

At the speed of life.

Light vehicle battery solutions for every demand.





When the demands raise the bar of expectations. **We just jump even higher.**

Never stop rethinking.

Times change constantly – and there is even one more important constant in our industry: Our aspiration for innovation and pushing things forward. And we prove it with our premium Deta batteries. We offer one of the largest ranges of diverse batteries for a wide variety of powertrain technologies. Based on expertise in the original equipment business, we are at the forefront of delivering the most advanced solutions. The unparalleled performance in our products allows us to underline our reliability as a leading OE brand.

Exploring new horizons.

The ambition for more sustainability and a greener environment has led to an irreversible trend in the evolution of alternative drive systems, thus reducing fuel consumption and CO₂ emissions. This has resulted in a rapidly increasing number of Start-Stop vehicles, which need all OE-compliant AGM and EFB batteries. The change from conventional to alternative and advanced powertrains, like hybrid or full electric, is experiencing a huge shift. As a result, registrations of electric vehicles are breaking records every year. But all alternative powertrains will need the support of lead-acid batteries, meaning that a new generation is just underway.

Start-Stop

Conventional



Feature	AGM	EFB	Power	Standard
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Vehicle requirements

Start-Stop powertrain	Recommended OE replacement	Recommended OE replacement		
Non Start-Stop powertrain	Unless specified by vehicle manufacturer	Extra life for conventional vehicles	Widest range to fit almost 100% of car park	Cost effective for older and more basic vehicles
Regenerative braking	██████	██████		
Intensive urban use	██████	██████	██████	██████
Power-hungry equipment	██████	██████	██████	██████

Battery performance

CCA (cold cranking amperes)	██████	██████	██████	██████
Charge acceptance*	██████	██████	██████	██████
Cycle life	██████	██████	██████	██████
Extra energy**	██████	██████	██████	██████

* Charge acceptance (in A/Ah)

** Energy throughput during lifetime



Trusted by leading carmakers.

We have been supplying lead-acid batteries to carmakers for over 135 years. We design the most technically advanced products in the industry, and were the first to introduce Start-Stop technology to the European market in 2004. Carmakers trust the quality of our products and our commitment to excellence in manufacturing.

We work with leading car manufacturers, including:
Abarth, Alfa Romeo, Citroen, Dacia, Ferrari, Fiat, Ford, Hyundai, IVECO, Jaguar, Jeep, Kia, Lancia, Land Rover, Maserati, Mazda, Mitsubishi, Nissan, Opel, Peugeot, Piaggio, Renault, Suzuki, Toyota, Volvo.

70% of European car brands work with our batteries.

Deta AGM

For toughest electrical needs of Start-Stop vehicles.

Continuous investments in R&D have allowed us to propose the latest innovative Deta AGM batteries from OE to the aftermarket, too. They feature a new innovative framed grid, perfect for advanced Start-Stop systems where the battery needs to be quickly recharged through the energy provided by the regenerative braking system.



AGM technology

- High dynamic charge acceptance over battery lifespan
- Higher energy throughput over battery lifespan thanks to new LifeGrid® technology
- Optimized for partial state of charge operations (PSoC)
- Ideal for large cars, SUVs, vans, and vehicles with Start-Stop and power-hungry electrical equipment
- Top-level safety features and absolutely no free acid
- Absorbent glass mat
- Regenerative braking
- Recombinant VRLA (valve regulated)

- Latest generation approved by car manufacturers
- Great car park coverage from a limited number of SKUs
- Long shelf life
- Designed and built to endure continuous battery discharge and recharge of Start-Stop systems



Typical pattern of State of Charge during a journey with Start-Stop system

Sealed double security lid with degassing outlet and flame arrestor

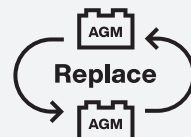
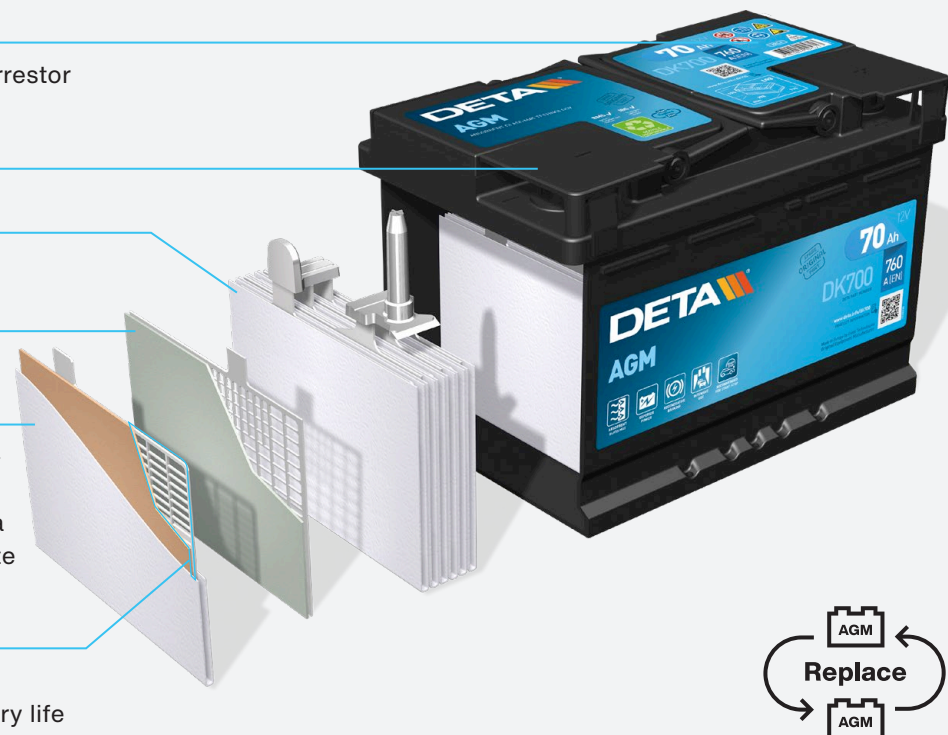
Deta unique **valve regulated venting**

Tall plate group with high compression

Negative plate Framed negative plate

Positive plate New framed grid design with high-tech alloy. The high-capillarity glass mat separator provides extra absorption for maximum electrolyte volume and to avoid stratification.

A new innovative framed grid Deta's new grid design provides consistent power and longer battery life



Deta EFB

OEM experience for the aftermarket.

First invented by us in 2008, EFB batteries have come to play an increasingly crucial role for car manufacturers in order to reduce fuel consumption and emissions. Now Deta brings the latest OE generation to the aftermarket, featuring **Carbon Boost 2.0**.

The new Deta EFB battery **supports all vehicles, with and without Start-Stop systems**, with high cycling requirements. When installed in cars with a Start-Stop system, Deta's new EFB battery shows an unmatched energy recovery and exceptional dynamic charge acceptance. The battery also benefits from a longer overall lifespan, when installed in cars with conventional powertrain.



EFB technology

- High dynamic charge acceptance over battery lifespan
- Extra energy and extra life for vehicles with and without Start-Stop systems
- Optimised regenerative braking functionality in vehicles with Start-Stop systems – ensuring maximum fuel savings and less CO₂ emissions
- High-level safety features
- Optimal operation in engine compartment
- 3DX grid technology
- Latest generation approved by car manufacturers
- Great car park coverage from a limited number of SKUs
- Long shelf life

Battery conventional	EFB battery with Carbon Boost 2.0
Charge acceptance	x2
Cycle life	x3
Energy availability	x3

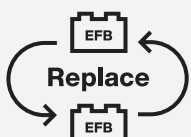
Deta EFB offers significant performance advantages over a conventional battery also when fitted into a car without Start-Stop system.

Spill-proof security lid with flame arrestor

Plate group with medium compression

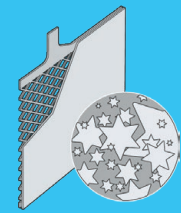
Negative plate 3DX grid with Carbon Boost 2.0

Positive plate 3DX grid and advanced glass mat retainer covering active mass.

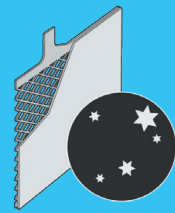


Carbon Boost 2.0

Carbon Boost® is our unique recipe for carbon additives on the negative plates that was first developed for Start-Stop OEM batteries. Continuous investments in R&D, tighter emissions regulations, and the increasing demands from the OEMs in regards to charge acceptance and energy availability have led to the development of the new Carbon Boost 2.0.



Without Carbon Boost*
The plates are covered with sulfate



With Carbon Boost*
Sulfate is reduced due to Carbon Boost technology

Carbon Boost 2.0 uses improved carbon additives, combining an optimized surface structure with significantly better conductivity. This enables a better current flow within the battery, resulting in unmatched charge acceptance.

It also helps to dissolve the lead sulfate deposits that usually consolidate on a battery's discharged negative plates, reducing its ability to charge back efficiently.



Installation advice on top labels – always equipped safely.

Deta is the first in the market to add a distinctive 'CAUTION' label on its Standard and Power standard flooded batteries to ensure that they are not installed into cars that are equipped with a Start-Stop system.



Deta EFB

Deta's new EFB batteries feature Carbon Boost 2.0, with exceptional dynamic charge acceptance, offering important benefits for drivers, especially in intensive urban driving conditions.



- 75% more energy recovered in the same amount of time compared to older EFB
- Optimized regenerative braking functionality – ensuring fuel savings and reduction of CO₂ emissions
- Longer overall lifespan

Deta Start-Stop Auxiliary

Auxiliary batteries power the electrical equipment in certain cars, as a complement to the main starter battery.

- Absorbent glass mat
- High cycle life
- Long shelf life
- VRLA (valve regulated) for leak-proof security
- Original equipment experience inside



WLTP

Worldwide Harmonised Light Vehicle Test Procedure

Strict new EU regulations have imposed a CO₂ emissions limit of 95g/km in vehicle homologation testing by 2021*. The WLTP test measures how much battery capacity is depleted in testing and converts it to equivalent fuel consumed and CO₂ emitted. The battery should retain a high percentage of its initial capacity to help car makers avoid being penalized when passing certain thresholds. Since the recharging process accounts for only 8% of test duration, the battery needs to achieve the highest possible energy recovery in a short time. With Carbon Boost 2.0, the dynamic charge acceptance of EFB batteries is maximized:

- The battery accepts 75% higher average recharging current than previous generation
- It preserves a higher capacity at the end of the test (2.5x less state-of-charge loss compared to previous generations)

*Fleet average/bonus included

Deta Power



- Updated top label – 'CAUTION' label to avoid conventional batteries being installed in Start-Stop vehicles
- 15% extra starting power
- All-round battery for standard use
- 3DX grid technology
- Original equipment experience inside

Deta Standard



- Updated top label – 'CAUTION' label to avoid conventional batteries being installed in Start-Stop vehicles
- Economy solution
- Ideal for cars with basic power needs
- 3DX grid technology

Batteries that every vehicle is keen on. And some are even more electrified.

In any modern vehicle, a 12 volt power source is essential for a number of devices and uses:

- For all electrical vehicles types, to guarantee the functioning of driver assistance systems (ADAS), lighting, navigation, heating and conditioning, door locking, and more.
- For micro hybrid and mild hybrid, to crank the internal combustion engine (ICE) at low temperatures.
- For BEV (battery electrical vehicles), to activate and connect the high-voltage battery to the board net and the electric engine.

Supporting the change of tomorrow.

A 12V lead-acid battery is a reliable source of power for electric vehicles. It provides the necessary energy to activate the safety relay and connect the high-voltage battery to the board net and the electric engine.

When the lead-acid battery is discharged, the car cannot be started. It keeps the entire electrical system running before the traction battery is connected and while the electric car is parked. This includes the security system, the keyless system sensors, the clock, and the memory in many of the car's computer systems.

Once on the road, the Auxiliary battery is the crucial back-up item to support relevant features such as power steering, brake boosting, and door locks in case of a breakdown of the main power unit.

All these exceptional features are provided within a highly safe and reliable setup with wide operational temperature windows compared to lithium-ion batteries.

When the battery comes to the end of its useful life, the entire battery can be recycled up to almost 100%, as it is part of a closed-loop manufacturing process and therefore has a positive effect on the carbon footprint.

Feature	Start-Stop Micro hybrid	Mild hybrid	Full hybrid	Plug-in hybrid	Electric	
Propulsion	Internal combustion engine	Internal combustion engine	Internal combustion engine + electric drive (10-30km range)	Internal combustion engine + electric drive (50-100km range)	Electric drive (200-500km range)	
Fuel	Petrol/diesel	Petrol/diesel	Petrol	Petrol + electric	Electric	
(Hybrid) type	Micro	MHEV (mild)	FHEV	PHEV	BEV	
Battery type & technology (function)	Main	12V AGM or EFB (cold cranking) 48V Li-Ion (warm cranking + boosting)	150-300V Li-Ion or NiMh (electric drive & ICE boosting)	200-400V Li-Ion (electric drive & ICE boosting)	500-800V Li-Ion (electric drive) 1 or 2 12V AGM or Li-Ion (auxiliary)	
	Optional	12V AGM (auxiliary)	12V AGM or Li-Ion (auxiliary)	12V AGM or Li-Ion (crank/auxiliary) or 12V AGM or EFB (cold cranking)	12V AGM or Li-Ion (crank/auxiliary) or 12V AGM or EFB (cold cranking)	
Battery size	Main	12V AGM or EFB 50-70Ah	12V AGM or EFB 60-90Ah 48V Li-Ion 0.5-1 kWh 12V auxiliary 20-30Ah	150-300V NiMh or Li-Ion 2-4 kWh 12V auxiliary 20-30Ah	200-400V Li-Ion 8-20 kWh 12V auxiliary 20-30Ah	500-800V Li-Ion 40-90 kWh 12V auxiliary 30-45Ah
	Optional	12V auxiliary 10-15Ah	12V auxiliary 10-15Ah	12V AGM or EFB 60-70Ah	12V AGM or EFB 60-70Ah	
Example	Fiat Panda S&S Volvo XC60	Mercedes C200d Mild Hybrid BMW 320d Mild Hybrid	Toyota Yaris Hybrid Suzuki Vitara Strong Hybrid	Toyota Prius Plug-in Jeep Renegade 4xe	Tesla Model 3	
Number of potential 12V replacement batteries						

Battery recommendations for the most popular BEV (battery electrical vehicles) models.

Best-fit options for selected full-electric vehicles.



Brand	Model	Model year from	AGM	EFB	Power	Standard
Audi	e-Tron	2018/09	DK720			
Hyundai	Kona	2018/04		DL550	DB500	
Hyundai	Ioniq	2016/03			DB356	
Jaguar	I-Pace	2018/02			DB620	
Kia	Niro	2018/08		DL550	DB504, DB500	
Kia	Soul II	2014/09			DB504	
Mercedes-Benz	EQC	2019/05	DK720			
Nissan	NV200/Evalia Bus, Van	2014/07		DL550	DB500	
Nissan	Leaf	2010/11		DL550	DB454, DB500	
Peugeot	208 II	2019/06		DL600	DB620	
Renault	Kangoo	2011/10		DL700	DB740	
Renault	Zoe	2012/06		DL550	DB500	
Smart	fortwo	2010/12		DL550, DL600	DB440, DB620	
Smart	forfour	2017/05		DL600	DB620	
Tesla	Model 3	2017/01			DB454	
Tesla	Model X	2016/10			DB357	
VW	Golf VII	2014/03		DL600		
VW	ID.3	2019/11		DL550	DB500	
VW	Up	2013/07		DL550	DB440, DB500	DC400, DC440

Responsible manufacturer with recycling system.

100%

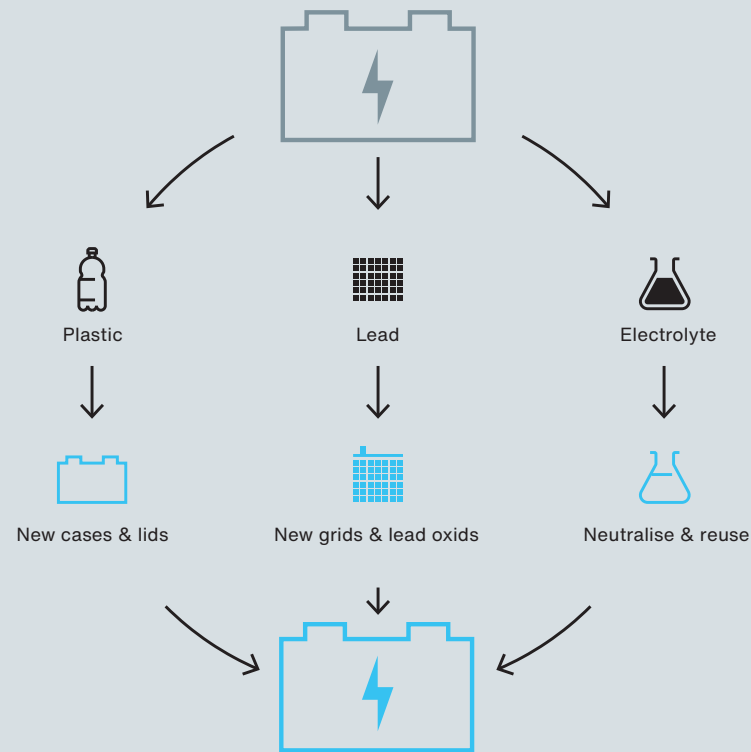
of a lead battery can be recycled

99%

of all automotive lead batteries are recycled in Europe

3

Deta recycling facilities in Europe



Deta light vehicle batteries type list



Deta Code	Performance		Dimensions				Technical characteristics		
	Capacity Ah	CCA A (EN)	Container	L (mm)	H (mm)	W (mm)	Hold down	Polarity	Terminal

AGM

DK620	62	680	L02	242	175	190	B13	ETN 0	1
DK720	72	760	L03	278	175	190	B13	ETN 0	1
DK820	82	800	L04	315	175	190	B13	ETN 0	1
DK960	96	850	L05	353	175	190	B13	ETN 0	1
DK1060	106	950	L06	392	175	190	B13	ETN 0	1

EFB

DL550	55	540	L01	207	175	190	B13	ETN 0	1
DL600	60	640	L02	242	175	190	B13	ETN 0	1
DL604	60	520	D23	230	173	222	B0	ETN 0	1
DL605	60	520	D23	230	173	222	B0	ETN 1	1
DL652	65	650	LB3	278	175	175	B13	ETN 0	1
DL700	70	760	L03	278	175	190	B13	ETN 0	1
DL752	75	730	LB4	315	175	175	B13	ETN 0	1
DL754	75	750	D26	270	173	222	B0	ETN 0	1
DL800	80	800	L04	315	175	190	B13	ETN 0	1
DL954	95	800	D31	306	173	222	Korean B1	ETN 0	1
DL955	95	800	D31	306	173	222	Korean B1	ETN 1	1
DL1000	100	900	L05	353	175	190	B13	ETN 0	1
DL1050	105	950	L06	392	175	190	B13	ETN 0	1



Deta Code	Performance		Dimensions				Technical characteristics		
	Capacity Ah	CCA A (EN)	Container	L (mm)	H (mm)	W (mm)	Hold down	Polarity	Terminal

Auxiliary

DK091	9	120	C54	150	90	105	B0	ETN 1	M12
DK111	11	150	C55	150	90	130	B0	ETN 1	M04
DK143	14	80	C76	150	100	100	B0	ETN 3	Screwed/lug
DK151	15	200	C56	150	90	145	B0	ETN 1	Small taper post

Power

DB356	35	240	B19	187	127	220	B0	ETN 0	3
DB356A	35	240	B19	187	136	220	Korean B1 Long	ETN 0	3
DB357	35	240	B19	187	127	220	B0	ETN 1	3
DB440	44	400	L00	175	175	190	B13	ETN 0	1
DB442	44	420	LB1	207	175	175	B13	ETN 0	1
DB450	45	330	E02	220	135	225	B1	ETN 0	1
DB451	45	330	E02	220	135	225	B1	ETN 1	1
DB454	45	330	B24	237	127	227	B0	ETN 0	1
DB455	45	330	B24	237	127	227	B0	ETN 1	1
DB456	45	330	B24	237	127	227	B0	ETN 0	3
DB457	45	330	B24	237	127	227	B0	ETN 1	3
DB500	50	450	L01	207	175	190	B13	ETN 0	1
DB501	50	450	L01	207	175	190	B13	ETN 1	1
DB504	50	360	D20	200	173	222	Korean B1	ETN 0	1
DB558	55	620	575	230	180	186	B7	ETN 1	SAE S side Terminal 3/8"
DB602	60	540	LB2	242	175	175	B13	ETN 0	1
DB604	60	480	D23	230	173	222	Korean B1	ETN 0	1
DB605	60	480	D23	230	173	222	Korean B1	ETN 1	1
DB620	62	540	L02	242	175	190	B13	ETN 0	1
DB621	62	540	L02	242	175	190	B13	ETN 1	1
DB704	70	540	D26	270	173	222	Korean B1+B6	ETN 0	1
DB705	70	540	D26	270	173	222	Korean B1+B6	ETN 1	1
DB708	70	740	G78	260	180	186	B7	ETN 1	SAE S side Terminal 3/8"
DB712	71	670	LB3	278	175	175	B13	ETN 0	1
DB740	74	680	L03	278	175	190	B13	ETN 0	1
DB741	74	680	L03	278	175	190	B13	ETN 1	1
DB800	80	640	L04	315	175	190	B13	ETN 0	1
DB802	80	700	LB4	315	175	175	B13	ETN 0	1
DB852	85	760	LB5	353	175	175	B13	ETN 0	1
DB950	95	800	L05	353	175	190	B13	ETN 0	1
DB954	95	760	D31	306	173	222	Korean B1	ETN 0	1
DB955	95	760	D31	306	173	222	Korean B1	ETN 1	1
DB1100	110	850	L06	392	175	190	B13	ETN 0	1

Standard

DC400	40	320	L00	175	175	190	B13	ETN 0	1
DC542	54	500	LB2	242	175	175	B13	ETN 0	1
DC550	55	460	L02	242	175	190	B13	ETN 0	1
DC605	60	440	D26	270	173	222	Korean B1+B6	ETN 1	1
DC652	65	540	LB3	278	175	175	B13	ETN 0	1
DC700	70	640	L03	278	175	190	B13	ETN 0	1
DC900	90	720	L05	353	175	190	B13	ETN 0	1
DC904	90	680	D31	306	173	222	Korean B1	ETN 0	1
DC905	90	680	D31	306	173	222	Korean B1	ETN 1	1

Progress knows no borders.

Like our dedication for a sustainable future.

Mericas® battery solutions are designed and manufactured in Europe. Transforming the future of energy storage and driving the electrification from all our locations around the world.



All manufacturing plants
ISO 9001
certified

All automotive plants
IATF 16949
certified

All manufacturing plants
ISO 14001
certified

All manufacturing plants
ISO 50001
certified

Most manufacturing plants
ISO 45001
certified

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