

# TC12-90-G (12V90Ah/20hr)

Design Life: 12 years

Gel battery shows some distinctive advantages over flooded battery or AGM battery, such as super thermal stability, high deep discharge capability, good recovery from deep discharge, even if the battery is left discharged for three days, it will recover to 100% of capacity. With the above-mentioned advantages, the gel battery has long service life, specially suitable for motive power applications, such as golf trailer, sruubber, folklift,etc.The deep discharge cycles increased 50% as compared with the AGM battery.

## Battery Construction

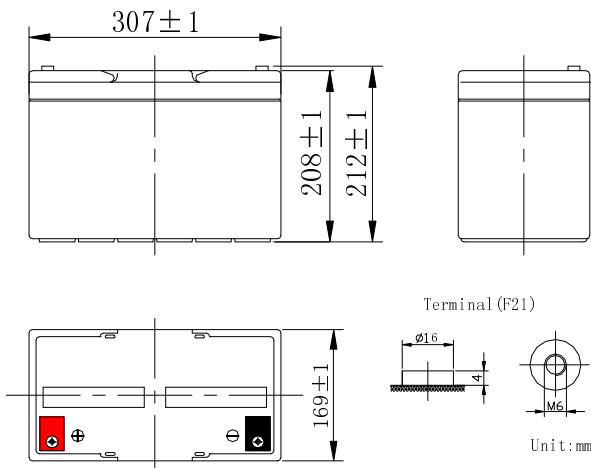
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	PVC	Gelled acid

## General Feature

- Nanometer SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> gelled electrolyte technology for efficiency gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.
- Case and cover available in both standard and flame restardant ABS.

## SPECIFICATION

Nominal voltage	.....	12V
Number of cell	.....	6
Length(mm/inch)	.....	306/12.1
Width(mm/inch)	.....	169/6.65
Height(mm/inch)	.....	208/8.19
Total Height(mm/inch)	.....	213/8.35
Approx. Weight(kg/lbs)	.....	27.5/60.6



## Performance Characteristics

Capacity 77°F(25°C)	100 hour rate (1.08A、 11.1V)	108Ah
	20 hour rate (4.5A、 10.8V)	90Ah
	10 hour rate (8.6A、 10.5V)	86Ah
	1 hour rate (53.4A、 9.6V)	53.4Ah
Internal Resistance	Full charged Battery77°F(25°C):7mΩ	
Operating Temperature Range	Discharge: -20~60°C	
	Charge: -10~60°C	
	Storage: -20~60°C	
Self-Discharge 2% of capacity declined per month at 20°C(average)		
Max. discharge current77°F(25°C): 800A(5S)		
Charge (Constant Voltage)	Float: 13.38~13.68 V/77° F(25°C)	
	Cycle:14.28~14.52 V/77°F(25°C) Max. Current: 22.5A	

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

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	282	194	160	86.0	53.4	22.2	15.5	8.85	4.75
1.65V	259	181	153	83.2	52.5	21.7	15.4	8.80	4.70
1.70V	236	168	144	80.4	51.8	21.2	15.2	8.70	4.65
1.75V	211	156	135	78.0	51.0	20.6	15.0	8.60	4.60
1.80V	187	143	127	75.4	50.2	20.0	14.7	8.40	4.50

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

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	481	338	290	175	130	114	63.2	45.5	31.8
1.65V	447	321	288	170	128	113	62.0	44.9	31.6
1.70V	414	304	276	165	125	111	61.0	44.4	31.4
1.75V	381	288	267	160	122	108	59.8	43.9	31.2
1.80V	347	270	257	154	119	104	59.2	43.1	30.9

(Note)The above characteristics data are average values obtained Within three charge/discharge cycles not the minimum values.

