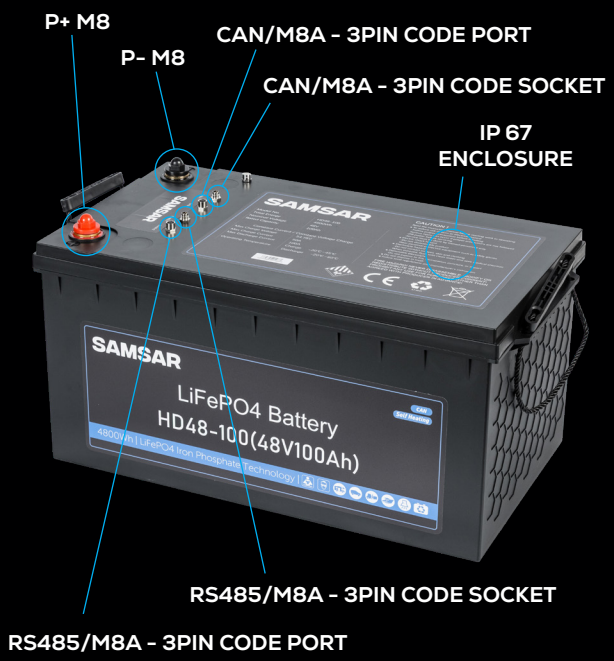
SAMSAR

48V 4.8KWh LiFePO4 BATTERY

ISO 9001:2015

RE-MADE IN THE USA



PARAMETER	VALUE
Pack Capacity	100Ah
Nominal Voltage	48V
Cell Configuration	15S1P
Nominal Charge Current	<50A
Continuous Discharge Current	100 A
Maximum / Pulse Discharge Current	200A /30 sec
Charge Voltage	54.75V +/- 0.02V
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	522 x 280 x 250 +/- 2 mm
Weight (Kg)	35 +/- 1 Kg
Operating Temperature Range: Charging	-20°C to +50°C Self-Heated
Operating Temperature Range: Discharging	-20°C to +55°C
Storage Temperature Range	0°C to +40°C
Protections	Over Charge / Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors	P M8 Terminals
	CAN: MBA-3Pin Male Plug / MBA-3Pin Female Plug
Communications	CAN 2.0
	Victron Enabled Communication Board
	RS485 M8-3 pin code socket and plug X 4
IP Class	IP 67
IoT	Compatible/FOTA enabled
	Remote Monitoring & Control Available
Self Heating Option	Included
Certification	UN 38.3 / UL 1642 Available

SUMMARY

- Battery box dimensions:
  522mm x 280mm x 250mm (LWH) +/- 2 mm
- Real-time online performance tracking & control
- Battery swapping compatible with active balancing
- System supports up to 16x packs in parallel
- Battery Pack Cell Configuration: 15S2P

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SAMSAR

BETTER FOR PEOPLE AND THE PLANET

SAMSAR IS THE ONLY LITHIUM BATTERY COMPANY THAT BUILDS BATTERIES TO BE EASILY DISASSEMBLED AND UPCYCLED AT END OF LIFE. SAVE MONEY AND HELP SUPPORT A CLEAN AND SUSTAINABLE FUTURE FOR EVERYONE.

BETTER FOR THE PLANET

CARBON NEUTRAL

- CARBON NEUTRAL
- LESS E-WASTE
- CONSERVES RARE EARTH MINERALS
- LESS LITHIUM MINING
- MORE AFFORDABLE
- CIRCULAR ECONOMY

SAMSAR IS BASED ON SAMSARA -THE CYCLE OF LIFE, DEATH, AND REBIRTH.

SAMSAR BATTERIES ARE DESIGNED TO LAST 10 YEARS, THEN ENJOY A 2nd LIFE OF 5-10 YEARS, AND EVEN A 3rd LIFE OF 3-5 YEARS.

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SAMSAR

NTH LIFE™

QUALITY GUARANTEED BY SAMSAR'S PROPRIETARY NthLIFE™ SOFTWARE PLATFORM

NTH LIFE™ REMOTE MONITORING

- BACKEND PLATFORM FOR GPS TRACKING, TEMPERATURE, STATE OF CHARGE MONITORING, AND REMOTELY TURNING THE BATTERY ON AND OFF VIA CELLULAR NETWORK
- MONITORS BATTERY PERFORMANCE WITH DETAILED USE HISTORY
- ALLOWS REMOTE CONTROL AND SENDS PERFORMANCE/SECURITY ALERTS
- REDUCES SERVICE CALLS AND COST OF SERVICE OVER TIME

NTH LIFE™ BATTERY PASSPORT

- TRANSPARENCY IN BATTERY PERFORMANCE WITH BATTERY MANUFACTURING HISTORY AND CERTIFICATION AVAILABLE THROUGH A DIGITAL BATTERY PASSPORT
- SCAN A QR CODE OR LOGIN TO A DASHBOARD TO SEE BATTERY HISTORY, CERTIFICATION, STATUS, AND PERFORMANCE

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SAMSAR

FLEXIBLE COMMERCIAL OFFER - FINANCING & LEASING AVAILABLE

BATTERIES AVAILABLE VIA SALES BUYBACK (BUY NOW PAY LATER) OR BATTERY AS A SERVICE (LEASING), REDUCING CAPEX AND OFFERING FINANCIAL FLEXIBILITY. CONSERVE YOUR CASH AND WORKING CAPITAL WHILE HELPING ENSURE YOUR BATTERIES WILL BE FULLY RECYCLED AT END OF LIFE.

BUY NOW PAY LATER

- 1 YEAR, 2 YEAR, AND 5 YEAR FINANCING TERMS
- AT END OF PAYMENT TERM YOU OWN THE PRODUCT
- CONSERVES CASH WHILE BUILDING BALANCE SHEET VALUE OVER TIME
- POSITIVE P & L IMPACT - PRODUCT DEPRECIATES OVER THE 10 YEAR WARRANTY TERM

BAAS

BATTERY AS A SERVICE

- LEASE ENERGY STORAGE FOR THE LIFETIME OF YOUR APPLICATION
- BATTERY IS RETURNED TO SAMSAR AT END OF 1st USE LIFE TO BE RE-PURPOSED
- CONSERVES CASH AND REDUCES CAPEX
- ALLOWS FOR RAPID GROWTH – GREAT FOR RAPIDLY SCALING COMPANIES

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SAMSAR

WARRANTY AND SERVICE LEVEL AGREEMENT

WARRANTY GUARANTEE

COMPREHENSIVE 10 YR WARRANTY WITH FULL REPAIR AND REPLACEMENT FOR PRODUCTS WITH DEFECTS IN DESIGN, MATERIALS, AND WORKMANSHIP.

COMMENCEMENT DATE TRIGGERED BY EVENTS BELOW:

- UPON COMMISSIONING WITH END USER
- 30 DAYS AFTER ASSEMBLY
- 3 MONTHS AFTER UNIT SHIPPED

WARRANTY EXCLUSIONS APPLICABLE FOR MISUSE, TAMPERING, IMPROPER USE OF GUIDELINES/MANUAL, PHYSICAL DAMAGE, AND OTHER APPLICABLE TERMS

SERVICE LEVEL AGREEMENT (SLA)

COMPREHENSIVE SERVICE LEVEL AGREEMENT WILL INCLUDE FOLLOWING TERMS:

- TECHNICAL SUPPORT HOTLINE
- COMPONENT REPLACEMENT WITHIN 72HRS OF RECEIPT
- DEDICATED FREIGHT AND LOGISTICS EXECUTIVE
- DEDICATED TECHNICAL SUPPORT EXECUTIVE
- 100% US BASED ENGINEERING AND TECHNICAL SUPPORT
- CUSTOMER SATISFACTION UPON REPLACEMENT

CLOUD PLATFORM WILL BE UTILIZED TO ISOLATE AND SUBMIT SERVICE REQUEST

REMOTE MONITORING AND CONTROL VIA CELLULAR NETWORK AVAILABLE AS UPGRADE

WARRANTY AND SLA HAS BEEN CUSTOMIZED TO ENSURE RELIABILITY ACROSS YOUR FLEET THROUGHOUT THE PRODUCT LIFECYCLE

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SAMSAR

CUSTOM DESIGN SERVICES

BRING SAMSAR'S QUALITY, COST ADVANTAGE, AND PERFORMANCE TO YOUR PROJECT

SAMSAR PARTNERS WITH YOU TO BUILD THE PERFECT BATTERY FOR YOUR APPLICATION. WE'LL ENGINEER YOUR BATTERY WITH A CLEAR REUSE PATH AND MULTI-GENERATIONAL BUILD QUALITY SO IT CAN BE UPCYCLED, EXTENDING THE PRODUCT LIFE AND LIFETIME VALUE.

NEW BATTERIES ARE MANUFACTURED USING UL CERTIFIED GRADE A NEW CELLS. IF DESIRED, SAMSAR CAN INCORPORATE CERTIFIED RE-PURPOSED MATERIALS FROM OUR UL CERTIFIED SUPPLY CHAIN TO REDUCE COSTS, INCREASE SUSTAINABILITY, AND ADD A COMPELLING STORY TO YOUR BATTERY AND YOUR PRODUCT.

SAMSAR'S LEAN ENGINEERING PROCESS

- CREATE A REQUIREMENTS DOCUMENT (1-2 WEEKS)
- RAPID PROTOTYPING - US ASSEMBLY (2-4 WEEKS)
- PROTOTYPE APPROVAL (2-4 WEEKS)
- MASS PRODUCTION - US ASSEMBLY (2-4 WEEKS TOOLING FOR HIGH VOLUME)

SAMSAR

POWERS A CIRCULAR ECONOMY

BATTERY 1st LIFE

10 YEARS (DEPENDENT ON USE)

MANUFACTURE NEW LITHIUM BATTERIES DESIGNED TO LIVE MULTIPLE LIVES.

EXISTING ELECTRIC VEHICLE OR OTHER APPLICATION(S) BATTERY

RE-PURPOSE PROCESS

TESTS AND CERTIFIES RE-PURPOSED CONTENT FROM ELECTRIC VEHICLES AND 1st LIFE APPLICATIONS VIA UL 1974

HOUSTON, TX

PROOF OF QUALITY DATA IS SAVED TO NthLIFE PLATFORM AND AVAILABLE VIA QR CODE ON THE BATTERY

HOUSTON, TX

REPURPOSED CONTENT ASSEMBLED INTO 2nd LIFE BATTERIES

DALLAS, TX

BATTERY 2nd LIFE

5-10 YEARS

(DEPENDENT ON USE)

BATTERY 3rd LIFE

3-5 YEARS

(DEPENDENT ON USE)

REPEAT RE-PURPOSE PROCESS

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THE SAMSAR STORY

THE EXECUTIVES

STEVE HELLMAN

MANAGING PARTNER – MOBILITY IMPACT PARTNERS

FOUNDER – SAMSAR RESOURCES

Samsar was born from a simple question – how can we best make use of the tsunami of used electric vehicle batteries? Lithium recycling has shown to recover only a small fraction of the value of a battery, and why recycle a battery that still retains 80% or more of its capacity? There must be a better way. That way is Samsar – based on the concept of Samsara, the cycle of birth, death, and rebirth. Samsar captures up to 95% of the value of a used EV battery, enabling all kinds of new applications, and helping keep batteries out of the landfill.

GUILLERMO GARCIA

CHIEF EXECUTIVE OFFICER – SAMSAR RESOURCES

The concept of repurposing lithium batteries for second life applications has so many advantages – it makes those applications more affordable; the used batteries are already in the US which means our customers pay no tariffs; and the repurposing process is much more sustainable and captures more value than recycling. What makes Samsar's process unique is that every one of our batteries is engineered to be easily disassembled, allowing for continuous reuse. The result – more affordable batteries, built in the USA duty free, tested and certified for quality.

SAMSAR

KENT O'HARA

FORMER PRESIDENT OF NISSAN ENERGY

BOARD MEMBER – SAMSAR RESOURCES

At Nissan I helped bring the Nissan Leaf, one of the most popular electric vehicles of all time to America's roads. As the president of Nissan Energy I saw how hungry the world was for sustainable energy storage and knew that in a few years there was going to be millions of EV batteries that would be headed for recycling. I knew there must be a way to match the need for power with the growing supply. Samsar is the solution – affordable – sustainable – and built here, in the USA.

NISSAN

SAMSAR IS OWNED BY MOBILITY IMPACT PARTNERS

SAMSAR