



SAMSAR

SAMSAR

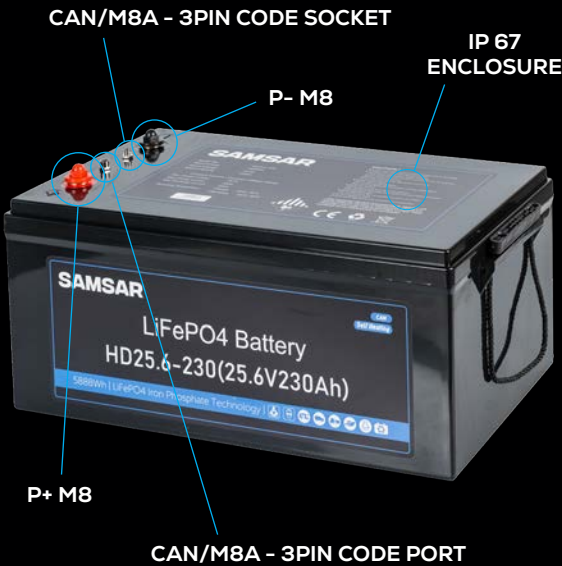
BUILT TO LIVE AGAIN

SECURITY, LIGHTING AND SOLAR COLLECTION



ENGINEERED TO LAST IN EXTREME ENVIRONMENTS WITH INTEGRATED HEATING FOR RELIABLE COLD-WEATHER PERFORMANCE, BUILT-IN VICTRON COMMUNICATION FOR EASIER SYSTEM INTEGRATION, AND MADE TO BE REUSED AND REPURPOSED.

PARAMETER	VALUE
Pack Capacity	230Ah
Cycle Life @ 80% DOD	>4,000 Cycles
Nominal Voltage	25.6V
Nominal Charge Current	46 A (0.2C Standard)
Maximum Charge Current	200 A
Continuous Discharge Current	200 A
Overcurrent Protection Threshold	700 A Typical
Charging Voltage / Charge Mode	29.2V +/- 0.2 CC-CV / Cell over charge detection @ 3.75V typ.
Discharging Cut-off Voltage / Cell Protection	About 20V / cell over discharge detection @ 2.3V typ.
Internal Resistance	<=20 mOhm
Dimensions (LxWxH) (mm)	522 x 268 x 220 +/-2 mm
Weight (Kg)	37 +/- 1 Kg
Cell Type	LF230 LiFePO4 Prismatic cell. 3.2V 230Ah
BMS	8S-200A
Operating Temperature Range: Charging	0°C to +45°C
Operating Temperature Range: Discharging	-20°C to +60°C
Storage Temperature Range	0°C to +40°C
Recommended Long-Term Storage Temp	15°C to 25°C
Protections	Over Charge
	Over Discharge
	Over Current
	Short Circuit
	Temperature Protection
Connectors:	Positive / Negative M8 terminals
Communications	CAN 2.0, / Victron Integration Ports
IP Protection	IP 67
Self-heating Range: Charging	Down to -20°C
Certification	UN 38.3



SUMMARY

- Battery box dimensions:
522mm x 268mm x 220mm (LWH) +/- 2 mm
- Multi-generational build quality for enhanced lifespan and durability. Allows for upcycling at end of life.
- Active cell balancing for enhanced battery lifespan
- IP 67 enclosure protection
- Smart BMS with CAN-bus communication for Victron Integration
- Battery Pack Cell Configuration: 8S1P
- 10-year battery warranty

SAMSAR

48V 4.8KWh LiFePO4 BATTERY

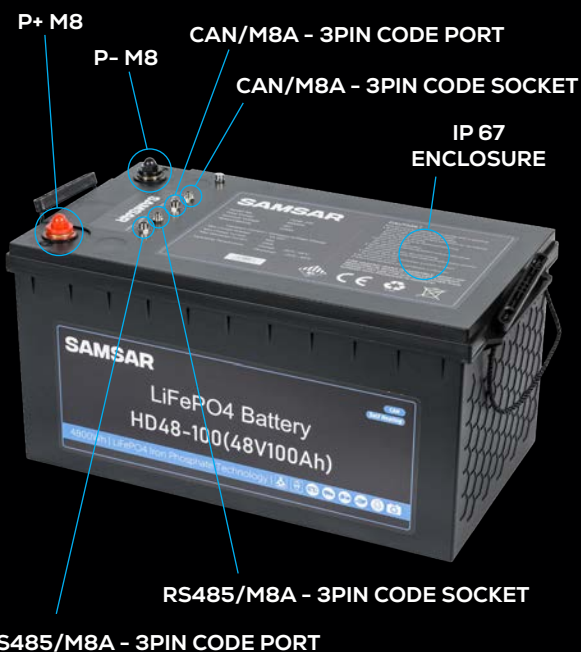
ISO
9001:2015



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

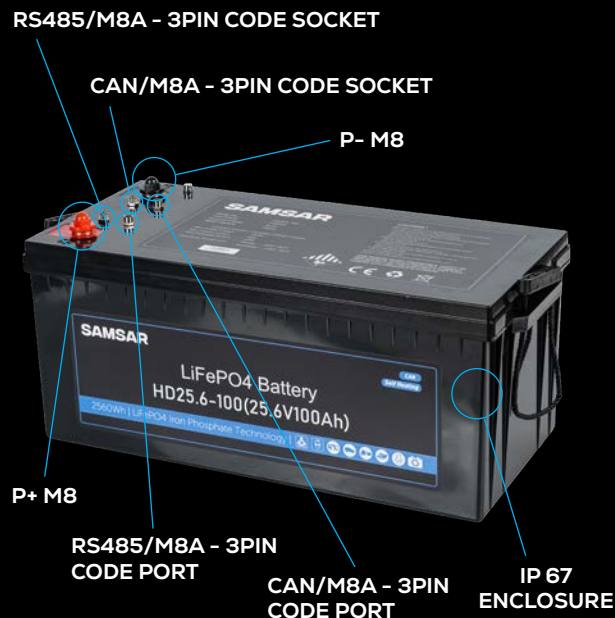


SUMMARY

- 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



SAMSAR BATTERY PROCESSING, DALLAS, TX



SUMMARY

- Battery box dimensions:
522mm x 240mm x 220mm (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: 8S2P

PARAMETER

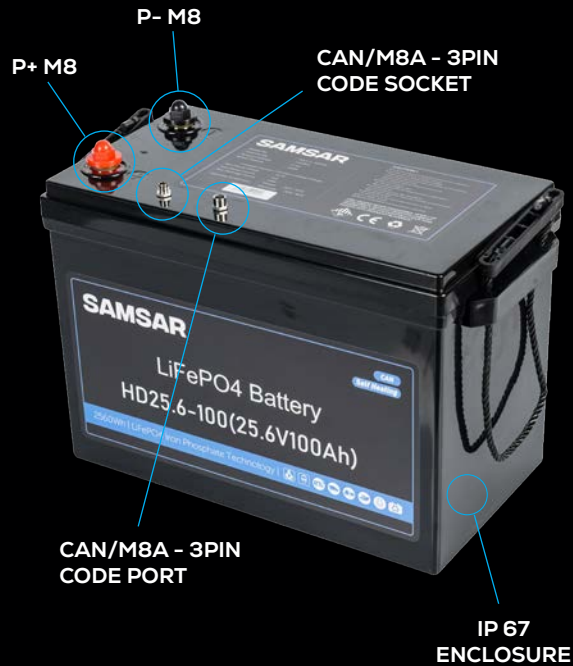
VALUE

Pack Capacity	100Ah
Nominal Voltage	25.6V
Cell Configuration	8S1P
Nominal Charge Current	<50A
Continuous Discharge Current	100 A
Maximum / Pulse Discharge Current	200A /30 sec
Charge Voltage	29.2V +/- 0.02V
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	522 x 240 x 220 +/- 2 mm
Weight (Kg)	20 +/- 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

SAMSAR

25.6V LONG 2.6KWh LiFePO4 BATTERY

ISO
9001:2015



SUMMARY

- Battery box dimensions:
384mm x 194mm x 255mm (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: 8S1P

PARAMETER

VALUE

Pack Capacity	100Ah
Nominal Voltage	25.6V
Cell Configuration	8S1P
Nominal Charge Current	<50A
Continuous Discharge Current	100 A
Maximum / Pulse Discharge Current	200A /30 sec
Charge Voltage	29.2V +/- 0.02V
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	384 x 194 x 255 +/- 2 mm
Weight (Kg)	20 +/- 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

SAMSAR

BUILT TO LIVE AGAIN

MOBILITY COLLECTION





SUMMARY

- Battery box dimensions:
436mm x 334mm x 230mm (LWH)
- Multi-generational build quality for enhanced lifespan and durability. Allows for upcycling at end of life.
- Active cell balancing for enhanced battery lifespan
- IP 67 Waterproof Steel Case for enhanced durability
- Smart BMS with CAN-bus communication for ethernet connectivity
 - LCD dashboard display with DS20 Aviation Connector cable included
- Battery Pack Cell Configuration: 4S4P

PARAMETER

VALUE

Pack Capacity	105Ah
Depth of Discharge (DOD)	85%
Nominal Voltage	38.4V
Nominal Charge Current	100 A
Maximum Charge Current	100 A
Continuous Discharge Current	200A
Maximum Discharge Current	400 A (35 sec)
Charging Ending Voltage / Charge Mode	43.8V / CC-CV / Cell over charge protection @ 3.65V
Discharging Ending Voltage / Discharge Mode	40V / Cell over discharge protection @ 2.3V
Mounting	Vertical
Dimensions (LxWxH) (mm)	436 x 334 x 230
Weight (Kg)	36.5 (Max)
Cell Type	New Grade A+ LiFePO4 Prismatic cell. 3.2V 105Ah
PCM/BMS model	4S-800A
Operating Temperature Range: Charging	-20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +60°C
Storage Temperature Range	0°C to +30°C
Protections	Over Charge / Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors:	3/8" stainless steel threaded studs
Communications	CANbus RS485 DS20 Aviation Connector Cable included
IP Class	IP 67
IoT	Compatible/FOTA enabled / Remote Monitoring & Control Available
Self Heating Option	Included
Battery Monitor	LCD dashboard display with DS20 Aviation Connector cable included
Certification	UN 38.3



Details	
Lowest cell voltage	3.452V
Highest cell voltage	3.689V
Minimum cell temperature	24.0°C
Maximum cell temperature	27.0°C
Installed / Available capacity	250Ah / 250Ah



SAMSAR

72V 105Ah 8KWh LiFePO4 ELECTRIC VEHICLE BATTERY



SUMMARY

- Battery box dimensions:
460mm x 334mm x 232mm (LWH)
- Multi-generational build quality for enhanced lifespan and durability. Allows for upcycling at end of life.
- Active cell balancing for enhanced battery lifespan
- IP 67 Waterproof Steel Case for enhanced durability
- Smart BMS with CAN-bus communication for ethernet connectivity
- Battery Pack Cell Configuration: 4S4P

PARAMETER	VALUE
Pack Capacity	105Ah
Depth of Discharge (DOD)	85%
Nominal Voltage	76.8V
Nominal Charge Current	50 A
Maximum Charge Current	50 A
Continuous Discharge Current	100 A
Maximum Discharge Current	350 A (35 sec)
Charging Ending Voltage / Charge Mode	87.6V / CC-CV / Cell over charge protection @ 3.65V
Discharging Ending Voltage / Discharge Mode	52.8V / Cell over discharge protection @ 2.3V
Mounting	Vertical
Dimensions (LxWxH) (mm)	460 x 334 x 232
Weight (Kg)	56 (Max)
Cell Type	New Grade A+ LiFePO4 Prismatic cell. 3.2V 105Ah
PCM/BMS model	4S-800A
Operating Temperature Range: Charging	-20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +60°C
Storage Temperature Range	0°C to +30°C
Protections	Over Charge / Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors:	3/8" stainless steel threaded studs
Communications	CANbus RS485
IP Class	IP 67
IoT	Compatible/FOTA enabled / Remote Monitoring & Control Available
Self Heating Option	Included
Certification	UN 38.3

SUMMARY

- Case & mounting hardware can be customized to your application.
- Multi-generational build quality for enhanced lifespan and durability. Allows for upcycling at end of life.
- Active cell balancing for enhanced battery lifespan
- IP 67 Waterproof molded case for enhanced durability & re-use
- Drop in replacement for many mobility applications.
- 2-year battery warranty
- FINANCING OPTIONS & BATTERY AS A SERVICE (BAAS) OPTIONS AVAILABLE

BAAS
BATTERY AS A SERVICE



48V 20Ah

SIZE: 393mm x 84mm x 109mm

WEIGHT: 12lbs

BMS PROTECTED

IP67 WEATHERPROOF CASE



36V 17.5Ah

SIZE: 430mm x 64.3mm x 94mm

WEIGHT: 9lbs

BMS PROTECTED

IP67 WEATHERPROOF CASE



48V 26Ah

SIZE: 513mm x 76mm x 110mm

WEIGHT: 15lbs

BMS PROTECTED

IP67 WEATHERPROOF CASE



48V 20Ah

SIZE: 360mm x 88mm x 125mm

WEIGHT: 11.5lbs

BMS PROTECTED

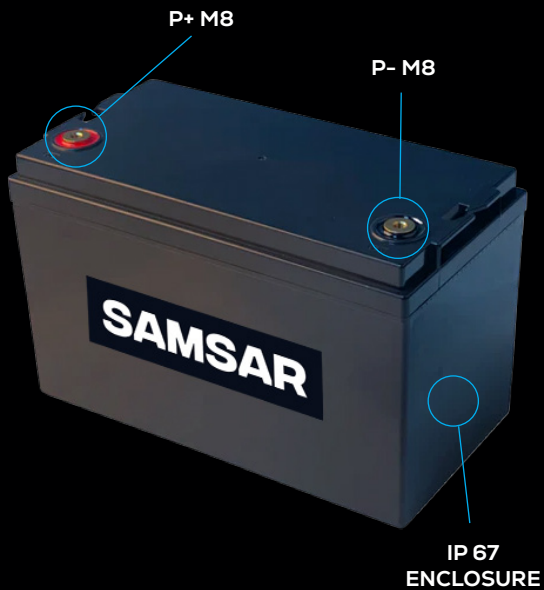
IP67 WEATHERPROOF CASE

SAMSAR

BUILT TO LIVE AGAIN
MARINE AND RV COLLECTION



PARAMETER	VALUE
Pack Capacity	310Ah
Nominal Voltage	12.8V
Max Charge Current	100A
Continuous Discharge Current	200 A
Maximum Discharge Current	200A
Charging Voltage:	14.6 V
Recommended Discharge Cut-Off Voltage	10V
Mounting	Vertical
Dimensions (LxWxH) (mm)	345 x 190 x 245
Weight (Kg)	33 (Max)
Operating Temperature Range: Charging	0°C to +50°C Non Heated, -20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +55°C
Storage Temperature Range	10°C to +45°C
Protections	Over Charge Current
	Over Discharge Current
	Short Circuit
	Over Voltage
	Under Voltage
	Over Temperature
	Under Temperature
Connectors	P M8 Terminals
Communications	None (standard) CAN-bus, NMEA, or Bluetooth available on request
IP Class	IP 67
IoT	Compatible/FOTA enabled Remote Monitoring & Control Available
Self Heating Option	Available
Certification	UN 38.3



SUMMARY

- Battery box dimensions:
345mm x 190mm x 245mm (LWH)
- Real-time online performance tracking & control
- Battery swapping compatible with active balancing
- System supports up to 16x packs in parallel
- Battery Pack Cell Configuration: 8S2P



SAMSAR
NMLife

Electrochemical Safety Certification
Capacity/ACIR

Battery Cycles

Process

SG1A

Module connected
to Charge

Top Port
Measurement ACIR

HI-21-61

Capacity @ end state

80/4V

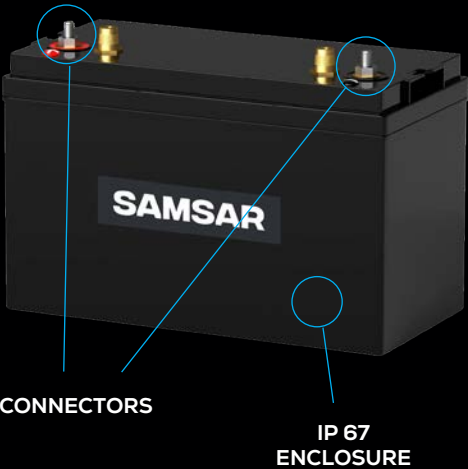
Ratio peak platform

ACIR Internal Resistance

Sustainable. Connected



SAMSAR BATTERY PROCESSING, HOUSTON, TX



SUMMARY

- Battery box dimensions:
330mm x 173mm x 240mm (LWH)
- Remote jump start from up to 50 ft away - no more dead batteries
- Compatible with semi-truck and large vehicle alternators.
- Intelligent BMS protects vehicles alternator and holds 3 jump starts in reserve
- Real time performance data via Bluetooth connectivity
- Million-mile vibration resistant case
- 230°C heat resistant case and cover UL94-V0 fire resistance
- Active cell balancing for enhanced battery lifespan
- IP 67 Waterproof ABS plastic case for enhanced durability
- Battery Pack Cell Configuration: 4S1P

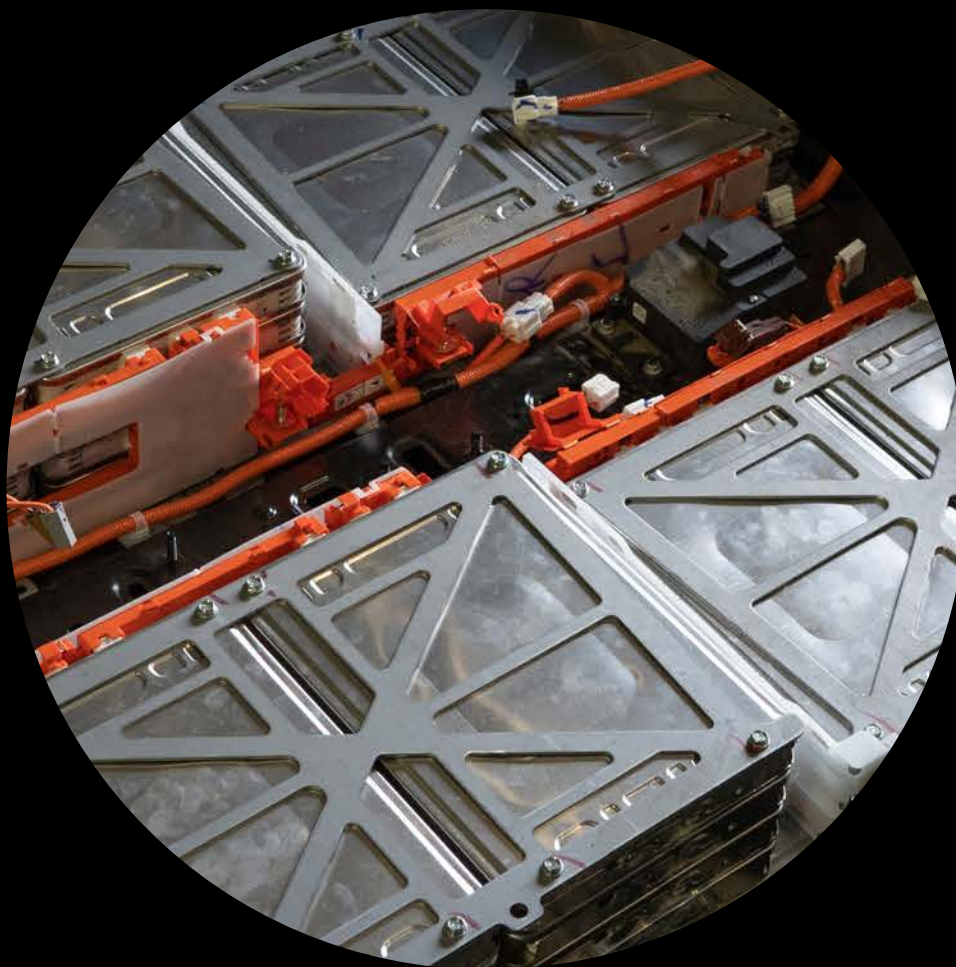
PARAMETER

VALUE

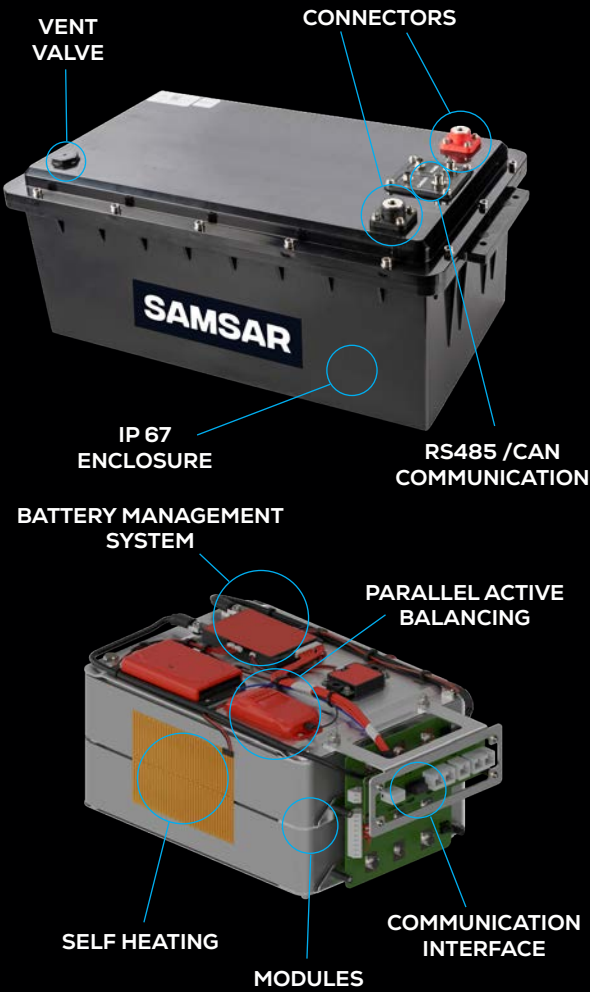
Pack Capacity	100Ah
Nominal Voltage	12.8V
Nominal Charge Current	150 A
Maximum Charge Current	1 50 A
Continuous Discharge Current	100A
Maximum Discharge Current	1200 A (10 sec)
Charging Ending Voltage / Charge Mode	14.5V / CC-CV / Cell over charge protection @ 3.65V
Discharging Ending Voltage / Discharge Mode	9.2V / Cell over discharge protection @ 2.3V
Mounting	Vertical
Dimensions (LxWxH) (mm)	330 x 173 x 240
Weight (Kg)	11
Cell Type	New Grade A+ LiFePO4 Prismatic cell. 3.2V 100Ah
PCM/BMS model	4S-1500A
Operating Temperature Range: Charging	Standard - 0°C to +55°C
Operating Temperature Range: Discharging	-20°C to +60°C
Storage Temperature Range	0°C to +30°C
Protections	Over Charge / Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors:	3/8" stainless steel threaded studs
Communications	Bluetooth
IP Class	IP 67
IoT	Compatible/FOTA enabled / Remote Monitoring & Control Available
Certification	UN 38.3

SAMSAR

BUILT TO LIVE AGAIN
NISSAN X SAMSAR COLLECTION



DUTY-FREE, PLANET-FRIENDLY LITHIUM BATTERIES ASSEMBLED
IN THE USA FROM CERTIFIED NISSAN LEAF BATTERY MODULES



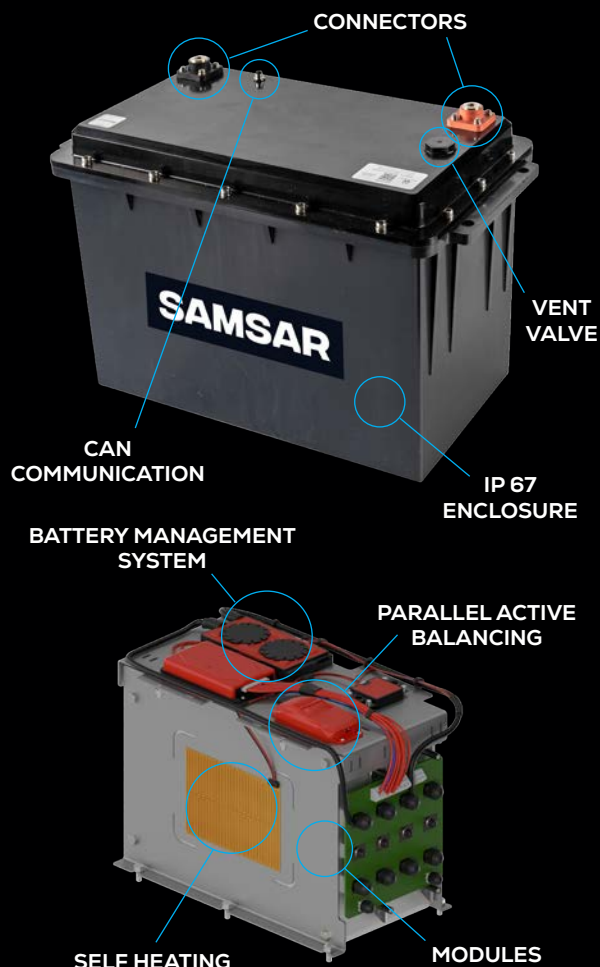
PARAMETER	VALUE
Pack Capacity	160Ah
Depth of Discharge (DOD)	85%
Nominal Voltage	15V
Nominal Charge Current	40 A
Continuous Discharge Current	40 A
Maximum Discharge Current	20 A (60 sec)
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	519 x 281 x 221
Weight (Kg)	18 (Max)
Operating Temperature Range: Charging	0°C to +50°C Non Heated -20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +55°C
Storage Temperature Range	10°C to +45°C
Protections	Over Charge Current
	Over Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors	Elecbec Part No.: EB-IF-FM8M6-3356-150A
Communications	CAN 2.0, BLE Victron Enabled Communication Board
IP Class	IP 67
IoT	Compatible/FOTA enabled Remote Monitoring & Control Available
Self Heating Option	Available
Certification	UN 38.3

SUMMARY

- Battery box dimensions:
519mm x 281mm x 221mm (LWH)
- Real-time online performance tracking & control
- Battery swapping compatible with active balancing
- System supports up to 16x packs in parallel
- Battery Pack Cell Configuration: 8S2P

SAMSAR

15V LONG 2.3KWh LITHIUM-ION BATTERY MADE WITH CERTIFIED REPURPOSED NISSAN LEAF MODULES



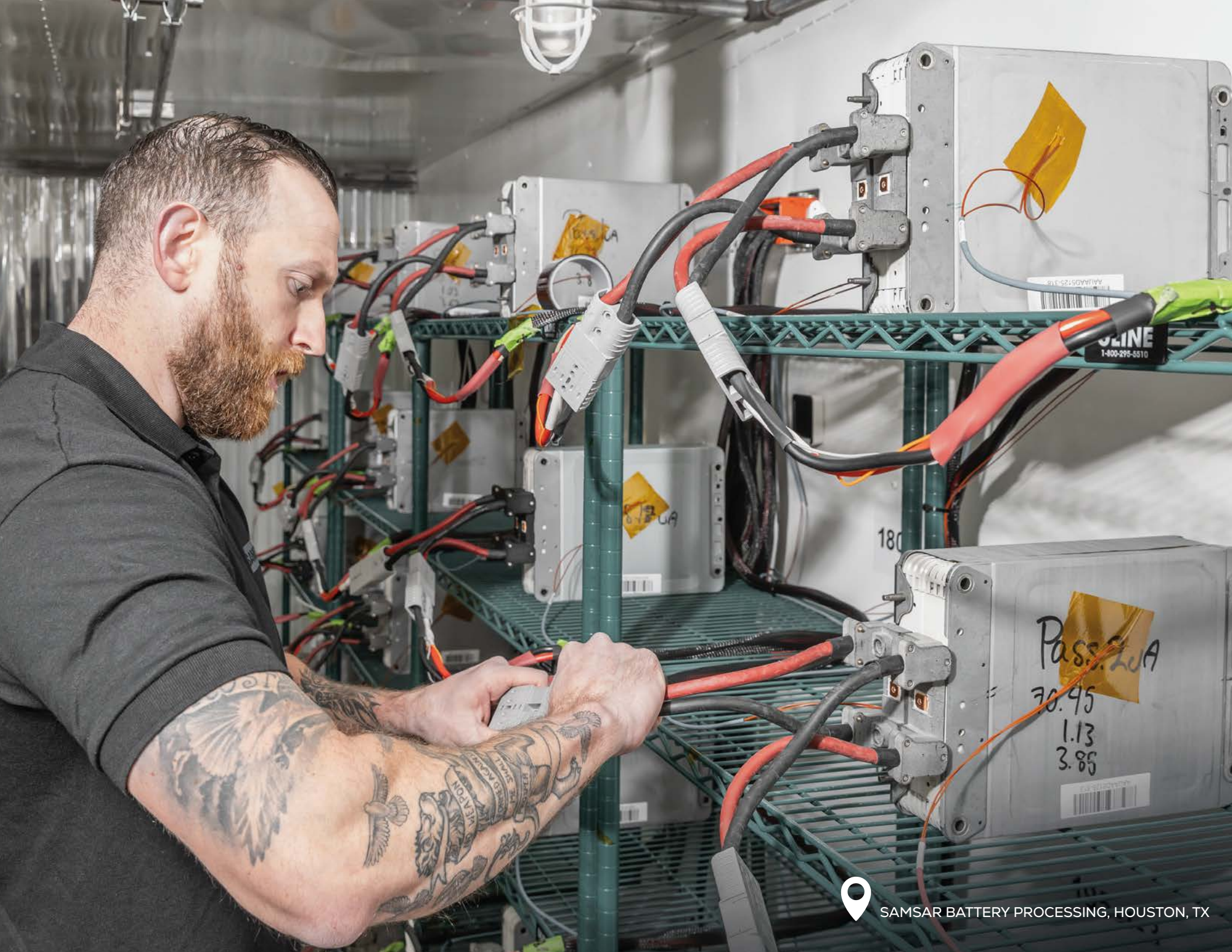
SUMMARY

- Battery box dimensions:
398mm x 216mm x 302mm (LWH)
- Real-time online performance tracking & control
- Battery swapping compatible with active balancing
- System supports up to 16x packs in parallel
- Battery Pack Cell Configuration: 8S2P

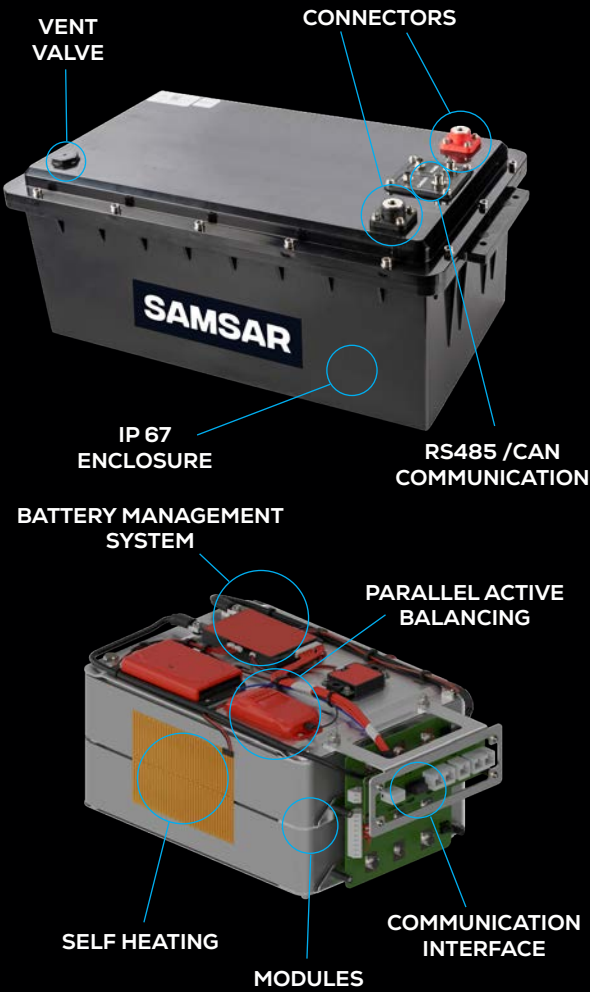
PARAMETER

VALUE

Pack Capacity	160Ah
Depth of Discharge (DOD)	85%
Nominal Voltage	15V
Nominal Charge Current	40 A
Continuous Discharge Current	40 A
Maximum Discharge Current	20 A (60 sec)
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	398 x 216 x 302
Weight (Kg)	18 (Max)
Operating Temperature Range: Charging	0°C to +50°C Non Heated -20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +55°C
Storage Temperature Range	10°C to +45°C
Protections	Over Charge Current
	Over Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors	Elecbec Part No.: EB-IF-FM8M6-3356-150A
Communications	CAN 2.0, BLE Victron Enabled Communication Board
IP Class	IP 67
IoT	Compatible/FOTA enabled Remote Monitoring & Control Available
Self Heating Option	Available
Certification	UN 38.3



SAMSAR BATTERY PROCESSING, HOUSTON, TX



PARAMETER	VALUE
Pack Capacity	80Ah
Depth of Discharge (DOD)	85%
Nominal Voltage	29V
Nominal Charge Current	40 A
Continuous Discharge Current	40 A
Maximum Discharge Current	20 A (60 sec)
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	519 x 281 x 221
Weight (Kg)	18 (Max)
Operating Temperature Range: Charging	0°C to +50°C Non Heated -20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +55°C
Storage Temperature Range	10°C to +45°C
Protections	Over Charge Current
	Over Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors	Elecbec Part No.: EB-IF-FM8M6-3356-150A
Communications	CAN 2.0, BLE Victron Enabled Communication Board
IP Class	IP 67
IoT	Compatible/FOTA enabled Remote Monitoring & Control Available
Self Heating Option	Available
Certification	UN 38.3

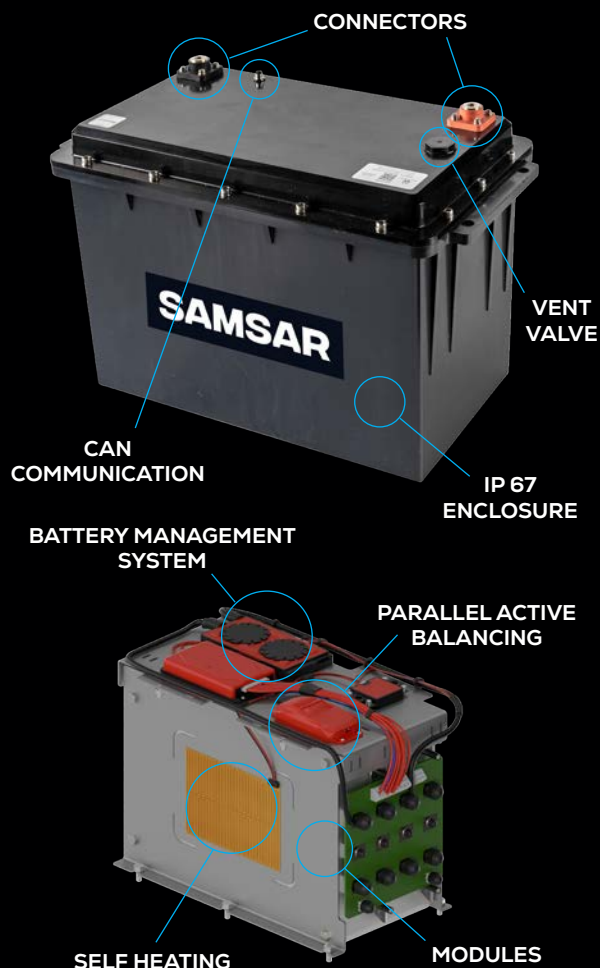
SUMMARY

- Battery box dimensions:
519mm x 281mm x 221mm (LWH)
- Real-time online performance tracking & control
- Battery swapping compatible with active balancing
- System supports up to 16x packs in parallel
- Battery Pack Cell Configuration: 8S2P

SAMSAR

29V LONG 2.3KWh LITHIUM-ION BATTERY

MADE WITH CERTIFIED REPURPOSED NISSAN LEAF MODULES



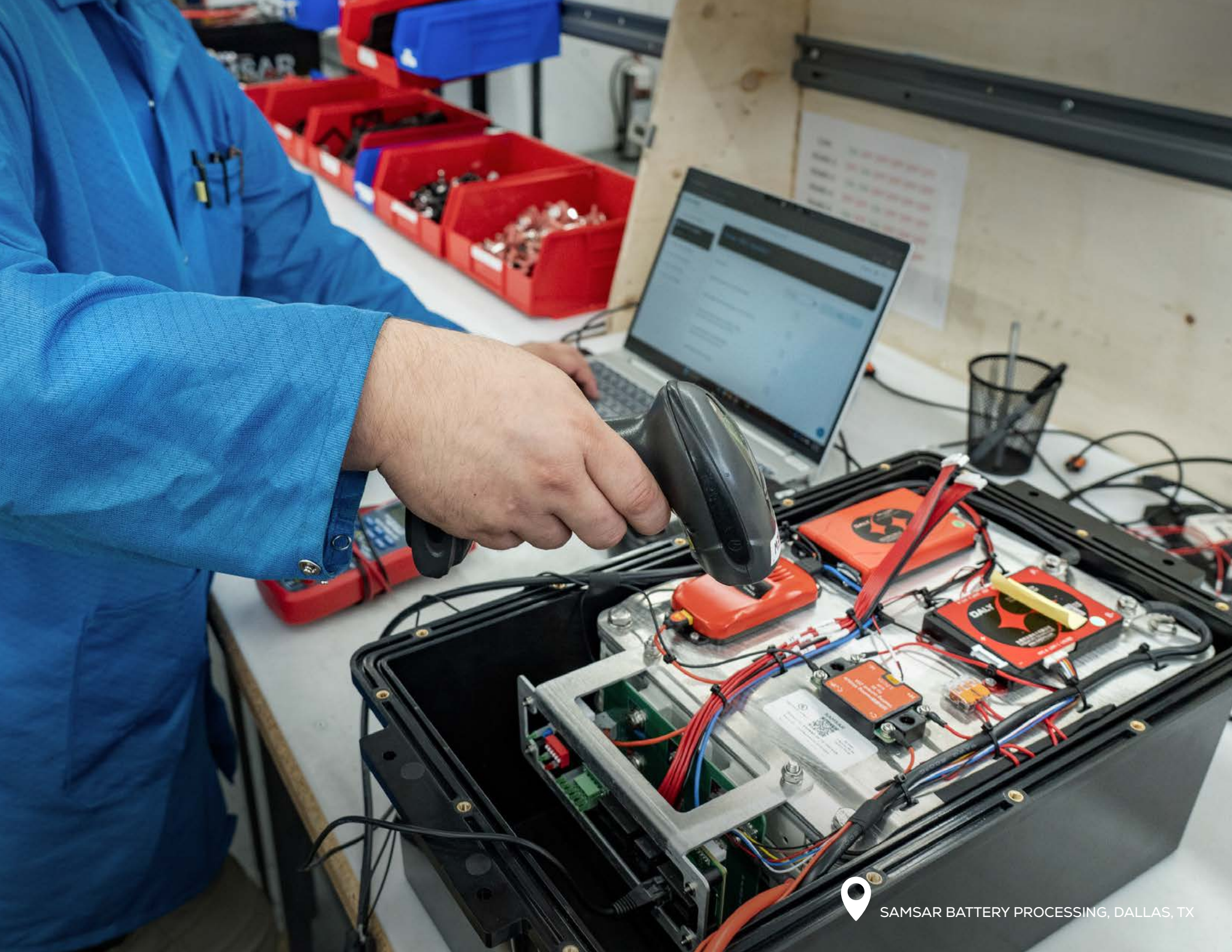
SUMMARY

- Battery box dimensions:
398mm x 216mm x 302mm (LWH)
- Real-time online performance tracking & control
- Battery swapping compatible with active balancing
- System supports up to 16x packs in parallel
- Battery Pack Cell Configuration: 8S2P

PARAMETER

VALUE

Pack Capacity	80Ah
Depth of Discharge (DOD)	85%
Nominal Voltage	29V
Nominal Charge Current	40 A
Continuous Discharge Current	40 A
Maximum Discharge Current	20 A (60 sec)
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	398 x 216 x 302
Weight (Kg)	18 (Max)
Operating Temperature Range: Charging	0°C to +50°C Non Heated -20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +55°C
Storage Temperature Range	10°C to +45°C
Protections	Over Charge Current
	Over Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors	Elecbec Part No.: EB-IF-FM8M6-3356-150A
Communications	CAN 2.0, BLE
IP Class	IP 67
IoT	Compatible/FOTA enabled Remote Monitoring & Control Available
Self Heating Option	Available
Certification	UN 38.3



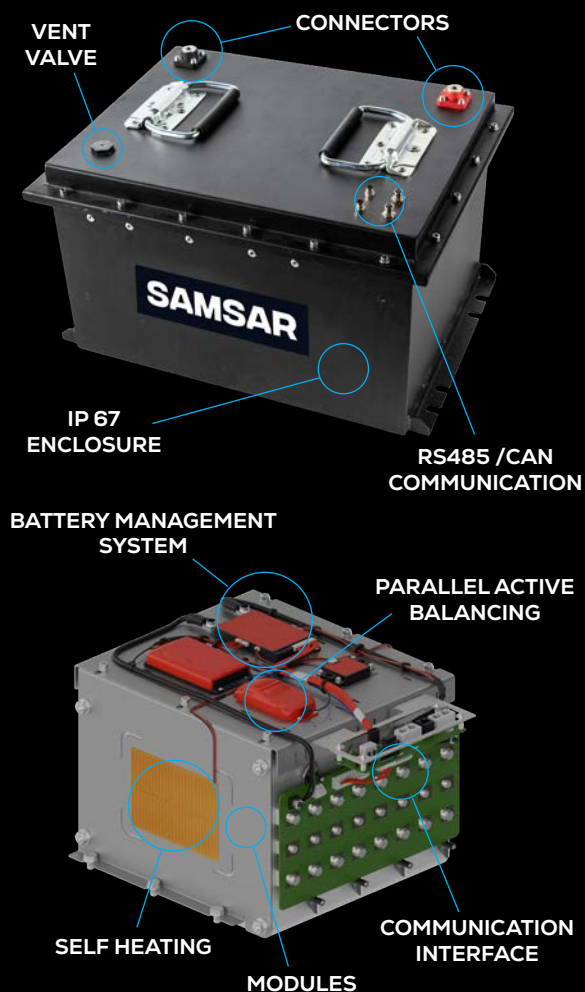
SAMSAR

58V CUBE 4.6KWh LITHIUM-ION BATTERY MADE WITH CERTIFIED REPURPOSED NISSAN LEAF MODULES



PARAMETER

VALUE



SUMMARY

- Battery box dimensions:
505mm x 366mm x 272mm (LWH)
- Real-time online performance tracking & control
- Battery swapping compatible with active balancing
- System supports up to 16x packs in parallel
- Battery Pack Cell Configuration: 16S2P

PARAMETER	VALUE
Pack Capacity	80Ah
Depth of Discharge (DOD)	85%
Nominal Voltage	58V
Nominal Charge Current	40 A
Continuous Discharge Current	40 A
Maximum Discharge Current	40 A (60 sec)
Charging Mode	CC-CV
Mounting	Vertical
Dimensions (LxWxH) (mm)	505 x 366 x 272
Weight (Kg)	36 (Max)
Operating Temperature Range: Charging	0°C to +50°C Non Heated -20°C to +50°C Self- Heated
Operating Temperature Range: Discharging	-20°C to +55°C
Storage Temperature Range	10°C to +45°C
Protections	Over Charge Current
	Over Discharge Current
	Short Circuit
	Over / Under Voltage
	Over / Under Temperature
Connectors	Elecbee Part No.: EB-IF-FM8M6-3356-150A
Communications	CAN 2.0, BLE Victron Enabled Communication Board
IP Class	IP 67
IoT	Compatible/FOTA enabled Remote Monitoring & Control Available
Self Heating Option	Available
Certification	UN 38.3

SAMSAR

BUILT TO LIVE AGAIN

CUSTOM BATTERY



SAMSAR

NthLIFE™ 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

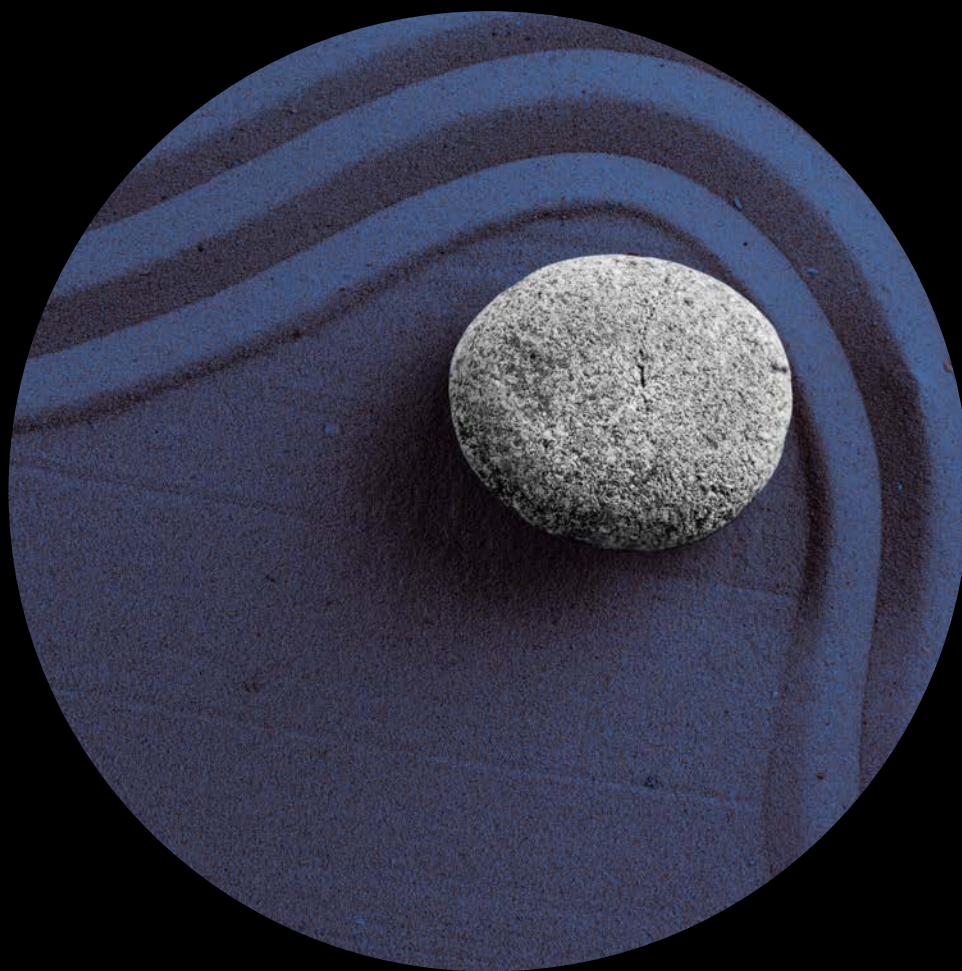
- CREATE A REQUIREMENTS DOCUMENT (1-2 WEEKS)
- RAPID PROTOTYPING - US ASSEMBLY (2-4 WEEKS)
- PROTOTYPE APPROVAL (2-4 WEEKS)
- MASS PRODUCTION - US ASSEMBLY (2-4 WEEKS TOOLING FOR HIGH VOLUME)

SAMSAR

ISO
9001:2015



EXPLORE THE SAMSAR DIFFERENCE



SAMSAR



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.





SAMSAR BATTERY PROCESSING, HOUSTON, TX

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 3rd LIFE

3-5 YEARS
(DEPENDENT ON USE)

REPEAT RE-PURPOSE
PROCESS

BATTERY 2nd LIFE

5-10 YEARS
(DEPENDENT ON USE)

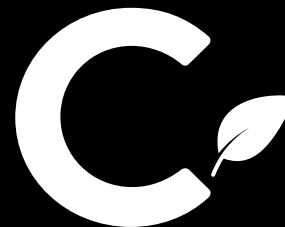
SAMSAR

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

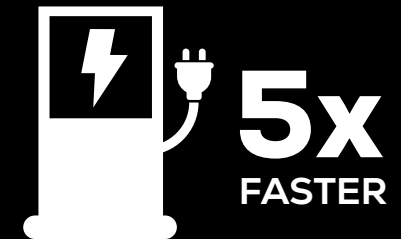
- CARBON NEUTRAL
- LESS E-WASTE
- CONSERVES RARE EARTH MINERALS
- LESS LITHIUM MINING
- MORE AFFORDABLE
- CIRCULAR ECONOMY

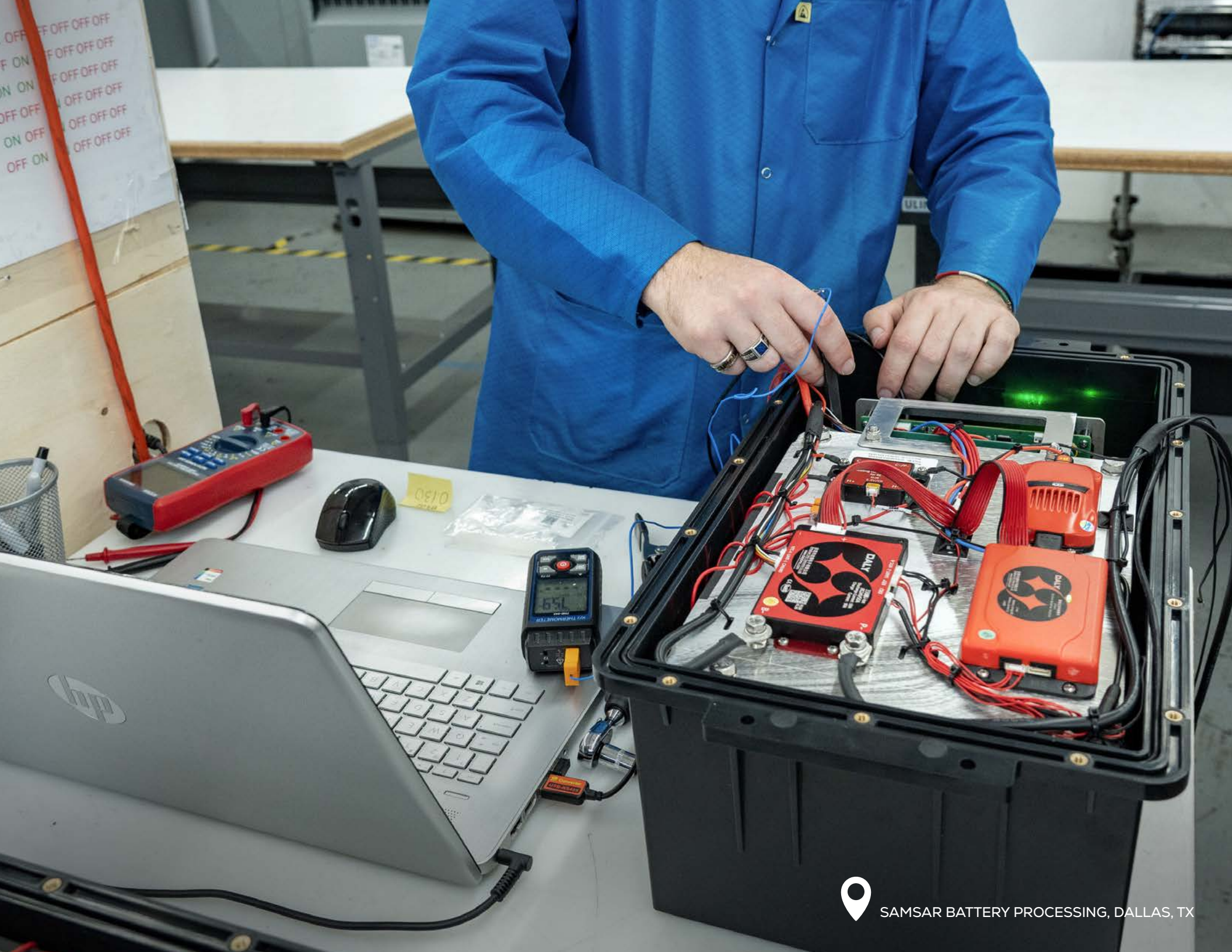


SAMSAR IS BASED ON SAMSARA -THE CYCLE OF LIFE, DEATH, AND REBIRTH. SAMSAR BATTERIES ARE DESIGNED TO LAST 10 YEARS, THEN ENJOY A 2nd LIFE OF 5-10 YEARS, AND EVEN A 3rd LIFE OF 3-5 YEARS.

SAMSAR

DISCOVER THE SAMSAR ADVANTAGE





SAMSAR

WARRANTY AND SERVICE LEVEL AGREEMENT

WARRANTY GUARANTEE

COMPREHENSIVE 10, 5, OR 2 YR WARRANTY (DEPENDING ON THE MODEL) 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 TERM

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

SAMSAR

NTHLIFE™

QUALITY GUARANTEED BY SAMSAR'S PROPRIETARY NthLIFE™ SOFTWARE PLATFORM

NTHLIFE™

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

NTHLIFE™

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

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**

YOUR COMPANY OWNS THE BATTERIES. WORK WITH SAMSAR ON A NthLIFE™ BUYBACK PROGRAM AT END OF LIFE. BEST FOR APPLICATIONS WITH 5+ YEAR EXPECTED USE LIFE.

- 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

SAMSAR OWNS THE BATTERY – REPLACEMENT AND RECYCLING ARE BUILT INTO YOUR NthLIFE™ LEASING PLAN. BEST FOR MOBILITY, HIGH-USE, OR RAPIDLY SCALING COMPANIES.

- 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



SAMSAR BATTERY PROCESSING, DALLAS, TX

SAMSAR

UNIQUE VALUE PROPOSITION

FLEXIBLE COMMERCIAL OFFER - FINANCING & LEASING AVAILABLE:

Batteries available via sales buyback (financing) or Battery as a Service (leasing), reducing Capex and offering financial flexibility. These options conserve cash and working capital while helping ensure batteries will be fully recycled at end of life.

DOMESTIC SUPPLY CHAIN - USA ASSEMBLED

Battery components are tested and certified in Houston, Texas. Final battery assembly in Dallas, Texas. US based supply chain conserves working capital, improves cash flow, allows for lean inventory practices & rapid delivery, and reduces trade policy and tariff exposure.

PERFORMANCE VS TRADITIONAL BATTERIES

Half the weight and twice the usable power. 5X the lifespan. 10X the warranty coverage of traditional lead acid batteries. Provides greater performance and value over time. 10-year warranty allows for 10-year depreciation, improving P&L performance.

ONLINE MONITORING AND CONTROL:

Backend platform for GPS tracking, temperature, and charge monitoring. Allows remote control and sends performance/security alerts. Reduces service calls and cost of service over time.

BATTERY PASSPORT ENABLED:

Transparency in battery performance with battery repurpose certification available through a digital battery passport. Scan a QR code or login to a dashboard to see battery history, certification, status and performance.

SAFETY AND BMS PROTECTIONS:

BMS provides protection against over-discharge, short circuits, over-voltage, over-temperature, and under-temperature while extending battery life.

CARBON NEUTRAL:

Batteries are carbon neutral with CO2 emissions already accounted for, resulting in zero emissions moving forward. Built from certified repurposed EV battery cells.

UL CERTIFIED PROCESSING CENTER:

First UL 1974 certified lab in the U.S., ensuring top standards in battery repurposing and safety compliance.

SAMSAR