



**YUASA**

by **GSYUASA**

**YBX**

# **ACTIVE**<sup>®</sup>

**LEISURE & MARINE BATTERY RANGE**



BATTERY  
**YUASA**  
TRADE MARK



**YUASA**  
**BATTERY**

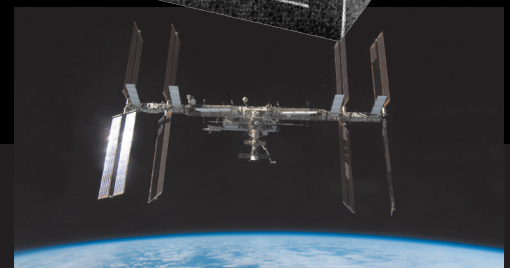


## 100 YEARS OF QUALITY, RELIABILITY & PERFORMANCE

- Over 100-year pedigree, founded in 1918
- UK market leader for vehicle & industrial batteries
- Engineered for long life & maximum power
- The largest vehicle coverage from one brand
- UK based technical support helpline

Consumer website: [www.yuasa.com](http://www.yuasa.com)

Join the millions of people who enjoy the long service life, high performance and exceptional reliability provided by Yuasa, the world's leading battery manufacturer.





Creating the Future of Energy

## GS Yuasa Battery Europe

**For over 30 years, GS Yuasa Battery Europe Ltd have been Europe's leading battery supplier.**

From sales and distribution centres in the UK, Italy, Spain, France, Germany and Sweden, GS Yuasa supply European markets with an extensive range of high quality energy storage and network stabilisation solutions.

Our award-winning products, service and supply lead the industry and continue to set new standards of customer care, quality, choice and year-round availability.

## A GS Yuasa company

**GS Yuasa are the world's leading battery manufacturer and global leader for quality and innovation.**

The GS Yuasa Group consists of 65 subsidiaries and 33 affiliates in countries throughout the world.

For over 100 years GS Yuasa has continually created advanced stored energy solutions under the philosophy of "innovation and growth", and established itself as the number one choice for vehicle and industrial batteries.

GS Yuasa batteries are used in a wide range of applications from the Shinkai deep sea submarine, to the Boeing 787 Dreamliner aircraft and International Space Station... and everything in between.

## A UK manufacturer

**Production began at GS Yuasa's manufacturing plant in Ebbw Vale, UK in 1981.**

Manufacturing Yuasa NPL, EN, ENL and SWL battery ranges, well over 85 million batteries have been produced since the factory opened.



# ORIGINAL EQUIPMENT MANUFACTURER



## To the world's top vehicle marques

Vehicle manufacturers demand the best, so overwhelmingly fit GS Yuasa batteries as standard:

### Leisure:

Abbey, Ace, Autocruise, Bessacarr, Buccaneer, Compass, Eccles, Elddis, Erwin Hymer Group, Escape, Mondial, Sprite, Sterling, Swift Group, Xplore

### Automotive:

BMW, Daihatsu, Daimler, Ford, Fiat, General Motors, Honda, Hyundai, Infiniti, Isuzu, Land Rover, Lexus, Mazda, Mercedes-Benz, Mitsubishi, Nissan, PSA Peugeot Citroen, Renault, Subaru, Suzuki, TATA, Toyota

### Motorcycle:

Aprilia, BMW, Ducati, Harley-Davidson, Honda, Kawasaki, KTM, Moto Guzzi, MV Augusta, Piaggio, Suzuki, Triumph, Vespa, Yamaha



## GUARANTEED QUALITY

GS Yuasa Battery Sales UK Ltd uses the internationally recognised quality management system ISO 9001 to provide the framework for consistent performance and reliable service in the supply of automotive, motorcycle and industrial batteries to our customers.



FM: 585105

GS Yuasa customers can be confident that we have the tools in place to ensure customer satisfaction in products, supply and service.



# ENGINEERED TO PERFORM

## Yuasa *ACTIVE* features

Yuasa YBX Active batteries provide a perfect balance of power and service life. They feature specialist internal components, unique design features and industry leading technology to combat the causes of battery failure and deliver superior performance.

### Fully maintenance free

YBX Active batteries lose so little electrolyte when in service that they will never need topping up.

### Enhanced safety features

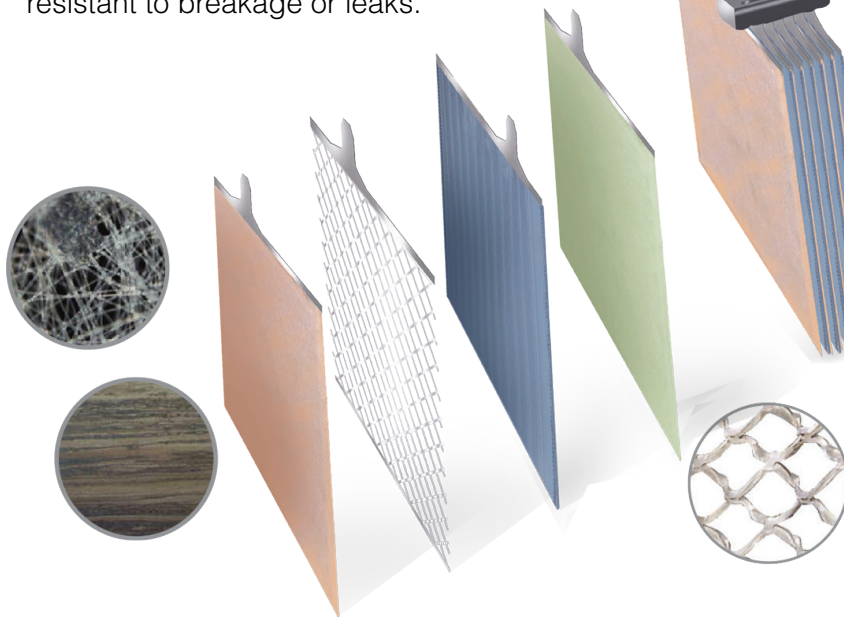
Including integrated flame arrestor to protect against ignition sources entering the battery and built in carry handles for safe handling.

### Ready to fit

Supplied fully charged and ready to fit.

### Polypropylene or ABS construction

Reinforced design is strong, durable and resistant to breakage or leaks.



### Vibration resistant

Rugged construction provides greater resistance to damage caused by vibration.

### Keep batteries charged

All vehicle batteries must be kept charged especially when not in frequent use. See page 12 for more information.



### Yuasa lead acid batteries are over 98% recyclable.

Scrap batteries should be recycled and disposed of responsibly.





# LEISURE & MARINE

For caravans, motorhomes, boats & other leisure applications

Long life power for life long memories.

Whether you camp with full electric hook-up or use no mains supply, YBX Active batteries give you the freedom to go anywhere.

Modern leisure vehicles feature more technology and electrical appliances than ever before. YBX Active Leisure and Marine batteries are specially designed to provide dependable, stress-free power and long life. Our broad range means we have the perfect battery to suit your exact requirements.



A YBX Active battery provides a reliable, steady flow of current over a prolonged period providing it is recharged regularly when not in use.





# MARINE

For motor boats, sailing boats, yachts & watercraft

## There's sailing... then there's YBX Active sailing!

YBX Active Marine batteries are perfectly adapted to life on the water. Specifically designed to handle the rigours of wave pounding and trailer transport, they deliver reliable starting power.

Boat equipment electrical supply is crucial for onboard safety and comfort. Effective power supply is also critical for most operations including engine start, navigation, radio, GPS and lighting.



The Yuasa YBX Active range of superior quality marine batteries incorporate advanced design features and specialist hard-wearing components for marine applications.



## YBX ACTIVE® Leisure & Marine

- Optimised for repeated charging & discharging
- Original equipment (OE) quality & specification
- Fully maintenance free
- Supplied charged & ready to fit
- Enhanced safety features
- Built to last

YBX Active EFB and AGM utilise the latest in next generation battery technology to provide greater endurance, more available cycles and faster charging. AGM also offers maximum safety with spill proof internal construction.

### Battery selector guide



Berth	Break frequency	Break length	Off grid use	Equipment energy demands	Charge time	Self discharge
2-4	Occasional	Weekend / week	Low	Light	Standard	Normal
2-4	Regular	Over 1 week	Low - Medium	Moderate	Fast	Normal
2-6	Frequent	Over 2 weeks	Medium - High	Heavy	Fast	Minimal



## YBX ACTIVE® Marine

- Vibrolock construction provides enhanced vibration resistance
- Dual terminal
- Supplied charged & ready to fit
- Enhanced safety features
- Fully maintenance free
- Leak proof double lid

## YBX ACTIVE® Marine Dual

YBX Active Marine Dual EFB & AGM batteries are developed to meet the demands of both starting and auxiliary power requirements. They utilise next generation technology to provide greater endurance, more available cycles and faster charging. YBX Active Marine Dual AGM batteries offer the ultimate choice for deep discharge recovery and have no free acid so can be installed in occupied spaces with natural ventilation.

## YBX ACTIVE® Leisure & Marine Dual Purpose

- Very high watt hour rating
- XVR extreme vibration resistance
- Supplied charged & ready to fit
- Enhanced safety features
- Fully maintenance free
- Excellent endurance

These large batteries are ideal for dual power applications where starting power and overall energy supply is required, such as large watercraft, canal boats, trailers and horse boxes.



### Deep cycle explained

Only leisure, marine and deep cycle batteries are designed to withstand repeated deep discharge cycling. Repeated deep discharge of a standard starter battery will damage the internal components and lead to premature failure.





Reference	Performance							Dimensions (mm)			Weight (kg)	Features				
	Voltage (V)	Capacity Ah (20hr)	CCA A (EN1)	MCA A	Watt hours	Cycles	NCC class	L	W	H		Case	Layout	Terminal	Hold-down	Lid

## YBX ACTIVE® Leisure & Marine



L26-70	12	70	480	580	840	80	C	269	174	225	17	GR24 BCI	1	T1	B5	MF
L26-80	12	80	560	680	960	80	C	269	174	225	18	GR24 BCI	1	T1	B5	MF
L35-90	12	90	680	820	1080	80	C	352	175	227	23.6	EU Lo D2	1	T1	N	MF
L35-100	12	100	720	875	1200	90	C	352	175	227	24.7	EU Lo D2	1	T1	N	MF
L35-115	12	115	750	915	1380	80	C	352	175	227	25.4	EU Lo D2	1	T1	N	MF
L36-100	12	100	900	1000	1200	160	C	353	175	190	23.3	L5 DIN	0	T1	B13	SMF
L28-EFB	12	75	730	900	900	200	-	278	175	190	19.3	L3 DIN	0	T1	B13	SMF
L31-EFB	12	100	750	900	1200	225	B	330	173	240	26	GR31 BCI	1	TM	N	SMF
L36-EFB	12	100	850	1050	1200	200	B	353	175	190	24	L5 DIN	0	T1	B13	SMF
L26-AGM	12	90	300	350	1080	420	A	259	168	236	27	GR24 BCI	1	M6(F)/T1	N	VRLA
L36-AGM	12	95	850	1050	1140	400	A	353	175	190	25.6	L5 DIN	0	T1	B13	VRLA



## YBX ACTIVE® Marine

M26-80S	12	80	600	720	960	-	-	260	174	225	18.9	GR24 BCI	1	TM	B5	SMF
M27-90S	12	90	720	860	1080	-	-	304	173	225	21.2	GR27 BCI	1	TM	B1	SMF
M31-100S	12	100	750	900	1200	-	-	330	173	240	23.5	GR31 BCI	1	TM	N	SMF

M26-EFB	12	80	600	780	960	-	-	260	174	225	19.7	GR24 BCI	1	TM	B5	SMF
M27-EFB	12	90	700	840	1080	-	-	304	173	225	22.3	GR27 BCI	1	TM	B5	SMF
M31-EFB	12	100	750	900	1200	-	-	330	173	240	26	GR31 BCI	1	TM	N	SMF
M24-AGM	12	60	640	760	720	-	-	242	175	190	17.7	L2 DIN AGM	0	T1	B3	VRLA
M28-AGM	12	70	760	920	840	-	-	278	175	190	20.5	L3 DIN AGM	0	T1	B3	VRLA

## YBX ACTIVE® Leisure & Marine Dual Purpose



DLMA-145	12	145	900	1080	1740	765	-	513	189	223	37	DIN A	3	T1	N	SMF
DLMB-185	12	185	1200	1440	2220	765	-	511	222	215	46	DIN B	3	T1	N	SMF
DLMC-230	12	230	1350	1620	2760	765	-	516	274	236	56	DIN C	3	T1	N	SMF

## Alarm system batteries

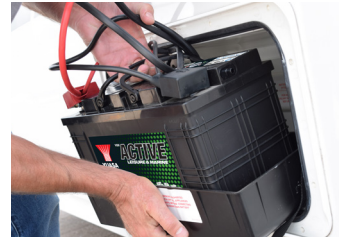
Reference	Voltage (V)	Capacity (mAh)	Dimensions Ø x H (mm)	Weight (g)	Type	Rechargeable
CR2	3	1000	15.6 x 27	10.2	Lithium	✗
CR123A	3	1700	17 x 34.5	15.8	Lithium	✗



# Choosing a leisure battery

## Battery size

A leisure battery's size will be limited by the amount of room physically available in your caravan or motorhome's locker and tray. Be sure to select a battery that will fit the space.



### Watt Hours

The amount of power the battery can supply when fully charged. You can calculate your requirements by working out the consumption of the accessories the battery will power, and how long you usually use them for.



### Cyclic Life

The number of times the battery can be discharged to 50% then fully recharged. The higher the cyclic life, the more work the battery can do during its life in service.



### Capacity

The amount of power the battery has to run your equipment. The higher the battery's Ah rating, the longer it will operate your gear.



### NCC verification

The NCC's Verified Leisure Battery Scheme ensures it is easy to identify which batteries on the market are quoting accurate, verified specifications.

NCC verification provides confidence that the battery is fit for purpose and will perform as advertised. All verified batteries are put through comprehensive testing by suitably certified and audited test houses. Once verified, batteries are graded depending on their capacity, cyclic life and intended purpose.

**Intended Purpose:**  
Frequently used without electrical hook-up

**LEISURE BATTERY CLASS A**

For motorhomes with higher power consumption but still generally used without electrical hook-up it may be more practical to use multiple batteries from class A to provide the required storage capacity than to specify a single battery of the required capacity.

**Intended Purpose:**  
For use with electrical hook-up with minimal off-grid habitation usage e.g. Lights, TV plus motor mover

**LEISURE BATTERY CLASS B**

**Intended Purpose:**  
For use with electrical hook-up with minimal off-grid usage e.g. Lights

**LEISURE BATTERY CLASS C**

## Keep batteries charged

All vehicle batteries must be kept charged especially when not in frequent use. See page 12 for more information.



# Marine battery characteristics

**800**  
A (EN)

**960**  
MCA

## Marine Cranking Amps (MCA)

The amount of cranking power the battery is able to provide to start the engine. It is the number of Amperes it can deliver for 30 seconds. Unlike CCA / A (EN), MCA is measured at a temperature of 0°C as this is more relevant to marine use.

## Marine batteries vs automotive batteries

Unlike car batteries which generally travel on smooth roads, marine batteries must be able to resist repeated vibration from wave impact and trailer transport, which can cause serious damage.

Car batteries are designed to deliver concentrated bursts of power to start the engine. The capacity used is then replaced by the alternator, which charges the battery during the journey. Marine batteries must not only have the starting power to crank over high compression engines but also provide the reserve capacity needed to run on board accessories.



## Stay in charge with Yuasa smart chargers

Prolong the life of your battery

Yuasa YCX Smart Chargers are ideal for charging leisure and marine batteries.

Yuasa's 6 or 8 stage chargers and accessories maintain premium battery performance for all battery types. In situ charging functionality means there is no need to remove the battery from your vehicle.

Supplied with:

- Cable connector clamps
- Storage case
- Cable connector eyelet



# Charging & maintaining your battery

Get the most out of your battery & extend its life

## Keep your battery fully charged to prevent any internal damage

All batteries lose their charge naturally when not being charged. If the charge level drops too low for an extended period then they cannot be recovered. As well as natural self-discharge, the battery may also have to support electrical loads such as security systems which will drain its power.

Always recharge your battery before going away or as soon as it reaches 12.25 volts. Never allow it to run flat as this causes internal damage and will greatly reduce lifespan.

Many newer caravans and motorhomes have an intelligent battery charging facility when in use. Consult your handbook for more details on your vehicle.

## Storage

Charge your battery when in storage. Intelligent chargers safely monitor and maintain a battery on or off your vehicle. By using one during storage periods, you can prevent damage, keep the battery at an optimum voltage and allow security systems and memories to remain active.

## Charger

Always use the correct type of charger for your battery and refer to the manufacturer's instructions. Make sure that it is switched to the correct settings for your battery and is safe for unattended charging.

With AGM batteries always use a compatible charger. Failure to do so can result in permanent damage and premature failure.

## Health & safety

Always take care and follow the correct health and safety guidelines to protect yourself from injury. For full details visit [www.yuasa.com/healthandsafety](http://www.yuasa.com/healthandsafety)

**Never disconnect the charger from the battery or adjust the leads whilst it is connected to the mains as this can cause a spark. Always switch the charger off at the plug and leave the battery to stabilise for at least 5 minutes before disconnecting from the battery.**

### When charging batteries never:

- Smoke or have any naked flames
- Charge the battery faster than the manufacturer's specified maximum charging rate

### When charging batteries always:

- Wear eye protection, gloves and apron
- Charge only in a well-ventilated area
- Wash your hands thoroughly when finished
- Disconnect the charger when not in use



On rare occasions batteries can give off a sulphurous, rotten egg smell or may become excessively hot. If this occurs charging must be stopped immediately. Both these signs usually mean the battery is being overcharged and is in danger of irreversible damage, it may also mean that the battery has encountered permanent damage by being left in a discharged state and can no longer accept charge.

In these cases be aware that potentially explosive gasses may have been emitted, so take extreme care in switching the charger off and wait for five minutes before disconnecting the battery.

### Solar panels

Solar panels are an ideal way to keep your battery charged. There are many different types available. Always consult the instructions to check suitability, operation and installation procedures.



### Checking the charge level

Most modern caravans have a built-in battery monitor, however on some older models this may not always be accurate. In these cases it is advisable to check the battery with a hand-held multimeter or voltmeter.

Prior to checking, ensure all electrical appliances and systems are switched off. Place the probes on the correct battery terminals.

#### Meter reading

12.7V or above  
12.5V  
12.4V  
12.2V  
12V or lower

#### Approximate charge level

100%  
70%  
60%  
40%  
Discharged



### Keep it secured

Before travelling make sure that your battery is secured upright and cannot move around. Excessive vibration can cause serious internal battery damage. Always use high quality clamps to ensure a good connection and secure fit.

### Keep it clean

At least once a year, or more frequently if possible, clean the battery tray, terminals and connectors. Smear the connectors with a little petroleum jelly.

### Check the vent tube

If one is fitted, regularly check the vent gas relief tube is fitted correctly.

### Age

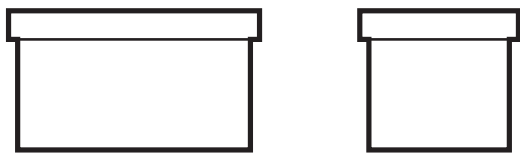
Due to their internal chemical reaction, batteries naturally lose performance over time. A battery that has been in service for some time will have experienced some natural deterioration. This deterioration will mean that when compared to a new battery more frequent recharging will be required.

# LAYOUT, CONTAINER & TERMINAL

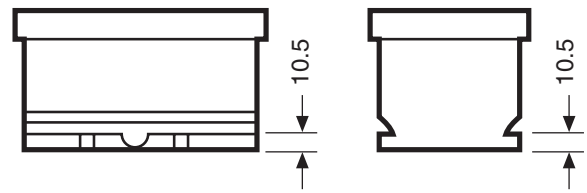
For YBX Active batteries

## Hold-down & container features

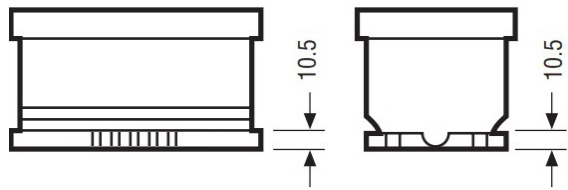
**N**



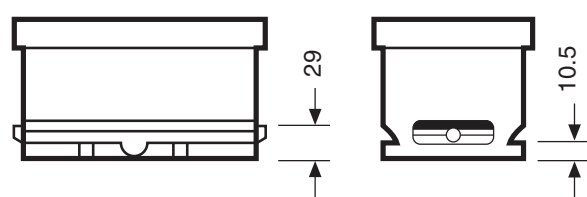
**B1**



**B13**



**B5**

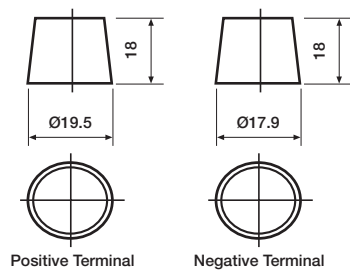


## Terminal configurations

(Dimensions in millimetres)

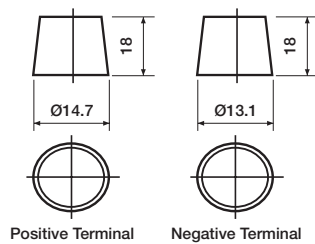
**T1**

Standard DIN Post



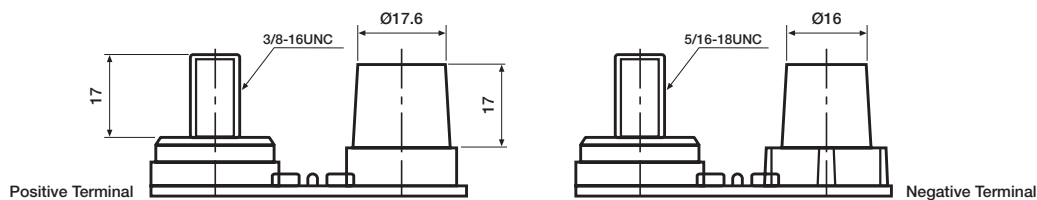
**T3**

Small Japanese JIS Terminal

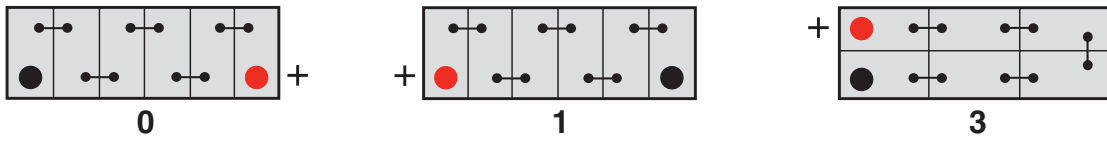


**TM**

Marine Dual Terminals

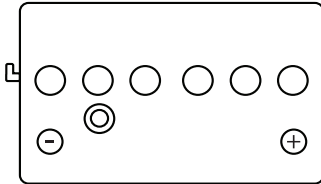


## Cell assembly layout



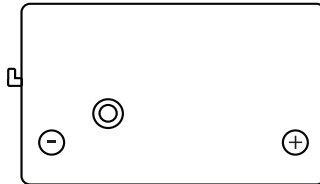
## Lid types

### MF



#### Maintenance Free

End vented - must be installed with breather pipe in occupied spaces.



#### Sealed Maintenance Free

Rollover proof sealed lid. End vented - must be installed with breather pipe in occupied spaces.

### VRLA



#### Valve Regulated Lead Acid

Sealed, spill proof construction with no free acid. Can be installed in occupied spaces with natural ventilation.

**All types are maintenance free so do not require topping up with water during normal service.**

## Common battery symbols



Shield eyes - eye protection must be worn



Note operating instructions



No smoking - no naked flames - no sparks



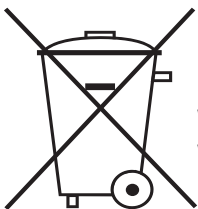
Keep away from children



Explosive gas - may be released



Battery acid is corrosive



Never dispose of as domestic waste - take to a designated waste reclamation site



Battery is recyclable - follow local recycling & reclaiming procedures

**Pb**

### Keep batteries charged

All vehicle batteries must be kept charged especially when not in frequent use. See page 12 for more information.



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E. & O. E.



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