

# Marine & Leisure Battery Solutions



An outstanding battery range  
**Powering your freedom**



Comprehensive  
battery range for all  
marine needs:

Engine start

Equipment supply

Dual supply

Made in Europe  
by Exide Technologies  
Original Equipment  
Manufacturer



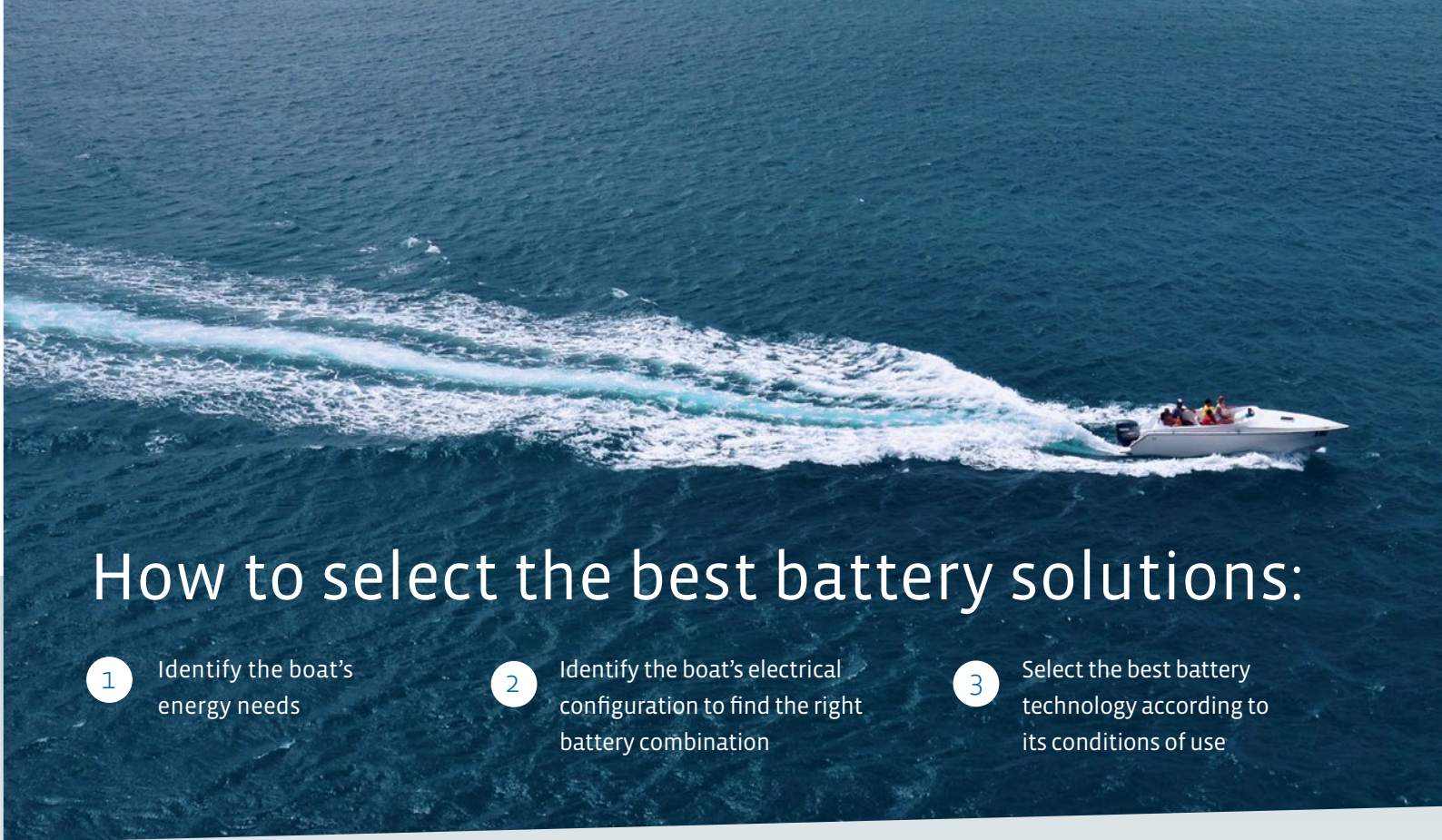


## Ensure safer & longer trips by choosing the right battery

The battery is critical to safety and comfort. It powers key operations like engine start, radio, GPS, lighting, heating and refrigeration, allowing passengers to feel sheltered, entertained and connected to the outside world. Exide's new marine range covers all the energy needs of both professional installers and private users. It offers the very best in reliability and electrical performance, allowing you to extend average trip length, experience improved luxury and comfort on board, and benefit from exceptional battery lifespan.

Exide's premium marine batteries are a preferred choice for boat builders. The batteries are DNV -GL approved, the highest endorsement for a marine market product, making it easier to align with European naval regulations for newly built boats.





# How to select the best battery solutions:

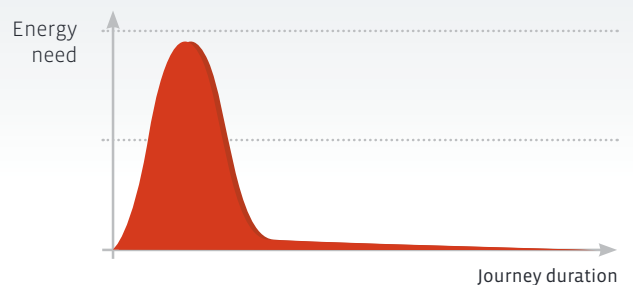
- 1 Identify the boat's energy needs
- 2 Identify the boat's electrical configuration to find the right battery combination
- 3 Select the best battery technology according to its conditions of use

How to select the best battery solutions:

## 1 Identify the boat's energy needs

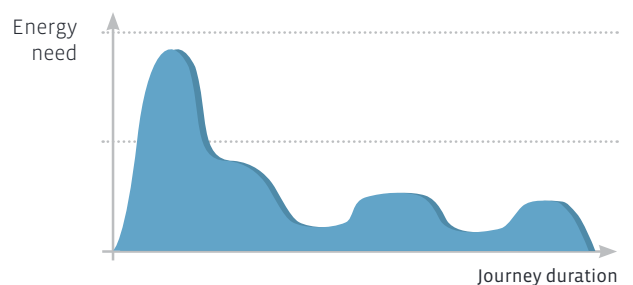
### Engine Start Need

Starting a combustion engine requires high peaks of power during a short time, leaving batteries unused for the rest of the journey. The electrical unit used to measure engine start need is MCA\*



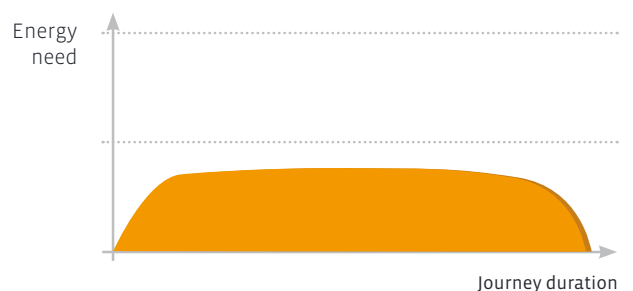
### Dual Supply Need

Starting engine in combination with the supply to other electrical equipment requires high peaks of power and also a variable power drain, causing battery discharge during the journey. The electrical unit used to measure dual supply need is Wh\*



### Equipment Supply Need

An uninterrupted supply to emergency or comfort equipment uses power at consistently high levels, causing deep battery discharge during the journey. The electrical unit used to measure equipment supply need is Wh\*



\*MCA = BCI Marine Cranking power in Amps at 0°C

\*Wh = Available Watt x hour at 20h rate from a battery, without exceeding its recommended depth of discharge

How to select the best battery solutions:

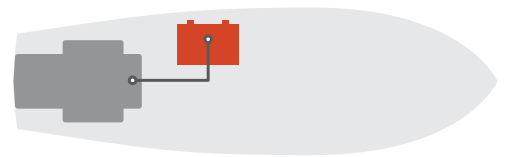
## 2 Identify the boat's electrical configuration to find the right battery combination



### Examples of different configurations

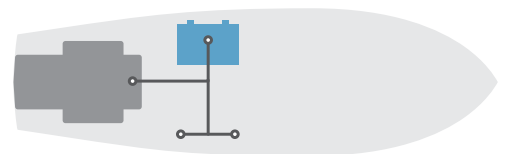
#### Case A. Engine only

Boats for which batteries are applied to engine start only. The electrical equipment is not supplied with energy when the engine is switched off. This configuration corresponds to Engine start need.



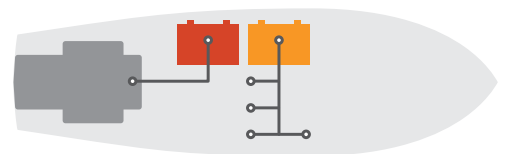
#### Case B. Engine & Equipment

Boats for which one unique bank of battery has to supply power for engine start and electrical equipment. This configuration corresponds to Dual supply need.



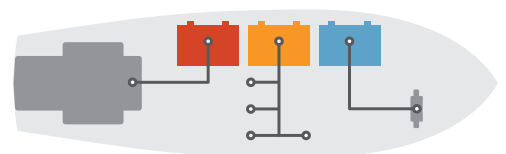
#### Case C. Engine + Equipment

Boats for which 2 separated banks of batteries are dedicated to supply power, one for engine start and the other for electrical equipment. This configuration corresponds to two needs: Engine start plus Equipment supply. In total, 2 different batteries are required.



#### Case D. Engine + Equipment + Other

Boats for which, in addition to 2 main battery banks (engine + equipment), other batteries are installed to supply power directly to electrical winches, thrusters or trolling motors. This configuration corresponds to three needs: Engine start plus Equipment supply plus Dual supply. In total, 3 different batteries are required.





Each energy need has its optimal battery solution



### Engine Start Need

Exide START battery range is designed to supply high power for engine start when installed alone for boats with basic equipment (case A). It can also be used when installed in engine-dedicated battery banks for the most sophisticated yachts (cases C&D). The batteries are usually charged after starting the engine, as the alternator quickly returns consumed power. The START design provides good performance and service life duration. START battery range, with MCA\* performance from 500A to 1100A, is the choice to cover all engine start needs from small outboards to big sterndrives.



### Dual Supply Need

Exide DUAL battery range is designed to supply power for boats having one battery bank for all consumers (case B). It is also suitable for additional batteries directly applied to electrical winches, thrusters and trolling motors (case D). The batteries are partially discharged during use. This means that the DUAL's reinforced design, together with a good recharging procedure, is key to providing the best result and service life duration. DUAL battery range, with Wh\* performance from 350Wh to 2100Wh, is the choice to cover all dual supply needs for the most popular recreational boats.



### Equipment Supply Need

EQUIPMENT battery range is designed to supply power for boats with dedicated battery banks for equipment such as navigation, emergency, safety and comfort (cases C&D). The batteries are partially or even deeply discharged during use. This means that the EQUIPMENT's special design, together with a good recharging procedure, is the key to providing the most reliable result and service life duration. EQUIPMENT range, with Wh\* performance from 290Wh to 2400Wh, is the choice to cover all equipment supply needs, from small electronics to emergency power.

## START



## DUAL



## EQUIPMENT



\*MCA = BCI Marine Cranking power in Amps at 0°C  
\*Wh = Available Watt x hour at 20h rate from a battery, without exceeding its recommended depth of discharge

How to select the best battery solutions:

# 3 Select the best battery technology according to its conditions of use

## Engine Start Need



**Technology:**  
Standard flooded with plug venting


**Technology:**  
AGM flat or orbital with VRLA venting

**Technology:**  
Standard flooded with central degassing

**Benefits**

-  Superior starting power
-  Absolutely maintenance free
-  Low gas emission
-  To be installed in special container
-  Slight inclination

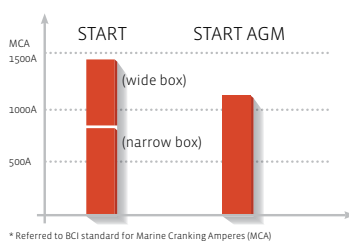
**Benefits**

-  Superior starting power
-  Absolutely maintenance free
-  Suitable for long resting periods
-  Internal gas recombination
-  No location constraints (safe for cabin mount)
-  Safe and clean (spark & spill-proof)
-  High inclination
-  High vibration & tilt resistant
-  Up to 50% faster recharging

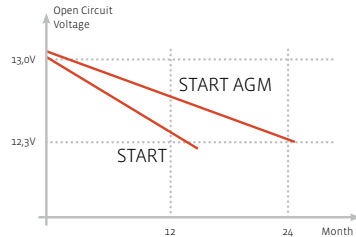
**Benefits**

-  Low maintenance
-  Low gas emission
-  Spark arrestor & central degassing for safe gas conduction
-  Upright mount
-  Medium vibration & tilt resistant
-  Start & supply
-  Top indicator for electrolyte & charge inspection (except ER660)

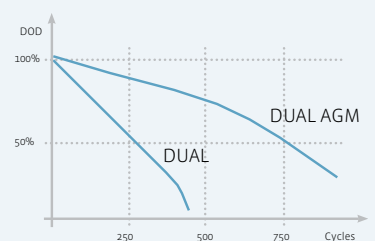
**START & START AGM**  
Marine cranking power coverage at 0°C\*



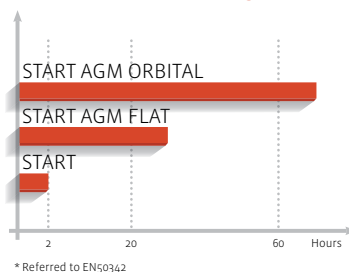
**START & START AGM**  
Shelf life at 20°C



**DUAL & DUAL AGM**  
Depth of discharge at 20°C



**START & START AGM**  
Vibration resistance at 6g/35Hz\*





# Need











# Equipment Supply Need



## Technology:

AGM flat or orbital with VRLA venting


## Benefits

-  › Absolutely maintenance free
-  › Suitable for long resting periods
-  › Internal gas recombination
-  › No location constraints (safe for cabin mount)
-  › Safe and clean (spark & spill-proof)
-  › High inclination
-  › High vibration & tilt resistant
-  › Faster recharge
-  › Up to 50% faster recharging
-  › Extra start & supply

## Technology:

Standard flooded with glass mat separators and plug venting






## Benefits

-  › Low maintenance
-  › Superior cycling
-  › Slight inclination
-  › Medium vibration & tilt resistant

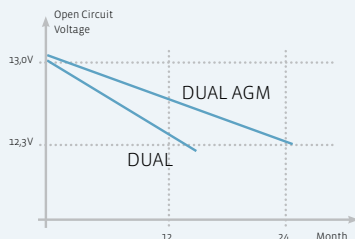
## Technology:

Gel (electrolyte fixed in a gel) with VRLA venting

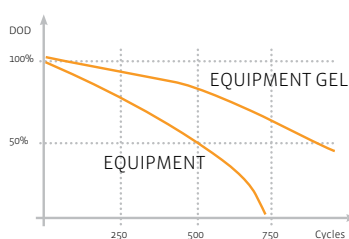
## Benefits

-  › Absolutely maintenance free
-  › Suitable for long resting periods
-  › Internal gas recombination
-  › No location constraints (safe for cabin mount)
-  › Safe and clean (spark & spill-proof)
-  › High inclination
-  › High vibration & tilt resistant
-  › High energy density
-  › Space saving of up to 30%
-  › Superior cycling

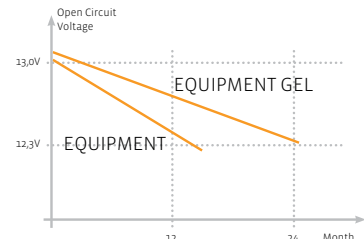
**DUAL & DUAL AGM**  
Shelf life at 20°C



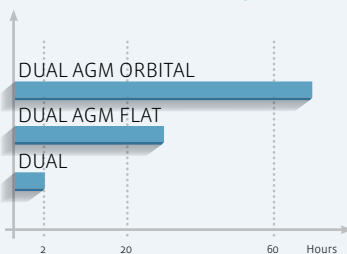
**EQUIPMENT & EQUIPMENT GEL**  
Depth of discharge at 20°C



**EQUIPMENT & EQUIPMENT GEL**  
Shelf life at 20°C

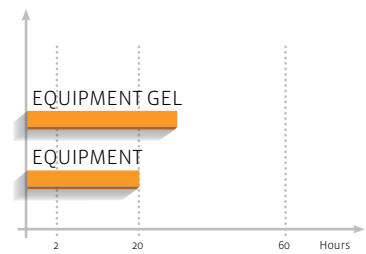


**DUAL & DUAL AGM**  
Vibration resistance at 6g/35Hz\*



\* Referred to EN50342

**EQUIPMENT & EQUIPMENT GEL**  
Vibration resistance at 6g/35Hz\*



\* Referred to EN50342

# Finalize your choice by calculating the energy required in watts per hour

## 1. Start by calculating device consumptions

Device	Power consumption (W)	Daily running time (h)	Added energy to supply (W)x(h)=(Wh)
Light bulb	25	4	100
Coffee machine	300	1	+ 300
TV set	40	3	+ 120
Water pump	35	2	+ 70
Fridge	80	6	+ 480
<b>TOTAL ADDITION</b>			<b>= 1,070</b>

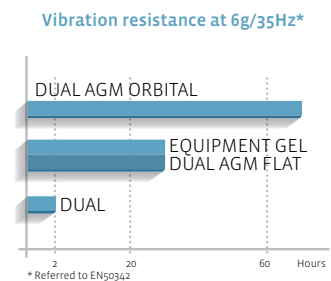
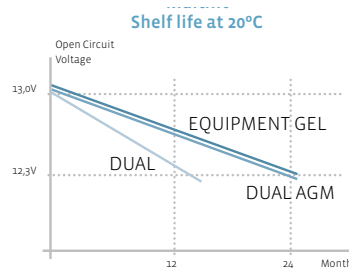
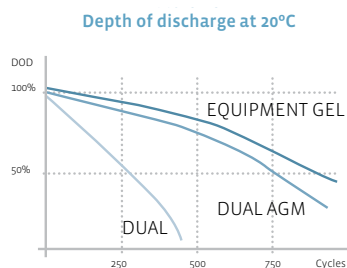
## 2. Apply a safety factor to cover overuse (recommended)

SAFETY FACTOR	x 1.2
<b>TOTAL REQUIRED</b>	<b>= 1,284</b>

## 3. Select your battery set according to the requirements

<b>EQUIPMENT GEL</b>	1 battery	ES1300	providing	1,300 Wh*	and weighing	39 kg
<b>DUAL AGM</b>	2 batteries	EP 900	providing 2x900=	1,800 Wh*	and weighing 2x32=	64 kg
<b>DUAL</b>	3 batteries	ER 450	providing 3x450=	1,350 Wh*	and weighing 3x23=	69 kg

\*Wh = Available Watt x hour at 20h rate from a battery, without exceeding its recommended depth of discharge



### Did you know ?

When selected battery technology does not achieve the required Wh for a vehicle, either the number of batteries connected in parallel has to be increased or the technology has to be upgraded to Equipment Gel.

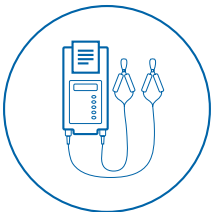
Jet-skis and scooters, often used as service vehicles, are fitted with the Exide Poxwersport offer





# More than batteries

Because marine battery use is seasonal, tools such as testers and chargers are essential for marine professionals and end users alike. Exide has a comprehensive range of accessories and support for batteries of all kinds of applications. We help you test, charge, select, replace and recycle batteries – everything workshops need to keep work in-house, provide quality service and grow profitability.



## Testing

### Battery Tester

Test every battery to reassure your customers and detect potential risks.



## Charging



### Battery Charger

Exide chargers can be used on cars, boats and motorcycles, and are ideal for both consumers and professionals. Workshops use the device to ensure customers leave with a fully charged battery every time.



## Selecting

### Battery Finder App

Search by car model, VIN or registration number to quickly find the right battery on the go.



### QR Code

Want to find out more? Scan the QR code on the battery label and get more information right away. No more waiting until you get home.



### Web Catalogue

Please visit our new website and find out more about Marine&Leisure batteries and solutions according to your needs on [www.exide.com/eu](http://www.exide.com/eu)






**Exide recycles!** 

What to do with old batteries?  
Subscribe to our recycling programme. We pick them up and reward you for your environmental consciousness.





# Type List

	CODE	TECHNOLOGY			PERFORMANCES			DIMENSIONS			TECHNICAL CHARACTERISTICS				
		GEL	AGM Flat	AGM Orbital	MCA* A (BCI)	Capacity Ah (20h)	CCA A (EN)	L (mm)	W (mm)	H (mm)	Polarity	Terminal	Weight (kg)	Box	
 START AGM	EM 900			•	900	42	700	230	173	206	1	Standard + Threaded	16	G86	•
	EM1000			•	1000	50	800	260	173	206	1	Standard + Threaded	18	G34	•
	EM1100		•		1100	100	925	330	173	240	9	Standard + Threaded	33	G31	•
 START	EN 500				500	50	450	210	175	190	0	Standard	13	L01	
	EN 600				600	62	540	242	175	190	0	Standard	15	L02	
	EN 750				750	74	680	278	175	190	0	Standard	18	L03	
	EN 800				900	90	720	353	175	190	0	Standard	22	L05	
	EN 850				850	110	750	350	175	235	1	Standard	28	D02	
	EN 900				900	140	800	513	189	223	3	Standard	37	D04	
	EN1100				1100	180	1000	513	223	223	3	Standard	45	D05	

	CODE	TECHNOLOGY			PERFORMANCES			DIMENSIONS			TECHNICAL CHARACTERISTICS				
		GEL	AGM Flat	AGM Orbital	Wh*	Capacity Ah (20h)	CCA A (EN)	L (mm)	W (mm)	H (mm)	Polarity	Terminal	Weight (kg)	Box	
 DUAL AGM	EP 450			•	450	50	750	260	173	206	1	Standard + Threaded	19	G34	•
	EP500		•		500	60	680	242	175	190	0	Standard	18	L02	•
	EP600		•		500	70	760	278	175	190	0	Standard	21	L03	•
	EP650		•		650	75	775	270	173	222	1	Standard + Threaded	23	D26	•
	EP800		•		600	95	850	353	175	190	0	Standard	27	L05	•
	EP 900		•		900	100	720	330	173	240	9	Standard + Threaded	32	G31	•
	EP1200		•		1200	140	700	513	189	223	3	Standard	45	D04	•
	EP1500		•		1500	180	900	513	223	223	3	Standard	55	D05	•
	EP2100		•		2100	240	1200	518	279	240	3	Standard	72	D06	•
 DUAL	ER 350				350	80	510	260	175	225	1	Standard	19	D26	
	ER 450				450	95	650	310	175	225	1	Standard	23	D31	
	ER 550				550	115	760	350	175	235	1	Standard	29	D02	
	ER 650				650	142	850	350	175	290	1	Standard	35	D03	
	ER 660				660	140	750	513	189	223	3	Standard	38	D04	



	CODE	TECHNOLOGY			PERFORMANCES			DIMENSIONS			TECHNICAL CHARACTERISTICS				
		GEL	AGM Flat	AGM Orbital	Wh*	Capacity Ah (20h)	CCA A (EN)	L (mm)	W (mm)	H (mm)	Polarity	Terminal	Weight (kg)	Box	
 EQUIPMENT GEL	ES 290	•			290	25	–	165	175	125	0	Flat Lug (M5)	10	P24	•
	ES 450	•			450	40	–	210	175	175	0	Flat Lug (19)	15	LB1	•
	ES 650	•			650	56	–	278	175	190	0	Standard	21	L03	•
	ES 900	•			900	80	–	350	175	190	0	Standard	27	L05	•
	ES 950	•			950	85	–	350	175	235	1	Standard	30	D02	•
	ES1000-6	•			1000	190 (6V)	–	245	190	275	0	Standard	29	GC2	•
	ES1100-6	•			1100	200 (6V)	–	245	190	275	0	Threaded insert	32	GC2	•
	ES1200	•			1200	110	–	285	270	230	2	Standard	39	D07	•
	ES1300	•			1300	120	–	350	175	290	0	Standard	39	D03	•
	ES1350	•			1350	120	–	513	189	223	3	Standard	40	D04	•
 EQUIPMENT	ES1600	•			1600	140	–	513	223	223	3	Standard	47	D05	•
	ES2400	•			2400	210	–	518	279	240	3	Standard	67	D06	•
	ET 550				550	80	600	278	175	190	0	Standard	21	L03	
	ET 650				650	90	–	350	175	190	0	Standard	27	L05	
	ET 950				950	135	–	513	189	223	3	Standard	40	D04	
	ET1300				1300	180	–	513	223	223	3	Standard	50	D05	
	ET 1600				1600	230	–	518	279	240	3	Standard	65	D06	

Complementary range for old fitments.

VINTAGE	EU 72L	EU 77-6	EU 80-6	EU 140-6	EU 165-6	EU200-6	EU 260-6				
	–	70	640	278	175	190	1	EN taper posts	17	L03	
	–	77 (6V)	360	215	169	184	0	Standard	18	H02	
	–	80 (6V)	600	158	165	220	0	Standard	11	M02	
	–	140 (6V)	900	257	175	236	0	Standard	19	M04	
	–	165 (6V)	900	330	174	234	0	Standard	25	M05	
	–	200	1150	398	174	234	0	Twin EN taper posts	28	M06	
	–	260 (6V)	1300	350	175	290	0	Standard	40	M08	

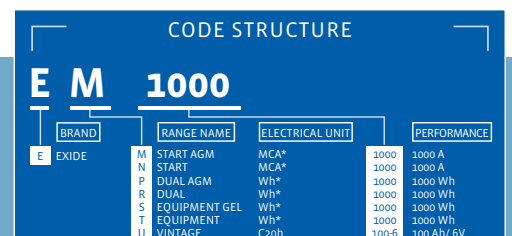
\*MCA = BCI Marine Cranking power in Amps at 0°C

\*Wh = Available Watt x hour at 20h rate from a battery, without exceeding its recommended depth of discharge



Did you know ?

Exide also produces batteries for light vehicles, commercial vehicles, motorcycles and caravans. Contact your local sales representative or visit [www.exide.com](http://www.exide.com) to find out more.



**Exide Technologies**, with operations in more than 80 countries and more than 120 years of experience, is one of the world's largest producers and recyclers of lead-acid batteries. The company develops state-of-the-art energy storage solutions for the automotive and industrial market. Leading car, truck and lift truck manufacturers trust in Exide Technologies as an original equipment supplier. Exide also serves the aftermarket through a portfolio of successful and well-known brands.

Exide Transportation manufactures batteries for light and commercial vehicles, as well as agricultural and marine leisure applications. Industrial markets – under the division **GNB Industrial Power** – include efficient energy storage solutions for motive power applications such as lift trucks, cleaning machines and other commercial electrical vehicles, and network power applications such as telecommunications systems, renewables, and uninterruptible power supply (UPS).

Exide's engineers have always been at the forefront of bringing important innovations to the industry. Exide's ISO/TS-certified manufacturing facilities ensure that customers receive products that are produced with maximum efficiency and fulfill the highest quality standards, while minimizing impact on the environment.

Exide's extensive sales and distribution network provides quality service and delivers on time to its customers. Its world-class recycling facilities ensure that batteries will be reused, helping to make a positive contribution to the environment. Exide also provides services, accessories and energy consulting to its clients.



## European Headquarters

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Exide Battery Finder

