

povver[®] BATTERY

PROFESSIONALS' ADVICE

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www.povver.com.tr

MIB
Metair International Battery

AUTOMOTIVE

Passenger and Light Commercial Vehicle Batteries

PROFESSIONALS' ADVICE



Povver Battery is the recommended of professionals over decades due to highly technological and technical feature and satisfactory price-performance ratio. Regardless of vehicle's type, Povver batteries needs the energy meet of any motor vehicles.

Passenger and Light Commercial Vehicle Batteries

Povver Battery's automotive product range is manufactured using 3 different technologies in order to provide perfect customer experience considering the energy requirements of every type and model of vehicles.



SFB TECHNOLOGY

Superior Flooded Battery Technology

Highly recommended acid type batteries designed with advanced quality and experience of Povver Battery for every class passenger and light commercial vehicles.

Areas of Application



SFB
Superior Flooded Battery
technology

**FULLY
FRAMED**

They are classified as Series 2 and Series 3 within varied capacities to fulfill the energy required by the vehicles due to their equipment levels.

Series 2

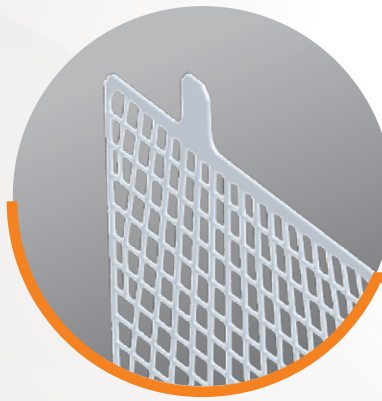
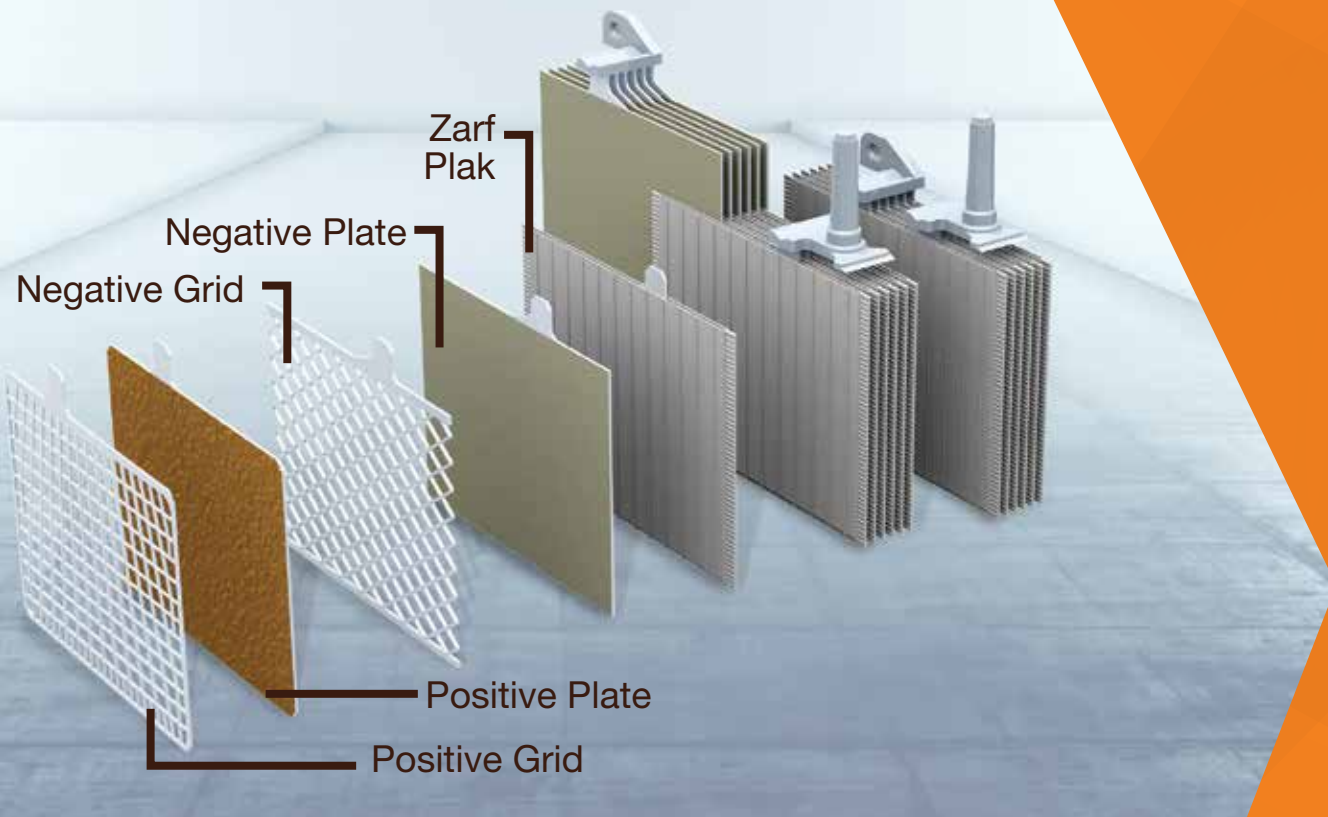
High-tech products suitable for high-end vehicles.

Series 3

High performance products for vehicles with higher energy need.

Advantages

- ▶ Up to 25% higher performance than standard batteries
- ▶ Higher performance under severe climate and working conditions compared to standard batteries
- ▶ A leakproof and maintenance-free structure thanks to its completely closed cover
- ▶ Nearly 100% recycling capability of all products make POWER environmental friendly and sustainable
- ▶ Patented Ca-Ca silver alloy grid technology
- ▶ QR and barcode system enabling tracking of products
- ▶ More vibration resistant compared to standard batteries
- ▶ Advanced active material exclusively formulated for **SFB** technology
- ▶ Sealed maintenance-free safe lid technology



Higher performance and extended life cycle due to advanced fully frame grid technology, manufactured with punch system



Exclusive design, ergonomic handle



Exclusively designed inside lid labyrinth structure



Flame arrester



Magic eye indicating battery state of charge

EFB TECHNOLOGY

Enhanced Flooded Battery

Specially designed flooded batteries to meet higher energy needs of all vehicles equipped with START-STOP engines.



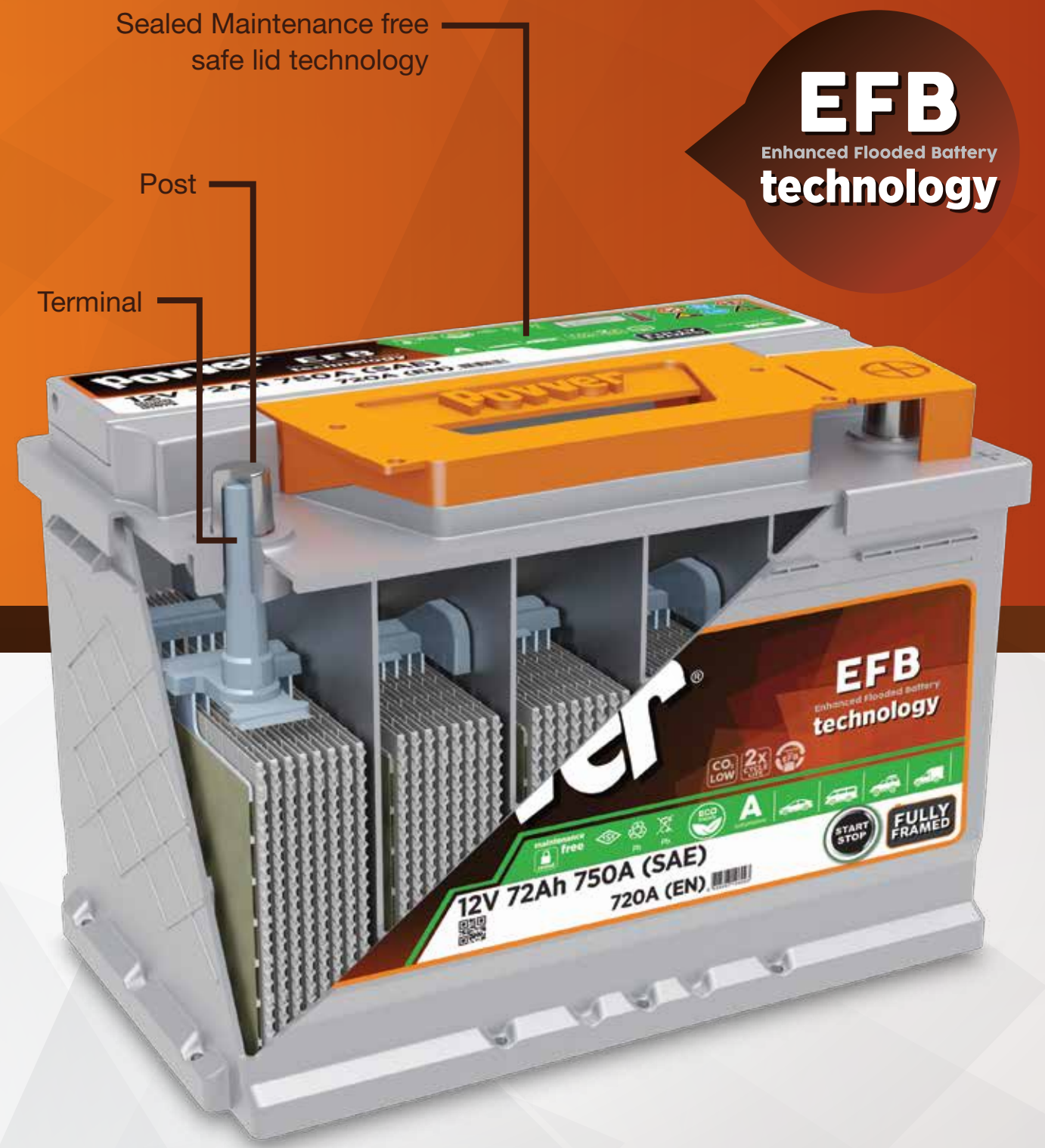
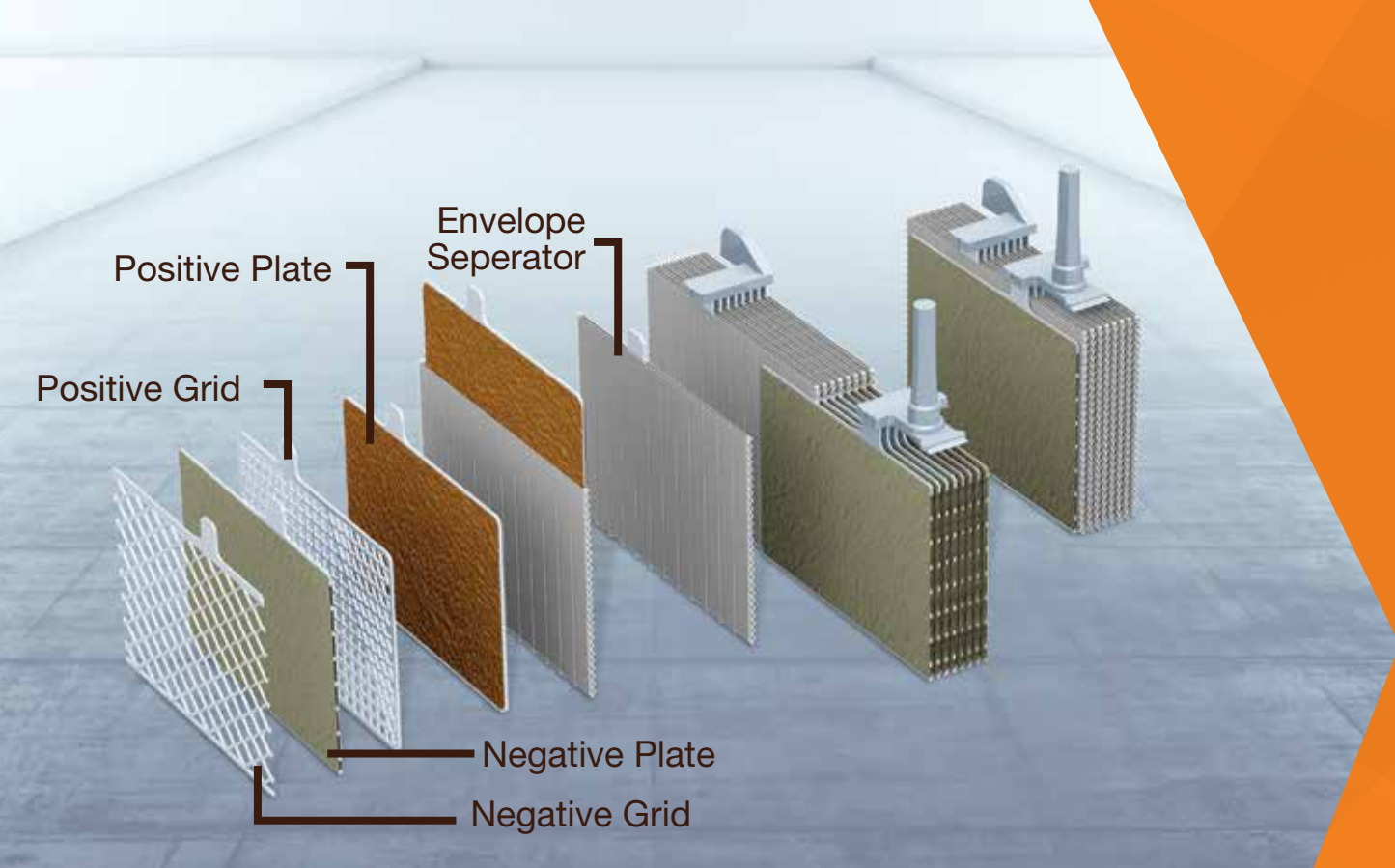
Areas of Application



Replace with same technology battery

Advantages

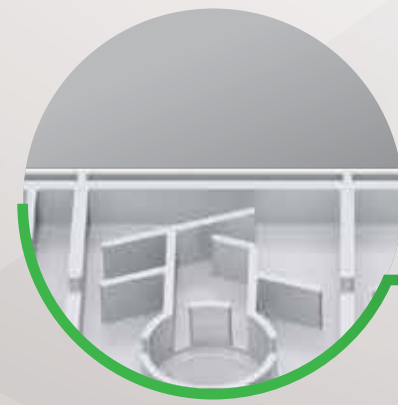
- 2x CYCLE LIFE**
▶ Up to 2 times longer cycle life
- CO₂ LOW**
▶ Innovative products for START STOP vehicles supporting reduced carbon dioxide emission
- ECO friendly**
▶ Nearly 100% recycling capability of all products make POWVER environmental friendly and sustainable
- 30% up to HIGHER PERFORMANCE**
▶ Exclusively design securing up to 30% higher performance than standard batteries
- SPECIAL FORMULATED GRID TECH EFB**
▶ Patented Ca-Ca silver alloy grid technology
- Advanced active material exclusively designed for micro-hybrid START STOP technology**
- More vibration resistant compared to standard batteries**
- Sealed**
▶ Sealed maintenance-free safe lid technology
- Higher performance under severe climate and working conditions compared to standard batteries**
(Temperature range: +61° to -41°)
- QR and barcode system enabling tracking of products**



EFB
Enhanced Flooded Battery
technology



Higher circuit delivering performance and extended cycle life thanks to advanced fully framed punch grid technology.



Exclusively designed inside lid labyrinth structure



Flame arrestor

Exclusive design, ergonomic handle



AGM TECHNOLOGY

Absorbent Glass Mat Battery

High quality VRLA (Valve Regulated Lead Acid Battery) type batteries specially developed to meet demanding needs of all START STOP vehicles designed to reduce fuel consumption and emission. Specially developed for high segment START STOP vehicles with regenerative braking system.

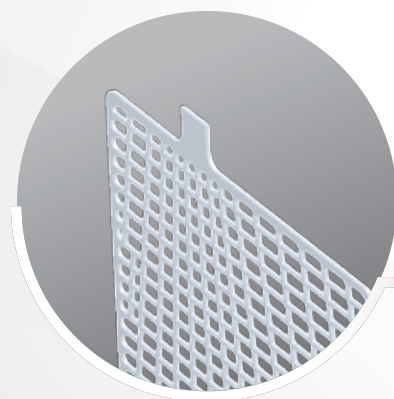
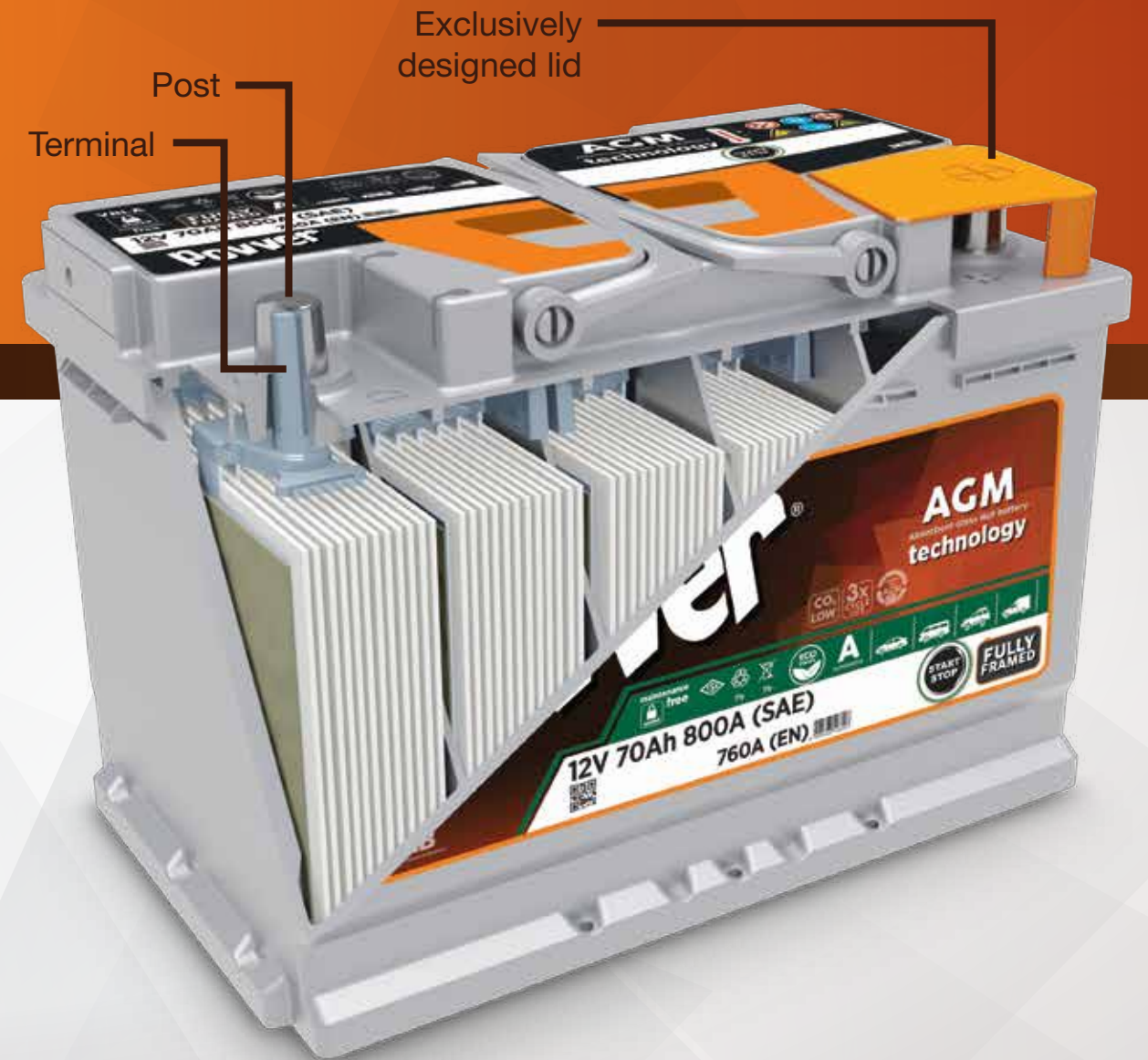
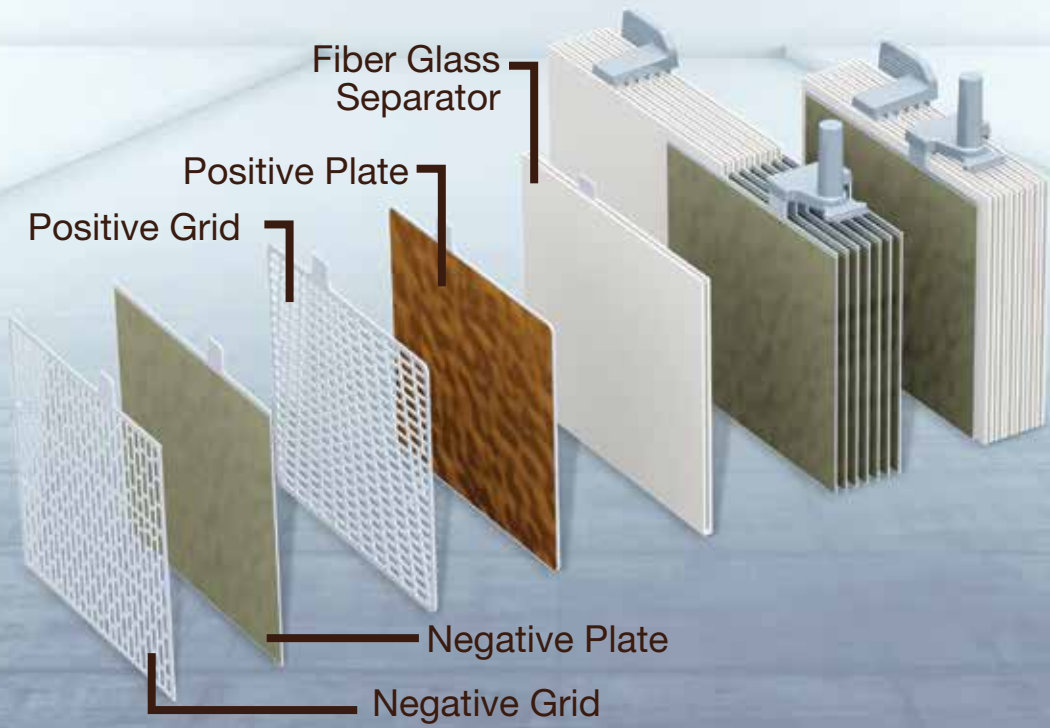
Areas of Application



Replace with the same technology battery

Advantages

<p>▶ Up to 3 times longer life cycle compared to standard batteries</p>	<p>▶ Higher performance under severe climate and working conditions compared to standard batteries</p>	<p>▶ Exclusively designed valve system with pressure control (VRLA) and maintenance-free product technology</p>	<p>▶ Advanced active material exclusively designed for AGM START STOP technology</p>	<p>▶ Up to 40% higher performance than standard batteries</p>	
<p>▶ Increased vibration resistance compared to standard batteries</p>	<p>▶ Innovative products for START STOP vehicles supporting reduced carbon dioxide emission</p>	<p>▶ QR and barcode system enabling tracking of products</p>	<p>▶ Nearly 100% recycling capability of all products make POWVER environmental friendly and sustainable</p>	<p>▶ Advanced Ca-Ca silver alloy grid technology</p>	<p>▶ Quick charge acceptance for START STOP technology</p>



Fully framed cast grid technology

- ▶ Strog structure supported by improved plate production techniques
- ▶ Special Fiber Glass separator



Exclusively designed valve system with ressure control (VRLA) and maintenance-free product technology

- ▶ It is specially developed for high end START STOP vehicles having a regenerative breaking system
- ▶ Exclusively designed for top segment START STOP cars with a regenerative braking system



SFB Superior Flooded Battery technology



Advanced active material specifically designed for SFB technology



Patented Ca-Ca silver alloy grid technology



Sealed maintenance-free lid technology



Nearly 100% recycling capability of all products make POWVER environmental friendly and sustainable



Up to 25% higher performance

EFB Enhanced Flooded Battery technology



Advanced active material specifically designed for EFB technology



Patented Ca-Ca silver alloy grid technology



Sealed maintenance-free lid technology



Nearly 100% recycling capability of all products make POWVER environmental friendly and sustainable



Up to 30% higher performance



Up to 2 times longer cycle life



Replace with same technology battery



Innovative products for START STOP vehicles supporting reduced carbon dioxide emission

AGM Absorbent Glass Mat Battery technology



Advanced active material specifically designed for AGM technology



Patented Ca-Ca silver alloy grid technology



Sealed maintenance-free lid technology



Nearly 100% recycling capability of all products make POWVER environmental friendly and sustainable



Up to 40% higher performance



Up to 3 times longer cycle life



Replace with same technology battery



Innovative products for START STOP vehicles supporting reduced carbon dioxide emission



BATTERY REPLACEMENT CHART			
REPLACED BATTERY OF THE VEHICLE			
	STANDARD BATTERY	START STOP EFB BATTERY	START STOP AGM BATTERY
SFB Superior Flooded Battery technology	✓	X	X
EFB Enhanced Flooded Battery technology	✓	✓	X
AGM Absorbent Glass Mat Battery technology	X	X	✓

RECYCLING ABOVE INDUSTRY STANDARDS

TSE ISO EN 14000 and TS EN ISO 50001 certified environment-friendly manufacturing facility

Contribution to the environment and sustainability with **START STOP** batteries which help to reduce carbon dioxide emission

Nearly **100%** recycling capability of all products

Higher energy efficiency acquired by purification through direct refining technology

Recycling plant with an annual capacity of **40.000 tons**



PRODUCT DIMENSIONS LIST

SFB SERIES 2 JAPANESE (JIS) TYPE STARTER BATTERIES

TYPE			Capacity at 20 hour rate, +25 C Ah	CCA SAE (A)	Layout	Terminal	Holddown	Overall dimensions (mm)				Weight With Acid (kg.)	
BOX	POVVER CODE	PART NUMBER						Length (mm)	Width (mm)	Excluding Pole (mm)	Height (mm)		
B24 (NS60)	B24.45.036.A	SMF 50B24LS	45	360	400	0	1	B0	237	127	201	222	12.0
	B24.45.036.B	SMF 50B24RS	45	360	400	1	1	B0					
	B24.45.036.E	SMF 50B24L	45	360	400	0	3	B0					
	B24.45.036.F	SMF 50B24R	45	360	400	1	3	B0					
D23	D23.60.052.C	SMF 55D23FL	60	520	550	0	1	B1	232	173	204	225	15.5
	D23.60.052.D	SMF 55D23FR	60	520	550	1	1	B1					
D26 (N50)	D26.70.063.C	SMF 80D26FL	70	630	680	0	1	B1	260	173	204	225	17.6
	D26.70.063.D	SMF 80D26FR	70	630	680	1	1	B1					
D31 (N70)	D31.90.072.C	SMF 105D31FL	90	720	750	0	1	B1	306	175	202	224	22.9
	D31.90.072.D	SMF 105D31FR	90	720	750	1	1	B1					



SFB SERIES 2 EUROPEAN (DIN) TYPE STARTER BATTERIES

TYPE			Capacity at 20 hour rate, +25 C Ah	CCA EN (A)	CCA SAE (A)	Layout	Terminal	Holddown	Overall dimensions (mm)				Weight With Acid (kg.)
BOX	POVVER CODE	PART NUMBER							Length (mm)	Width (mm)	Excluding Pole (mm)	Height (mm)	
LB1	LB1.44.036.A	SMF 54416	44	360	400	0	1	B13	207	175	175	175	11.3
LB2	LB2.55.045.A	SMF 55559	55	450	480	0	1	B13	242	175	175	175	13.6
L3	L3.72.064.A	SMF 57220	72	640	700	0	1	B13	278	175	190	190	17.7
	L3.72.064.C	SMF 57264	72	640	700	0	1	B1					
LB3	LB3.66.056.A	SMF 56618	66	560	600	0	1	B13	278	175	175	175	16.7
LB4	LB4.80.074.A	SMF 58014	80	740	780	0	1	B13	315	175	175	175	19.1
L5	L5.90.072.A	SMF 59018	90	720	750	0	1	B13	353	175	190	190	21.6



PRODUCT DIMENSIONS LIST

SFB SERIES 3 JAPANESE (JIS) TYPE STARTER BATTERIES

TYPE			Capacity at 20 hour rate, +25 C Ah	CCA EN (A)	CCA SAE (A)	Layout	Terminal	Holddown	Overall dimensions (mm)				Weight With Acid (kg.)
BOX	POVVER CODE	PART NUMBER							Length (mm)	Width (mm)	Excluding Pole (mm)	Height (mm)	
B20 (NS40)	B20.42.035.E	SMF 46B20L	42	350	390	0	3	B0	196	134	202	222	10.5
	B20.42.035.F	SMF 46B20R	42	350	390	1	3	B0					
	B20.42.035.G	SMF 46B20FL	42	350	390	0	3	B1					
	B20.42.035.H	SMF 46B20FL	42	350	390	1	3	B1					
B24 (NS60)	B24.55.045.E	SMF 65B24LS	55	450	480	0	1	B0	237	127	201	222	12.6
	B24.55.045.F	SMF 65B24RS	55	450	480	1	1	B0					
D20	D20.55.045.C	SMF 55D20FL	55	450	480	0	1	B1	203	175	183	202	13.2
	D20.55.045.D	SMF 55D20FR	55	450	480	1	1	B1					
D23	D23.68.060.C	SMF 70D23FL	68	600	650	0	1	B1	232	173	204	225	16.25
	D23.68.060.D	SMF 70D23FR	68	600	650	1	1	B1					
D26 (N50)	D26.80.066.C	SMF 95D26FL	80	660	720	0	1	B1	260	173	204	225	19.0
	D26.80.066.D	SMF 95D26FR	80	660	720	1	1	B1					
D31 (N70)	D31.100.085.C	SMF 115D31FL	100	850	900	0	1	B1	306	175	202	224	24.5
	D31.100.085.D	SMF 115D31FR	100	850	900	1	1	B1					



SFB SERIES 3 EUROPEAN (DIN) TYPE STARTER BATTERIES

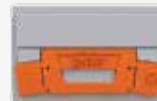
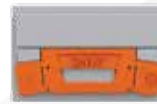
TYPE			Capacity at 20 hour rate, +25 C Ah	CCA EN (A)	CCA SAE (A)	Layout	Terminal	Holddown	Overall dimensions (mm)				Weight With Acid (kg.)
BOX	POVVER CODE	PART NUMBER							Length (mm)	Width (mm)	Excluding Pole (mm)	Height (mm)	
L1	L1.50.042.A	SMF 55054	50	420	450	0	1	B13	207	175	190	190	12.5
L2	L2.60.054.A	SMF 56081	60	540	600	0	1	B13	242	175	190	190	15.1
	L2.63.060.A	SMF 56319	63	600	650	0	1	B13					16.0
	L2.63.060.B	SMF 56317	63	600	650	1	1	B13					
L3	L3.75.072.A	SMF 57512	75	720	750	0	1	B13	278	175	190	190	18.2
	L3.75.072.B	SMF 57513	75	720	750	1	1	B13					
L4	L4.90.085.A	SMF 59042	90	850	900	0	1	B13	315	175	190	190	22.0
	L4.90.085.B	SMF 59043	90	850	900	1	1	B13					
L5	L5.100.090.A	SMF 60056	100	900	950	0	1	B13	353	175	190	190	23.6
L6	L6.110.092.A	SMF 61045	110	920	970	0	1	B13	394	175	190	190	26.5



PRODUCT DIMENSIONS LIST

EFB START STOP BATTERIES

TYPE		Capacity at 20 hour rate, +25 C Ah	CCA EN (A)	CCA SAE (A)	Layout	Terminal	Holddown	Overall dimensions (mm)				Weight With Acid (kg.)
BOX	POVVER CODE							Length (mm)	Width (mm)	Excluding Pole (mm)	Height (mm)	
L2	EFB.L2.63.060.A	63	600	630	0	1	B13	242	175	190	190	16.7
L3	EFB.L3.72.072.A	72	720	750	0	1	B13	278	175	190	190	19.1
LB3	EFB.LB3.65.065.A	65	650	680	0	1	B13	278	175	175	175	17.9
L4	EFB.L4.84.080.A	84	800	850	0	1	B13	315	175	190	190	22.0
LB4	EFB.LB4.75.073.A	75	730	760	0	1	B13	315	175	175	175	20.7
D23	EFB.D23.64.062.C	64	620	650	0	1	B01	232	173	204	225	16.5
D26	EFB.D26.72.076.A	72	760	800	0	1	B01	260	173	204	225	18.4



AGM START STOP BATTERIES

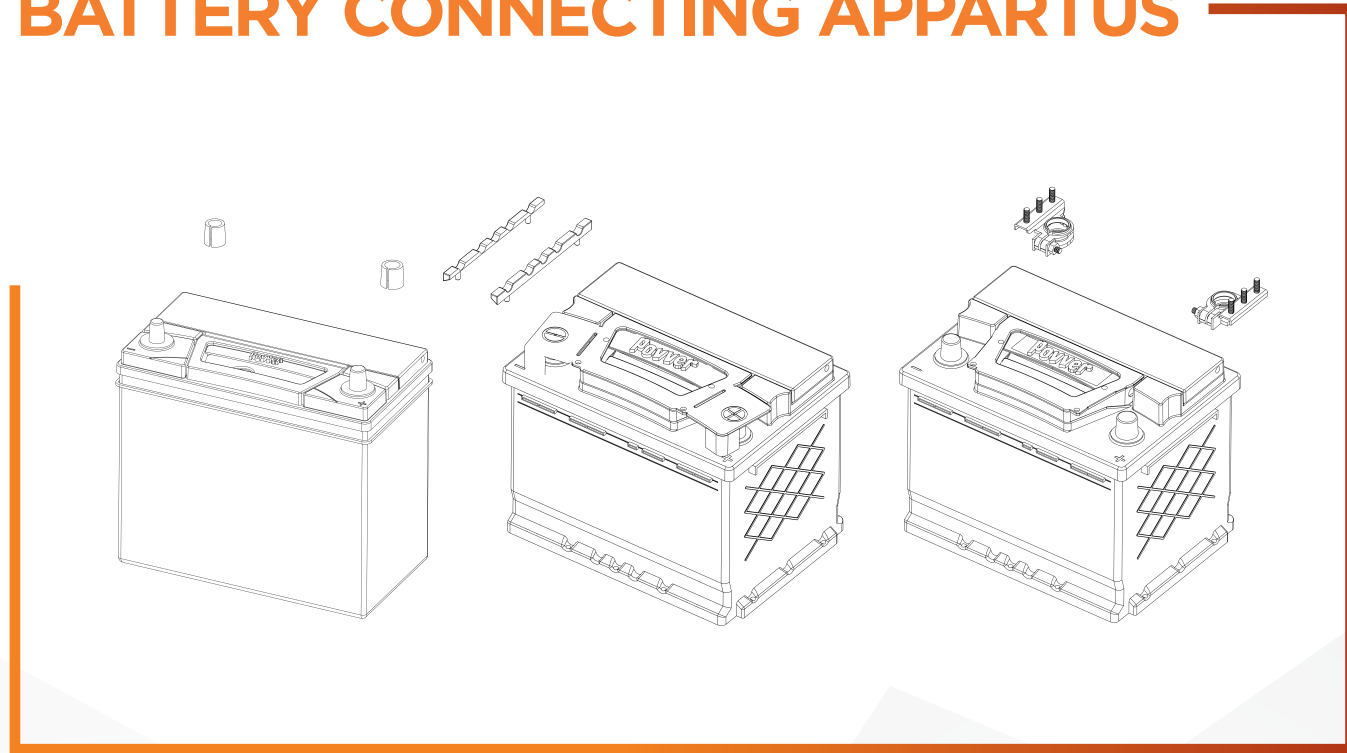
L2	AGM.L2.60.068.A	60	680	720	0	1	B13	242	175	190	190	18.0
L3	AGM.L3.70.076.A	70	760	800	0	1	B13	278	175	190	190	20.8
L4	AGM.L4.80.080.A	80	800	850	0	1	B13	315	175	190	190	23.5
L5	AGM.L5.95.090.A	95	900	950	0	1	B13	353	175	190	190	27.4



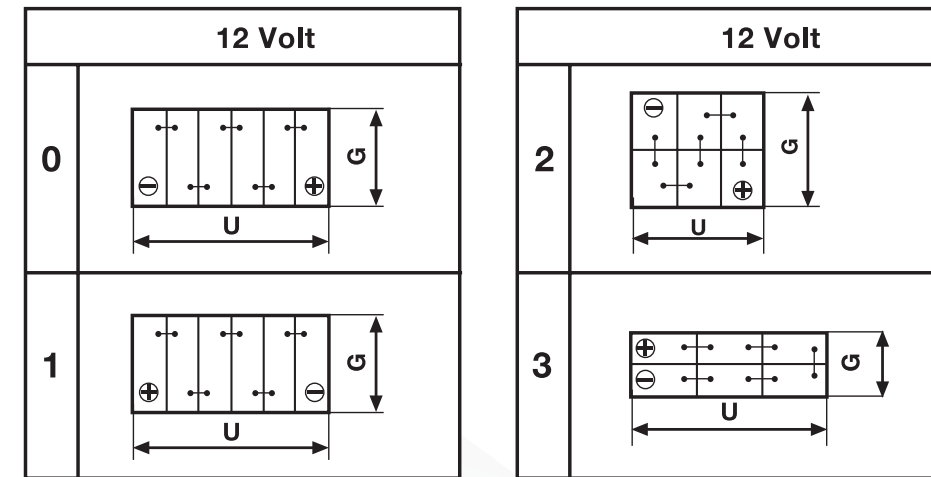
AGM MILITARY BATTERIES

D7	AGM.D7.120.120.C	120	1200	1300	2	1	B0	286	270	208	230	38.8
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BATTERY CONNECTING APPARTUS

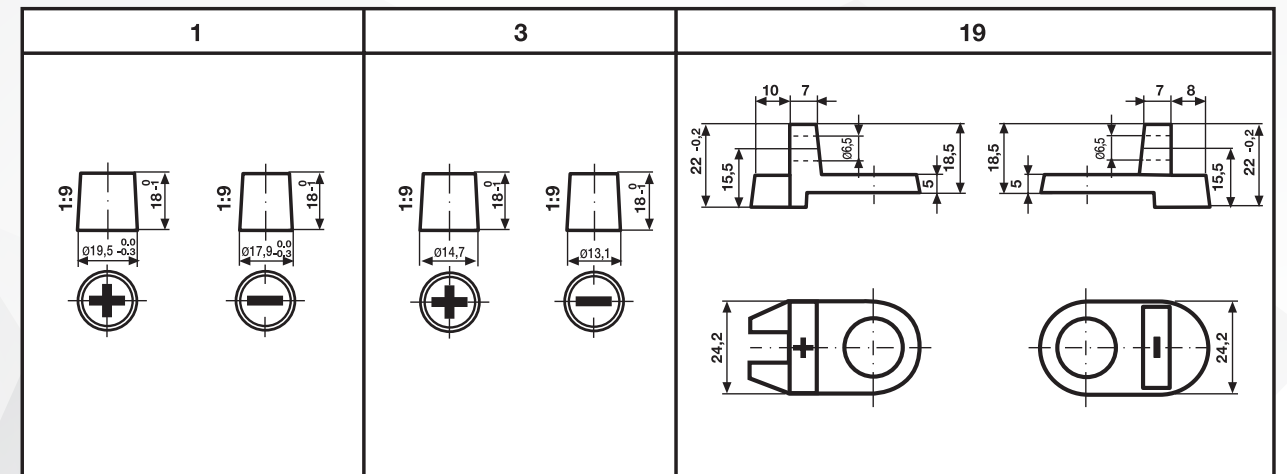


TYPES OF INSTALLATION



W= Width
L= Length

CONNECTION TERMINALS



HOLD DOWNS

B 00	Without bottom connections	
B 01	3 hold downs 100 max 10,5	B 09
B 03	3 hold downs 100 max 10,5	B 13
B 04	3 hold downs 100 max 19	B 14

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