

# LITHIONICS BATTERY®

LITHIUM ION IRON PHOSPHATE BATTERY SYSTEMS



MODEL NUMBER:  
12V400A-5DR-CTRL400

INTERNAL BMS  
VERSION



**NEVERDIE®**

Item	Description
Model	12V400A-5DR-CTRL400
Nominal Voltage	12.8
Nominal Capacity	400
Nominal Watt Hours	5120
Internal Resistance	<300 milliohms
<b>Charge</b>	
Charging temperature range	32F/0C to 113F/45C
Charge voltage	14.6
Recommended float charge voltage(for standby use)	13.4
Recommended charge current*	200
Allowed max charge current*	400
<b>Discharge</b>	
Discharging temperature range	-4F/-20C to 131F/55C
Operating Voltage Range	11.6 to 13.4
Recommended discharge current*	200
Max discharge current*	400
Pulse discharge current	4000
Discharge cut-off voltage	NeverDie® Power Reserve @ 12.00 Low-Voltage Cut-Off @11.60
<b>Mechanical</b>	
Dimensions	Length 24.0" Width 8.0" Height 15.9"
Weight	Approx. 135lbs (61.2kg)
<b>Storage</b>	
Storage Temperature & 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

\* Maximum charging and discharging rates apply depending upon the ambient 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

400 AMP HOURS

PULSE AMPS: 4000 (1 SEC)

5120 WATT-HOURS

## WARNING

- LITHIUM BATTERIES ARE NOT DESIGNED FOR CHARGING IN SUB-FREEZING TEMPERATURES. CONTACT LITHIONICS BATTERY® FOR DETAILS ON OUR COLD WEATHER PACKAGE.
- 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**  
STANDARD  
SERIES