

# MARINE & LEISURE BATTERY SOLUTIONS

---

**POWERING  
YOUR FREEDOM**





# 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. Exide's Gel and AGM 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 FIND THE RIGHT**  
BATTERY COMBINATION

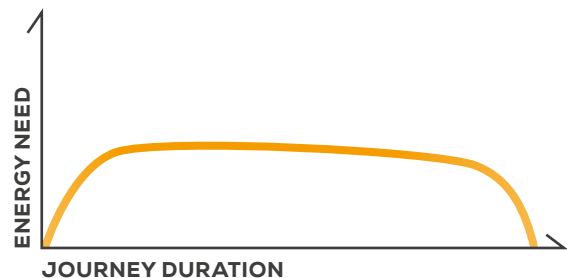
**3 SELECT THE BEST**  
BATTERY TECHNOLOGY



# IDENTIFY THE BOAT'S ENERGY NEEDS

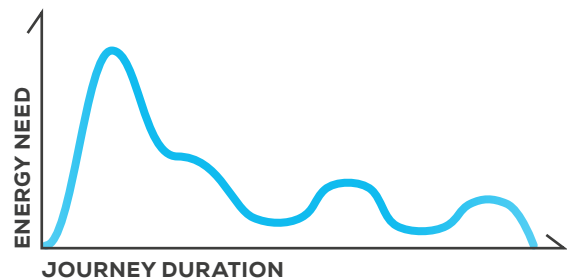
## EQUIPMENT SUPPLY NEED

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\*.



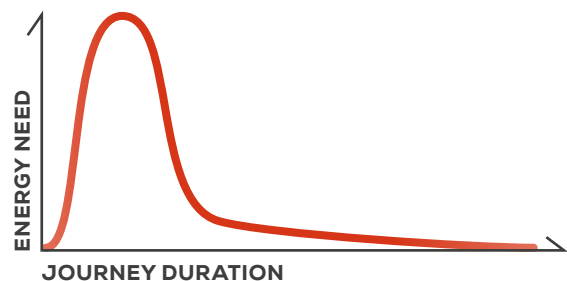
## DUAL SUPPLY NEED

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\*.



## 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\*.



\*MCA = 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

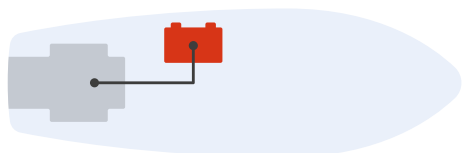
# FIND THE RIGHT BATTERY COMBINATION



## EXAMPLES OF DIFFERENT CONFIGURATIONS

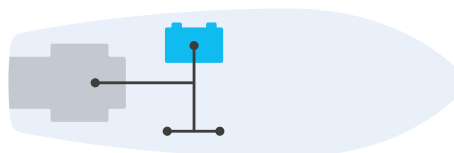
### Case A - Engine only

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.



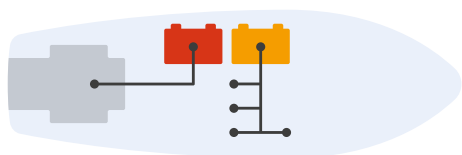
### Case B - Engine & Equipment

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.



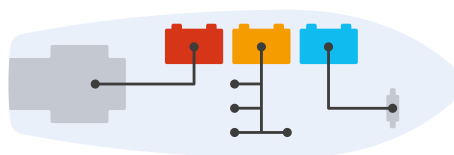
### Case C - Engine + Equipment

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

## 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.



## 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.



## 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.



\*MCA = 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



# SELECT THE BEST BATTERY TECHNOLOGY

## EQUIPMENT SUPPLY NEED



### EQUIPMENT

Standard flooded with glass mat separators and plug venting.

#### Benefits



- Superior cycling



- Low maintenance



- Slight inclination
- Medium vibration & tilt resistant

### EQUIPMENT GEL

Gel (electrolyte fixed in a gel) with VRLA venting.

#### Benefits



- Superior cycling



- Internal gas recombination
- No location constraints (safe for cabin mount)
- Safe and clean (spark & spill-proof)



- High inclination
- High vibration & tilt resistant

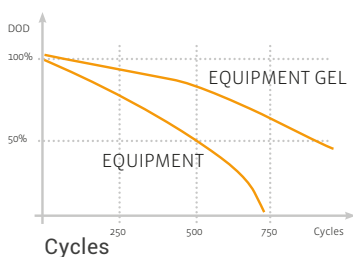


- Absolutely maintenance free
- Suitable for long resting periods

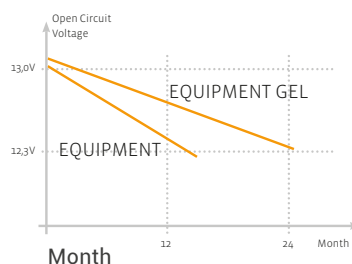


- High energy density
- Space saving of up to 30%

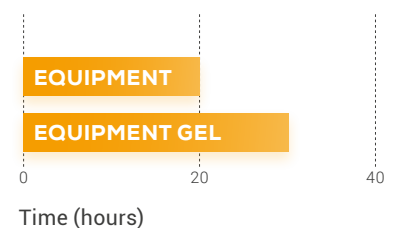
#### CYCLING PERFORMANCES VS DEPTH OF DISCHARGE AT 20°C



#### SHELF LIFE AT 20°C



#### VIBRATION RESISTANCE AT 6G/35HZ\*



\* Referred to EN50342

# DUAL SUPPLY NEED



## DUAL

Standard flooded with central degassing



## DUAL AGM

AGM flat or orbital with VRLA venting



### Benefits



- Start & supply



- Upright mount
- Medium vibration & tilt resistant



- Low maintenance



- Top indicator for electrolyte & charge inspection (except ER660)



- Low gas emission
- To be installed in special container



- Extra start & supply



- Absolutely maintenance free
- Suitable for long resting periods



- Faster recharge
- Up to 50% faster recharging

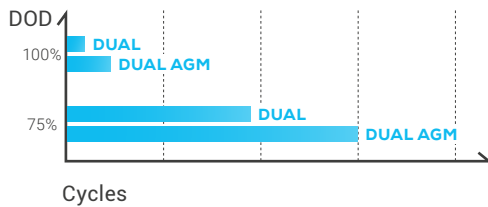


- High inclination
- High vibration & tilt resistant

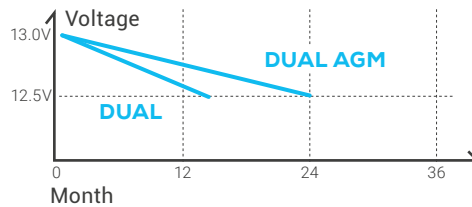


- Internal gas recombination
- No location constraints (safe for cabin mount)
- Safe and clean (spark & spill-proof)

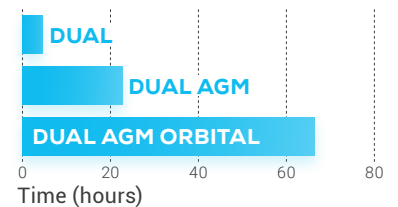
#### CYCLING PERFORMANCES VS DEPTH OF DISCHARGE AT 20°C



#### SHELF LIFE AT 20°C



#### VIBRATION RESISTANCE AT 6G/35HZ\*



\* Referred to EN50342

# ENGINE START NEED



## START

Standard flooded with plug venting



## START AGM

AGM flat or orbital with VRLA venting



### Benefits



- Superior starting power



- Very low gas emission
- Spark arrestor & central degassing for safe gas conduction



- Absolutely maintenance free



- Slight inclination



- Superior starting power



- Absolutely maintenance free
- Suitable for long resting periods



- Up to 50% faster recharging

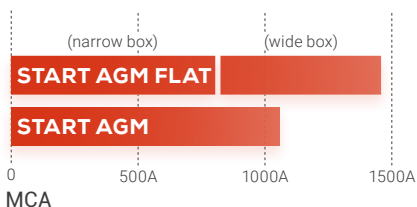


- High inclination
- High vibration & tilt resistant

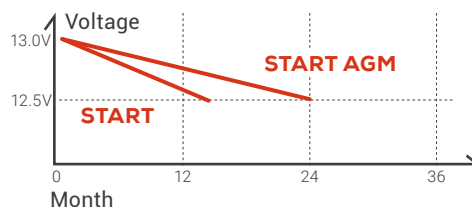


- Internal gas recombination
- No location constraints (safe for cabin mount)
- Safe and clean (spark & spill-proof)

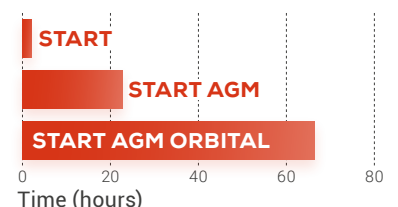
#### MARINE CRANKING POWER AT 0°C\*



#### SHELF LIFE AT 20°C



#### VIBRATION RESISTANCE AT 6G/35HZ\*



\* Referred to BCI standard for Marine Cranking Amperes (MCA)

\* Referred to EN50342

# FINALIZE YOUR CHOICE

## BY CALCULATING THE ENERGY REQUIRED IN WATTS PER HOUR

### 1. START BY CALCULATING DEVICE CONSUMPTIONS

⚡ Power x 🔄 Daily usage = **ENERGY CONSUMPTION (Wh)**

⚡ 25W 🔄 4h  
LAMP  
**100 Wh**

⚡ 300W 🔄 1h  
COFFEE MACHINE  
**300 Wh**

⚡ 35W 🔄 2h  
WATER PUMP  
**70 Wh**

⚡ 80W 🔄 6h  
FRIDGE  
**480 Wh**

⚡ 40W 🔄 3h  
TV SET  
**120 Wh**

**TOTAL ENERGY NEEDED**  
**1 070 Wh**

### 2. APPLY A SAFETY FACTOR TO COVER OVERUSE

x1,2

**TOTAL REQUIRED**  
**1 284 Wh**

### 3. SELECT YOUR BATTERY SET ACCORDING TO THE REQUIREMENTS



#### EQUIPMENT GEL

Reference: **ES 1300**  
Energy: **1.300 Wh\***  
Weight: **39 kg**



#### DUAL AGM

Reference: **EP 900**  
Energy: **2 x 900 Wh\***  
Weight: **2 x 32 kg**

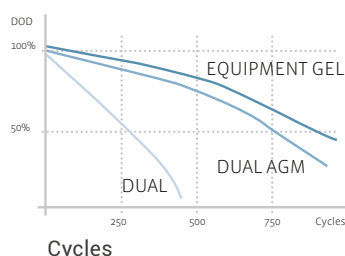


#### DUAL

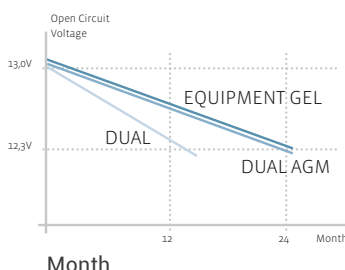
Reference: **ER 450**  
Energy: **3 x 450 Wh\***  
Weight: **3 x 23 kg**

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

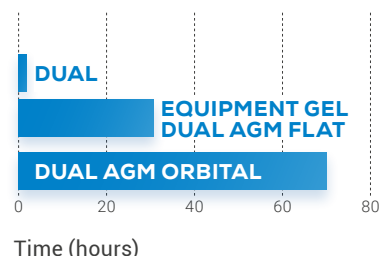
#### CYCLING PERFORMANCES VS DEPTH OF DISCHARGE AT 20°C



#### SHELF LIFE AT 20°C



#### VIBRATION RESISTANCE AT 6G/35HZ\*



\* Referred to EN50342

#### 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

### EBT-965P BATTERY TESTER

Exide's advanced and easy to use EBT-965P is the next-generation battery tester, designed for the most reliable diagnostics of any make or type of battery. It enables preventative maintenance and ensures maximum customer satisfaction.

Previous testers only measured the conductance, but the new EBT-965P also features Conductance Profiling™, including battery health and the remaining available energy in the test results.

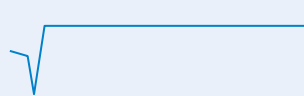


#### STANDARD TESTERS

Conductance



Cranking Capability CCA



#### EXIDE EBT-965P TESTER

Conductance Profiling™



Energy Availability START STOP CCA



## CHARGING

### BATTERY CHARGER

Exide chargers can be used on cars, boats and motorcycles, and are ideal for both consumers and professionals alike.

Workshops use the device to ensure customers leave with a fully charged battery every time.



## 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.

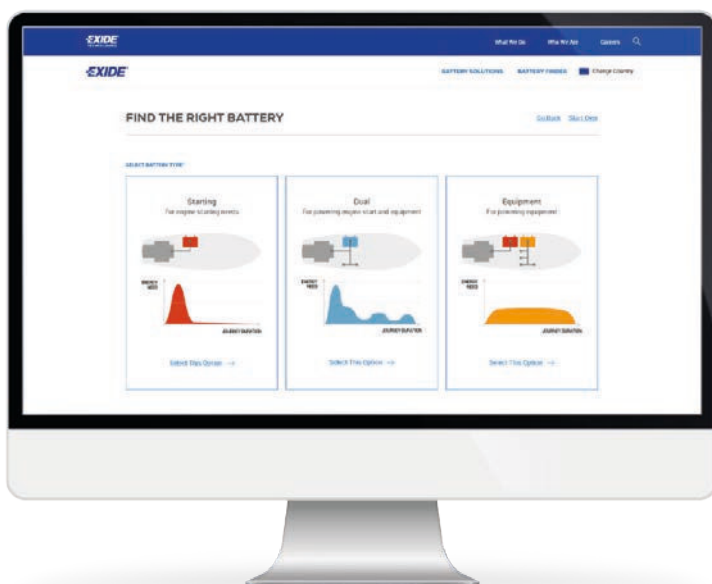


## BATTERY FINDER ONLINE **NEW**

The new Online battery finder features a modern interface and all-new user experience, it supports battery selection and fitting for the most comprehensive range of boats and vehicle types.

It propose now an exclusive tool that allows to make the best choice based on the specific electrical needs of the user.

[www.exide.com/eu/en/battery-finder](http://www.exide.com/eu/en/battery-finder)

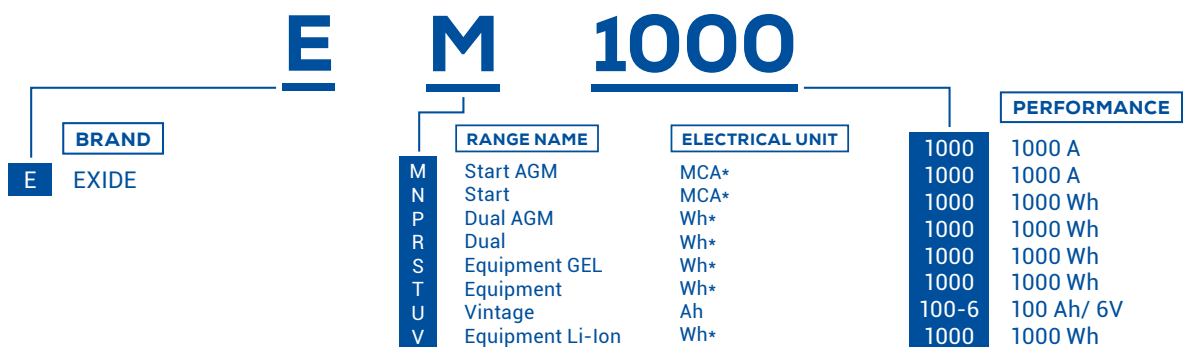




# TYPE LIST

| CODE     | Technology |          |             |         | Performances |                   |            | Dimensions |        |        | Technical Characteristics |                 |             |     |   |
|----------|------------|----------|-------------|---------|--------------|-------------------|------------|------------|--------|--------|---------------------------|-----------------|-------------|-----|---|
|          | GEL        | AGM Flat | AGM Orbital | Flooded | Wh*          | Capacity Ah (20h) | CCA A (EN) | L (mm)     | W (mm) | H (mm) | Polarity                  | Terminal        | Weight (kg) | Box |   |
| ES 290   | •          |          |             |         | 290          | 25                | –          | 165        | 175    | 125    | 0                         | Flat Lug (M5)   | 10          | P24 |   |
| ES 450   | •          |          |             |         | 450          | 40                | –          | 210        | 175    | 175    | 0                         | Flat Lug (19)   | 14          | LB1 | • |
| ES 650   | •          |          |             |         | 650          | 56                | –          | 278        | 175    | 190    | 0                         | Standard        | 21          | L03 | • |
| ES 900   | •          |          |             |         | 900          | 80                | –          | 350        | 175    | 190    | 0                         | Standard        | 26          | L05 | • |
| ES 950   | •          |          |             |         | 950          | 85                | –          | 350        | 175    | 235    | 1                         | Standard        | 28          | D02 | • |
| ES1000-6 | •          |          |             |         | 1000         | 195 (6V)          | –          | 245        | 190    | 275    | 0                         | Standard        | 29          | GC2 | • |
| ES1100-6 | •          |          |             |         | 1100         | 200 (6V)          | –          | 245        | 190    | 275    | 0                         | Threaded insert | 31          | GC2 | • |
| ES1200   | •          |          |             |         | 1200         | 110               | –          | 285        | 270    | 230    | 2                         | Standard        | 38          | D07 | • |
| ES1300   | •          |          |             |         | 1300         | 120               | –          | 350        | 175    | 290    | 0                         | Standard        | 38          | D03 | • |
| ES1350   | •          |          |             |         | 1350         | 120               | –          | 513        | 189    | 223    | 3                         | Standard        | 40          | D04 | • |
| ES1600   | •          |          |             |         | 1600         | 140               | –          | 513        | 223    | 223    | 3                         | Standard        | 47          | D05 | • |
| ES2400   | •          |          |             |         | 2400         | 210               | –          | 518        | 279    | 240    | 3                         | Standard        | 64          | D06 | • |
| EQ1000   |            | •        |             |         | 1000         | 120               | –          | 286        | 269    | 230    | 2                         | Standard        | 40          | D07 |   |
| ET650    |            |          |             | •       | 650          | 100               | –          | 350        | 175    | 190    | 0                         | Standard        | 27          | L05 |   |
| ET950    |            |          |             | •       | 950          | 135               | –          | 513        | 189    | 223    | 3                         | Standard        | 40          | D04 |   |
| ET1300   |            |          |             | •       | 1300         | 180               | –          | 513        | 223    | 223    | 3                         | Standard        | 50          | D05 |   |
| ET1600   |            |          |             | •       | 1600         | 230               | –          | 518        | 279    | 240    | 3                         | Standard        | 65          | D06 |   |

# CODE STRUCTURE







**DUAL AGM**

| CODE   | Technology |          |             |         | Performances |                   |            | Dimensions |        |        | Technical Characteristics |                              |             |     |   |
|--------|------------|----------|-------------|---------|--------------|-------------------|------------|------------|--------|--------|---------------------------|------------------------------|-------------|-----|---|
|        | GEL        | AGM Flat | AGM Orbital | Flooded | Wh*          | Capacity Ah (20h) | CCA A (EN) | L (mm)     | W (mm) | H (mm) | Polarity                  | Terminal                     | Weight (kg) | Box |   |
| EP450  |            |          | •           |         | 450          | 50                | 750        | 260        | 173    | 206    | 1                         | Standard + Threaded          | 19          | G34 | • |
| EP500  |            | •        |             |         | 500          | 60                | 680        | 242        | 175    | 190    | 0                         | Standard                     | 18          | L02 | • |
| EP600  |            | •        |             |         | 600          | 70                | 760        | 278        | 175    | 190    | 0                         | Standard                     | 21          | L03 | • |
| EP800  |            | •        |             |         | 800          | 95                | 850        | 353        | 175    | 190    | 0                         | Standard                     | 26          | L05 | • |
| EP 900 |            | •        |             |         | 900          | 100               | 800        | 330        | 173    | 240    | 1                         | SAE M 3/8«- 5/16» taper&stud | 31          | G31 | • |
| EP1200 |            | •        |             |         | 1200         | 140               | 700        | 513        | 189    | 223    | 3                         | Standard                     | 41          | D04 | • |
| EP1500 |            | •        |             |         | 1500         | 180               | 900        | 513        | 223    | 223    | 3                         | Standard                     | 50          | D05 | • |
| EP2100 |            | •        |             |         | 2100         | 240               | 1200       | 518        | 279    | 240    | 3                         | Standard                     | 70          | D06 | • |



**DUAL**

|       |  |  |  |   |     |     |      |     |     |     |   |          |    |     |  |
|-------|--|--|--|---|-----|-----|------|-----|-----|-----|---|----------|----|-----|--|
| ER350 |  |  |  | • | 350 | 80  | 510  | 260 | 175 | 225 | 1 | Standard | 18 | D26 |  |
| ER450 |  |  |  | • | 450 | 95  | 650  | 310 | 175 | 225 | 1 | Standard | 22 | D31 |  |
| ER550 |  |  |  | • | 550 | 115 | 760  | 350 | 175 | 235 | 1 | Standard | 28 | D02 |  |
| ER650 |  |  |  | • | 650 | 142 | 850  | 350 | 175 | 290 | 1 | Standard | 35 | D03 |  |
| ER660 |  |  |  | • | 660 | 140 | 750  | 513 | 189 | 223 | 3 | Standard | 37 | D04 |  |
| ER850 |  |  |  | • | 850 | 180 | 1000 | 513 | 223 | 223 | 3 | Standard | 46 | D05 |  |



**START AGM**

| CODE   | GEL | AGM Flat | AGM Orbital | Flooded | MCA* A (BCI) | Capacity Ah (20h) | CCA A (EN) | L (mm) | W (mm) | H (mm) | Polarity | Terminal              | Weight (kg) | Box |   |
|--------|-----|----------|-------------|---------|--------------|-------------------|------------|--------|--------|--------|----------|-----------------------|-------------|-----|---|
| EM900  |     |          | •           |         | 900          | 42                | 700        | 230    | 173    | 206    | 1        | Standard + Threaded   | 16          | G86 | • |
| EM960  |     | •        |             |         | 960          | 100               | 800        | 330    | 173    | 240    | 1        | SAE M 3/8» taper&stud | 31          | G31 |   |
| EM1000 |     |          | •           |         | 1000         | 50                | 800        | 260    | 173    | 206    | 1        | Standard + Threaded   | 18          | G34 | • |



**START**

|        |  |  |  |   |      |     |      |     |     |     |   |          |    |     |  |
|--------|--|--|--|---|------|-----|------|-----|-----|-----|---|----------|----|-----|--|
| EN500  |  |  |  | • | 500  | 50  | 450  | 210 | 175 | 190 | 0 | Standard | 12 | L01 |  |
| EN600  |  |  |  | • | 600  | 62  | 540  | 242 | 175 | 190 | 0 | Standard | 14 | L02 |  |
| EN750  |  |  |  | • | 750  | 74  | 680  | 278 | 175 | 190 | 0 | Standard | 17 | L03 |  |
| EN800  |  |  |  | • | 800  | 90  | 720  | 353 | 175 | 190 | 0 | Standard | 20 | L05 |  |
| EN850  |  |  |  | • | 850  | 110 | 750  | 350 | 175 | 235 | 1 | Standard | 25 | D02 |  |
| EN900  |  |  |  | • | 900  | 140 | 800  | 513 | 189 | 223 | 3 | Standard | 34 | D04 |  |
| EN1100 |  |  |  | • | 1100 | 180 | 1000 | 513 | 223 | 223 | 3 | Standard | 43 | D05 |  |



**VINTAGE**

| COMPLEMENTARY RANGE FOR OLD FITMENTS |  |  |  |   |   |          |      |     |     |     |   |          |    |     |  |
|--------------------------------------|--|--|--|---|---|----------|------|-----|-----|-----|---|----------|----|-----|--|
| EU80-6                               |  |  |  | • | – | 80 (6V)  | 600  | 158 | 165 | 220 | 0 | Standard | 11 | M02 |  |
| EU140-6                              |  |  |  | • | – | 140 (6V) | 900  | 257 | 175 | 236 | 0 | Standard | 18 | M04 |  |
| EU165-6                              |  |  |  | • | – | 165 (6V) | 900  | 330 | 174 | 234 | 0 | Standard | 25 | M05 |  |
| EU260-6                              |  |  |  | • | – | 260 (6V) | 1300 | 350 | 175 | 290 | 0 | Standard | 39 | 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 130 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.

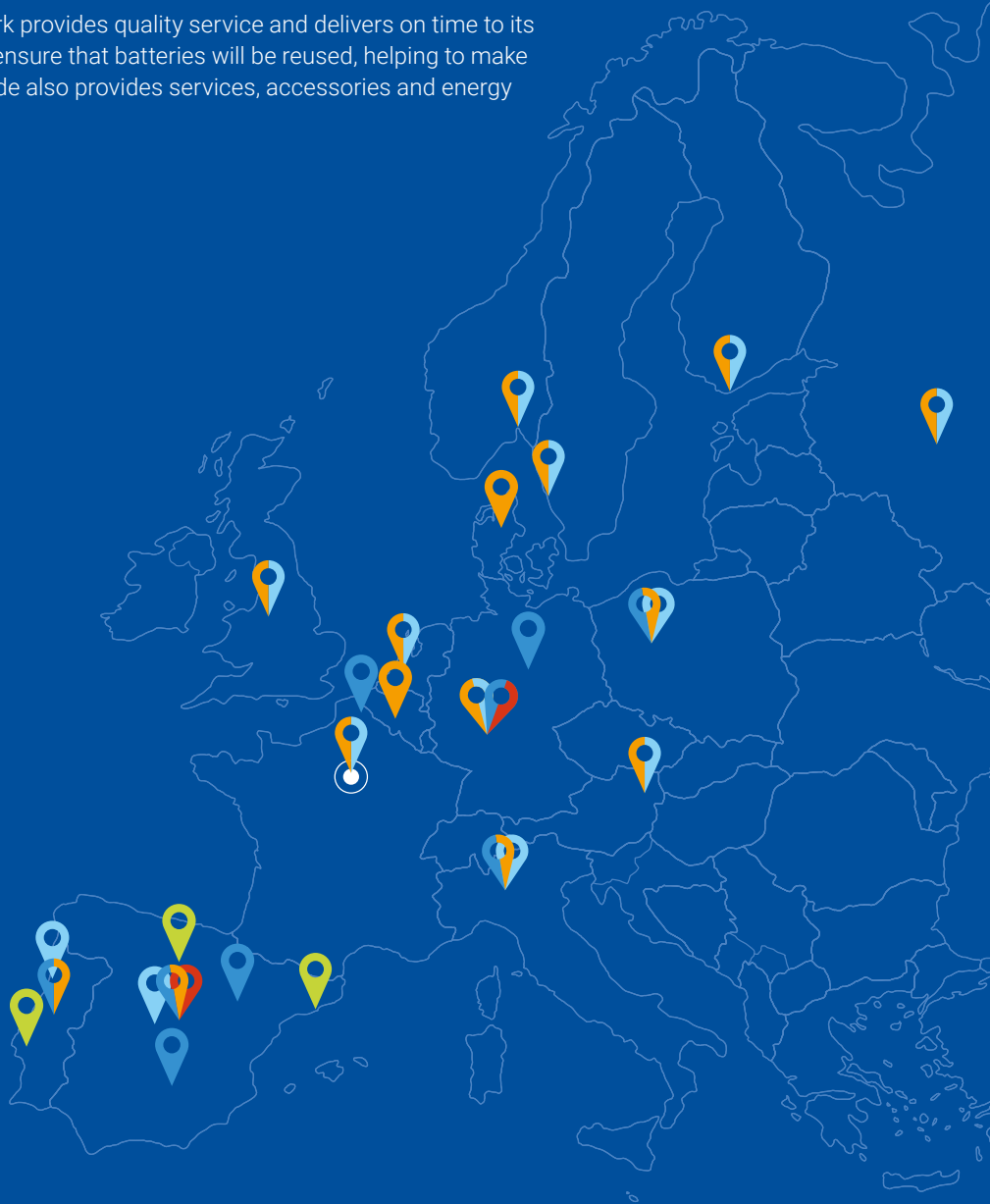
Exide Transportation manufactures batteries for light and commercial vehicles, as well as agricultural and marine leisure applications. Industrial markets – under the division **GNB Industrial Power** – include efficient energy storage solutions for motive power applications such as lift trucks, cleaning 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 IATF 16949 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.

- EMEA headquarters
- Manufacturing plants
- Recycling plants
- Distribution centers
- Main sales offices
- R&D centres

Manufacturing plants ISO 9001 and ISO 14001 certified  
Automotive plants IATF 16949 approved



#### EMEA HEADQUARTERS

EXIDE TECHNOLOGIES SAS  
5 ALLÉE DES PIERRES MAYETTES  
92636 GENNEVILLIERS FRANCE

TEL: +33 1 41 21 23 00 FAX +33 1 41 21 27 15

#### ITALY HEADQUARTERS

EXIDE TECHNOLOGIES S.R.L.  
VIA DANTE ALIGHIERI, 100/106  
24058 ROMANO DI LOMBARDIA (BG) ITALY

TEL: +39 0363 9991