

Enhanced Performance for Start-Stop



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Invented for life



The new Bosch packaging design

- ▶ Sales-boosting, appealing design
- ▶ Multi-line concept for different specifications for a targeted customer approach
- ▶ Unmistakable hallmark of premium Bosch quality, worldwide
- ▶ Perfectly aligned with the corporate identity of Bosch

What drives you, drives us.

Technology from Bosch is used in practically every vehicle in the world.

For us, the focus is on people and helping them to stay mobile.

We have been dedicated to people for more than 125 years with our pioneering spirit, research, production and expertise.

Our dedication is an unwavering commitment to providing them with a unique combination of parts, diagnostics, workshop equipment and services:

- ▶ state-of-the-art solutions for efficient vehicle repairs
- ▶ innovative workshop equipment and software – also available on favorable lease terms
- ▶ the world’s largest range of new and remanufactured spare parts
- ▶ fast, reliable delivery service
- ▶ expert customer care via our hotline
- ▶ extensive range of training courses
- ▶ specific sales and marketing support
- ▶ plus many other services

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- ▶ Light technology
- ▶ Comfort electronics
- ▶ Hybrid/e-mobility
- ▶ Technical hotline
- ▶ Knowledge database
- ▶ Service training
- ▶ Workshop concepts



Battery Load Profile Across Different Vehicle Systems

The impact of automobiles on the environment is increasingly becoming a key concern for manufacturers, hence the need for more advanced technology like Start-Stop.

In the latest Start-Stop systems where there is an increased number of start operations daily, this places greater stress on the battery.

Bosch Hightec EFB is able to fulfill the expectation of Start-Stop characteristics by providing dynamic charge acceptance and cyclic endurance up to 2 times compared to standard flooded batteries.



Mega Power Silver



Characteristic: A start operation followed by recharging which is within the normal range

Hightec AMS



Characteristic: Alternator function is dependent on the vehicle's operating conditions

Hightec EFB



Characteristic: High number of start operations

Vehicle Technology	Charge Acceptance	Service Life
Standard Engine	☆	☆
Alternator Management System	☆☆	☆☆
Start-Stop System	☆☆☆	☆☆☆

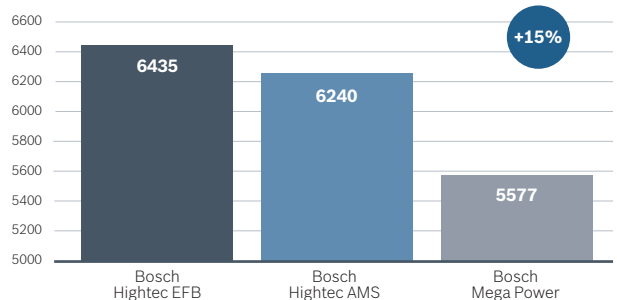
☆ Fair ☆☆☆ Good ☆☆☆☆ Very Good

Cycle Life Performance

Bosch Hightec EFB offers reliable performance with longer service life than most standard batteries.

Bosch takes pride in ensuring the highest quality standard and conformity to product specifications.

Number of Cycles



Based on Cycle Life Test std JIS D5301. Light load endurance counted to 1st week of failure.



What is an EFB battery?

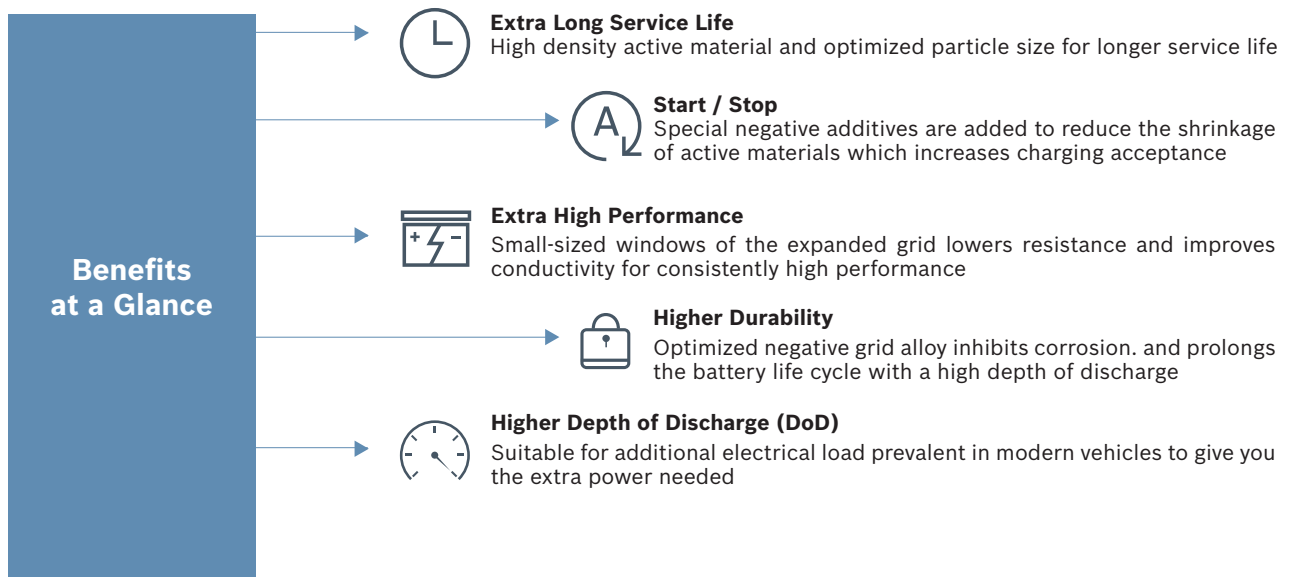
Enhanced Flooded Batteries (EFBs) are built for higher performance and reliability than standard flooded batteries. They are designed to support entry level Start-Stop engines, which put greater demands on the battery.

Even for standard engines, the EFB can also be fitted to enhance starting performance and meet the ever-increasing electrical demands of modern vehicles.

The EFB provides increased cyclic stability, enabling faster recovery from deep discharges. In a Start-Stop vehicle, the EFB maintains power supply to the electrical devices when the engine shuts off, and is able to restart in a fraction of a second.

Why is EFB essential for Start-Stop Systems?

- ▶ Extended cycle life compared with conventional battery
- ▶ Better deep cycling property to allow cranking with lower state of charge
- ▶ Higher charge acceptance for lesser charging opportunities
- ▶ Higher thermal stability for use in engine compartment and hot climate regions

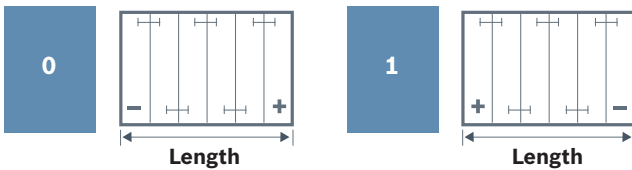


Technical Specifications

GROUP SIZE	MODEL	BOSCH PART#	20HR CAPACITY (Ah)	RC (Min)	^CCA (Amps)	L (mm)	W (mm)	H (mm)	TERMINAL LAYOUT	TERMINAL	BHD
B24	N55L	0092S67102	55	90	510	238	129	223	(- +)	Small	B1
B24	N55LS	0092S67103	55	90	510	238	129	223	(- +)	Standard	B1
B24	N55R	0092S67104	55	90	510	238	129	223	(+ -)	Small	B1
B24	N55RS	0092S67105	55	90	510	238	129	223	(+ -)	Standard	B1
D23	Q85L	0092S67106	65	110	550	232	173	225	(- +)	Standard	B7
D23	Q85R	0092S67107	65	110	550	232	173	225	(+ -)	Standard	B7
D26	S95L	0092S67108	70	130	680	260	173	225	(- +)	Standard	B1
D26	S95R	0092S67109	70	130	680	260	173	225	(+ -)	Standard	B1
D31	T110L	0092S67110	95	150	760	304	173	225	(- +)	Standard	B7
D31	T110R	0092S67111	95	150	760	304	173	225	(+ -)	Standard	B7
LN2	L2	0092S67112	60	100	560	245	175	190	(- +)	Standard	B3
LN3	L3	0092S67113	70	120	680	277	175	190	(- +)	Standard	B3
LN4	L4	0092S67114	80	145	730	315	175	190	(- +)	Standard	B3
LN5	L5	0092S67115	95	175	850	353	175	190	(- +)	Standard	B3

^ Above readings were tested according to SAE J537 standards. Indicated CCAs were measured with a fully charged battery at -18°C (0°F) for 30 seconds.

Layout for JIS and DIN



Terminals

Terminal	Standard	Small
Positive		
Negative		

The Complete Solution Provider

Parts	Bytes	Services
<p>Wide range of batteries available to suit every requirement</p>	<p>C3 (6V/12V) and C7 (12V/24V) battery chargers to charge and maintain batteries</p>	<p>Technical support and product trainings available to strengthen partners' technical expertise</p>

Disclaimer

For exact fitment, always check specifications against original battery prior to installation.

If your vehicle is originally fitted with an EFB, it must be replaced with the same. Failure to do so may result in premature failure and damage to your vehicle's electrical system.

Whilst every care has been taken in the preparation of this content, Bosch cannot guarantee the accuracy of the information. This serves as an application reference only and is not a full representation of all Start-Stop vehicles in the country.



Vehicle Application Guide with EFB

Car Make	Vehicle Model	Engine Code	SOP	Bosch Part Number	Short Code
Suzuki	Solio 1.2 i	K12B	12.2010	0092S67102	N55L
Subaru	Exiga 2.5i 4WD	FB25	07.2012	0092S67106	Q85L
Subaru	Forester 2.0i 4WD	FB20	11.2012	0092S67106	Q85L
Subaru	Levorg 1.6i Turbo 4WD		06.2014	0092S67106	Q85L
Subaru	Legacy 2.5i 4WD	FB25	05.2012	0092S67107	Q85R
Subaru	Legacy 2.5i 4WD	FB25	10.2014	0092S67107	Q85R
Subaru	Legacy Outback 2.5i 4WD	FB25	05.2012	0092S67107	Q85R
Subaru	Legacy Outback 2.5i 4WD	FB25	10.2014	0092S67107	Q85R
Toyota	Allion 1.5i	1NZFE	06.2007	0092S67106	Q85L
Toyota	Alphard 2.5 i	2ARFE	01.2015	0092S67108	S95L
Toyota	Alphard 2.5 i	2ARFE	01.2015	0092S67108	S95L
Toyota	Alphard 3.5i	2GRFE	01.2015	0092S67108	S95L
Toyota	Vellfire 2.5 i	2ARFE	01.2015	0092S67108	S95L
Toyota	Vellfire 3.5 i	2GRFE	01.2015	0092S67108	S95L
Toyota	Voxy 2.0i		01.2014	0092S67106	Q85L
Toyota	Voxy 2.0i		01.2014	0092S67108	S95L
Toyota	Voxy 2.0i		01.2014	0092S67108	S95L
Toyota	Auris [E18]	1NZFE	08.2012	0092S67106	Q85L
Toyota	Corolla Axio 1.5i	1NZFE	05.2012	0092S67106	Q85L
Toyota	Corolla Fielder 1.5i	1NZFE	05.2012	0092S67106	Q85L
Toyota	Sienta 1.5 i		07.2015	0092S67108	S95L
Toyota	Harrier 2.0i	3ZRFAE	12.2013	0092S67106	Q85L
Honda	Vezel 1.5i		12.2013	0092S67102	N55L
Honda	Odyssey 2.4i	K24W	11.2013	0092S67106	Q85L
Honda	JADE 1.5 i Hybrid	LEB	02.2015	0092S67102	N55L
Honda	Shuttle 1.5 i	L15B	05.2015	0092S67102	N55L
Honda	Fit 1.5 i	L15B	09.2013	0092S67102	N55L
Mazada	CX-5 2.0i	PEVPS	02.2012	0092S67106	Q85L
Mazada	Biante 2.0i	PE-VPS	05.2013	0092S67106	Q85L
Lexus	NX 200t		07.2014	0092S67108	S95L
Lexus	NX 300h		07.2014	0092S67108	S95L
Mitsubishi	Outlander 2.4i 4WD	4J12	10.2012	0092S67106	Q85L
Nissan	X-Trail 2.0i	MR20DD	12.2013	0092S67108	S95L
Nissan	Juke 1.5i	HR15DE	06.2010	0092S67108	S95L
Nissan	Note 1.2i	HR12DE	09.2012	0092S67106	Q85L