



NATIONWIDE BATTERY

SSIG 06 490



1200 CYCLES @ 50 % DOD

• TRULY DEEP CYCLE

- BCI Group N/A, 6V
- Reserve Capacity [Ah@20hr rate]: 443
- Reserve Capacity [Ah@100hr rate]: 490
- Energy [kWh]: 2.94
- Weight: 125 lbs.
- Length: 11.66 in (296 mm)
- Width: 6.94 in (176 mm)
- Height: 17.55 in (446 mm)
- LT
- BAYONET / HYDROLINK



SOLAR SIGNATURE LINE FLOODED

The Solar Signature Line of deep-cycle flooded batteries provide outstanding performance day in and day out.

The Solar Signature Line is designed to deliver maximum sustained performance, long life and increased energy. The cost-effective Solar Signature batteries are ideal for off-grid, grid-tied and unstable grid environments.

Trojan's Grid Technology is a lead antimony alloy grid mixture formulated for use with Trojan's Alpha Plus® Paste with T2 Technology. The overall grid configuration is optimized to enhance current flow through the grid network providing exceptional battery performance, reducing downtime and lowering overall maintenance costs.

Trojan's **Maxguard T2** separator features a multi-rib geometry which keeps acid channels open longer enhancing electrochemical processing while reducing the risk of stratification. Trojan's Maxguard T2 advanced separator sustains performance providing exceptionally longer battery life and significantly lowering your operating costs.

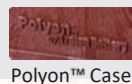
Alpha Plus® Paste with T2 Technology is a proprietary, high-density paste formulation precisely engineered to deliver outstanding battery performance. Together Alpha Plus Paste with T2 Technology increases both sustained capacity and total overall ampere-hours resulting in more operating power for your application. It's a key reason why Trojan batteries consistently outperform the competition.



DATA SHEET

MODEL SSIG 06 490
 VOLTAGE 6V
 CAPACITY 490Ah @ 100Hr
 MATERIAL Polypropylene
 BATTERY TYPE Deep Cycle Flooded / Wet Lead Acid Battery

6V



PRODUCT + PHYSICAL SPECIFICATIONS

| BCI Group Size | Type | Voltage | Cell(s) | Terminal Type ⁶ | Dimensions ^c Inches (mm) | | | Weight Lbs. (kg) |
|----------------|------------|---------|---------|----------------------------|-------------------------------------|------------|---------------------|------------------|
| | | | | | Length | Width | Height ^f | |
| N/A | SSI 06 490 | 6 | 3 | 5 | 11.66 (296) | 6.94 (176) | 17.55 (446) | 125 (57) |

ELECTRICAL SPECIFICATIONS

| Cranking Performance | | Capacity ^A Minutes | | Capacity ^B Amp-Hours (AH) | | | | | | | Energy (kWh) | Internal Resistance (mΩ) | Short Circuit Current (amps) |
|-----------------------------------|--------------------------------|-------------------------------|-----------|--------------------------------------|------|-------|-------|-------|-------|--------|--------------|--------------------------|------------------------------|
| C.C.A. ^D @ 0°F (-18°C) | C.A. ^F @ 32°F (0°C) | @ 25 Amps | @ 75 Amps | 2-Hr | 5-Hr | 10-Hr | 20-Hr | 48-Hr | 72-Hr | 100-Hr | 100-Hr | | |
| — | — | -- | -- | -- | -- | 407 | 443 | 455 | 474 | 490 | 2.94 | — | — |

CHARGING INSTRUCTIONS

| Charger Voltage Settings (at 77°F/25°C) | | | | |
|---|------|-------|-------|-------|
| System Voltage | 6V | 12V | 24V | 48V |
| Maximum Charge Current (% of C ₂₀ Rate)* | 13 % | | | |
| Maximum Absorption Phase Time (hours) | 4 | | | |
| Absorption Voltage** | 7.35 | 14.70 | 29.40 | 58.80 |
| Float Charge | 6.75 | 13.50 | 27.00 | 54.00 |
| Equalize Charge | 8.10 | 16.20 | 32.40 | 64.80 |

Do not install or charge batteries in a sealed or non-ventilated compartment. Constant under or overcharging will damage the battery and shorten its life as with any battery.

* If Charging time is Limited contact Trojan Technical Support for Assistance

** In cases where controller has a bulk voltage setting, use absorption voltage setting above



Designed in compliance with applicable BCI, DIN, BS and IEC standards. Tested in compliance to BCI and IEC standards.



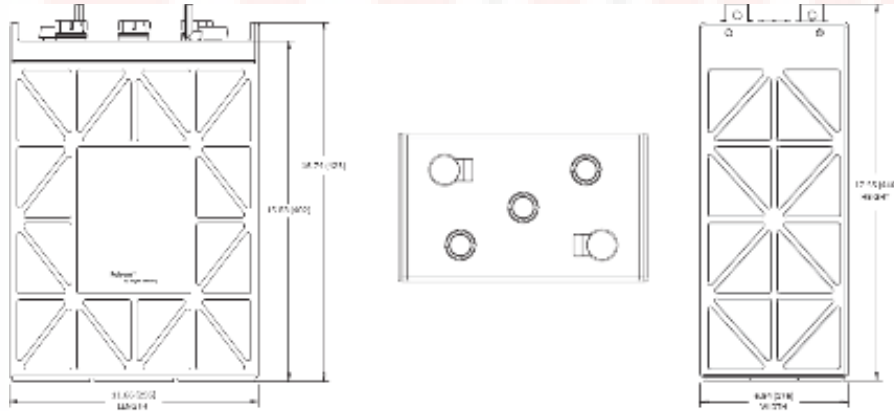
CHARGING TEMPERATURE COMPENSATION

| Add | Subtract |
|---|---|
| 0.005 volt per cell for every 1°C below 25°C | 0.005 volt per cell for every 1°C above 25°C |
| 0.0028 volt per cell for every 1°F below 77°F | 0.0028 volt per cell for every 1°F above 77°F |

OPERATIONAL DATA

| Operating Temperature | Self Discharge |
|--|---|
| -4°F to 122°F (-20°C to 50°C) At temperatures below 32°F (0°C) maintain a state of charge greater than 60% | Less than 3% per month depending on storage temperature conditions |

BATTERY DIMENSIONS



EXPECTED LIFE VS. TEMPERATURE

Chemical reactions internal to the battery are driven by voltage and temperature. The higher the battery temperature, the faster chemical reactions will occur. While higher temperatures can provide improved discharge performance the increased rate of chemical reactions will result in a corresponding loss of battery life. As a rule of thumb, for every 10°C increase in temperature the reaction rate doubles. Thus, a month of operation at 35°C is equivalent in battery life to two months at 25°C. Heat is an enemy of all lead acid batteries, FLA, AGM and gel alike and even small increases in temperature will have a major influence on battery life.

- A. The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 86°F (30°C) for all rates and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
 B. Dimensions may vary depending on type of handle or terminal. Batteries should be mounted with 0.5 inches (12.7 mm) spacing minimum.



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STATE OF CHARGE MEASURE OF OPEN-CIRCUIT VOLTAGE

| Percentage Charge | Specific Gravity | Cell | 6Volt |
|-------------------|------------------|-------|-------|
| 100 | 1.277 | 2.122 | 6.37 |
| 90 | 1.258 | 2.103 | 6.31 |
| 80 | 1.238 | 2.083 | 6.25 |
| 70 | 1.217 | 2.062 | 6.19 |
| 60 | 1.195 | 2.040 | 6.12 |
| 50 | 1.172 | 2.017 | 6.05 |
| 40 | 1.148 | 1.993 | 5.98 |
| 30 | 1.124 | 1.969 | 5.91 |
| 20 | 1.098 | 1.943 | 5.83 |
| 10 | 1.073 | 1.918 | 5.75 |

TERMINAL CONFIGURATION

| S | LT | L-Terminal |
|---|----|--|
| | | Terminal Height Inches (mm) 1.70 (43) |
| | | Torque Values: in-lb (Nm) 95 – 105 (11 – 12) |
| | | Bolt Size 5/16" - 18 |

SMART CARBON™

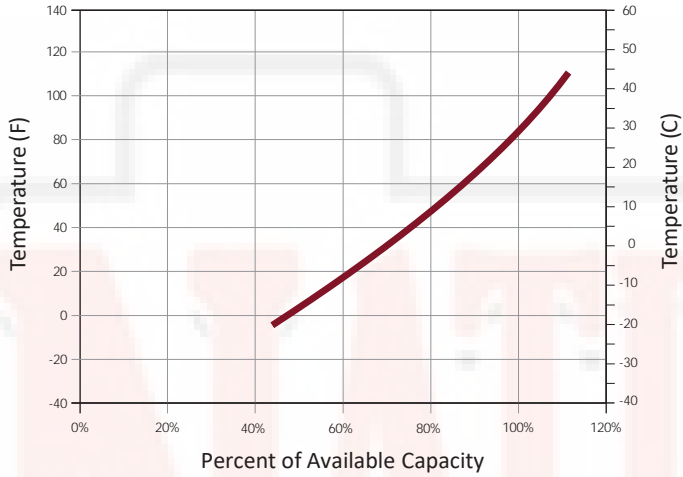
Deep-cycle batteries used in off-grid and unstable grid applications are heavily cycled at partial state of charge (PSOC). Operating at PSOC on a regular basis can quickly diminish the overall life of a battery, which results in frequent and costly battery replacements.

To address the impact of PSOC on deep-cycle batteries in renewable energy (RE), inverter backup and telecom applications, Trojan Battery has now included Smart Carbon™ as a standard feature in its Industrial and Premium flooded battery lines.

- C. Height taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.
 D. Terminal images are representative only.
 E. A boost charge should be performed every 6 months when batteries are in storage.
 F. Weight may vary.



PERCENT CAPACITY VS. TEMPERATURE

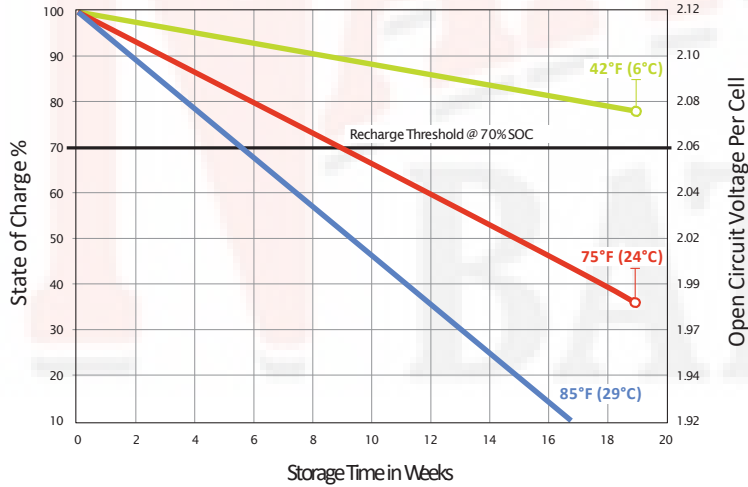


*PERIODIC CHARGE

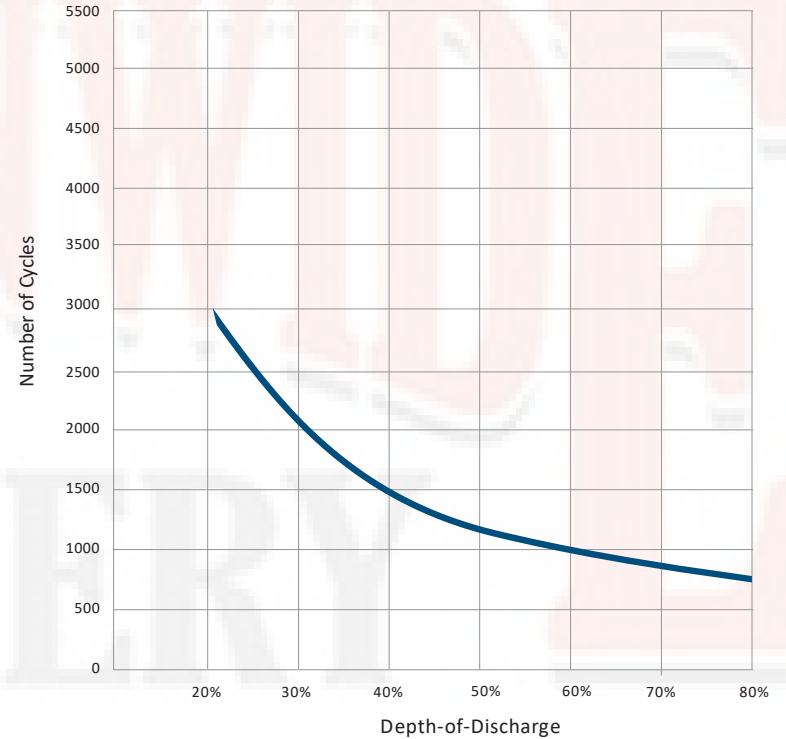
FREQUENCY

Provide a periodic freshening charge to maintain a SOC greater than the threshold of 70%.

SELF DISCHARGE VS. TIME*



DOD VS CYCLE LIFE IN A STATIONARY APPLICATION



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