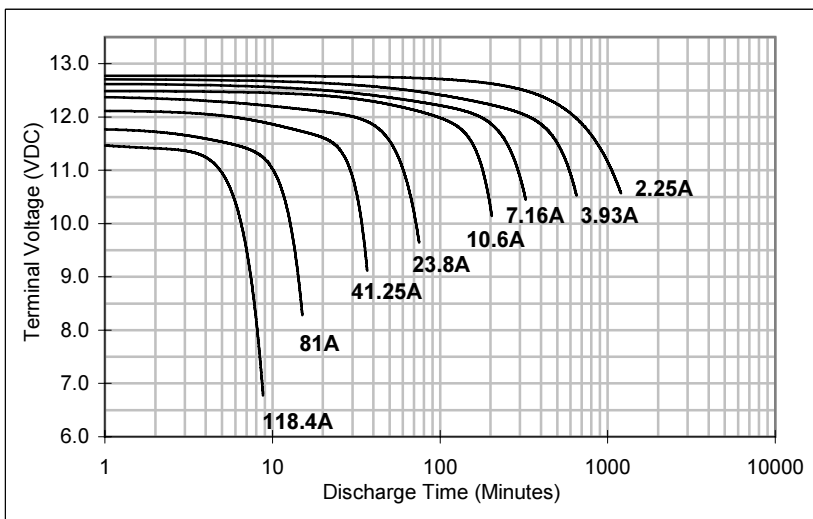
**Energy Density (@ 20 Hour Rate)**  
1.57 Watt-Hours/Cubic Inch (96.08 Watt-Hours/Litre)

**Specific Energy (@ 20 Hour Rate)**  
16.98 Watt-Hours / Pound (37.43 Watt-Hours / Kg)

Operating Temperature Range	
<b>Discharge</b>	5°F (-15°C) ~ 122°F (50°C)
<b>Recharge</b>	32°F (0°C) ~ 104°F (40°C)
<b>Storage</b>	32°F (0°C) ~ 104°F (40°C)

**Self Discharge Rate**  
About 3% / Month @ 68~77°F (20~25°C)

Discharge Time	Discharge Amperes	Capacity in Ah's	Final Voltage	Discharge C-Rate
20.0 Hrs	2.25	45.00	10.50	0.05
9.2 Hrs	4.50	41.62	10.50	0.10
5.0 Hrs	7.65	38.14	10.29	0.17
4.1 Hrs	9.00	36.64	10.20	0.20
2.1 Hrs	15.75	33.52	9.94	0.35
64.0 Mins	27	28.80	9.54	0.6
32.5 Mins	45	24.34	9.00	1.0
7.2 Mins	135	16.16	6.00	3.0



**Recharge Method :** Connect battery to a Current Limited, Constant Voltage Source.

- Limit the Initial Recharge Current to 11.25 Amperes or less.
- To promote satisfactory performance in Cyclic Applications, a minimum Recharge Current of 4.5 Amperes is recommended.
- Employ Charge Voltage Temperature Compensation when Battery Temperature is less than 50°F (10°C) or greater than 86°F (30°C). Use the **Recommended** Voltage and Normalize to 77°F (25°C).
- The use of Compensation through the whole Temperature range is not generally necessary, but doing so may optimize Service Life.
- If the **Recommended** Recharge voltage is used, no Temperature Compensation is required within the range of 50~86°F (10~30°C).

**Cyclic Application Recharge Voltage (77°F / 25°C)**

Minimum	Recommended	Maximum	Volts D.C. Per Cell
14.40	14.55	14.70	
2.40	2.425	2.45	

Temperature Coefficient: -2.8mV / °F / Cell (- 5mV / °C / Cell)

**Standby Application Recharge Voltage (77°F / 25°C)**

Minimum	Recommended	Maximum	Volts D.C. Per Cell
13.50	13.65	13.80	
2.25	2.275	2.30	

Temperature Coefficient: -1.7mV / °F / Cell (- 3mV / °C / Cell)