

LITHIONICS BATTERY®

LITHIUM ION IRON PHOSPHATE BATTERY SYSTEMS



MODEL NUMBER:
12V450A-8DR-CTRL400

INTERNAL BMS
VERSION



NEVERDIE®

Item	Description	
Model	12V450A-8DR-CTRL400	
Nominal Voltage	12.8	
Nominal Capacity	450	
Nominal Watt Hours	5760	
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*	225	
Allowed max charge current*	400	
Discharge		
Discharging temperature range	-4F/-20C to 131F/55C	
Operating Voltage Range	11.6 to 13.4	
Recommended discharge current*	225	
Max discharge current*	400	
Pulse discharge current	4500	
Discharge cut-off voltage	NeverDie® Power Reserve @ 12.00 Low-Voltage Cut-Off @11.60	
Mechanical		
Dimensions	Length 23.0" Width 13.0" Height 13.4"	
Weight	Approx. 150lbs (68kg)	
Storage		
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

450 AMP HOURS

PULSE AMPS: 4500 (1 SEC)

5760 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