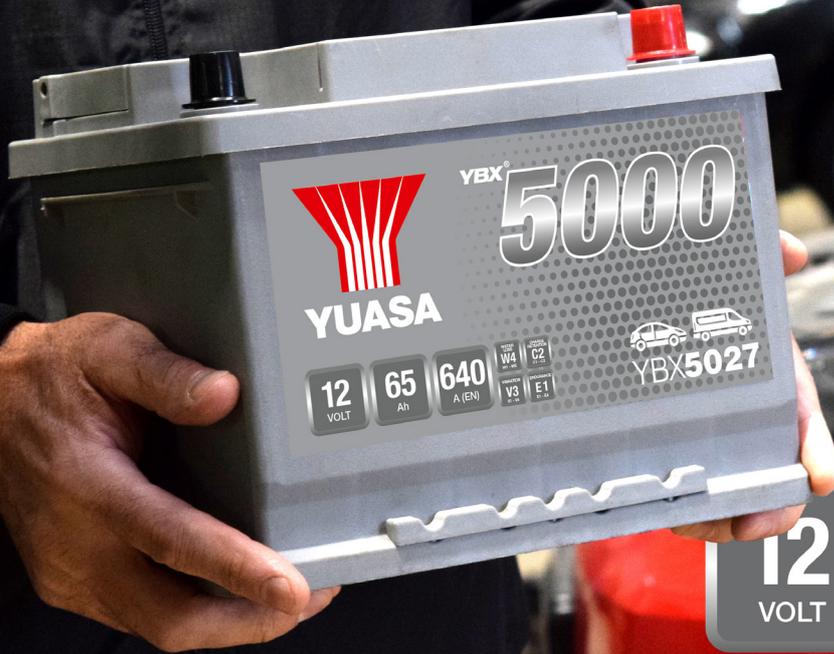


UNDERSTANDING RATINGS

Battery specifications explained



12 VOLT	65 Ah	640 A (EN)	WATER LOSS W4 W1 - W5	CHARGE RETENTION C2 C1 - C2
			VIBRATION V3 V1 - V4	ENDURANCE E1 E1 - E4

Batteries are rated according to a range of specifications and standards. Understanding these ratings and their relevance to the battery's application and operating conditions is key to selecting the right battery.

Ampere-Hour @ 20hr (Ah)

Ah refers to the battery's storage capacity. At 25°C, the battery must achieve greater than 20 hours of discharge time at a given load, down to a cut-off voltage of 10.5V. For example, a 60Ah battery will deliver a current of 3A for 20 hours.

65
Ah



The more accessories that are in use, the faster available battery energy is consumed. Consumption of the battery's capacity is referred to as 'discharging'.

Cold Cranking Amperes (CCA)

Is a measurement of the maximum current a fully charged battery can deliver at -18°C. It is used to determine a battery's ability to supply high cranking current to start the engine and maintain sufficient voltage to power the ignition requirements under severe cold starting conditions. Temperature plays a key role in a battery's ability to deliver CCA.

640
A (EN)

New battery performance markings

Alongside the common voltage (V), capacity (Ah) and cold cranking amps (A) ratings, all Yuasa automotive batteries carry recently introduced EN50342-1/6 European Standard performance markings.

Every battery in the range has undergone extensive testing to determine its performance. Having passed the requirements of several stringent tests, each battery has earned a classification number for the following criteria:



Water Loss: rated W1 – W5

The ability to retain water content. The better a battery performs, the less water it will lose in service. W1 (Traditional lead-acid battery) - W5 (Premium next generation battery technology)



Charge Retention: rated C1 - C2

The ability of the battery to retain stored chemical energy (charge) when not in use. C1 (Traditional lead-acid) - C2 (Modern calcium)



Vibration Level: rated V1 – V4

The battery's physical ability to resist the potentially damaging effects of vibration. V1 (Traditional car and light van) - V4 (Extreme heavy duty plant and commercial vehicle)



Endurance: rated E1 – E4 (Conventional types only)

The ability to withstand repeated charge/discharge cycles to 50% depth of discharge without failure. E1 (Conventional car and light van) - E4 (Extreme heavy duty plant and commercial vehicle)



Micro - Cycle: rated M1 – M3 (EFB & AGM types only)

The ability of the battery to provide power to restart the engine after frequent stop phases, its ability to recover state of charge afterwards and to resist ageing effects due to shallow pulse loads. M1 (Basic start - stop) - M3 (High end start - stop and hybrid)

Other ratings



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.



Marine Cranking Amps (MCA)

The amount of cranking power the battery can 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.

Reserve Capacity (RC)

The length of time in minutes that a fully charged battery at 25°C can deliver a current of 25 Amps until the voltage drops to 10.50V (5.25V for a 6V Battery). RC provides an indication of the time that a vehicle with a normal electrical load will run for if the charging system (alternator) fails.



It is important to note that although a battery may feature an Ah rating, it does not imply suitability for cyclic use. Repeated deep discharge of a standard starter battery will damage the internal components and lead to premature failure. Deep Cycle, Leisure and Marine batteries are designed to withstand repeated cycling and are the only battery types that are suitable for cycling applications.