

ZOOM

FOCUS ON TECHNOLOGY



PRODUCT COMPARISON

Heavy Batteries.

A full burst of energy.



How they are made.

Unique features of IVECO Genuine Batteries for Heavy Trucks:

Suitable for end of frame installation

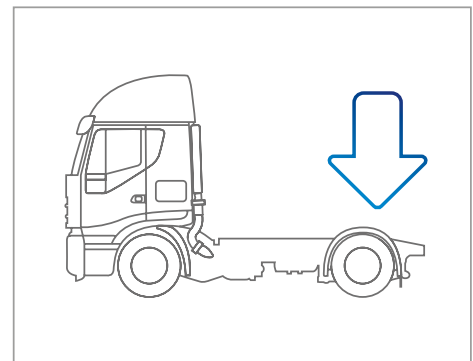
Designed to be installed behind the rear axle, thanks to their High Vibration Resistance Technology (HVR)

Battery plugs

Specially designed to enable proper degassing and avoid acid leakage. This helps minimize water consumption and battery self-discharge

Carbon additives

Unique solution to improve charge acceptance and reduce charging times (for Carbon Plus batteries only)



Added value.

IVECO Genuine Batteries are ideal to be installed behind the rear axle, and for use subject to high vibrations.

Moreover, the batteries are designed to be fitted to vehicles equipped with regenerative braking technology, which is crucial to ensure total compliance with environmental regulations for reducing CO₂ emissions (for Carbon Plus batteries only).

In addition to this, all IVECO Genuine Batteries are equipped with an RFID device under the label to improve:

- The logistics process through step-by-step traceability of the battery's charge
- Battery diagnostics



How they are tested.

IVECO Battery comparative tests.

IVECO Genuine Batteries for heavy applications were tested along with two competitors with different quality levels by the independent German test institute DEKRA.

All tests were carried out in DEKRA's network of laboratories, according to Standard EN 50342-1:2015 and EN 62109-1 in order to assess the essential functional characteristics of lead-acid batteries.

The main purpose of the tests was to compare batteries under the most like-for-like conditions possible. A comprehensive series of tests was performed, including resistance to vibrations and temperature sessions, with a special focus on three different parameters: **Safety**, **Performance** and **Durability**.



About DEKRA.

DEKRA has been active in the field of safety for more than 90 years. Founded in 1925 in Berlin as Deutscher Kraftfahrzeug-Überwachungs-Verein e.V. (German Motor Vehicle Inspection Association), today it is one of the world's leading expert organizations.



The results.

IVECO Genuine Batteries, best in class

Test results showed that IVECO Genuine Batteries offer outstanding performance in the following key areas:

Safety

High resistance to impacts and vibrations

Performance

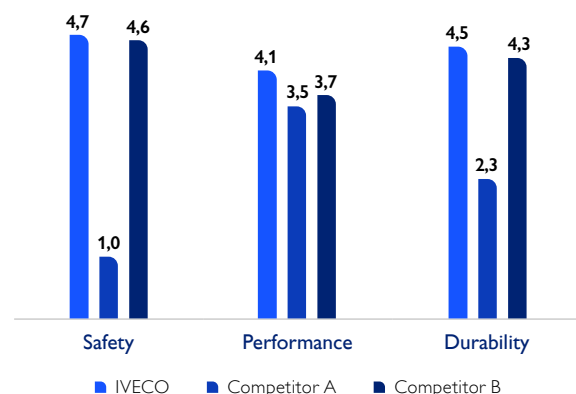
Maximum energy in all weather and operating conditions

Durability

Longer life

TCO

IVECO Genuine Batteries are also an optimal investment in terms of Value for Money



Safety.

Tests for resistance to drops, vibrations & leakage.

Batteries are the heart of the vehicle's electrical system and they are vital for the vehicle to function. However, they contain some chemical components that might harm both drivers and workers. A safe battery not only allows the vehicle to be started in all weather conditions, but also ensures that no chemicals can leak during handling and operation. Laboratory tests carried out by DEKRA reproduced extreme conditions to evaluate the battery's safety performance.



Drop resistance



DEKRA tested the resistance of the battery case against impacts and drops. While a competitor showed evidence of leakage, the IVECO Genuine Battery resisted both stresses with no damage or leakage. IVECO Genuine Battery cases are designed to ensure high impact resistance, thanks to their thickness and carefully selected plastic materials.



Vibration resistance



Vibration resistance ensures that batteries do not display any chemical leakage during demanding vehicle operations. The batteries were tested according to the EN standard with:

- Maximum acceleration: 60 (m/s²)
- Frequency: 30 Hz

Tests showed that IVECO Genuine Batteries have resistance to vibrations, which makes them particularly suitable for behind-rear-axle application.



Electrolyte retention



DEKRA tested the electrolyte batteries during handling and operation to check if any acid was spilled. While a competitor showed acid leakage, no loss of acid was reported from the IVECO Genuine Battery. IVECO Genuine Batteries guarantee acid sealing in any condition. This ensures maximum safety to the handling and assembling processes in the workshop.

**DEKRA TESTS DEMONSTRATED THAT IVECO IS THE BEST
IN TERMS OF SAFETY, OFFERING MAXIMUM RESISTANCE TO IMPACTS
AND VIBRATIONS, WITH NO ACID LEAKAGE.**

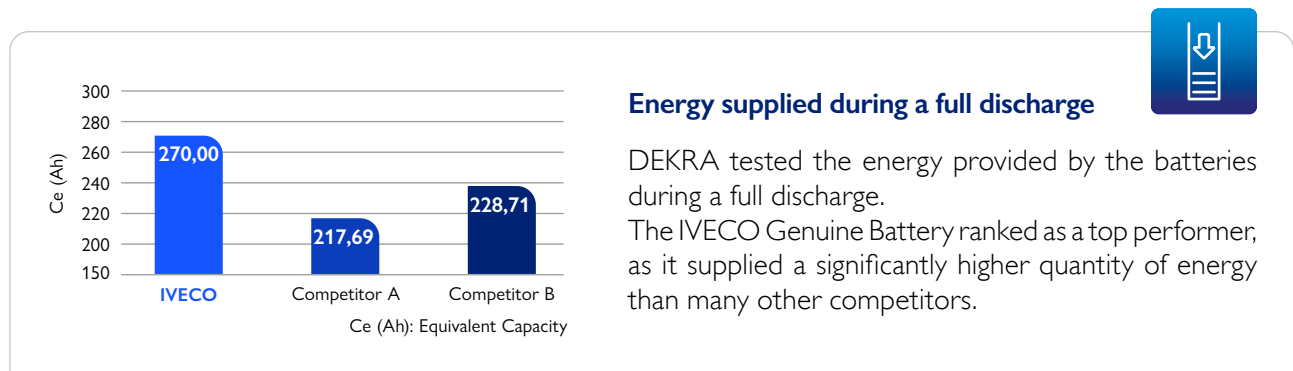
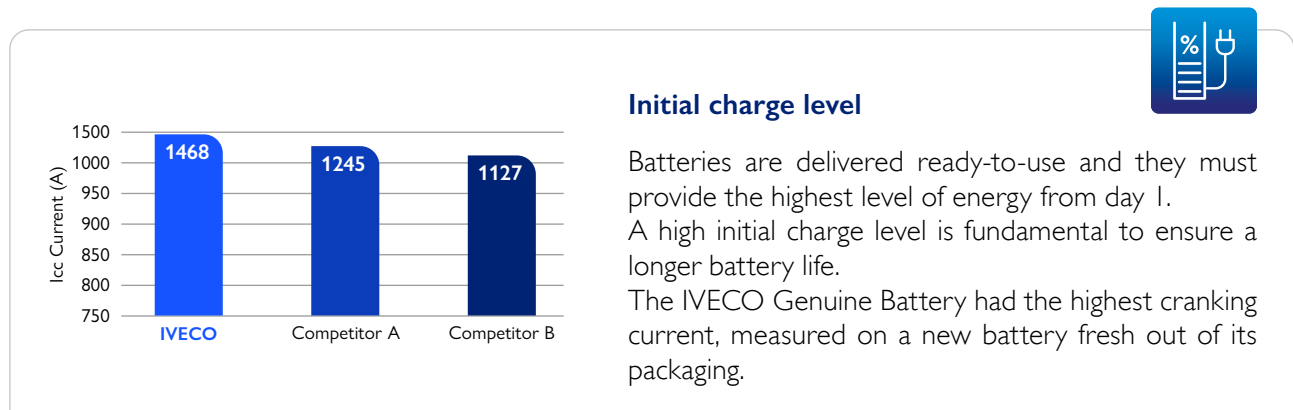
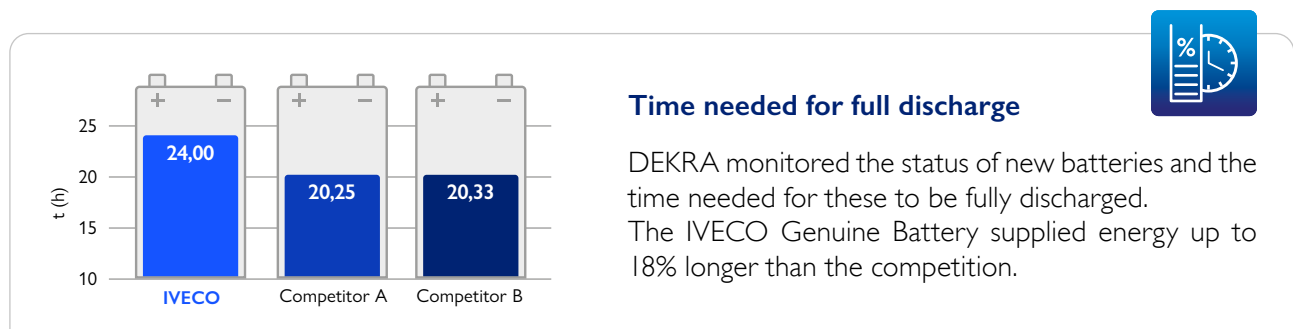
Performance.

Tests for duration & initial level of charge and performance: energy in all situations.

Modern vehicles are equipped with multiple energy-consuming electronic devices, which put batteries under pressure, especially when starting up.

High-performance batteries reassure drivers, as they maximize working times and reduce unexpected stops, even in the harshest weather conditions.

Laboratory tests carried out by DEKRA evaluated the battery's performance, by reproducing all types of conditions that must be faced during the vehicle's operating life.



DEKRA TESTS SHOWED THAT IVECO GENUINE BATTERIES ENSURE SUPERIOR PERFORMANCE ALLOWING ENHANCED PROFITABILITY.

Durability.

Water level and multiple ignition attempts: power that lasts.

Climate and usage conditions affect the duration of a battery's life. Among the most detrimental causes impacting a battery's durability are: warm or cold weather; long vehicle stops, multiple ignition attempts.

The laboratory tests carried out by DEKRA reproduced different climate and usage conditions to evaluate the battery's durability.

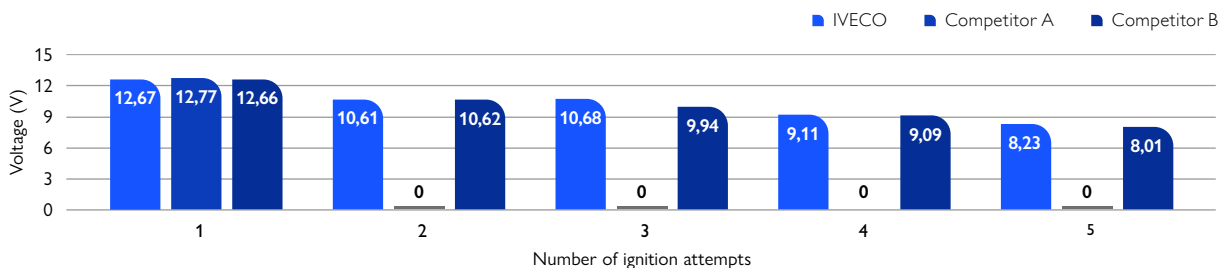


Numerous ignition attempts at low temperatures

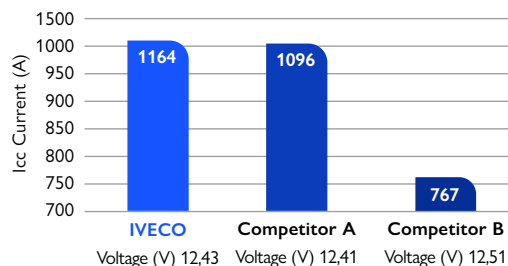
A battery's performance is put under severe pressure by temperature.

DEKRA performed a series of ignition attempts according to the EN standard, with the battery stored at -18°C . At the end of the test, the IVECO Genuine Battery had kept the highest voltage value.

After the first round of exposure to below zero temperatures, one of the tested competitors was not able to start the vehicle immediately. It took some time before providing enough energy.



Properties at high temperatures



High temperatures are one of main reasons for a reduction in a battery's lifespan.

DEKRA monitored the performance of each tested battery, after continually exposing them to a high temperature for 21 days, according to the EN standard. At the end of the test, the IVECO Genuine Battery showed the highest power value.

Voltage is related to starting capacity; while Icc is related to battery durability.

DURING DEKRA TESTS, IVECO GENUINE BATTERIES PROVED TO BE EQUIPPED WITH THE RIGHT FEATURES TO ENSURE LONGER DURABILITY EVEN AT HARSH TEMPERATURES.

Total Cost of Ownership.

Long-lasting quality and little need for replacement: the key to cost optimization.

IVECO Genuine Batteries are built and tested to last over time, keeping the vehicle up & running and minimizing the risk of unplanned stops.

Their proven quality and high-performance standards are the main drivers for maximum durability and a reduced need for replacement which, in turn, allows for substantial optimization of the vehicle's Total Cost of Ownership.

Overall, this makes IVECO products a perfect sustainable choice in terms of costs and lower impact on the environment, while guaranteeing outstanding performance.



IVECO GENUINE BATTERIES OFFER A PERFECT BALANCE BETWEEN PERFORMANCE AND COST SUSTAINABILITY, MAKING THEM THE BEST INVESTMENT IN TERMS OF TCO OVER TIME.

IVECO

Drive the road of change

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