

# LITHIUM BATTERIES

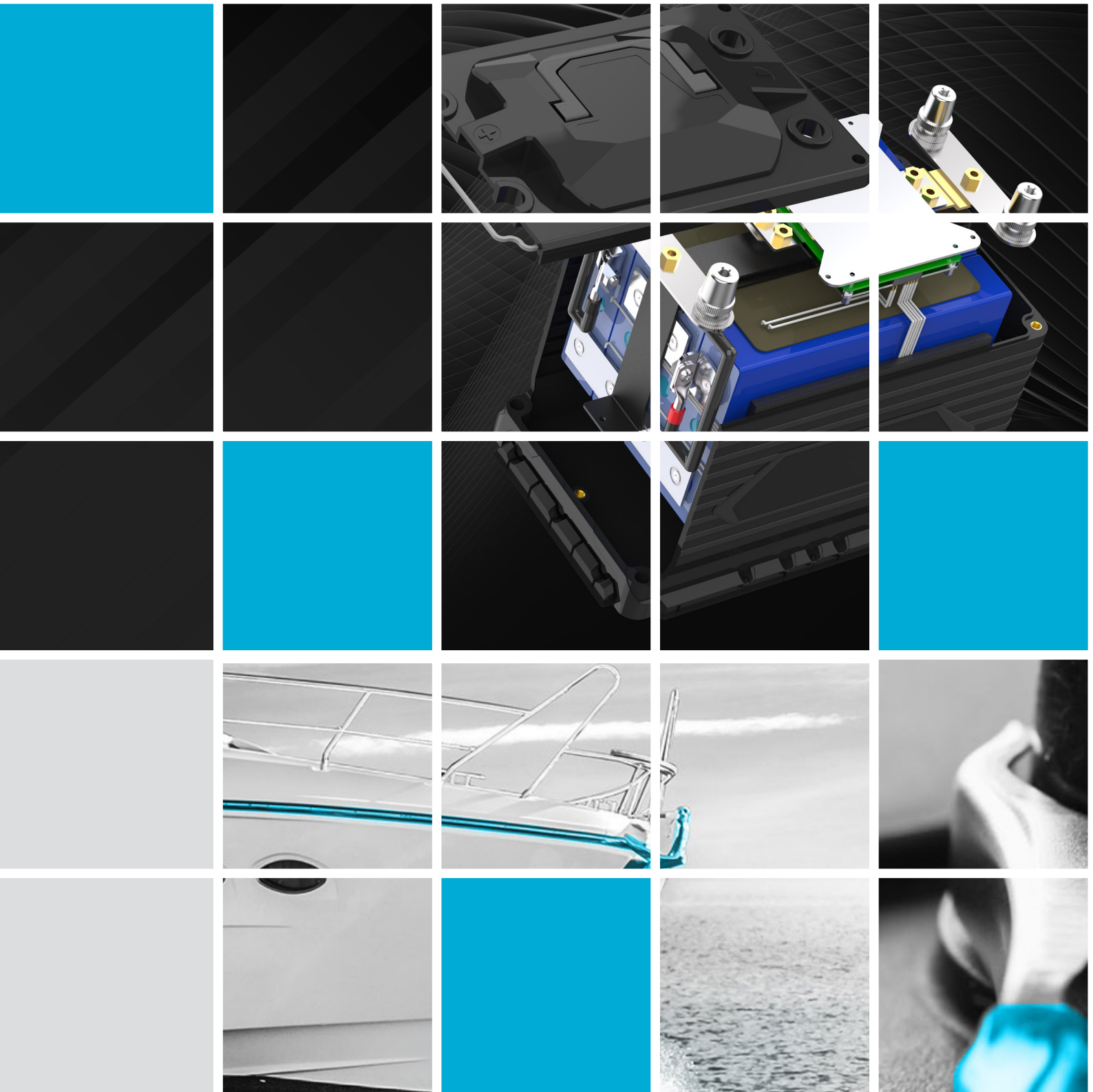
UNLEASH THE POTENTIAL WITH NORDMAX



**NORDMAX™**

NORDMAX IS DESIGNED & MANUFACTURED FOR

# PERFORMANCE & END



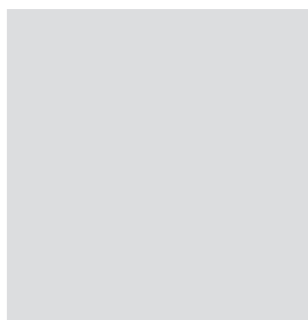
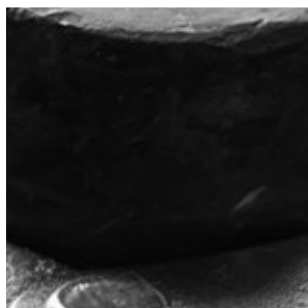
# URANCE

## NORDMAX™

Nordmax envisioning carefree cold mornings, secure boat journeys, and sustainable power supply even off the grid. Nordmax is more than just a brand - it's an experience, a solution, and a part of the Nordic heritage.

By offering batteries and products specifically designed for the demanding Nordic conditions, Nordmax strives not only to be a reliable choice but the sole choiche for those seeking superior battery technology.

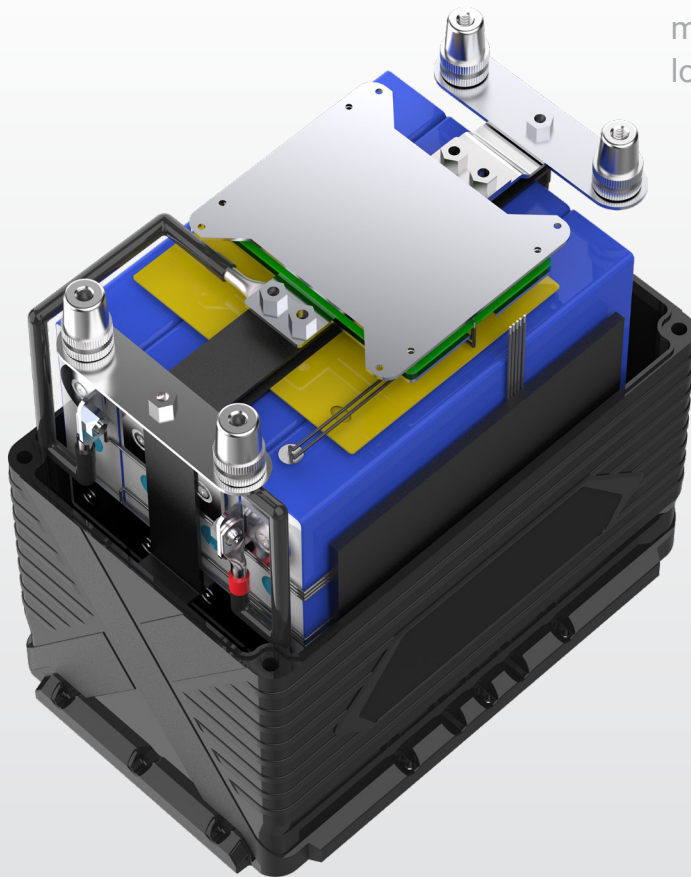
*"Nordmax offer is always driven by the demands of our customers – we like to think that we listen and respond better than most."*



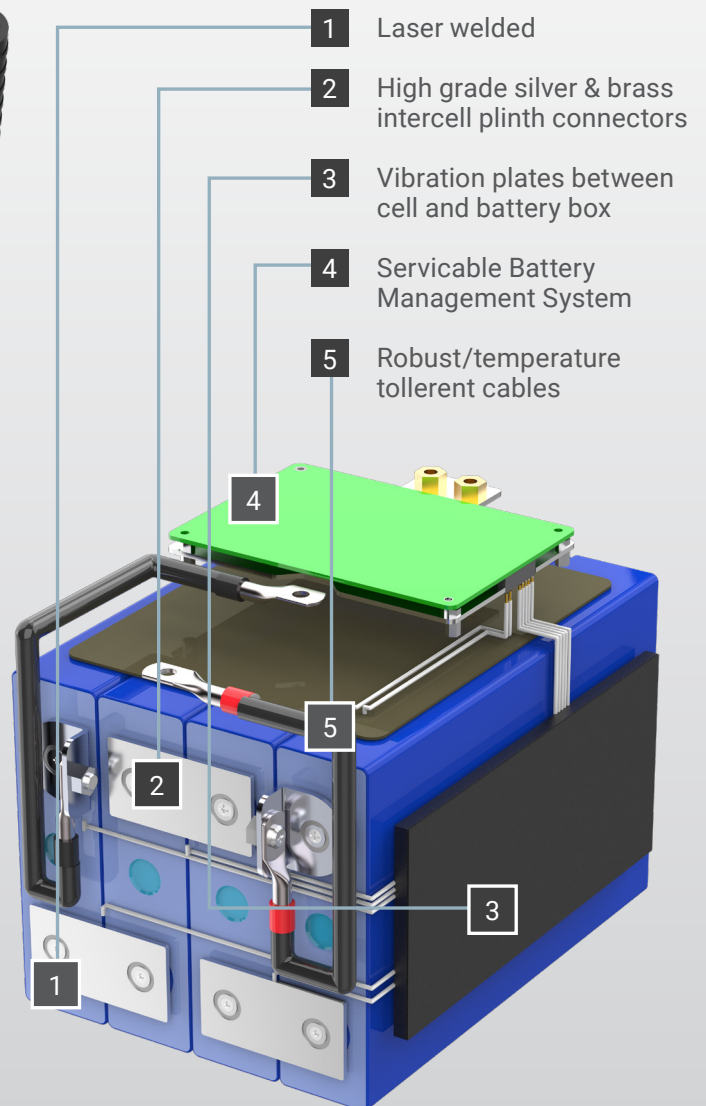
# GET READY FOR A **LESSON IN THE WORLD**

## INSIDE THE BOX

Superior design, manufactured with precision using only the highest quality components, which results in a lithium battery that is safer, more durable with greater performance and longer life.



### Premium Features



### Safety Features

Built to withstand extreme weather conditions and temperature. Battery remains cool at high temperatures with no risk of thermal runaway and danger of overheating or overcharging.

# D OF LITHIUM

**100%  
DoD**



DEPTH OF DISCHARGE  
UP TO 60% MORE

**LIGHTER**

LESS THAN HALF THE  
WEIGHT



**RAPID  
CHARGING**



UP TO 8.5  
TIMES FASTER

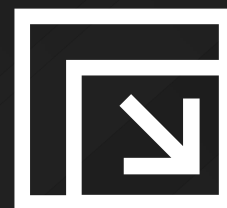
## KEY BENEFITS

LITHIUM vs LEAD-ACID

**LONGER LIFE &  
LOWER TOTAL  
COST OF OWNERSHIP**



LASTS AT LEAST 20 TIMES LONGER AND  
SAVE UP TO 83% ON COST PER CYCLE



**SMALLER  
FOOTPRINT**

# GET READY FOR A LESSON IN THE WORLD

**VOLUME & WEIGHT**  
LEAD-ACID VS. LITHIUM

	NORDMAX DUAL LITHIUM		DEEP CYCLE	
	LEAD-ACID 100 Ah	LITHIUM 110 Ah	LEAD-ACID 110 Ah	LITHIUM 110 Ah
<b>WEIGHT KG</b>	30.6	12.0	32.0	13.5
<b>Percentage Difference</b>		39%		42%
<b>VOLUME M<sup>3</sup></b>	0.14	0.09	0.12	0.12
<b>Percentage Difference</b>	-	68%	-	100%
<b>Benefits</b>	-	Lighter & smaller	-	Lighter
	-	3 batteries fit the same space as 2 x L-A and weight 24 kg less	-	Less than half the weight of L-A
<b>Usable energy DoD* (Depth of Discharge)</b>	40%	100%	40%	100%

DoD calculations based on recommended levels for average battery life. Beyond these recommended levels: Deeper discharge = shorter average battery life. Shallower discharge = longer average battery life. \*Estimates based on Depth of Discharge at 20°C

# D OF LITHIUM









PRICE PER CYCLE  
LEAD-ACID VS. LITHIUM

NORDMAX DUAL LITHIUM		DEEP CYCLE		
LEAD-ACID 100 Ah	LITHIUM 110 Ah	LEAD-ACID 110 Ah	LITHIUM 110 Ah	
€180	€765	€276	€525	[A] Initial Investment
120	3,000	700	4,000	[B] Cycles
€1.50	€0.26	€0.39	€0.13	[C] Cost per cycle [A] ÷ [B]
	17%		33%	Percentage Difference
Long-term Lead-Acid cost excluding inflation How many Lead-Acid batteries equal the same lifetime of a Lithium Battery				
25	-	6	-	Number of Batteries
€180	-	€276	-	x Unit Cost
€4,500	-	€1,577	-	Total Cost

Approximate prices at the time of publication. Subject to local market, time, season or availability. Use this formula to compare current costs.

NORDMAX LITHIUM

# BATTERY OVERVIEW

	NORDMAX DUAL LITHIUM				DEEP CYCLE	
POWER IN						
Mains charger	<input checked="" type="checkbox"/> With suitable charger				<input checked="" type="checkbox"/> With suitable charger	
Alternator	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
Solar/Wind	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
POWER OUT	Starting & Supply				Supply	
Engine Cranking	<input checked="" type="checkbox"/>					
Supply Power	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
APPLICATIONS						
Camping	Motorhome Starter Battery – not recommended as a replacement of vehicle manufacturers specified battery				 	
Leisure Boats	 				 	
Off-grid						
Powersport						
BATTERY OPTIONS	NM110LIT	NM2450LIT	NM200LIT	NM24110LIT	NMD105LIT	NMD
Volt (V)	12.8	25.6	12.8	25.6	12.8	
Amp Hour (Ah)	110	50	200	110	105	
Watt Hour (Wh)	1,350	1,250	2,560	2,816	1,344	



**POWERSPORT**

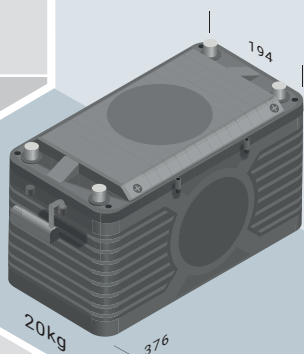
✓ With suitable charger



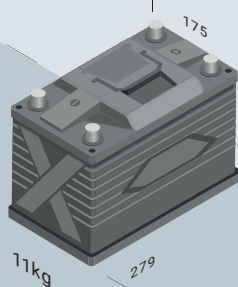
Starting



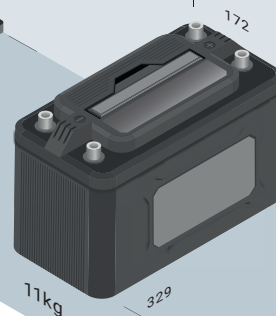
**NORDMAX DUAL**  
NM200LIT (12V)  
NM24110LIT (24V)



**NORDMAX DUAL**  
NM110LIT (12V)  
NM2450LIT (24V)

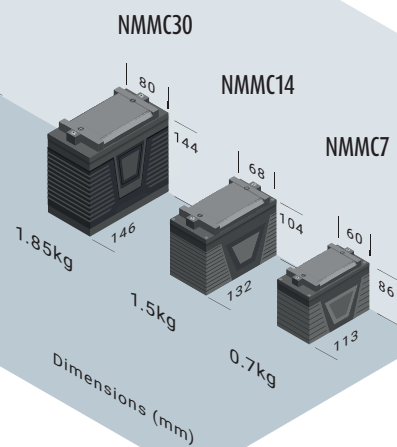


**NORDMAX DEEP CYCLE**  
NMD105LIT (12V)  
NMD125LIT (12V)



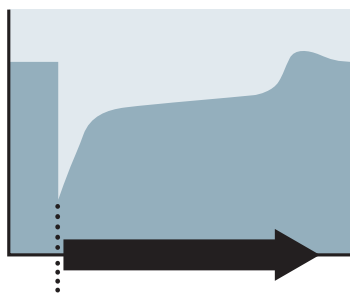
**COMPARE BATTERY SIZES & WEIGHTS**

**NORDMAX POWERSPORT**



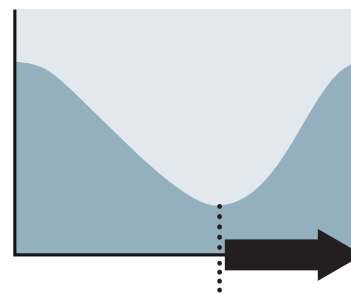
125LIT	NMMC7	NMMC14	NMMC30
12.8	12.8	12.8	12.8
125	3.2	5	10
1,600	41	64	128

Engine Cranking (Starting)



Sudden power demand from electric ignition followed by immediate power restoration from onboard alternator

Supply Power



Slower and deeper discharge until power restoration from charger, alternator or renewable energy source

Isometric illustrations to scale for size comparison.

Dimensions (mm)

NORDMAX LITHIUM

# DEEP CYCLE SUPPLY B



NMD105LIT

NMD125LIT



OFF SHORE



OFF TRACK


Camping

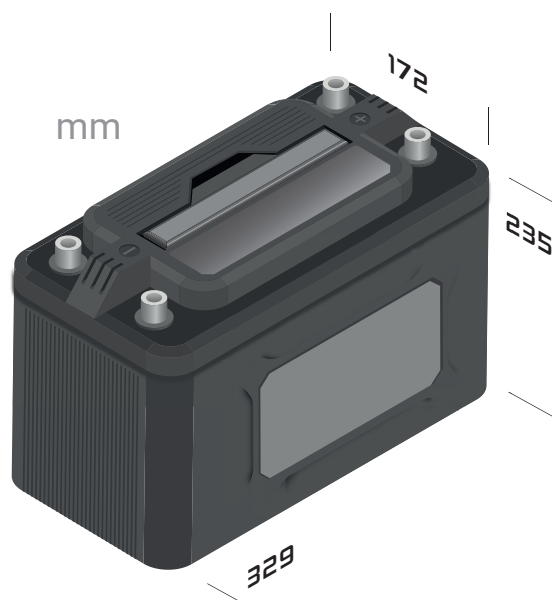


# BATTERY



Battery Options	NMD105LIT	NMD125LIT
Volt (V)	12.8	12.8
Amp Hour (Ah)	105	125
Watt Hour (Wh)	1,344	1,600

Cycle Life	Average Temp.	Average Discharge	No. of Cycles
	0.5C / 23°C (73°F)	10% shallow	6,000
		100% deep	2,000



Leisure Boats

Off-grid



NMD105LIT 11 kg

NMD125LIT 11 kg

NORDMAX DUAL LITHIUM BATTERY

# 12v SUPPLY AND ENGINE



NM110LIT  
NM200LIT



OFF SHORE

Leisure Boats

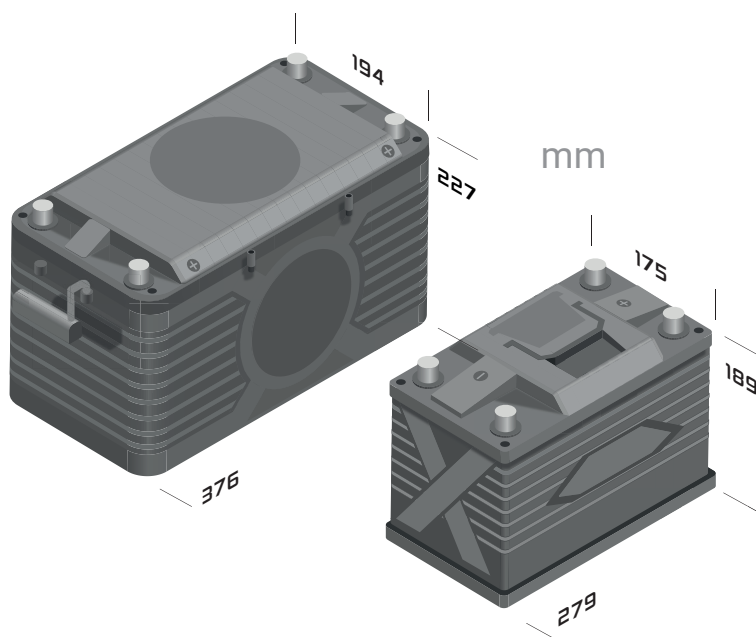


# LINE CRANKING



Battery Options	NM110LIT	NM200LIT
Volt (V)	12.8	12.8
Amp Hour (Ah)	110	200
Watt Hour (Wh)	1,350	2,560
Cranking Amps (CA)	800	1,500

Cycle Life	Average Temp.	Average Discharge	No. of Cycles
	0.5C / 23°C (73°F)	10% shallow	4,000
		100% deep	2,000



NM200LIT 20 kg

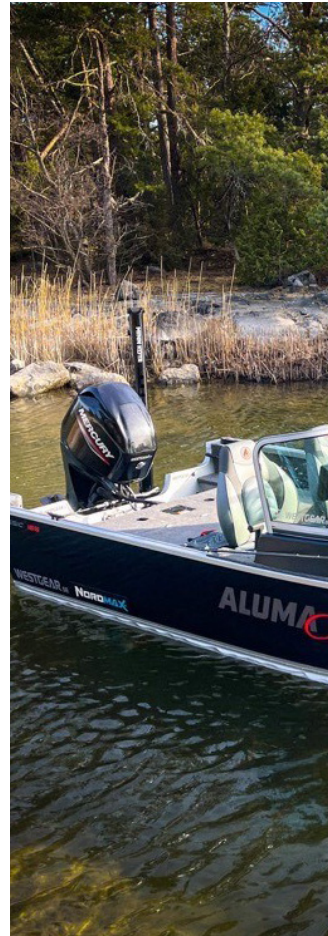
NM110LIT 11 kg

NORDMAX DUAL LITHIUM BATTERY

# 24v SUPPLY AND ENG



NM24110LIT  
NM2450LIT



OFF SHORE

Leisure Boats

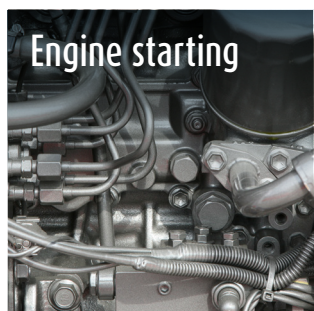
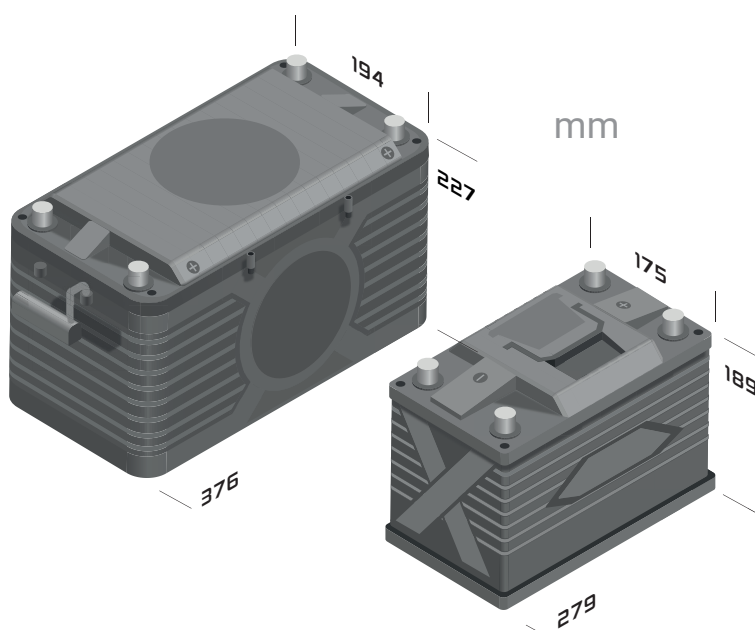


# LINE CRANKING



Battery Options	NM2450LIT	NM24110LIT
Volt (V)	25.6	25.6
Amp Hour (Ah)	50	110
Watt Hour (Wh)	1,250	2,816
Cranking Amps (CA)	800	800

Cycle Life	Average Temp.	Average Discharge	No. of Cycles
	0.5C / 23°C (73°F)	10% shallow	4,000
		100% deep	2,000



NM24110LIT 20 kg

NM2450LIT 11 kg

# PARALLEL AND SERIES CONNECTIONS

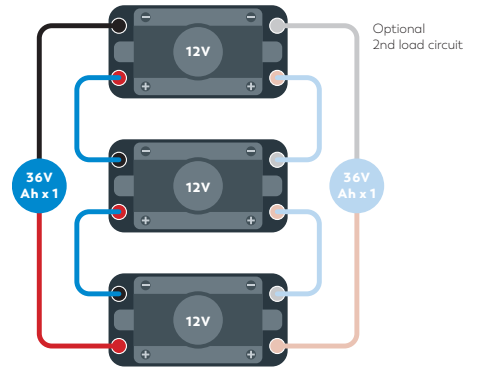
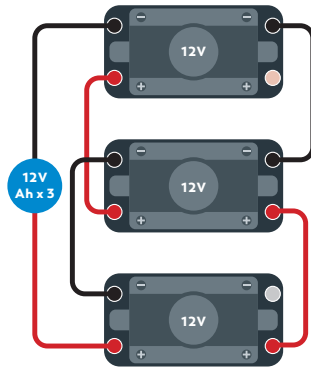
Diagonal Parallel Connection of 2-4 (max) batteries

HIGHER AMP HOUR

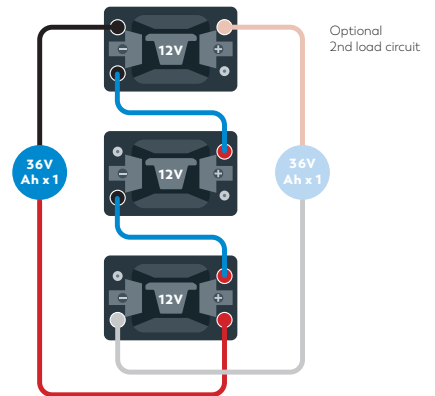
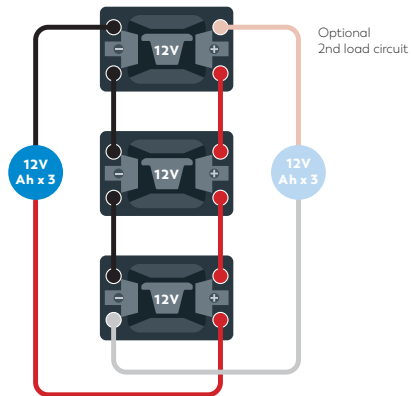
Series Connection of 2-4 (max) batteries

INCREASED VOLTAGE

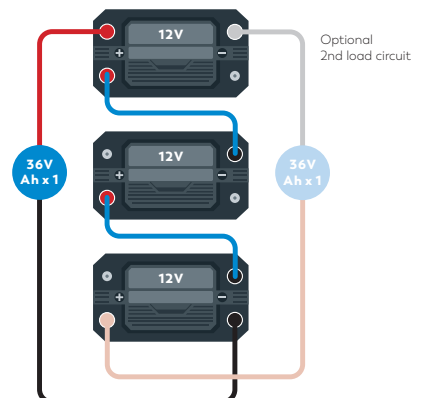
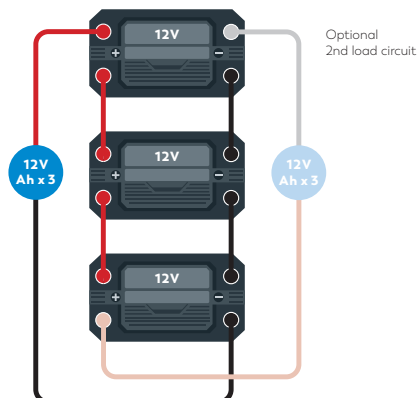
12V  
DUAL  
NM200LIT



12V  
DUAL  
NM80LIT/  
NM110LIT



12V  
DEEP CYCLE  
NMD105LIT/  
NMD125LIT





These connection diagrams are for guidance only. Refer to electrical instructions in your your craft's handbook or consult a certified marine electrician.

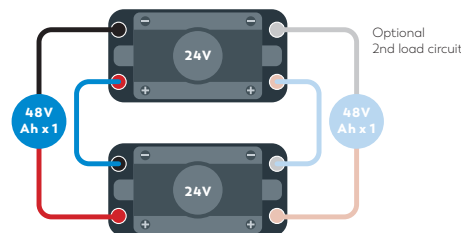
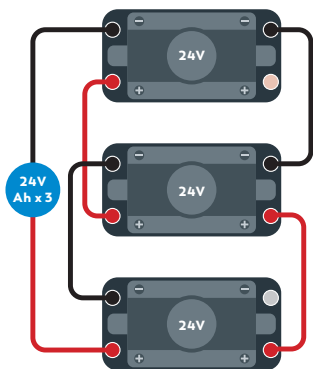
Diagonal Parallel Connection of 2-4 (max) batteries

HIGHER AMP HOUR

Series Connection of 2-4 (max) batteries

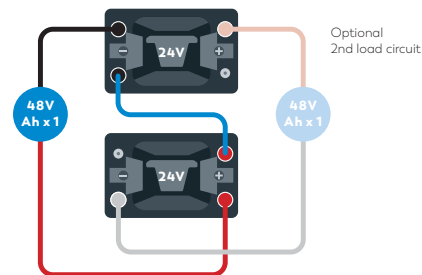
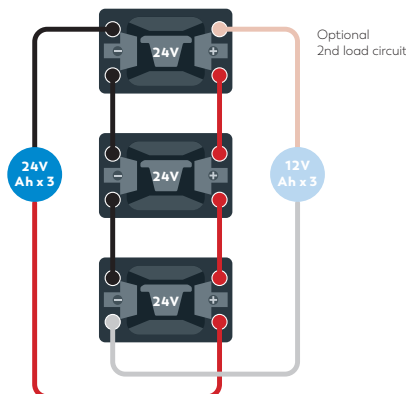
INCREASED VOLTAGE

**24V DUAL NM24110LIT**



For marine use 48V is the usual maximum meet by series connection of two batteries

**24V DUAL NM2450LIT**



For marine use 48V is the usual maximum meet by series connection of two batteries

**Watt Hour (Wh) Appliance Ratings**

A unit of energy measuring capacity of power (in Watts) in use over time (in hours).

**Appliance Rating Example**

	Watts (W)	×	hours (h)	=	Watt hours (Wh)
Lamp	25	×	4	=	100 Wh

**Amp Hour (Ah) Battery Rating**

A unit of charge measuring current (in Amps) in use over time (in Hours).

**Battery Rating Example**

	Amps (A)	×	hours (h)	=	Amp hours (Ah)
Battery	100	×	1	=	100 Ah

**Conversions**

**Battery Charge Output**  
Calculate how many Wh a battery will deliver (see example below)

Ah	×	Volt	=	Wh
100Ah	×	12V	=	1,200 Wh

**Energy Requirement**  
Calculate what size battery you need (see example below)

Wh	÷	Volt	=	Ah
1200Wh	÷	12V	=	100 Ah

To calculate your energy needs make a list of all appliances and Watt ratings. Multiply by the amount of usage of each item in time over the period between battery charges. A coffee maker will be a higher watt rating than a TV but will be in use for shorter periods. Calculate the total required Wh and add a 20% safety margin.

## DEEP CYCLE & DUAL BATTERIES

# TECHNICAL DATA

### Technical Data

		NMD125LIT	NM110LIT	NM200LIT	NM24110LIT	NM2450LIT
Normal Voltage	Volts (V)	12.8 V	12.8 V	12.8 V	25.6 V	25.6 V
Rated Capacity	Amp hour (Ah)	125 Ah	110 Ah	200 Ah	110 Ah	50 Ah
Stored Energy	Watt hour (Wh)	1,600 Wh	1,350 Wh	2,560 Wh	2,816 Wh	1,250 Wh
Starting Power	Cranking Amps (CA) (±0°C)	N/A	800 CA	1500 CA	800 CA	800 CA
Voltage Range	Volts (V)	10-14.6 V	8-14.6 V	8-14.6 V	16-29.2 V	16-29.2 V
Cell Type	Prismatic	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Charge Time	Standard	5.5 hr	5.5 hr	5.5 hr	5.5 hr	5.5 hr
Charge Time by Charger Amp Rating Fully charged from total discharge Time in hour : minutes Higher Amp Charger = Faster Charge Time	10 A	12:30	11:00	20:00	11:00	5:00
	15 A	8:30	7:30	13:30	7:30	3:30
	25 A	5:00	4:30	8:00	4:30	2:00
	40 A	3:15	2:45	5:00	2:45	1:15
	60 A	2:15	2:00	3:30	2:00	1:00
	80 A	2:00	1:30	2:30	1:30	0:45
Rapid Charge hour : minutes	100 A	1:30	1:30	2:15	1:30	0:30
	150 A			1:30		
Charge Method CC-CV	Standard	25 A / 14.6 V	22 A / 14.6 V	40 A / 14.6 V	22 A / 29.2 V	10 A / 29.2 V
	Rapid	100 A / 14.6 V	100 A / 14.6 V	150 A / 14.6 V	100 A / 29.2 V	100 A / 29.2 V
Max Discharge Current	Continuous	100 A	100 A	100 A	100 A	100 A

## Battery Management System (BMS) Protection

		Deep Cycle	Dual
Balance	Current	40 mA	40 mA
	Volume	3.55 V/cell	3.55 V/cell
High Temperature (MOSFET temp.)	Protection	85 °C (185 °F)	85 °C (185 °F)
	Release	75 °C (167 °F)	75 °C (167 °F)
Over-charge	Protection	15.4 V (3.85 V/cell)	30.8 V (3.85 V/cell)
	Release	14.6 V (3.65 V/cell)	29.2 V (3.65 V/cell)
Over-discharge	Protection	9.2 V (2.3 V/cell)	18.4 V (2.3 V/cell)
	Release	10.0 V (2.5 V/cell)	20.0 V (2.5 V/cell)
Short-circuit	Protection	1500 A	3800 A
	Release	Disconnect Load	Disconnect Load

Parallel connection OK if batteries are charged to same voltage before connecting.

## Temperature Range

Temperature Range		Deep Cycle	Dual
	Charge	±0 to +55 °C (32 ° -113 °F)	±0 to +45 °C (32 ° -113 °F)
	Discharge	-20 to +60 °C (-4 ° -140 °F)	-20 to +60 °C (-4 ° -140 °F)
	Storage	-10 to +35 °C (14 ° -95 °F)	-20 to +35 °C (-4 ° -95 °F)

## Battery State of Charge (SoC)

	12 V		24 V	
	0.1C discharge	OCV	0.1C discharge	OCV
100%		13.4 V		26.8 V
90%	13.19 V	13.3 V	26.38 V	26.6 V
80%	13.17 V	13.3 V	26.34 V	26.6 V
70%	13.15 V	13.3 V	26.30 V	26.6 V
60%	13.05 V	13.2 V	26.10 V	26.4 V
50%	12.99 V	13.15 V	25.98 V	26.30 V
40%	12.98 V	13.14 V	25.96 V	26.28 V
30%	12.94 V	13.1 V	25.88 V	26.2 V
20%	12.79 V	12.9 V	25.58 V	25.8 V
10%	12.61 V	12.8 V	25.22 V	25.6 V

OCV = Open Curcuit Voltage.

## Standard

	IP67 Ingress Protection (enclosure)
Solid Objects	Totally protected against dust.
Liquids	Protected against the effects of temporary immersion between 15cm and 1m. Duration of test 30 minutes.
	UL94-V0 Flammability Code
	Burning stops within 10 seconds on a vertical part allowing for drops of plastic that are not inflames.
	UN38.3 Transportation
	Certified safe for shipping by air.
	Recycling
	Li-Ion 30.

# LITHIUM BATTERIES SUITABLE FOR POWERSPORTS



- MC7
- MC14
- MC30



OFF  
SHORE

Powersport

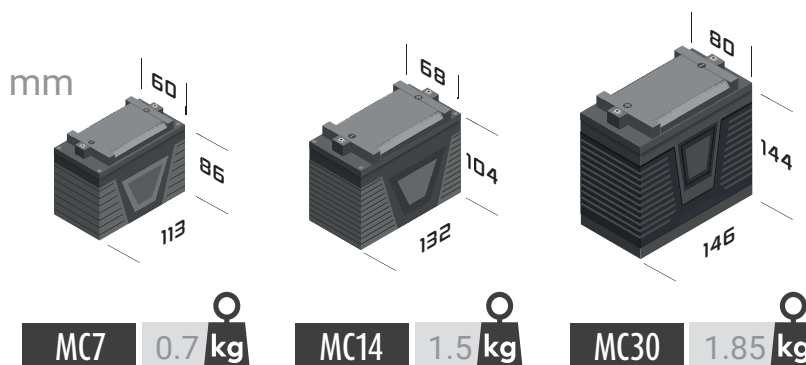




Battery Options		MC7	MC14	MC30
Volt		12.8	12.8	12.8
Voltage Range		10-14.6	10-14.6	10-14.6
Ah		3.2	5	10
Wh		41	64	128
Charge Times hour : minutes	Standard Charger	1 A	2 A	4 A
	Charge Time	5:30	5:30	5:30
	Rapid Charger	3.2 A	5 A	10 A
	Charge Time	1:30	1:30	1:30
Max Discharge Current	Crank	192 CA	300 CA	600 CA
	Max current 60S	96 A	150 A	300 A
	Continuous	3.2 A	5 A	10 A

Temperature Range			
	Charge	±0 to +45°C	(32°-113°F)
	Discharge	-20 to +60°C	(-4°-140°F)
	Storage long-range	-15 to +35°C	(59°-95°F)
	Storage <6 months	-20 to +60°C	(4°-140°F)

Cycle Life	Average Temp.	Average Discharge	No. of Cycles
	0.5C / 23°C (73°F)	10% shallow	4,000
		100% deep	2,000



PREPARE FOR THE UNEXPECTED

# NORDMAX ACCESSORIES



NM909

## Battery Drain Protector

Simple wireless monitoring of battery status via mobile phone. Perfect for unattended or infrequently used equipment.



# RIES



NMCBB-N70F

## Battery box

Water resistant battery box with a lot of useful functions as volt meter, USB outputs and external battery terminals for easy connection.





## European distributor

Svenska Batteripoolen AB

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573 92 Tranås  
SWEDEN

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kundsupport@batteripoolen.se

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