

# STRIDENT<sup>+</sup> BATTERIES

## GP12-42 12V 42Ah(20hr)



The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore maintenance-free and leak proof. Batteries should be used in an upright position only.

### Battery Construction

Component	Positive Plate	Negative Plate	Container	Cover	Safety Value	Terminal	Separator	Electrolyte
Raw Material	Lead Dioxide	Lead	ABS	ABS	Rubber	Copper	Fibreglass	Sulfuric Acid

### General Features

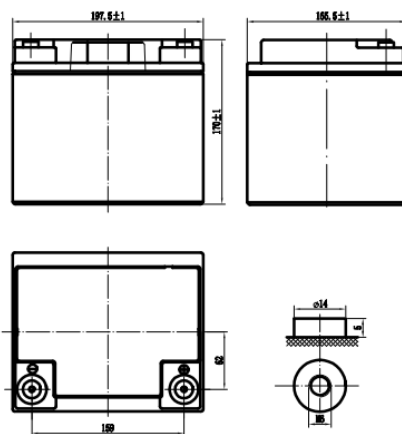
- Positive and negative plates in lead-calcium-tin alloy.
- Stable Quality & High Reliability
- Sealed Construction.
- Long Service Life.
- Maintenance-Free Operation
- Low Pressure Venting System
- Low Self Discharge
- U.L. Component Recognition
- Six Month Shelf Life at 20°C
- Design life 10 Years

### Performance Characteristics

- Nominal Voltage: 12V
- Number of Cells: 6
- Nominal Capacity 77°F (25°C)
  - 10 Hour Rate (10.0A, 10.8V): 40.-0Ah
  - 5 Hour Rate (17.5A, 10.5V): 35.0Ah
  - 1 Hour Rate (66.2A, 9.60V): 25.9Ah
- Internal Resistance
  - Fully Charged Battery 77°F (25°C) 9.5m Ohms
- Self-Discharge
  - 3% of capacity declined per month at 20° (average)
- Operating Temperature Range
  - Discharge: -20~60°C
  - Charge: -10~60°C
  - Storage: -20~60°C
- Max. Discharge Current 77°F (25°C): 400A (5s)
- Short Circuit Current: 900A
- Charge methods: Constant Voltage Charge 77°F (25°C)
  - Cycle use: 14.4—14.7V
  - Maximum charging current: 12A
  - Temperature Compensation: -30mV/°C
- Standby use: 13.6– 13.8V
  - Temperature compensation: -20mV/°C

### Dimensions and Weight

Length (mm/inch)	194.5/7.78
Width (mm/inch)	165.5/6.52
Height (mm/inch)	170/6.69
Total Height (mm/inch)	170/6.69
Approx. Weight (kg/lbs)	114.7/32.4



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### Discharge Data

Discharge Constant Current (Amperes at 77°F/25°C)										
End Point Volts/Cell	5min	10min	15min	30min	45min	1h	3h	5h	10h	24h
1.60V	131	93.0	73.3	42.0	31.3	18.3	10.7	7.36	4.28	1.87
1.65V	124	88.4	68.9	40.7	30.6	18.0	10.4	7.24	4.22	1.86
1.70V	119	83.7	66.7	39.0	30.5	17.7	10.2	7.11	4.21	1.84
1.75V	110	79.1	64.9	38.0	29.3	17.4	9.95	7.00	4.07	1.82
1.80V	101	71.9	58.7	36.3	28.9	16.8	9.72	6.80	4.00	1.79

The above characteristics data are average values obtained with three charge/discharge cycles, not the minimum values.

Discharge Constant Power (watts at 77°F/25°C)									
End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	251	177	141	92.9	70.0	55.6	31.2	23.0	15.0
1.65V	233	163	128	82.9	63.8	51.2	29.1	21.7	14.1
1.70V	215	155	124	80.3	60.5	50.3	28.3	20.9	13.9
1.75V	198	148	120	77.7	59.3	49.5	27.8	20.6	13.7
1.80V	186	140	116	75.0	58.0	48.6	27.3	20.2	13.6

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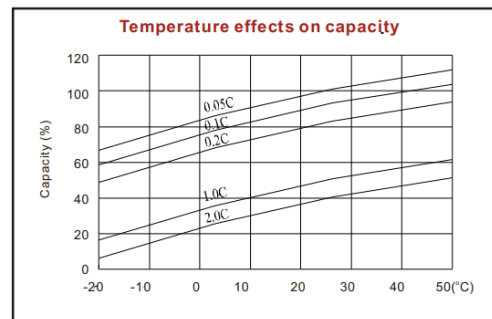
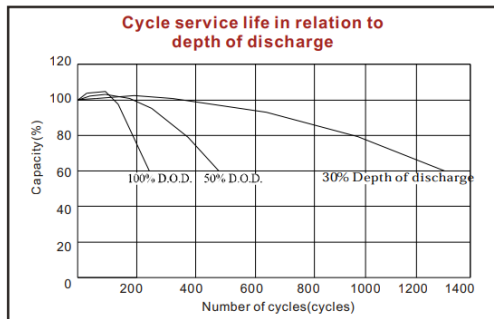
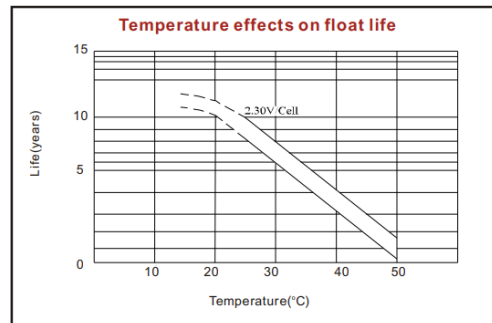
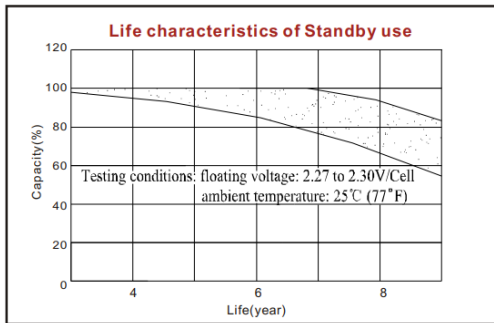
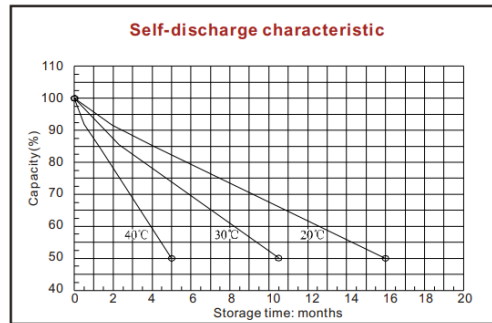
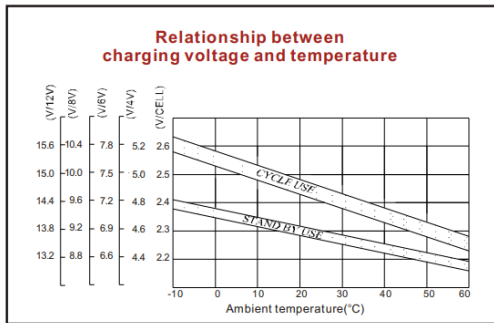
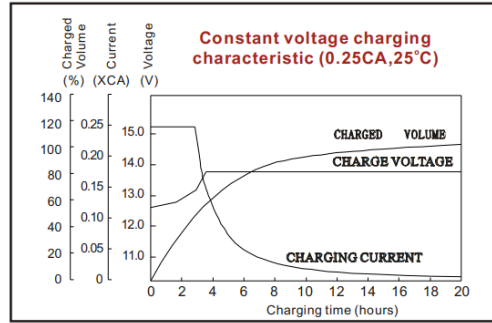
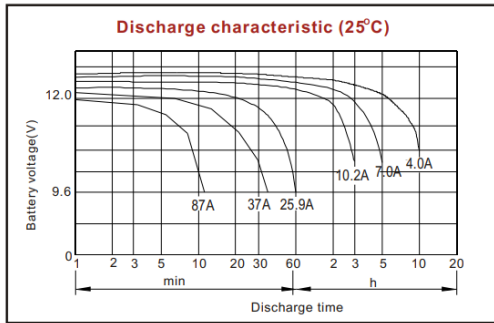
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