## <u>LITHIONICS BATTERY</u>(

LITHIUM ION IRON PHOSPHATE BATTERY SYSTEMS



#### MODEL NUMBER: GTR12V300A-5DR-CTRL400

### INTERNAL BMS VERSION



| Item                                              |                                                                                                                                                                                                                                                   | Description                                                   |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Model                                             |                                                                                                                                                                                                                                                   | GTR12V300A-5DR-CTRL400                                        |
| Nominal Voltage                                   |                                                                                                                                                                                                                                                   | 12.8                                                          |
| Nominal Capacity                                  |                                                                                                                                                                                                                                                   | 300                                                           |
| Nominal Watt Hours                                |                                                                                                                                                                                                                                                   | 3840                                                          |
| Internal Resistance                               |                                                                                                                                                                                                                                                   | <300 milliohms                                                |
| Charge                                            |                                                                                                                                                                                                                                                   |                                                               |
| Charging temperature range                        |                                                                                                                                                                                                                                                   | 32F/0C to 113F/45C                                            |
| Charge voltage                                    |                                                                                                                                                                                                                                                   | 14.6                                                          |
| Recommended float charge voltage(for standby use) |                                                                                                                                                                                                                                                   | 13.4                                                          |
| Recommended charge current*                       |                                                                                                                                                                                                                                                   | 150                                                           |
| Allowed max charge current*                       |                                                                                                                                                                                                                                                   | 300                                                           |
| Discharge                                         |                                                                                                                                                                                                                                                   |                                                               |
| Discharging temperature range                     |                                                                                                                                                                                                                                                   | -4F/-20C to 131F/55C                                          |
| Operating Voltage Range                           |                                                                                                                                                                                                                                                   | 11.6 to 13.4                                                  |
| Recommended discharge current*                    |                                                                                                                                                                                                                                                   | 300                                                           |
| Max discharge current*                            |                                                                                                                                                                                                                                                   | 400                                                           |
| Pulse discharge current                           |                                                                                                                                                                                                                                                   | 3000                                                          |
| Discharge cut-off voltage                         |                                                                                                                                                                                                                                                   | NeverDie® Power Reserve @ 12.00<br>Low-Voltage Cut-Off @11.60 |
| Mechanical                                        |                                                                                                                                                                                                                                                   |                                                               |
| Dimensions                                        |                                                                                                                                                                                                                                                   | Length 24.0"                                                  |
|                                                   |                                                                                                                                                                                                                                                   | Width 8.0"                                                    |
|                                                   |                                                                                                                                                                                                                                                   | Height 15.84"                                                 |
| Weight                                            |                                                                                                                                                                                                                                                   | Approx. 87lbs (39.5kg)                                        |
| Storage                                           |                                                                                                                                                                                                                                                   |                                                               |
| Storage Temperature &<br>Humidity Range           | < 1 Month                                                                                                                                                                                                                                         | -4~95°F (-20~35°C), 45~75%RH                                  |
|                                                   | < 3 Months                                                                                                                                                                                                                                        | 14~86°F (-10~30°C), 45~75%RH                                  |
|                                                   | Recommended storage                                                                                                                                                                                                                               | 59~95°F (15~35°C), 45%RH~75%RH                                |
| Long Term Storage                                 | If the battery needs to be stored for $> 3$ months the voltage should be 13.2V (50%sOC), and stored at the recommended storage specifications shown above. Additionally, the battery needs at least one charge & discharge cycle every six months |                                                               |
| Self-discharge rate                               | Residual capacity                                                                                                                                                                                                                                 | ≤3% per month; ≤15% per year                                  |
|                                                   | Reversible capacity                                                                                                                                                                                                                               | ≤1.5%per month; ≤8% per year                                  |

<sup>&</sup>quot;Maximum charging and discharge rates apply depending upon the amotent temperature and duty cycle of the system UL1973 tests of maximum charge and discharge current were performed at 25°C/77°F

#### INTERNAL NEVERDIE® FEATURES

miniBMS® Cell/Module Sensors and Microprocessors with Automatic Cell Balancing

NeverDie® Power Reserve (Spare Fuel) for Hotel Loads and Worry-Free Power for Engine Cranking

100% Pure Copper Power Transmission (No Restrictive Nickel, Aluminum, or MOSFETS)

UL Approved Temperature Protection System

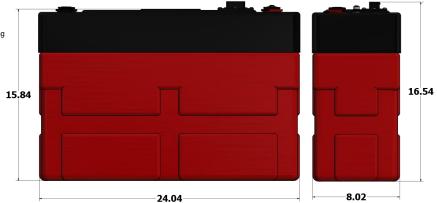
UL Approved Fully Redundant Protective Safety Circuits

Over-Charge, Over-Discharge and Short-Circuit Protection (LVC, HVC, SCC)

Military Grade/Military Approved Hermetically-Sealed UL508 Approved Gas-Filled Pure Silver-Alloy Contactor with Aux-Contact Monitoring Circuit and Internal Arc-Suppression.

Available NeverDie® Internal Heating Kit: Permits Charging Operations at -20C/-4F Continuous (Most Models....Please Confirm with Factory)

Pushbutton Storage Operation



# ENERGY

300 AMP HOURS

PULSE AMPS: 3000 (1 SEC)

3840 WATT-HOURS

#### WARNING

1. LITHIUM BATTERIES ARE NOT DESIGNED FOR CHARGING IN SUB-FREEZING TEMPERATURES. CONTACT LITHIONICS BATTERY® FOR DETAILS ON OUR COLD WEATHER PACKAGE. 2. INSTALLATION: IT IS RECOMMENDED THAT BATTERIES BE INSTALLED CABLE OR TERMINAL SIDE UP.

NOTE: CONTACT LITHIONICS BATTERY® FOR A USER INSTALLATION GUIDE & STORAGE PROCEDURES. FOLLOW THE GUIDE TO ENSURE FITNESS OF USE & WARRANTY.

12V GTR SERIES