

MONBAT[®]

BATTERIES



2022

MERCHANDISE CATALOGUE

v.01.06.2022



Stickers Monbat

-small: 350/120 mm / SKU: s1830
-medium: 500/180 mm / SKU: s18500
-large: 1000/350 mm / SKU: s18100

Price **0,75 Euro**

Price **1,50 Euro**

Price **5,50 Euro**

HS code: 39199080

HS code: 39199080

HS code: 39199080



VINIL Banner Dynamic

(size 220/120 cm)
SKU: VB1801

Price **16,50 Euro**

HS CODE: 39269097



VINIL Banner Premium

(size 220/120 cm)
SKU: VB1802

Price **16,50 Euro**

HS CODE: 39269097



VINIL Banner Formula

(size 220/120 cm)
SKU: VB1803

Price **16,50 Euro**

HS CODE: 39269097



Battery Display Trolley

SKU: DT1801
Price **50,00 Euro**
HS code: 94069038

Flag Monbat

(size 300/90cm)



SKU: FM1801
Price **15,00 Euro**
HS code: 39269097

T-Shirts



size - S, M, L, XL, XXL
SKU: TSR1801
Price **4,50 Euro**
HS code: 61091000

Polo T-Shirts



size - S, M, L, XL, XXL
SKU: PSW1801
Price **7,50 Euro**
HS code: 61091000

Plastic bag



(size 40/50 cm)
SKU: PB1801
Price **0,25 Euro**
HS code: 39232990



size - S, M, L, XL, XXL
SKU: TSB1802
Price **4,50 Euro**
HS code: 61091000

CAP



SKU: CB1801
Price **3,50 Euro**
HS code: 65050030



SKU: CR1802
Price **3,50 Euro**
HS code: 65050030

Backpack Monbat



SKU: BP2201
Price: 25 Euro
HS code: 42021291

Working Suite



size - S, M, L, XL, XXL
SKU: WS1801
Price 25,00 Euro
HS code: 62032310

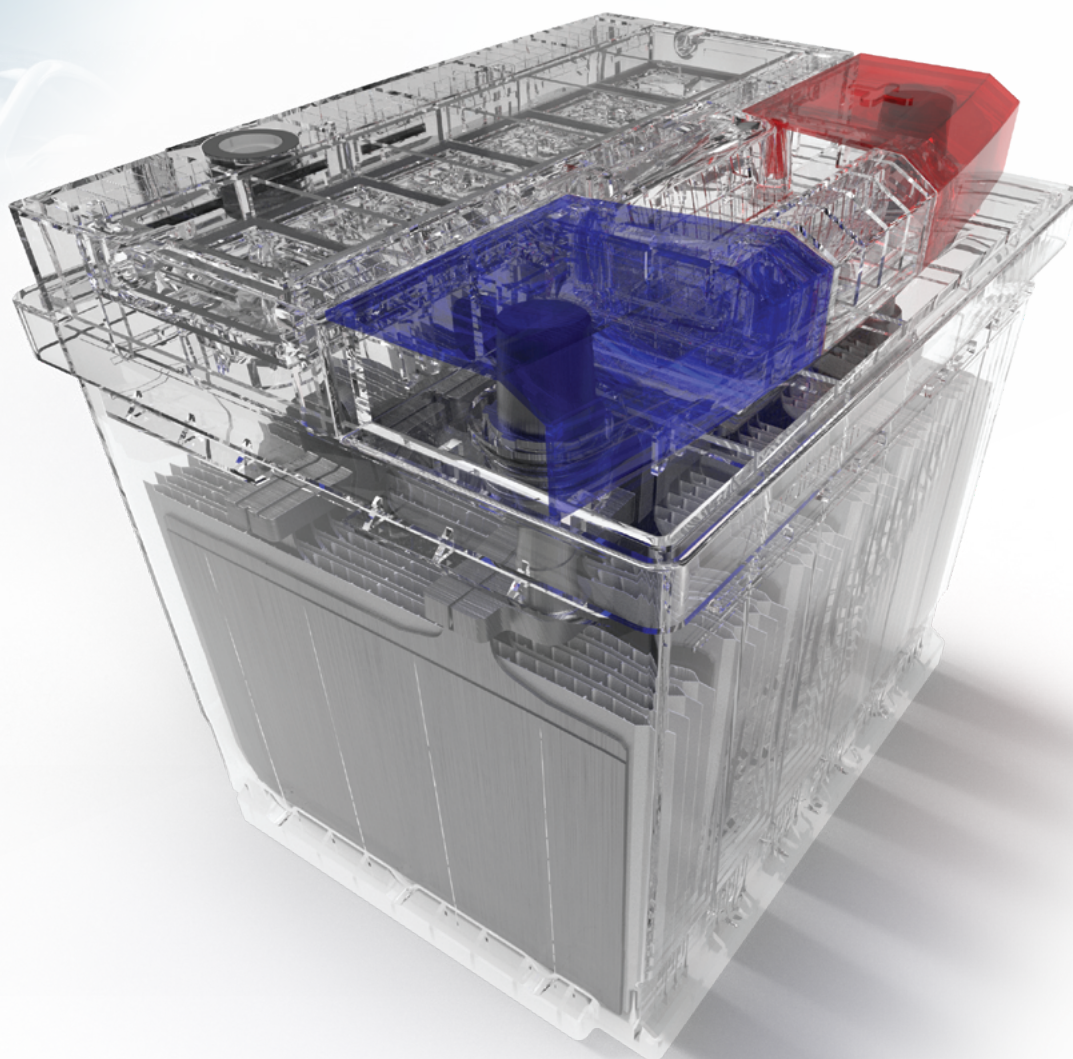


Sunshade Monbat

SKU: SM2201
Price: 15 Euro
HS code: 39269097

MONBAT[®]

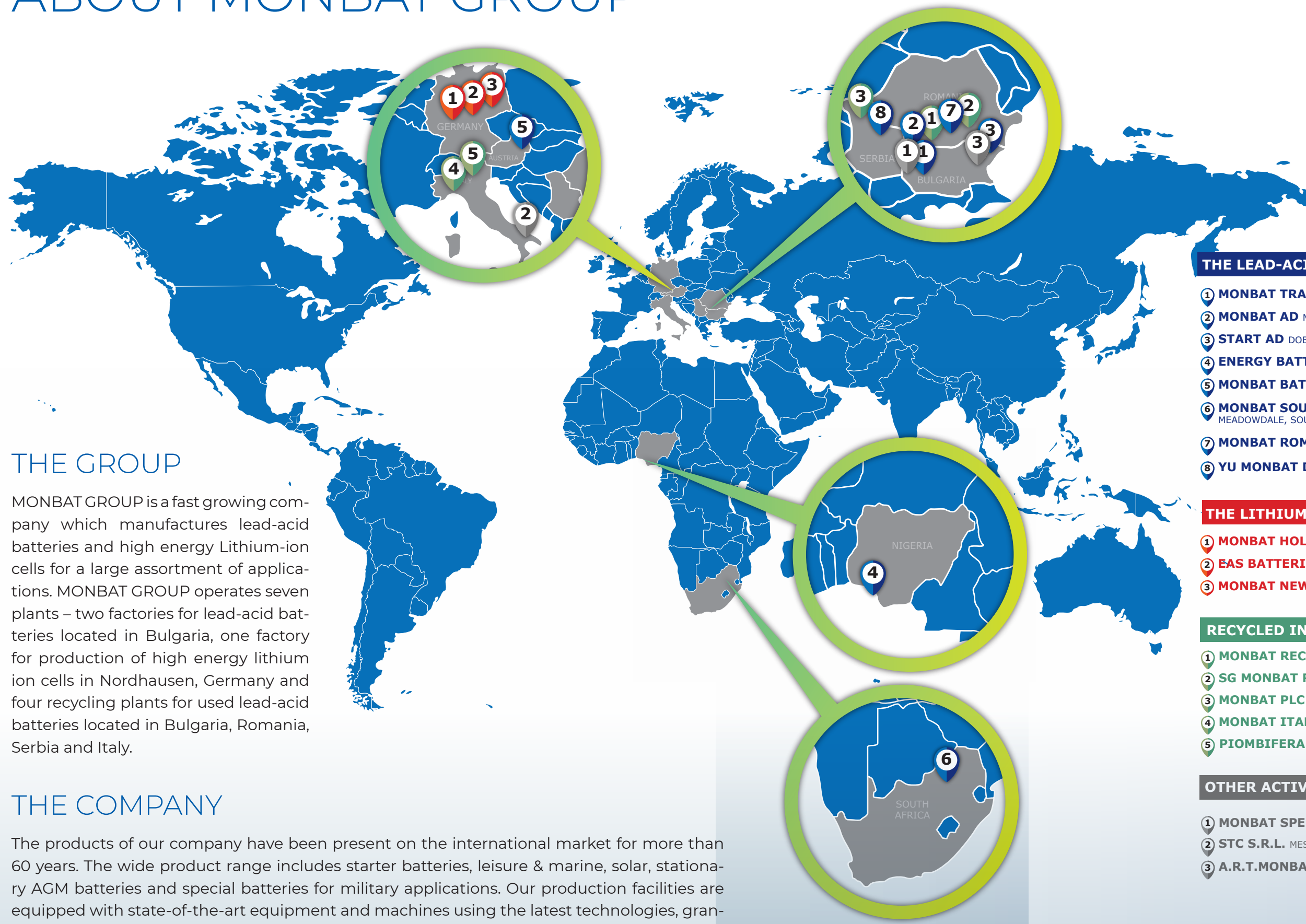
BATTERIES



AUTOMOTIVE CATALOGUE

LIGHT VEHICLES COMMERCIAL AND HEAVY-DUTY VEHICLES SPECIAL VEHICLES

ABOUT MONBAT GROUP



THE GROUP

MONBAT GROUP is a fast growing company which manufactures lead-acid batteries and high energy Lithium-ion cells for a large assortment of applications. MONBAT GROUP operates seven plants – two factories for lead-acid batteries located in Bulgaria, one factory for production of high energy lithium ion cells in Nordhausen, Germany and four recycling plants for used lead-acid batteries located in Bulgaria, Romania, Serbia and Italy.

THE COMPANY

The products of our company have been present on the international market for more than 60 years. The wide product range includes starter batteries, leisure & marine, solar, stationary AGM batteries and special batteries for military applications. Our production facilities are equipped with state-of-the-art equipment and machines using the latest technologies, granting high quality products and reaching an annual volume of over 4M batteries.

THE LEAD-ACID BUSINESS

- ① **MONBAT TRADING OOD** SOFIA, BULGARIA
- ② **MONBAT AD** MONTANA, BULGARIA
- ③ **START AD** DOBRICH, BULGARIA
- ④ **ENERGY BATTERIES NIGERIA LIMITED** LAGOS, NIGERIA
- ⑤ **MONBAT BATTERIEN GMBH** VIENNA, AUSTRIA
- ⑥ **MONBAT SOUTH AFRICA PROPRIETARY LTD** MEADOWDALE, SOUTH AFRICA
- ⑦ **MONBAT ROMANIA SRL** BUCHAREST, ROMANIA
- ⑧ **YU MONBAT DOO** YAGODINA, SERBIA

THE LITHIUM-ION BUSINESS

- ① **MONBAT HOLDING GMBH** NORDHAUSEN, GERMANY
- ② **EAS BATTERIES GMBH** NORDHAUSEN, GERMANY
- ③ **MONBAT NEW POWER GMBH** NORDHAUSEN, GERMANY

RECYCLED INDUSTRIAL MATERIALS

- ① **MONBAT RECYCLING EAD** MONTANA, BULGARIA
- ② **SG MONBAT RECYCLING SRL** ILFOV, ROMANIA
- ③ **MONBAT PLC DOO** INDIJA, SERBIA
- ④ **MONBAT ITALY SRL** LA SPECIA, ITALY
- ⑤ **PIOMBIFERA ITALIANA S.P.A.** LA SPECIA, ITALY

OTHER ACTIVITIES

- ① **MONBAT SPED EOOD** SOFIA, BULGARIA
- ② **STC S.R.L.** MESAGNE, ITALY
- ③ **A.R.T.MONBAT AD** DOBRICH, BULGARIA

LIGHT VEHICLE BATTERY RANGE



START-STOP VEHICLES

ADVANCED START-STOP

BASIC START-STOP

AGM SERIES

EFB SERIES

CONVENTIONAL VEHICLES

HEAVY URBAN DRIVING

MODERATE EQUIPMENT

STANDARD EQUIPMENT

PREMIUM SERIES

FORMULA SERIES

DYNAMIC SERIES

VEHICLE REQUIREMENTS

START-STOP SYSTEM REDUCED CO ₂ EURO 5/6	<div> <div>AGM</div> <div>Replace</div> <div>AGM</div> </div> MANUFACTURER RECOMMENDATION Change with same type	<div> <div>EFB</div> <div>Replace</div> <div>EFB</div> </div> MANUFACTURER RECOMMENDATION Change with same type			
START-STOP SYSTEM	✓	✓	✗	✗	✗
REGENERATIVE BRAKING	■■■■■	■■■	✗	✗	✗
HEAVY URBAN DRIVING	■■■■■	■■■■■	■■■■■	■■■	■■
ADVANCED EQUIPMENT	■■■■■	■■■■■	■■■■	■■■	■■

BATTERY REQUIREMENTS

CRANKING POWER - CCA	■■■■■	■■■■	■■■■■	■■■	■■
CYCLING CAPABILITY	■■■■■	■■■■	■■■■	■■	■■
CHARGE ACCEPTANCE	■■■■■	■■■■■	■■■■	■■■	■■■
LIFE EXPECTANCY	■■■■■	■■■■■	■■■■	■■■	■■■
BEST CHOICE	MILD HYBRID	LONG LIFE	EXTRA POWER	VAST RANGE	COST EFFECTIVE

THE FUTURE AGM START-STOP

In the coming years around 80% of newly manufactured cars will be equipped with a Start-Stop system to reduce fuel consumption and CO₂ emissions by turning off idling engines. Supporting Start-Stop systems is just one of the required battery functions as new cars are equipped with an increasing number of power hungry luxury features - navigation systems, multimedia displays, Wi-Fi and smartphone interfaces.



BENEFITS

VALVE REGULATED LEAD-ACID (VRLA)

- Original equipment (OE) quality product and specification
- Designed & developed for vehicles with advanced Start-Stop systems with regenerative braking for energy recovery
- Ensuring fuel saving and reducing CO₂ emissions
- 5 times better cycle life compared to conventional batteries.
- Highest cold cranking amperes (CCA) enables engine starts even in extreme climates while keeping all features functioning
- Highest Level of safety by AGM VRLA technology (Valve Regulated)
- Long shelf life
- Eco Friendly Product and 99% Recyclable

RECOMMENDED FOR:

- Micro Hybrid & Mild Hybrid (MHEV) with Start-Stop systems
- Ideal for large cars, SUVs, vans and all modern vehicles with Start-Stop systems and power-hungry electrical items
- Wide car park coverage from limited number of SKUs
- Optimal solution for partial state of charge operation

REMEMBER

AGM BATTERY
MUST BE REPLACED
WITH AGM.



LIGHT VEHICLE BATTERY RANGE

MONBAT
BATTERIES



LEVEL M2
EN50342-6



ADVANCED
EQUIPMENT



HEAVY URBAN
DRIVING



SAFETY OF
OPERATION



LIFE
EXPECTANCY



CCA
CAPABILITY

BATTERY CLASSIFICATION AS PER EN 50342 - 1,6:2015

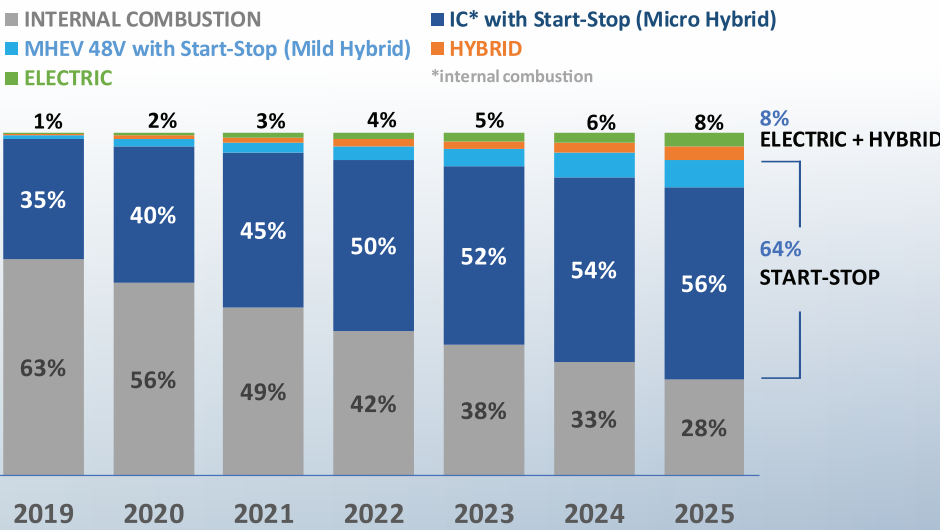
Water Consumption	Charge Retention	Vibration Resistance	Endurance Level	Micro-cycle Performance
W5	C2	V3	E3	M2

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
560 901 064 AGM	60	640	L2	242	175	190	0		1	B13
570 901 076 AGM	70	760	L3	278	175	190	0		1	B13
580 901 084 AGM	80	840	L4	310	175	190	0		1	B13
595 901 086 AGM	95	860	L5	353	175	190	0		1	B13

- In 2019 light vehicles with Start-Stop systems accounted for nearly 36% of the European car-park mix
- The trend points to a progressive increase in the number of cars that feature a Start-Stop system in the coming years
- By 2025 the percentage of driven cars with Start-Stop systems is expected to grow to a total of 64% (Mild and Micro Hybrids)
- The Expected growth in the aftermarket of OE replacement AGM and EFB batteries is therefore expected to reach approximately 56%

Expected trend for changes in the European car-park mix



*Source: EU28+EFTA (European Free Trade Association),
Monbat research estimation

NEW TREND

EFB START-STOP

EFB technology quickly became the primary choice of most vehicle manufacturers with entry level Start-Stop systems. Vehicles today are specially designed to meet and exceed the requirements of those systems. The new extended range of MONBAT EFB series features carbon technology additives to the NAM for greater dynamic charge acceptance bringing the latest OEM trend to the aftermarket.



BENEFITS

SEALED MAINTENANCE FREE

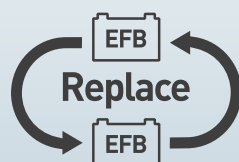
- Original equipment (OE) quality product and specification
- Designed & developed for vehicles with entry level Start-Stop systems
- 4 times better cycle life compared to conventional batteries
- Exceptional dynamic charge acceptance thanks to carbon technology additive in NAM
- High level reliability for heavy urban driving on short distances and frequent stops
- Built-in charge level indicator - MAGIC EYE
- Eco Friendly Product and 99% Recyclable

RECOMMENDED FOR:

- Micro Hybrid vehicles with entry level Start-Stop systems
- Wide car park coverage for EU and Asian models. Range features 10 types DIN and JIS sizes.
- Ideal compatibility with standard power train vehicles that make lots of regular short journeys
- Optimal solution for partial state of charge operation

REMEMBER:

Some basic-level Start-Stop vehicles come with an EFB. EFB batteries should always be replaced with EFB. To improve performance, EFB batteries alternatively can be replaced with an AGM battery.

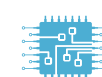


LIGHT VEHICLE BATTERY RANGE

MONBAT
BATTERIES



LEVEL M1
EN50342-6



ADVANCED
EQUIPMENT



HEAVY URBAN
DRIVING



SEALED
MAINTENANCE
FREE



LIFE
EXPECTANCY



CCA
CAPABILITY

BATTERY CLASSIFICATION AS PER EN 50342 - 1,6:2015

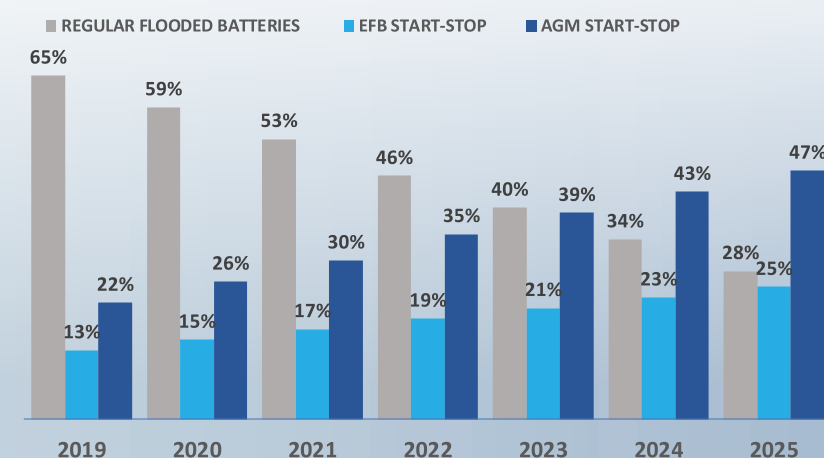
Water Consumption	Charge Retention	Vibration Resistance	Endurance Level	Micro-cycle Performance
W4	C2	V2	E2	M1

SPECIFICATIONS

	Battery Type	Performance		Box	Dimensions			Technical Characteristics			
		Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
NEW	560 002 056 EFB	60	560	L2	242	175	190	0		1	B13
	565 002 056 EFB	65	560	D23	230	170	220	0		1	B01
	565 003 056 EFB	65	560	D23	230	170	220	1		1	B01
	565 002 068 EFB	65	680	LB3	278	175	175	0		1	B14
	570 002 068 EFB	70	680	L3	278	175	190	0		1	B13
NEW	572 002 068 EFB	72	680	D26	260	170	220	0		1	B01
	575 002 074 EFB	75	740	LB4	310	175	175	0		1	B14
	580 002 074 EFB	80	740	L4	310	175	190	0		1	B13
	585 002 074 EFB	85	740	D31	304	173	220	0		1	B01
	590 002 084 EFB	90	840	L5	353	175	190	0		1	B13

- In 2019 regular flooded batteries are twice as much as the Start-Stop batteries
- The trend points to a progressive increase in the number of cars that feature a Start-Stop system in the coming years
- By 2025 the percentage of driven cars with Start-Stop systems is expected to surpass flooded batteries and triple their volume.
- In addition AGM Start-Stop batteries will open a 20% gap to EFB Start-Stop due to further rise in electrical equipment

EXPECTED TREND FOR USAGE OF AGM, EFB AND REGULAR FLOODED BATTERIES



NEXT GENERATION PREMIUM SERIES

MONBAT Premium series is the newest High Performance battery for the next generation of light vehicles with conventional ignition systems. The wide range of coverage features carbon technology additive in NAM for greater dynamic charge acceptance and brings latest OE trend to the aftermarket.



BENEFITS

- Original equipment (OE) quality product and specification.
- 3 times better cycle life stability compared to conventional batteries.
- Exceptional dynamic charge acceptance thanks to carbon technology additive in NAM
- Ideal for extreme weather conditions thanks to the latest Full Frame Punch technology and pasting scrim
- +30% enhanced starting power for top level performance
- High level of reliability
- Built-in charge level indicator - MAGIC EYE
- Eco Friendly Product and 99% Recyclable

SEALED MAINTENANCE FREE

RECOMMENDED FOR:

- Designed & developed for highly equipped vehicles with the highest power demands
- Ideal compatibility with standard power train vehicles that make lots of regular short journeys in urban area
- Full coverage for all EU and Asian models of vehicles
- Comprehensive Range features 20 types DIN and JIS sizes covering 90% of the car park

LIGHT VEHICLE BATTERY RANGE

MONBAT
BATTERIES



EXTREME
TEMPERATURES



ADVANCED
EQUIPMENT



HEAVY URBAN
DRIVING



SEALED
MAINTENANCE
FREE



LIFE
EXPECTANCY




















CCA
CAPABILITY



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V2	E2

SPECIFICATIONS

	Battery Type	Performance		Box	Dimensions			Technical Characteristics			
		Capacity, Ah	CCA, A [EN]		L	W	H	Layout	Terminals	Hold Down	
NEW	545 090 033 SMF	45	330	B19	197	128	220	0		3	B01
NEW	545 091 033 SMF	45	330	B19	197	128	220	1		3	B01
NEW	550 053 040 SMF	50	400	B24	237	128	220	0		1	B00
NEW	550 055 040 SMF	50	400	B24	237	128	220	1		1	B00
NEW	553 027 050 SMF	53	500	LB1	207	175	175	0		1	B14
	556 112 056 SMF	56	560	L1	207	175	190	0		1	B13
NEW	563 078 060 SMF	63	600	LB2	242	175	175	0		1	B14
	566 019 066 SMF	66	660	L2	242	175	190	0		1	B13
NEW	565 027 060 SMF	65	600	D23	230	170	220	0		1	B01
NEW	565 028 060 SMF	65	600	D23	230	170	220	1		1	B01
NEW	575 046 072 SMF	75	720	LB3	278	175	175	0		1	B14
	575 083 072 SMF	75	720	L3	278	175	190	0		1	B13
	580 043 076 SMF	80	760	L3	278	175	190	0		1	B13
NEW	575 027 070 SMF	75	700	D26	260	170	220	0		1	B01
NEW	575 028 070 SMF	75	700	D26	260	170	220	1		1	B01
NEW	585 015 078 SMF	85	780	LB4	310	175	175	0		1	B14
	590 046 082 SMF	90	820	L4	310	175	190	0		1	B13
NEW	600 032 082 SMF	100	820	D31	304	173	220	0		1	B01
NEW	600 033 082 SMF	100	820	D31	304	173	220	1		1	B01
	600 044 092 SMF	100	920	L5	353	175	190	0		1	B13

BEST SELLER

FORMULA SERIES

MONBAT Formula series is a vast range of automotive batteries complying with all auto car park and OE specifications. It is designed for average equipment vehicles which require extra starting power with consistently high performance for longer periods of time.



BENEFITS

- Original equipment (OE) quality product and specification
- Advanced Ex-Metal Calcium technology for exceptional starting power
- High level safety and longer life with built-in SMF labyrinth system for gas recombination
- Designed & developed for the complete international auto park of European and Asian models of cars
- Comprehensive range of DIN and JIS available in a HIGH HEAT Technology for Tropical Markets
- Built-in charge level indicator - MAGIC EYE
- Eco Friendly Product and 99% Recyclable

SEALED MAINTENANCE FREE

RECOMMENDED FOR:

- Designed & developed for vehicles with average to high power demands
- Ideal compatibility with moderate power train vehicles for everyday driving
- Comprehensive Range with 58 models with 99% auto park coverage

LIGHT VEHICLE BATTERY RANGE



EXTREME
TEMPERATURES



MODERATE
EQUIPMENT



NORMAL
DRIVING



SEALED
MAINTENANCE
FREE



LIFE
EXPECTANCY
































CCA
CAPABILITY



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V1	E1

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
540 046 032 SMF	40	320	LB1	207	175	175	0		1	B14
545 012 036 SMF	45	360	LB1	207	175	175	0		1	B14
545 059 036 SMF	45	360	L1	207	175	190	0		1	B13
550 014 042 SMF	50	420	LB1	207	175	175	0		1	B14
550 027 042 SMF	50	420	L1	207	175	190	0		1	B13
550 056 042 SMF	50	420	LB2	242	175	175	0		1	B14
550 103 042 SMF	50	420	L2	242	175	190	0		1	B13
555 019 048 SMF	55	480	LB2	242	175	175	0		1	B14
555 059 048 SMF	55	480	L2	242	175	190	0		1	B13
560 077 054 SMF	60	540	LB2	242	175	175	0		1	B14
560 078 054 SMF	60	540	L2	242	175	190	0		1	B13
560 103 054 SMF	60	540	L2	242	175	190	1		1	B13
565 105 058 SMF	65	580	LB2	242	175	175	0		1	B14
565 019 058 SMF	65	580	L2	242	175	190	0		1	B13
563 018 052 SMF	63	520	LB3	278	175	175	0		1	B14
566 013 058 SMF	66	580	LB3	278	175	175	0		1	B14
566 048 058 SMF	66	580	L3	278	175	190	0		1	B13
570 014 064 SMF	70	640	LB3	278	175	175	0		1	B14
570 083 064 SMF	70	640	L3	278	175	190	0		1	B13
570 111 064 SMF	70	640	L3	278	175	190	1		1	B13
575 046 068 SMF	75	680	LB3	278	175	175	0		1	B14
575 012 068 SMF	75	680	L3	278	175	190	0		1	B13
580 035 072 SMF	80	720	LB3	278	175	175	0		1	B14
580 043 072 SMF	80	720	L3	278	175	190	0		1	B13
580 045 072 SMF	80	720	LB4	310	175	175	0		1	B14
585 015 075 SMF	85	750	LB4	310	175	175	0		1	B14
585 046 075 SMF	85	750	L4	310	175	190	0		1	B13
585 102 070 SMF	85	700	L5	353	175	190	0		1	B13
588 120 075 SMF	88	750	LB5	353	175	175	0		1	B14
588 027 075 SMF	88	750	L5	353	175	190	0		1	B13
595 021 080 SMF	95	800	LB5	353	175	175	0		1	B14
595 038 080 SMF	95	800	L5	353	175	190	0		1	B13
600 130 084 SMF	100	840	LB5	353	175	175	0		1	B14
600 044 084 SMF	100	840	L5	353	175	190	0		1	B13

BEST SELLER

FORMULA ASIA SERIES

MONBAT Formula series is a vast range of automotive batteries complying with all auto car park and OE specifications. It is designed for average equipment vehicles which require extra starting power with consistently high performance for longer periods of time.



BENEFITS

- Original equipment (OE) quality product and specification
- Advanced Ex-Metal Calcium technology for exceptional starting power
- High level safety and longer life with built-in SMF labyrinth system for gas recombination
- Designed & developed for the complete international auto park of European and Asian models of cars
- Comprehensive range of DIN and JIS available in a HIGH HEAT Technology for Tropical Markets
- Built-in charge level indicator - MAGIC EYE
- Eco Friendly Product and 99% Recyclable

SEALED MAINTENANCE FREE

RECOMMENDED FOR:

- Designed & developed for vehicles with average to high power demands
- Ideal compatibility with moderate power train vehicles for everyday driving
- Comprehensive Range with 58 models with 99% auto park coverage

LIGHT VEHICLE BATTERY RANGE



EXTREME
TEMPERATURES



MODERATE
EQUIPMENT



NORMAL
DRIVING



SEALED
MAINTENANCE
FREE



LIFE
EXPECTANCY



CCA
CAPABILITY



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V1	E1

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
532 020 025 SMF	32	250	B19	197	128	220	0		3	B00
532 022 025 SMF	32	250	B19	197	128	220	1		3	B00
535 020 030 SMF	35	300	B19	197	128	220	0		3	B00
535 022 030 SMF	35	300	B19	197	128	220	1		3	B00
535 087 030 SMF	35	300	B19	197	128	220	0		3	B01
545 084 033 SMF	45	330	B24	237	128	220	0		3	B00
545 051 033 SMF	45	330	B24	237	128	220	1		3	B00
545 023 033 SMF	45	330	B24	237	128	220	0		1	B00
545 024 033 SMF	45	330	B24	237	128	220	1		1	B00
550 054 040 SMF	50	400	D23	230	170	220	0		1	B01
550 056 040 SMF	50	400	D23	230	170	220	1		1	B01
560 068 045 SMF	60	450	D23	230	170	220	0		1	B01
560 069 045 SMF	60	450	D23	230	170	220	1		1	B01
560 048 045 SMF	60	450	D26	260	170	220	0		1	B01
560 049 045 SMF	60	450	D26	260	170	220	1		1	B01
570 029 056 SMF	70	560	D26	260	170	220	0		1	B01
570 024 056 SMF	70	560	D26	260	170	220	1		1	B01
570 021 056 SMF	70	560	D31	304	173	220	0		1	B01
570 022 056 SMF	70	560	D31	304	173	220	1		1	B01
590 018 063 SMF	85	630	D31	304	173	220	0		1	B01
590 019 063 SMF	85	630	D31	304	173	220	1		1	B01
595 032 073 SMF	95	730	D31	304	173	220	0		1	B01
595 033 073 SMF	95	730	D31	304	173	220	1		1	B01

CLASSIC DYNAMIC SERIES

MONBAT Dynamic series is a classic range of automotive batteries for cars with moderate power equipment. It is a reliable solution thanks to the latest technologies that offer great value for money.



BENEFITS

SEALED MAINTENANCE FREE

- Original equipment (OE) quality product and specification.
- Advanced Ex-Metal Calcium technology for reliable starting power
- High level safety and longer life with built-in SMF labyrinth system for gas recombination
- The range is available upon request with standard Euro Kamina lid and reverse polarity
- Available in dry charge version
- Eco Friendly Product and 99% Recyclable

RECOMMENDED FOR:

- Ideal compatibility with standard power train vehicles
- Comprehensive Range for wide EU car park coverage

LIGHT VEHICLE BATTERY RANGE

MONBAT
BATTERIES



MODERATE
TEMPERATURES



STANDARD
EQUIPMENT



NORMAL
DRIVING



SEALED
MAINTENANCE
FREE



LIFE
EXPECTANCY




























CCA
CAPABILITY



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W3	C2	V1	E1

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
540 046 032 MF	40	320	LB1	207	175	175	0		1	B14
540 025 032 MF	40	320	L1	207	175	190	0		1	B13
545 012 036 MF	45	360	LB1	207	175	175	0		1	B14
545 059 036 MF	45	360	L1	207	175	190	0		1	B13
550 014 042 MF	50	420	LB1	207	175	175	0		1	B14
550 027 042 MF	50	420	L1	207	175	190	0		1	B13
545 019 036 MF	45	360	LB2	242	175	175	0		1	B14
550 056 042 MF	50	420	LB2	242	175	175	0		1	B14
550 103 042 MF	50	420	L2	242	175	190	0		1	B13
555 019 048 MF	55	480	LB2	242	175	175	0		1	B14
555 059 048 MF	55	480	L2	242	175	190	0		1	B13
560 077 054 MF	60	540	LB2	242	175	175	0		1	B14
560 076 054 MF	60	540	LB2	242	175	175	1		1	B14
560 078 054 MF	60	540	L2	242	175	190	0		1	B13
563 018 052 MF	63	520	LB3	278	175	175	0		1	B14
566 013 058 MF	66	580	LB3	278	175	175	0		1	B14
566 048 058 MF	66	580	L3	278	175	190	0		1	B13
570 014 064 MF	70	640	LB3	278	175	175	0		1	B14
570 083 064 MF	70	640	L3	278	175	190	0		1	B13
575 046 068 MF	75	680	LB3	278	175	175	0		1	B14
575 012 068 MF	75	680	L3	278	175	190	0		1	B13
580 045 072 MF	80	720	LB4	310	175	175	0		1	B14
585 102 070 MF	85	700	L5	353	175	190	0		1	B13
588 120 075 MF	88	750	LB5	353	175	175	0		1	B14
588 027 075 MF	88	750	L5	353	175	190	0		1	B13
595 021 080 MF	95	800	LB5	353	175	175	0		1	B14
595 038 080 MF	95	800	L5	353	175	190	0		1	B13
600 044 084 MF	100	840	L5	353	175	190	0		1	B13

HEAVY-DUTY BATTERY RANGE



AGM SERIES



EFB SERIES



SHD SERIES



SMF SERIES




























HD SERIES

VEHICLE REQUIREMENTS

LIFE EXPECTANCY	■ ■ ■ ■ ■
EQUIPMENT LEVEL	■ ■ ■ ■ ■
VIBRATION RESISTENCE	■ ■ ■ ■ ■
CYCLING CAPABILITY	■ ■ ■ ■ ■
CRANKING POWER - CCA	■ ■ ■ ■ ■
VALUE FOR CUSTOMER	■ ■ ■ ■ ■

RECOMMENDATION BY

APPLICATION	TYPE OF VEHICLE		AGM SERIES
REAR END INSTALLATION	 	Long-haul modern trucks, Modern interstate buses	✓
HOTEL FUNCTION	 	Long-haul modern trucks, Modern interstate buses	✓
VIBRATION RESISTENCE	 	Long-haul modern trucks, Modern interstate buses	✓
ROUGH TERRAIN	  	Long-haul modern trucks, Modern interstate buses, Tractors and agricultural vehicle	✓
CYCLING CAPABILITY	   	Long-haul modern trucks, Modern interstate buses Express delivery trucks Utilities vehicles	✓
EQUIPMENT LEVEL	   	Long-haul modern trucks, Modern interstate buses Express delivery trucks Utilities vehicles	✓
EXTREME CLIMATE	 	Standart trucks with engines working at high temperatures	
SPECIAL (AGRICULTURAL AND CONSTRUCTION) VEHICLES	   	Tractors and agricultural vehicles, Construction machines	
STANDARD VEHICLES, OLDER FLEETS	 	Standard and older vehicles	

■ ■ ■ ■ ■	■ ■ ■	■ ■ ■	■ ■
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■ ■ ■ ■	■ ■ ■	■ ■ ■	■ ■ ■
■ ■ ■ ■ ■	■ ■ ■ ■	■ ■ ■	■ ■ ■

EFB SERIES	SHD SERIES	SMF SERIES	HD SERIES
✓			
✓			
✓	✓		
✓	✓		
✓	✓		
✓	✓		
✓	✓	✓	
✓	✓	✓	✓
	✓	✓	✓

THE FUTURE

AGM SUPER HEAVY DUTY

MONBAT AGM SHD is the newest generation commercial vehicle battery that combines latest VRLA technology for unmatched deep cycle performance with high degree of reliability for your fleet. It has been developed in cooperation with the leading OEMs to support latest equipment innovations that will become the standard for heavy duty vehicles in the near future. AGM Super Heavy Duty is the optimal solution for unlocking the highest demanding application and power hungry features in the next generation trucks and buses.



BENEFITS

VALVE REGULATED LEAD-ACID (VRLA)

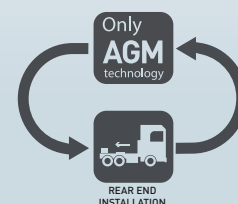
- Original equipment (OE) quality product and specification
- 6 times better cycle life stability compared to conventional batteries.
- Withstands deep discharges up to 80% DOD for maximum reliability.
- Highest cold cranking amperes (CCA) enables engine starts even in extreme climates while keeping hotel functions
- Maximum level of safety by AGM VRLA technology (Valve Regulated)
- Highest Vibration Resistance V3/V4
- Maintenance Free Technology with long lifespan
- Ensuring fuel saving and reducing CO2 emissions
- Eco Friendly Product and 99% Recyclable

RECOMMENDED FOR:

- Rear chassis installation (EURO5/6)
- Latest generation long-haul trucks with advanced hoteling function
- Latest generation city buses and coaches with highest electrical equipment
- Newest express delivery trucks with power hungry equipment or deep cycling needs
- Applications with partial state of charge operation
- Any rough terrain application under high vibrations

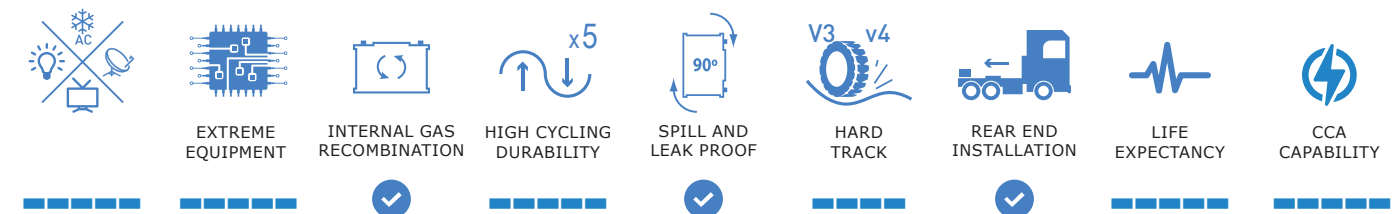
REMEMBER

AGM BATTERY MUST BE REPLACED WITH AGM.



HEAVY-DUTY BATTERY RANGE


MONBAT
BATTERIES



BATTERY CLASSIFICATION AS PER EN 50342 - 1,6:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level	Micro-cycle Performance
W5	C2	V3/V4	E3	M2

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
720 901 140 AGM	220	1400	C	514	274	242	3		1	B00

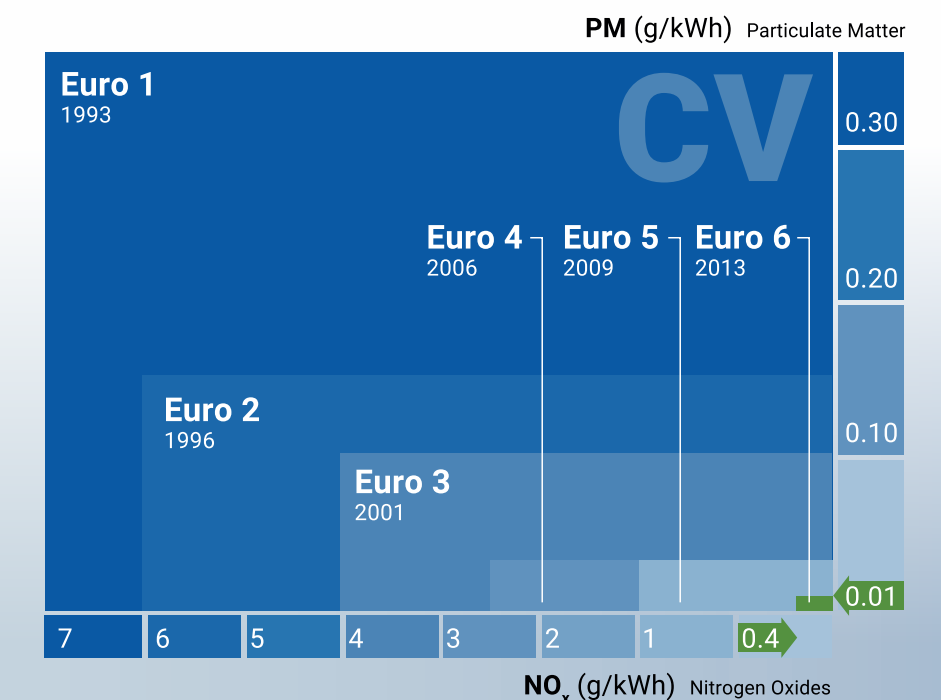
New EU Directives

Since 2009 EU has taken further measures regarding NOx emissions and reducing particulate matter.

Nowadays Euro 5/Euro 6 vehicles have new chassis design to integrate the Selective Catalytic Reduction (SCR) system and AdBlue tank.

Truck manufacturers have moved the batteries into the rear-chassis position and batteries are exposed to greater vibrations.

EMISSION STANDARDS AS DEFINED BY EU DIRECTIVES



NEW TREND

EFB SUPER HEAVY DUTY

Today commercial vehicles are no longer simple trucks which are used as pure transport or work vehicles. Increased environmental regulations are changing the trends on the market and truck batteries today must provide not only reliable starting power but the ability to supply high power electronic equipment in EURO 5/6 vehicles. MONBAT EFB SHD range is now upgraded and enhanced to meet big energy requirements combined with high vibration resistance for absolute reliability of your fleet.



BENEFITS

SEALED MAINTENANCE FREE

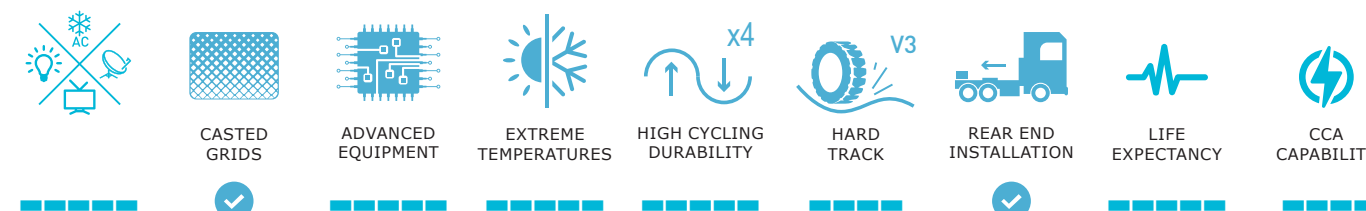
- Original equipment (OE) quality product and specification
- 3 times the cycle life stability compared to conventional batteries
- Exceptional dynamic charge acceptance thanks to carbon technology additive in NAM
- Highest Vibration Resistance V3/V4 thanks to robust design
- High cold cranking amperes (CCA) and reliable starting after overnight stay
- High level safety and longer life with built-in SMF labyrinth system for gas recombination
- Eco Friendly Product and 99% Recyclable

RECOMMENDED FOR:

- Rear chassis installation (EURO5/6)
- Power hungry long-haul trucks including hoteling function
- Advanced City buses and Coaches with additional electrical equipment & consumers
- Express delivery trucks with power hungry equipment or deep cycling needs
- Applications with partial state of charge operation
- Rough terrain machines and vehicles with high vibrations
- Compatibility with any standard power train commercial vehicle with lots of regular short journeys & stops

HEAVY-DUTY BATTERY RANGE



MONBAT®
BATTERIES



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V3	E3

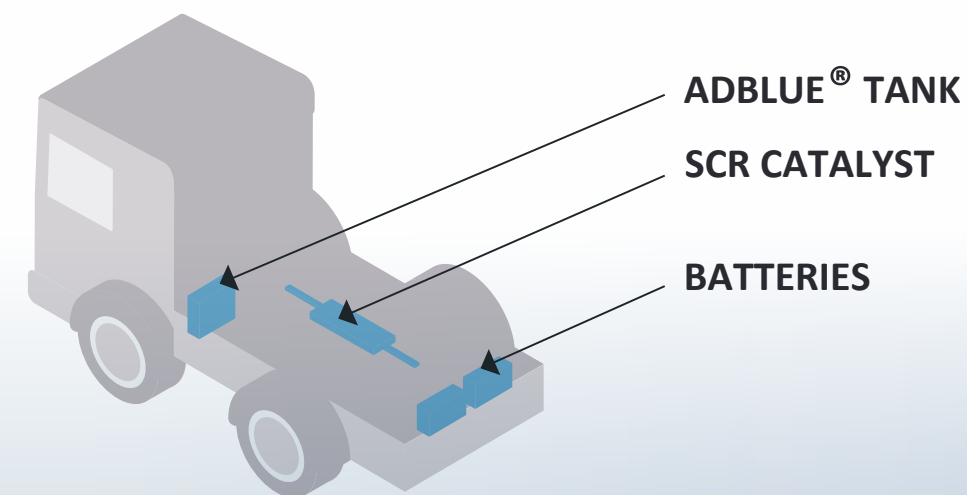
SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
685 002 110 EFB	185	1100	B	513	223	223	3		1	B00
735 002 125 EFB	235	1250	C	514	276	242	3		1	B00

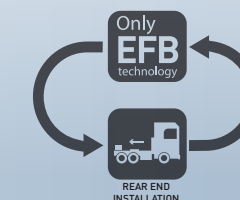
Fleet owners decision

Alongside the new EU Directives, several economic factors (higher fuel costs, road taxes, higher tolls, parking charges, higher charges for entering no emissions zone) have forced fleet owners to upgrade by purchasing new Euro 5/6 trucks. Installing the batteries at the rear faced the batteries under great vibrations.

Only batteries which have met V3/V4 test acc to EN 50342-6:2015 can guarantee a longer battery lifespan even in high vibration condition.



REMEMBER
EFB BATTERY
MUST BE REPLACED
WITH EFB.



UNLOCK YOUR FLEET POTENTIAL SUPER HEAVY DUTY

MONBAT SHD series is our newest high performance battery for wide range of commercial vehicles relying on unconditional power supply. The range is now sealed maintenance free with advanced glass flee separator for great endurance and lifespan under heavy urban driving or mild cycling applications.



BENEFITS

SEALED MAINTENANCE FREE

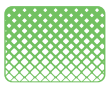
- Original equipment (OE) quality product and specification.
- 2 times better cycle life stability compared to conventional batteries.
- Robust and reliable design with hot melt resin for improved vibration resistance
- Excelent performance for light cycling applications
- High level safety and longer life with built-in SMF labyrinth system for gas recombination
- Eco Friendly Product and 99% Recyclable

RECOMMENDED FOR:

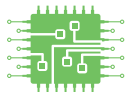
- Standard chasis installation (including EURO5/6)
- Long-haul trucks
- City buses and Coaches with moderate ectrical equipment
- Special vehicles with tail-lift platform
- Delivery or Utility vehicles in city traffic
- Rough terrain construction machines with high vibrations
- Any standard power train commercial vehicle with short journeys & stops

HEAVY-DUTY BATTERY RANGE

MONBAT
BATTERIES



CASTED
GRIDS



ADVANCED
EQUIPMENT



HARD
TRACK



HIGH CYCLING
DURABILITY



LONG DISTANCE
DRIVING



LIFE
EXPECTANCY



CCA
CAPABILITY



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V2	E2

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
640 020 085 SHD	140	850	A	513	189	220	3		1	B00
655 011 090 SHD	155	900	A	513	189	220	3		1	B00
670 043 100 SHD	170	1000	B	513	223	223	3		1	B00
680 032 110 SHD	180	1100	B	513	223	223	3		1	B00
700 106 115 SHD	200	1150	B	513	223	223	3		1	B00
700 027 115 SHD	200	1150	C	514	276	242	3		1	B00
730 011 125 SHD	230	1250	C	514	276	242	3		1	B00

Monbat SHD offers Extra Life when mounted in standard power train commercial vehicle without special requirements. The best choice for hard working vehicles and contruction machines

EXTRA LIFE
FOR CONVENTIONAL
VEHICLES



BEST SELLER

SMF SERIES

MONBAT SMF series is a vast range of heavy duty batteries complying with complete international CV park and any OE specifications. It is designed for standard commercial vehicles which require extra starting power with consistently high performance for longer periods of time.



BENEFITS

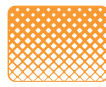
- Original equipment (OE) quality product and specification
- Advanced ConCast/ConRoll technology for for great starting power and corrosion resistance
- Highest cranking power in extreme climates
- High level safety and longer life with built-in SMF labyrinth system for gas recombination
- Wide range including special types
- Eco Friendly Product and 99% Recyclable

SEALED MAINTENANCE FREE

RECOMMENDED FOR:

- Standard chasis installation
- Various trucks and vehicles with large engines requiring high CCA
- Agricultural and construction machines
- Ideal for standard power train commercial vehicles without special requirements in terms of vibration or cycling power

HEAVY-DUTY BATTERY RANGE



CASTED
GRIDS



MODERATE
EQUIPMENT



EXTREME
TEMPERATURES



LONG DISTANCE
DRIVING



LIFE
EXPECTANCY



CCA
CAPABILITY



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V2	E1

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
600 102 070 SMF	100	700	GR31	336	173	235	9		1	B00
605 102 075 SMF	105	750	GR31	336	173	235	9		1	B00
610 102 080 SMF	110	800	GR31	336	173	235	9		1	B00
620 102 085 SMF	120	850	GR31	336	173	235	9		1	B00
620 103 085 SMF	120	850	GR31	336	173	235	9		8	B00
625 045 080 SMF	125	800	A	513	189	220	3		1	B00
640 020 090 SMF	140	900	A	513	189	220	3		1	B00
655 011 095 SMF	155	950	A	513	189	220	3		1	B00
655 013 095 SMF	155	950	B	513	223	223	3		1	B00
670 043 105 SMF	170	1050	B	513	223	223	3		1	B00
680 032 115 SMF	180	1150	B	513	223	223	3		1	B00
680 031 115 SMF	180	1150	B	513	223	223	4		1	B00
700 027 120 SMF	200	1200	C	514	276	242	3		1	B00
730 011 130 SMF	230	1300	C	514	276	242	3		1	B00
730 112 130 SMF	230	1300	C	514	276	242	4		1	B00

CLASSIC HEAVY DUTY

MONBAT HD series is conventional range of batteries for standard commercial and agricultural vehicles with basic power equipment. It is a reliable solution thanks to the latest technologies and high starting power.



BENEFITS

SEALED MAINTENANCE FREE

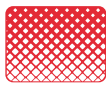
- Advanced ConCast/ConRoll technology for great starting power and corrosion resistance
- High cranking power during extreme weather conditions
- Complete range covering almost 100% of vehicle park including special types
- Available in dry charge version and reverse polarity
- Eco Friendly Product and 99% Recyclable

RECOMMENDED FOR:

- Standard chasis installation
- Various trucks and vehicles with large engines requiring high CCA
- Agricultural and construction machines
- Continuous multi-start performance
- Ideal for standard power train commercial vehicles without special requirements in terms of vibration or cycling power

HEAVY-DUTY BATTERY RANGE

MONBAT
BATTERIES



CASTED
GRIDS



STANDARD
EQUIPMENT



MODERATE
TEMPERATURES



LIFE
EXPECTANCY



CCA
CAPABILITY



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W3	C2	V2	E1


SPECIFICATIONS


Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity Ah	CCA A [EN]		L	W	H	Layout		Terminals	Hold Down
600 026 070 HD	100	700	E41/N100	413	175	223	0		1	B00
600 035 070 HD	100	700	E41/N100	413	175	223	1		1	B00
595 016 065 HD	95	650	LOT 7	345	175	230	0		1	B00/B01
595 017 065 HD	95	650	LOT 7	345	175	230	1		1	B00/B01
605 028 070 HD	105	700	LOT 7	345	175	230	0		1	B00/B01
605 027 070 HD	105	700	LOT 7	345	175	230	1		1	B00/B01
610 047 075 HD	110	750	LOT 7	345	175	230	0		1	B00/B01
610 048 075 HD	110	750	LOT 7	345	175	230	1		1	B00/B01
620 028 080 HD	120	800	LOT 7	345	175	230	0		1	B00/B01
620 027 080 HD	120	800	LOT 7	345	175	230	1		1	B00/B01
630 012 084 HD	130	840	WOR 7	345	175	285	0		1	B00
630 014 084 HD	130	840	WOR 7	345	175	285	1		1	B00
610 040 070 HD	110	700	MAC 110	514	175	210	3		1	B03
625 087 080 HD	125	800	MAC 110	514	175	210	3		1	B03
635 039 090 HD	135	900	MAC 110	514	175	210	3		1	B03
625 045 080 HD	125	800	A	513	189	220	3		1	B00
640 020 090 HD	140	900	A	513	189	220	3		1	B00
630 013 080 HD	130	800	MAC 140	514	218	210	3		1	B00
655 104 095 HD	155	950	MAC 140	514	218	210	3		1	B03
670 034 105 HD	170	1050	MAC 140	514	218	210	3		1	B03
643 017 090 HD	143	900	B	513	223	223	3		1	B00
655 013 095 HD	155	950	B	513	223	223	3		1	B00
670 043 105 HD	170	1050	B	513	223	223	3		1	B00
680 032 115 HD	180	1150	B	513	223	223	3		1	B00
700 027 120 HD	200	1200	C	514	276	242	3		1	B00
730 011 130 HD	230	1300	C	514	276	242	3		1	B00


LAWN AND GARDEN


MONBAT Lawn and Garden batteries are specially designed for powering ride-on movers, tillers and other garden machinery. From the heat of summer to the cold of winter, they deliver consistent starting power in every type of weather.





STANDARD
EQUIPMENT


MODERATE
TEMPERATURES


SEALED
MAINTENANCE
FREE


LIFE
EXPECTANCY


CCA
CAPABILITY

BENEFITS

SEALED MAINTENANCE FREE

- Completely maintenance free, no fill-up necessary
- Enhanced safety, leakage and spill proof
- Very high cranking performance
- Increased reliability
- High endurance
- Charge level indicator
- Eco Friendly Product and 99% Recyclable





RECOMMENDED FOR:

- Mowers and Ride-on mowers
- Tillers
- Chipper Shredders
- Snow Blowers
- Turf Vehicles

BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V1	E1

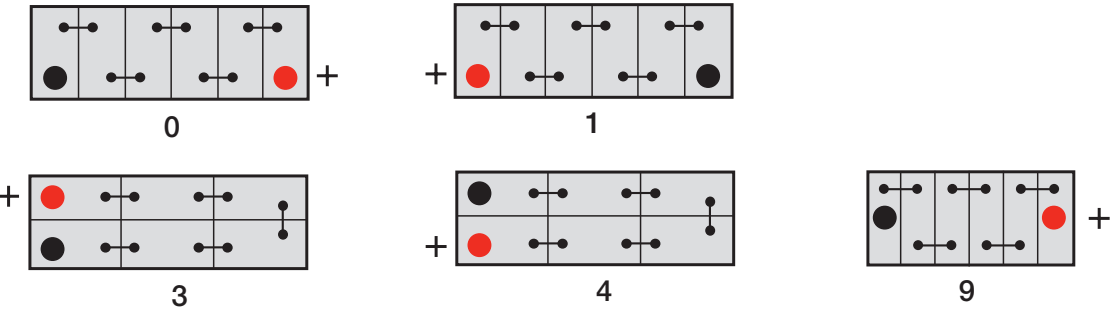
SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout	Terminals	Hold Down	
528 015 025 SMF	28	250	U1	196	128	184	0		4	B00
528 016 025 SMF	28	250	U1	196	128	184	1		4	B00
532 030 028 SMF	32	280	U1	196	128	184	0		4	B00
532 034 028 SMF	32	280	U1	196	128	184	1		4	B00

LEGEND

Cell Assembly Layout

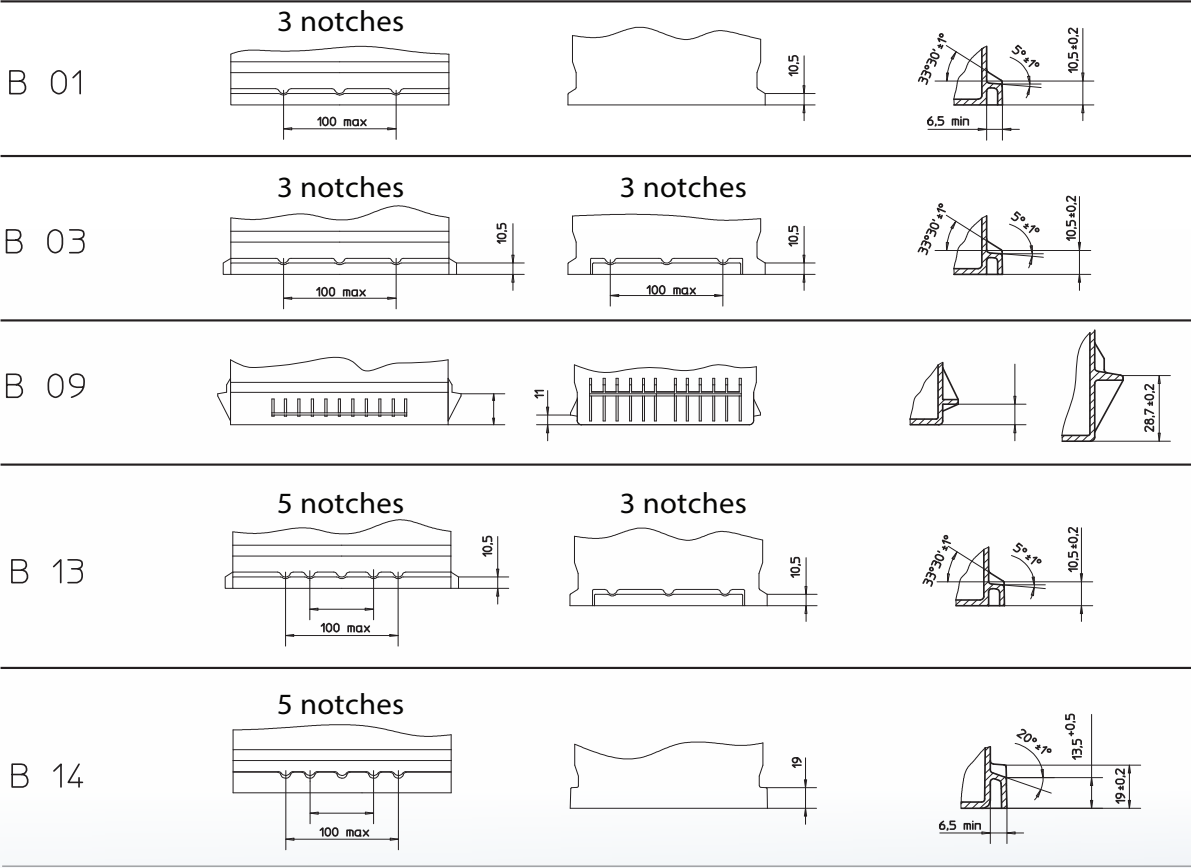
12 Volt



Hold Down

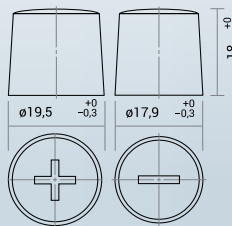
B 00

without hold down

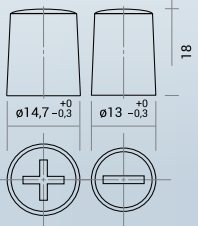


Type of Terminals

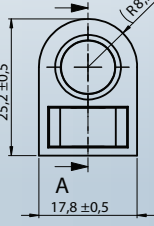
Terminal 1
DIN Post



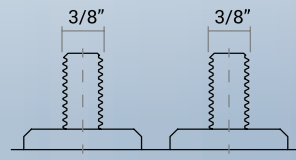
Terminal 3
JIS Post



Terminal 4
U1 Lug



Terminal 8
Threaded Post





RECYCLE WITH

MONBAT®



THE SOURCE OF POWER

HEAD OFFICE

32 A Cherni vrah blvd.

1407 Sofia, Bulgaria

tel. +359 2 962 11 50

fax: +359 2 962 11 46

e-mail: contact@monbat.com

www.monbatgroup.com

JANUARY 2021

ISO 9001

ISO 14001

ISO 45001

IATF 16949



Intertek



Intertek



COMPANY PRESENTATION

2023

COMPANY PROFILE



Foundation and brief history

1959 Established, state owned

1998 Privately owned at 100%

2000 Established export sales company "MONBAT Trading"

2001 First Recycling plant in Bulgaria

2006 IPO - 24% free float shares

2007 Acquisition of "START" battery company

2010 MONBAT RECYCLING plant in Romania

2011 MONBAT RECYCLING plant in Serbia

2017 MONBAT RECYCLING plant in Italy

Acquisition of "EAS Batteries GmbH" lithium ion cell manufacturer in Germany

2019 STC SRL – high-tech engineering business development

2021 TUNISIAN COMPANY OF BATTERIES NOUR, TUNISIA



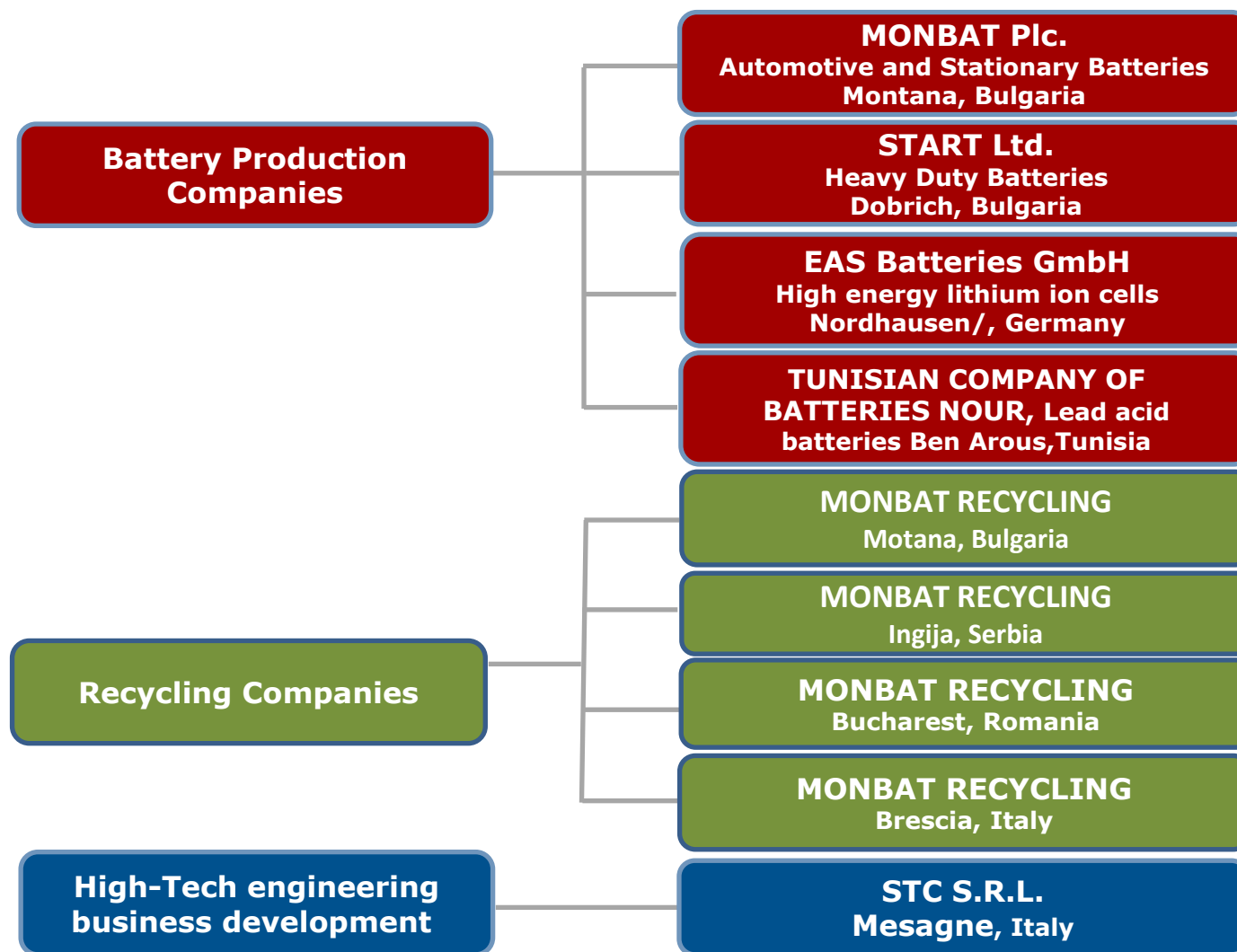
MONBAT Group of Companies has the following major activities

- Production and distribution of automotive and stationary batteries
- Recycling of all kinds of used lead-acid batteries

MONBAT Group operates globally and 95% of the sales come from outside Bulgaria

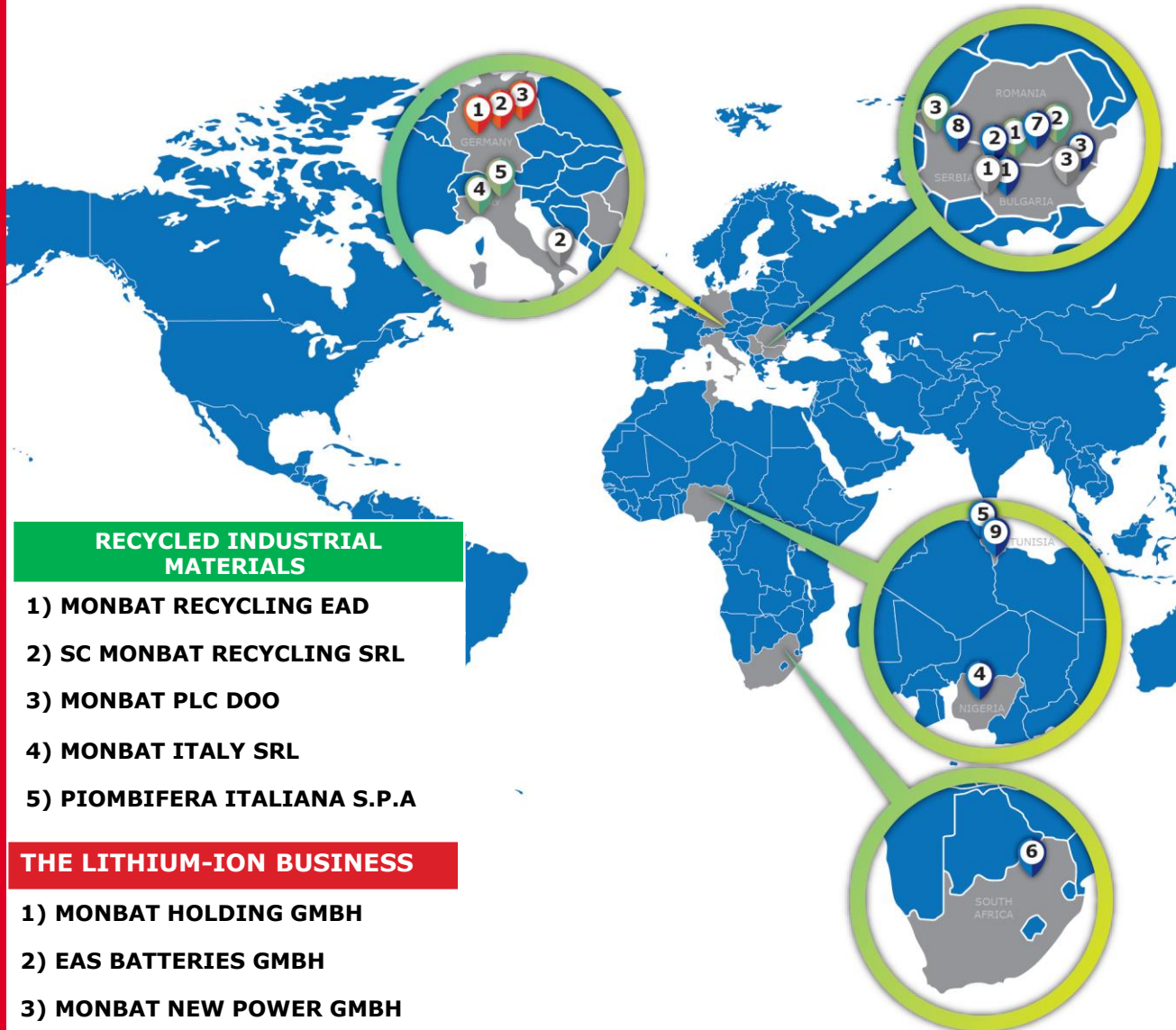
MONBAT GROUP OF COMPANIES STRUCTURE

MONBAT GROUP OF COMPANIES HAS EIGHT MANUFACTURING FACILITIES



PRODUCTION AND RECYCLING PLANTS

MONBAT[®]
GROUP



RECYCLED INDUSTRIAL MATERIALS

- 1) MONBAT RECYCLING EAD
- 2) SC MONBAT RECYCLING SRL
- 3) MONBAT PLC DOO
- 4) MONBAT ITALY SRL
- 5) PIOMBIFERA ITALIANA S.P.A

THE LITHIUM-ION BUSINESS

- 1) MONBAT HOLDING GMBH
- 2) EAS BATTERIES GMBH
- 3) MONBAT NEW POWER GMBH

THE LEAD-ACID BUSINESS

- 1) MONBAT TRADING OOD
- 2) MONBAT AD
- 3) START AD
- 4) ENERGY BATTERIES NIGERIA LIMITED
- 5) TUNISIAN COMPANY OF BATTERIES NOUR
- 6) MONBAT SOUTH AFRICA PROPRIETARY LTD
- 7) MONBAT ROMANIA SRL
- 8) YU MONBAT DOO
- 9) SOCIETE NOUR DE DISTRIBUTION

OTHER ACTIVITIES

- 1) MONBAT SPED EOOD
- 2) STC S.R.L.
- 3) A.R.T.MONBAT AD

FACTS AND FIGURES



200M EUR Group Turnover 2022

159M EUR Batteries Turnover 2022

5 000 000 SLI Batteries Capacity

500 000 AGM Batteries Capacity

1000+ Employees

International Certificates

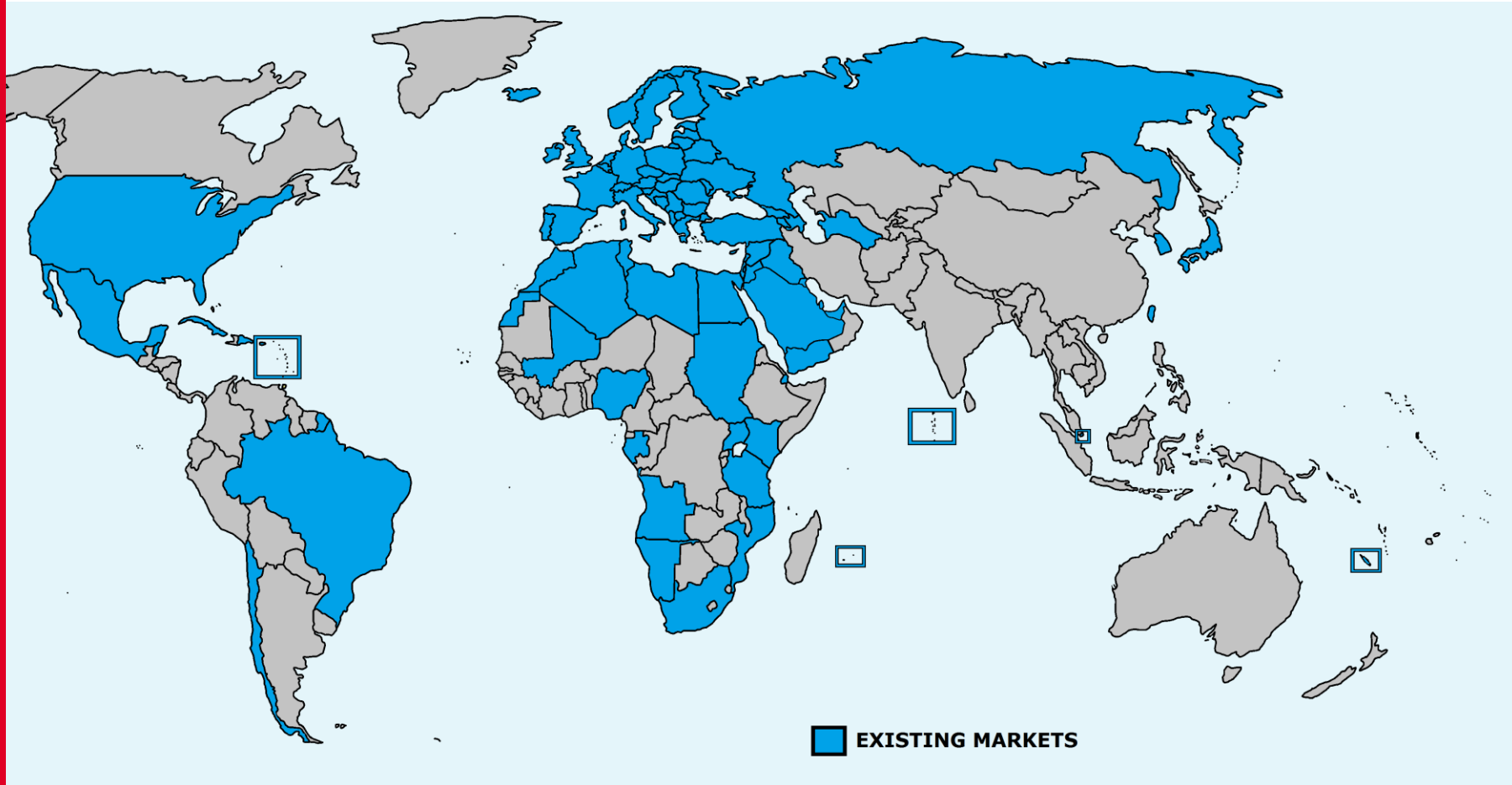
ISO 9001:2015	Quality Management
ISO 14001:2015	Environmental Management
OHSAS 18001:2007	Occupational Health and Safety
AQAP 2110	NATO Quality Compliance
IATF 16949:2016	OEM Quality Management

INTERNATIONAL SALES

80 countries

MONBAT[®]
GROUP

EXPORT – 95%
DOMESTIC – 5%



SCIENTIFIC APPROACH

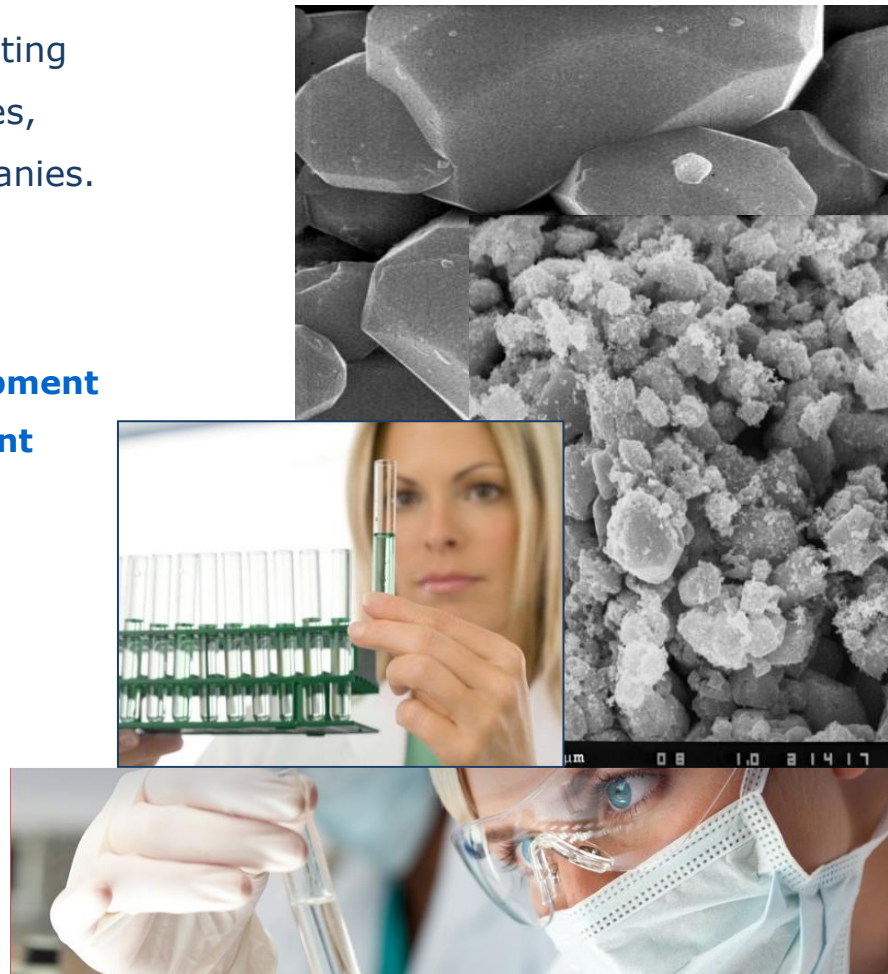
MONBAT[®]
GROUP

MG LAB laboratory is engaged in the testing and quality control of all lead-acid batteries, manufactured by MONBAT Group of companies.

Scientific Equipment:

- Last generation of electrical test equipment
- State-of-art chemical testing equipment
- Facilities for physical tests

Laboratory results recognized in the EU



MONBAT works in close cooperation with the Central Laboratory of Electrochemical Power Sources (CLEPS) of the Bulgarian Academy of Science.

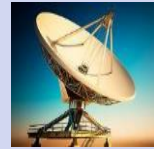
BATTERY PORTFOLIO

MONBAT[®]
GROUP

Stationary Batteries



- Valve-regulated lead-acid (VRLA-AGM) batteries
- Long life 2-12V batteries with capacities from 50 to 600A
- Applications include telecommunications, uninterruptable power supply (UPS), solar energy and high temperature environments



Starter Batteries



- Lead-acid starter batteries including enhanced flooded (EFB), valve-regulated and absorbent glass matt (AGM) batteries
- Applications in passenger and commercial vehicles, heavy trucks and agricultural machines, operating in normal and harsh conditions



Semi-Traction Batteries



- Primarily comprises of semi-traction batteries for caravans, boats, golf carts, lawn mowers and other transportation applications
- A small proportion of Specialised batteries comprise of batteries for military applications, suitable for both Russian and NATO designed tanks and armoured vehicles



REFERENCE LIST FOR AUTOMOTIVE BATTERIES

MONBAT
GROUP

OEM



Great Wall

Litex Motors, Bulgaria
DIN and JIS Types SLI
DIN L3 AGM



Minsk Automobile Plant, Belarus
Heavy Duty Batteries SLI



Minsk Tractor Works, Belarus
Light Commercial Vehicles SLI



Yanmar Construction
Equipment Europe
DIN and JIS SLI types



DENNIS
EAGLE

Dennis Eagle UK
Heavy Duty Batteries SLI



ALEXANDER
DENNIS

Alexander Dennis UK
Heavy Duty Batteries,
AGM Heavy Duty
Batteries

OES



Mercedes-Benz

Trucks and Buses, Cairo, Egypt
Heavy Duty Batteries SLI



TOYOTA TSUSHO

SLI batteries
AGM Stop/Start

REFERENCE LIST FOR STATIONARY BATTERIES

MONBAT
GROUP

OEM Radio Vendors



OEM PSU Manufacturers



Telecommunication companies

Fixed and mobile network




and more . . .

AUTOMOTIVE BATTERY RANGES

MONBAT[®]
GROUP

AGM SERIES



					
LIFE EXPECTANCY	START/STOP SYSTEMS	EQUIPMENT LEVEL	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★★★	HIGHLY RECOMMEND	★★★★★	★★★★★	★★★★★	EXTREMELY LOW

EFB SERIES



					
LIFE EXPECTANCY	START/STOP SYSTEMS	EQUIPMENT LEVEL	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★★★	RECOMMEND	★★★★	★★★★	★★★★	VERY LOW

PREMIUM SERIES



					
LIFE EXPECTANCY	START/STOP SYSTEMS	EQUIPMENT LEVEL	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★★	NOT RECOMMEND	★★★★	★★★	★★★★	VERY LOW


FORMULA SERIES



					
LIFE EXPECTANCY	START/STOP SYSTEMS	EQUIPMENT LEVEL	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★	NOT RECOMMEND	★★★	★★★	★★★	VERY LOW

Dynamic SERIES



					
LIFE EXPECTANCY	START/STOP SYSTEMS	EQUIPMENT LEVEL	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★	NOT RECOMMEND	★★	★★	★★	VERY LOW

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

AGM START/STOP



HIGHLY
RECOMMEND



START/STOP
SYSTEMS

★★★★★



EQUIPMENT
LEVEL

★★★★★



CYCLING
CAPABILITY

★★★★★



CCA
CAPABILITY

EXTREMELY
LOW



WATER
CONSUMPTION

ADVANTAGES OF THE SERIES

- ❑ Latest AGM technology
- ❑ Excellent for advanced Start/Stop systems with regenerative braking
- ❑ Absolutely maintenance-free, leakage, spill and vibration proof
- ❑ Designed for extreme power demands
- ❑ Optimum starting power and maximum capacity
- ❑ High cycling durability
- ❑ Flexible installation and safe handling
- ❑ Reducing the fuel consumption and CO2 emissions
- ❑ Extra long service life

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level	Micro-cycle performance
W5	C2	V3	E3	M3

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
560 901 064	60	640	L2	242	175	190	0		1	B13
570 901 076	70	760	L3	278	175	190	0		1	B13
580 901 084	80	840	L4	310	175	190	0		1	B13
595 901 086	95	860	L5	353	175	190	0		1	B13
605 901 095	105	950	L6	393	175	190	0		1	B13

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

EFB START/STOP



RECOMMEND



START/STOP
SYSTEMS

★★★★



EQUIPMENT
LEVEL

★★★★



CYCLING
CAPABILITY

★★★★



CCA
CAPABILITY

VERY
LOW



WATER
CONSUMPTION

ADVANTAGES OF THE SERIES

- ❑ Improved EFB technology
- ❑ Excellent for standard Stop-Start systems
- ❑ Supports extended engine-off periods
- ❑ High starting power
- ❑ High cycling performance
- ❑ Improved charge acceptance
- ❑ Improved vibration resistance
- ❑ Sealed maintenance free
- ❑ Long service life and reliability

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level	Micro-cycle performance
W4	C2	V2	E2	M2

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
560 002 056	60	560	L2	242	175	190	0		1	B13
565 002 068	65	680	LB3	278	175	175	0		1	B13
570 002 068	70	680	L3	278	175	190	0		1	B13
575 002 074	75	740	LB4	310	175	175	0		1	B13
580 002 074	80	740	L4	310	175	190	0		1	B13
590 002 084	90	840	L5	353	175	190	0		1	B13

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

EFB START/STOP JIS

ADVANTAGES OF THE SERIES



- ☐ Improved EFB technology
- ☐ Excellent for standard Stop-Start systems for Asian vehicles
- ☐ High starting power
- ☐ High cycling performance
- ☐ Improved charge acceptance
- ☐ Sealed maintenance free
- ☐ Long service life and reliability

NEW

RECOMMEND



START/STOP
SYSTEMS

★★★★



EQUIPMENT
LEVEL

★★★★



CYCLING
CAPABILITY

★★★★



CCA
CAPABILITY

VERY
LOW



WATER
CONSUMPTION

SPECIFICATIONS

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level	Micro-cycle performance
W4	C2	V2	E2	M2

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
565 002 056 SMF	65	560	D23	230	170	220	0		1	B1
565 003 056 SMF	65	560		230	170	220	1		1	B1
572 002 068 SMF	72	680	D26	260	170	220	0		1	B1
585 002 074 SMF	85	740	D31	304	173	220	0		1	B1

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

PREMIUM



NOT
RECOMMENDED



START/STOP
SYSTEMS

★★★★



EQUIPMENT
LEVEL

★★★



CYCLING
CAPABILITY

★★★★



CCA
CAPABILITY

VERY
LOW



WATER
CONSUMPTION

SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ Premium battery option on the market
- ❑ Punched grid technology for improved performance
- ❑ Up to +30% increased starting power
- ❑ Special fleece increases the cycling ability
- ❑ Ideal for cars with the latest electrical equipment
- ❑ Charge level indicator
- ❑ Increased service life
- ❑ Designed specially to withstand extreme climate conditions (heat proof)
- ❑ Enhanced safety and reliability

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W4	C2	V2	E2

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
553 027 050 SMF	53	500	LB1	207	175	175	0		1	B13
556 113 056 SMF	56	560	L1	207	175	190	0		1	B13
563 078 060 SMF	63	600	LB2	242	175	175	0		1	B13
566 019 066 SMF	66	660	L2	242	175	190	0		1	B13
575 083 072 SMF	75	720	LB3	278	175	175	0		1	B13
580 043 076 SMF	80	760	L3	278	175	190	0		1	B13
590 046 082 SMF	90	820	L4	310	175	190	0		1	B13
600 044 092 SMF	100	920	L5	353	175	190	0		1	B13

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

PREMIUM ASIA



NEW

NOT
RECOMMENDED



START/STOP
SYSTEMS

★★★★



EQUIPMENT
LEVEL

★★★



CYCLING
CAPABILITY

★★★★



CCA
CAPABILITY

VERY
LOW



WATER
CONSUMPTION

SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ☐ Premium battery option on the market
- ☐ Punched grid technology for improved performance
- ☐ Up to +30% increased starting power
- ☐ Special fleece increases the cycling ability
- ☐ Ideal for Asian vehicles with the latest electrical equipment
- ☐ Charge level indicator
- ☐ Designed specially to withstand extreme climate conditions (heat proof)
- ☐ Enhanced service life and reliability

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W4	C2	V2	E2

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
545 090 033 SMF	45	330	B19	197	128	220	0		3	B1
545 091 033 SMF	45	330	B19	197	128	220	1		3	B1
550 053 040 SMF	50	400	B24	237	128	220	0		3	B0
550 055 040 SMF	50	400	B24	237	128	220	1		3	B0
565 027 060 SMF	65	600	D23	230	170	220	0		1	B1
565 028 060 SMF	65	600	D23	230	170	220	1		1	B1
575 027 070 SMF	75	700	D26	260	170	220	0		1	B1
575 028 070 SMF	75	700	D26	260	170	220	1		1	B1
600 032 082 SMF	100	820	D31	304	173	220	0		1	B1
600 033 082 SMF	100	820	D31	304	173	220	1		1	B1

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

FORMULA



NOT
RECOMMENDED



START/STOP
SYSTEMS

★★★★



EQUIPMENT
LEVEL

★★★★



CYCLING
CAPABILITY

★★★★



CCA
CAPABILITY

VERY
LOW



WATER
CONSUMPTION

ADVANTAGES OF THE SERIES

- ❑ Formula for all classes of vehicles
- ❑ Suitable for advanced level of electrical equipment
- ❑ Charge level indicator
- ❑ Guaranteed start at extreme temperatures
- ❑ Enhanced safety, leakage and spill proof
- ❑ Improved service life
- ❑ Available in High Heat version



Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W4	C2	V1	E1

SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
550 027 042 SMF	50	420	L1	207	175	190	0		1	B13
560 077 054 SMF	60	540	LB2	242	175	175	0		1	B4
565 019 058 SMF	65	580	L2	242	175	190	0		1	B13
575 046 068 SMF	75	680	LB3	278	175	175	0		1	B4
580 043 072 SMF	80	720	L3	278	175	190	0		1	B13
580 045 072 SMF	80	720	LB4	310	175	175	0		1	B4
585 046 075 SMF	85	750	L4	310	175	190	0		1	B13
595 021 080 SMF	95	800	LB5	353	175	175	0		1	B4
600 044 084 SMF	100	840	L5	353	175	190	0		1	B13

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

FORMULA ASIA



NOT
RECOMMENDED
START/STOP
SYSTEMS



EQUIPMENT
LEVEL



CYCLING
CAPABILITY



CCA
CAPABILITY



VERY
LOW
WATER
CONSUMPTION

SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ Best formula for Asian vehicles
- ❑ Suitable for advanced level of electrical equipment
- ❑ Charge level indicator
- ❑ Suitable for vehicles with high level of electrical demand
- ❑ Guaranteed start at extreme temperatures
- ❑ Enhanced safety, leakage and spill proof
- ❑ Available in High Heat version



Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W4	C2	V1	E1

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
535 087 030 SMF	35	300	B19 / NS40	197	128	220	0		3	B1
535 020 030 SMF	35	300		197	128	220	0		3	B0
535 022 030 SMF	35	300		197	128	220	1		3	B0
545 084 033 SMF	45	330	B24 / NS60	237	128	220	0		3	B0
545 051 033 SMF	45	330		237	128	220	1		3	B0
560 068 045 SMF	60	450	D23	230	170	220	0		1	B1
560 069 045 SMF	60	450		230	170	220	1		1	B1
570 029 056 SMF	70	560	D26/N50	260	170	220	0		1	B1
570 024 056 SMF	70	560		260	170	220	1		1	B1
600 032 073 SMF	100	730	D31/N70	304	173	220	0		1	B1
600 033 073 SMF	100	730		304	173	220	1		1	B1

AUTOMOTIVE BATTERY RANGE

MONBAT
GROUP

DYNAMIC



SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ Suitable for vehicles with standard level of electrical demand
- ❑ Integrated degassing Labyrinth system
- ❑ Lockable terminal protection caps
- ❑ Easy access to terminals for testing
- ❑ Enhanced safety, leakage and spill proof
- ❑ Long life in service

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W3	C2	V1	E1

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout	Terminals	Hold Down	
544 119 035	44	350	L0	175	175	190	0		1	B13
540 046 032	40	320	LB1	207	175	175	0		1	B4
545 059 036	45	360	L1	207	175	190	0		1	B13
550 056 042	50	420	LB2	242	175	175	0		1	B4
555 059 048	55	480	L2	242	175	190	0		1	B13
566 038 058	66	580	L3	278	175	190	0		1	B13
570 014 064	70	640	LB3	278	175	175	0		1	B4
575 039 068	75	680	LB4	310	175	175	0		1	B4
580 042 072	80	720	L4	310	175	190	0		1	B13
585 104 070	85	700	LB5	353	175	175	0		1	B4
595 038 080	95	800	L5	353	175	190	0		1	B13

HEAVY-DUTY BATTERY RANGES

MONBAT
GROUP

AGM SERIES



VALUE FOR CUSTOMER	EQUIPMENT LEVEL	VIBRATION RESISTANCE	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★★★	★★★★★	★★★	★★★★★	★★★★★	EXTREMELY LOW

EFB SERIES



VALUE FOR CUSTOMER	EQUIPMENT LEVEL	VIBRATION RESISTANCE	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★★★	★★★★★	★★★	★★★★★	★★★★★	VERY LOW

SHD SERIES



VALUE FOR CUSTOMER	EQUIPMENT LEVEL	VIBRATION RESISTANCE	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★	★★★★	★★	★★★★	★★★★★	VERY LOW

SMF SERIES



VALUE FOR CUSTOMER	EQUIPMENT LEVEL	VIBRATION RESISTANCE	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★★	★★★★	★★	★★★★	★★★★	LOW

HD SERIES



VALUE FOR CUSTOMER	EQUIPMENT LEVEL	VIBRATION RESISTANCE	CYCLING CAPABILITY	CCA CAPABILITY	WATER CONSUMPTION
★★	★★	★★	★★	★★★★	LOW

COMMERCIAL VEHICLE RANGE

MONBAT
GROUP

AGM START/STOP



★★★★★



EQUIPMENT
LEVEL

★★★



VIBRATION
RESISTANCE

★★★★★



CYCLING
CAPABILITY

★★★★★



CCA
CAPABILITY

EXTREMELY
LOW



WATER
CONSUMPTION

SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ Latest AGM technology
- ❑ High cycling durability
- ❑ Absolutely maintenance-free, leakage, spill and vibration proof
- ❑ Designed for extreme power demands
- ❑ Optimum starting power and maximum capacity
- ❑ Flexible installation and safe handling
- ❑ Reducing the fuel consumption and CO2 emissions
- ❑ Extremely long service life

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W5	C2	V3/V4	E3

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
720 901 140	220	1400	C	514	274	242	3		1	B0

COMMERCIAL VEHICLE RANGE

MONBAT
GROUP

EFB HEAVY-DUTY



EQUIPMENT
LEVEL



VIBRATION
RESISTANCE



CYCLING
CAPABILITY



CCA
CAPABILITY



VERY
LOW
WATER
CONSUMPTION

SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ New EFB technology with casted grids construction
- ❑ Excellent for vehicles with advanced electrical equipment
- ❑ Reliable energy supply also during extended engine-off periods
- ❑ High cycling performance @ 50% DOD
- ❑ Improved charge acceptance
- ❑ Improved vibration resistance V3 ideal for end-of-frame installation
- ❑ Extreme endurance
- ❑ Longer service life and extended warranty period

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W4	C2	V3	E3

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
685 002 110	185	1100	B	513	223	223	3		1	B0
735 002 125	235	1250	C	514	276	242	3		1	B0

COMMERCIAL VEHICLE RANGE

MONBAT
GROUP

SUPER HEAVY DUTY



SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ Sealed Maintenance Free
- ❑ Fiber Glass separator for superior cycling stability
- ❑ Formula for HGVs, buses, construction vehicles, delivery vehicles with tail-lift, agricultural vehicles, etc.
- ❑ Enhanced resistance to vibrations
- ❑ Improved safety and reliability
- ❑ Extended service life
- ❑ Low rate of self discharge

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W3	C2	V2	E2

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
625 030 075	125	750	A	513	189	223	3		1	B0
640 020 085	140	850	A	513	189	223	3		1	B0
655 011 090	155	900	A	513	189	223	3		1	B0
655 013 090	155	900	B	513	223	223	3		1	B0
670 043 100	170	1000	B	513	223	223	3		1	B0
680 032 110	180	1100	B	513	223	223	3		1	B0
700 014 115	200	1150	C	514	276	242	3		1	B0
730 012 125	230	1250	C	514	276	242	3		1	B0

COMMERCIAL VEHICLE RANGE

MONBAT
GROUP

SMF HEAVY-DUTY



EQUIPMENT
LEVEL



VIBRATION
RESISTANCE



CYCLING
CAPABILITY



CCA
CAPABILITY



VERY
LOW
WATER
CONSUMPTION

SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ Sealed Maintenance Free
- ❑ Advanced labyrinth system for recombination of gases and reduced water loss
- ❑ High Endurance
- ❑ Enhanced Safety
- ❑ Longer Service Life compared to conventional batteries
- ❑ Low rate of self discharge
- ❑ Ideal for H.G.V., Coaches and buses with the latest electrical equipment

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W4	C2	V2	E1

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout	Terminals	Hold Down	
610 102 080 SMF	110	800	GR31	336	173	235	9		1	B0
610 103 080 SMF	110	800	GR31	336	173	235	9		8	B0
620 102 085 SMF	120	850	GR31	336	173	235	9		1	B0
620 103 085 SMF	120	850	GR31	336	173	235	9		8	B0
625 030 080 SMF	125	800	A	513	189	223	3		1	B0
640 020 090 SMF	140	900	A	513	189	223	3		1	B0
655 013 095 SMF	155	950	A	513	189	223	3		1	B0
670 043 105 SMF	170	1050	B	513	223	223	3		1	B0
680 032 115 SMF	180	1150	B	513	223	223	3		1	B0
680 031 115 SMF	180	1150	B	513	223	223	4		1	B0
700 014 120 SMF	200	1200	C	514	276	242	3		1	B0
700 015 120 SMF	200	1200	C	514	276	242	4		1	B0
730 012 130 SMF	230	1300	C	514	276	242	3		1	B0

COMMERCIAL VEHICLE RANGE

MONBAT
GROUP

HEAVY DUTY



SPECIFICATIONS

ADVANTAGES OF THE SERIES

- ❑ Complete range for vans, agricultural vehicles, tractors, H.G.V., Coaches and buses
- ❑ Suitable for heavy vehicles with standard electrical requirements
- ❑ Wide range of available specifications
- ❑ Vibration proof
- ❑ Low rate of self discharge
- ❑ Improved endurance
- ❑ Enhanced safety and reliability

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W3	C2	V2	E1

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
595 016 065	95	650	Compact Low	345	175	230	0		1	B0
620 047 085	120	850	Compact Low	345	175	230	0		1	B0
630 012 084	130	840	Compact High	345	175	285	0		1	B0
625 030 080	125	800	A	513	189	220	3		1	B0
635 039 090	135	900	MAC 110	514	175	210	3		1	B3
640 020 090	140	900	A	513	189	220	3		1	B0
643 029 090	143	900	MAC 143	514	218	210	3		1	B3
670 043 105	170	1050	B	513	223	223	3		1	B0
680 032 115	180	1150	B	513	223	223	3		1	B0
700 014 120	200	1200	C	514	276	242	3		1	B0
730 012 130	230	1300	C	514	276	242	3		1	B0

LAWN AND GARDEN BATTERIES

MONBAT
GROUP

GARDEN SERIES



VALUE FOR CUSTOMER



VIBRATION RESISTANCE



CYCLING CAPABILITY



CCA CAPABILITY



WATER CONSUMPTION

ADVANTAGES OF THE SERIES

- ❑ Completely maintenance free, no fill-up necessary
- ❑ Enhanced safety, leakage and spill proof
- ❑ Very high cranking performance
- ❑ Increased reliability
- ❑ High endurance
- ❑ Charge level indication
- ❑ 100% European origin

SPECIFICATIONS

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W4	C2	V1	E1

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
528 015 025 SMF	28	250	U1R-9	196	128	184	0		4	B0
528 016 025 SMF	28	250	U1R-9	196	128	184	1		4	B0
532 030 028 SMF	32	280	U1R-9	196	128	184	0		4	B0
532 034 028 SMF	32	280	U1R-9	196	128	184	1		4	B0

SPECIAL VEHICLES

MONBAT
GROUP

NATO SERIES



ADVANTAGES OF THE SERIES

- ❑ High endurance and reliability
- ❑ Improved vibration resistance
- ❑ Low rate of self discharge
- ❑ Long service life
- ❑ Available in dry charged version

★★★★



ENDURANCE

★★



VIBRATION
RESISTANCE

★★★★



CYCLING
CAPABILITY

★★★★



CCA
CAPABILITY

EXTREMELY
LOW



WATER
CONSUMPTION

SPECIFICATIONS

Battery Classification as per EN 50342

Water consumption	Charge retention	Vibration resistance	Endurance Level
W3	C2	V1	E1

Battery Type	Nominal Voltage	Performance		Dimensions			Technical Characteristics			
		Capacity, Ah	CCA, A [EN]	L	W	H	Layout		Terminals	Hold Down
610 011 080	12 V	110	800	286	260	226	2		1	B0
625 023 085	12 V	125	850	286	260	226	2		1	B0

SPECIAL VEHICLES

MONBAT
GROUP

ARMY POWER

ADVANTAGES OF THE SERIES

12V BATTERIES



Battery Type	Nominal Voltage	Performance		Reserve Capacity [min]	Dimensions		
		Capacity, Ah	CCA, A [EN]		L	W	H
MBL 6ST140PK	12V	140	420	270	570	243	238
MBL 6ST160PK	12V	160	480	290	570	243	238

24V BATTERIES



Battery Type	Nominal Voltage	Performance		Reserve Capacity [min]	Dimensions		
		Capacity, Ah	CCA, A [EN]		L	W	H
MBL 12ST85	24V	85	400	145	586	234	240

**FOR RUSSIAN DESIGN TANKS AND
ARMORED VEHICLES**

MILITARY APPLICATION

MONBAT
GROUP

AIR POWER SERIES



ENDURANCE



VIBRATION
RESISTANCE



CYCLING
CAPABILITY



CCA
CAPABILITY



EXTREMELY
LOW
WATER
CONSUMPTION

SPECIFICATIONS

ADVANTAGES OF THE SERIES

SPECIAL BATTERIES FOR HELICOPTERS AND AIRPLANES

- High endurance and reliability
- Improved vibration resistance
- Low rate of self discharge
- Long service life

APPLICATION

Helicopter type:

Mi 1 Hare, Mi 2 Hoplite, Mi 4 Hound, Mi 6 Hook, Mi 8 Hare/Hip, Mi 17 Hip, Mi 14 Haze, Mi 24 Hind, Mi 26, Mi 28, Mi 38

Aircraft type:

AN 2, AN 12, AN 24, AN 26, AN 30, AN 32, L 29, L 39, YAK 50, YAK 52

Battery Type	Nominal Voltage	Performance		Dimensions		
		Capacity, C ₂₅ (Ah)	Max disch. current, A [EN]	L	W	H
MBL 12SAM28	24V	28	650	369	163	214
MBL 12SAM55	24V	55	1500	369	163	214

RAILWAY BATTERIES

MONBAT[®]
GROUP

RAILWAY



SPECIFICATIONS

APPLICATIONS:

- ☐ Locomotives Type: 12 LDE 2100 (Romania)
- ☐ Locomotives Type: OVM 2 (Hungary)
- ☐ Locomotives Series: 06 (Bulgaria)
- ☐ Locomotives Series: 51 (Bulgaria)
- ☐ Locomotives Series: 55 (Bulgaria)

Type according to UIC 854-R	Nominal Voltage	Nominal Capacity, C ₅ (Ah)	Dimensions		
			L	W	H
BS-4	12V	330	649	504	256

APPLICATIONS:

- ☐ Locomotives Serie 06: 2 x 12 batteries
- ☐ Locomotives Serie 07 (T3107): 3 x 8 batteries
- ☐ Locomotives Serie 51: 2 x 12 batteries
- ☐ Locomotives Serie 52: 9 batteries
- ☐ Locomotives Serie 55: 2 x 8 batteries

Type according to UIC 854-R	Nominal Voltage	Nominal Capacity, C ₅ (Ah)	Dimensions		
			L	W	H
BS-7	12V	165	513	223	223

DEEP CYCLE BATTERIES

MONBAT[®]
GROUP

MEGALIGHT POWER AGM DEEP CYCLE



ADVANTAGES OF THE RANGE

MEGALIGHT POWER RANGE FEATURES ADVANCED AGM TECHNOLOGY WITH ABSORBED ELECTROLYTE, DESIGNED FOR RELIABLE STORAGE SOLUTIONS AND RENEWABLE ENERGY APPLICATIONS.

- ☐ **100% non spillable, perfect for indoor usage**
- ☐ **More than 500 cycles at 75% D.O.D**
- ☐ **More than 1000 cycles according to IEC 61427
(PVES Application)**
- ☐ **Extremely long service life**
- ☐ **Absolutely maintenance free**
- ☐ **High reliability and safe handling**

DEEP CYCLE BATTERIES



MEGALIGHT POWER AGM DEEP CYCLE

SPECIFICATIONS

Battery Type	Nominal Voltage [V]	C1 (10.2V) [Ah]	C5 (10.2V) [Ah]	C10 (10.2V) [Ah]	C100 (10.8 V) [Ah]	Reserve Capacity [min]	Dimensions, mm L / W / H			Layout
ML 81060	12	38	50	55	65	110	242	175	190	0
ML 81070	12	45	60	65	75	130	278	175	190	0
ML 81090	12	65	85	90	100	175	353	175	190	0
ML 1200C	12	65	85	95	105	180	345	175	230	0
ML 140A	12	85	110	125	140	240	513	189	223	3
ML 170B	12	100	130	145	170	300	513	223	223	3
ML 185C	12	115	150	165	195	350	518	274	242	3
ML 220C	12	135	175	190	220	430	518	274	242	3

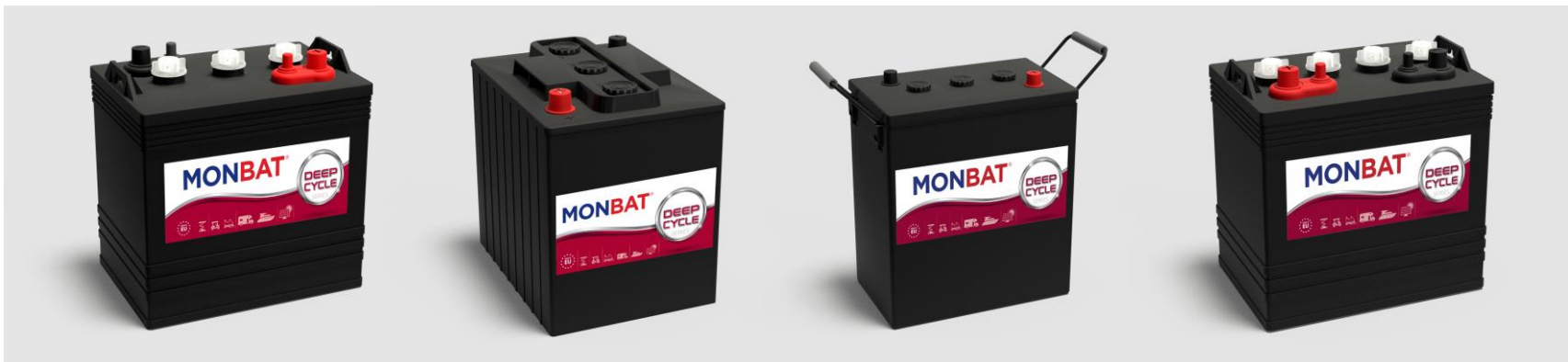
Charging Type	Parameters / Limits
Charge with constant current	Current limit: 10-20% from C ₁₀ capacity rate
Charge with constant voltage	Voltage limit: 14,1-15.0 V per block
Float charge voltage (cycling)	Float Voltage: 13.62V per block @ 20 °C
Temperature correction factor	0.018V per block / °C

DEEP CYCLE BATTERIES

MONBAT®
GROUP

DEEP CYCLE SERIES

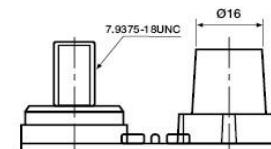
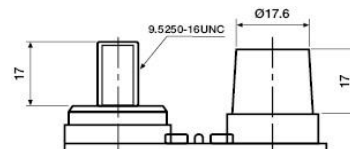
ADVANTAGES OF THE SERIES



OUR DEEP CYCLE RANGE IS SPECIALLY DESIGN FOR POWERING ELECTRICAL EQUIPMENT FOR LONGER PERIODS OF TIME WITH INCREASED ABILITY OF DEEP DISCHARGE CYCLES.

- ❑ Perfect option for applications demanding extremely high resistance to deep and repeated discharge cycles
- ❑ Up to 400 cycles at 75% D.O.D (for 12V batteries)
- ❑ Up to 1000 cycles at 75% D.O.D (for 6V and 8V)

- ❑ Up to 2000 cycles as per IEC 61427 (PVES applications)
- ❑ Very wide choice of capacities for any type of application



DEEP CYCLE BATTERIES

MONBAT
GROUP

DEEP CYCLE SERIES

SPECIFICATIONS

Battery Type	Box type BCI	C20 [Ah]	C5 [Ah]	Reserve Capacity	Dimensions, mm			Layout	Terminal type	Lid
				@25A[min]	L / W / H					
6V Deep Cycle Flooded Batteries										
MP 6V US	GC2	225	185	450	261	181	274	2	Dual	FLAT
MP 6V	DIN	240	197	505	244	190	274	2	Dual	FLAT
MP 305	902	350	287	790	311	180	356	2	Dual	FLAT
8V Deep Cycle Flooded Batteries										
MP 8V US	GC8	175	145	302	261	181	276	0	Dual	FLAT
12V Deep Cycle Flooded Batteries										
MP 24DC	24	80	65	130	260	175	220	1	Dual	SMF
MP 27DC	27	95	75	170	304	173	220	1	Dual	SMF
MP 31DC	31	110	90	200	336	173	235	1	Dual	SMF
MP GC12	920	130	105	210	345	175	285	1	Dual	FLAT

DEEP CYCLE BATTERIES

MONBAT[®]
GROUP

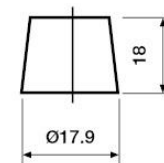
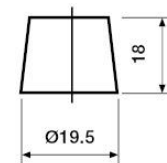
SEMI TRACTION



ADVANTAGES OF THE SERIES

OUR SEMI TRACTION RANGE IS SPECIALLY DESIGNED FOR APPLICATIONS WITH A PERMANENT AND LONG LASTING SUPPLY OF ELECTRICAL ENERGY.

- ❑ Suitable for dual usage: power supply and starting power
- ❑ More than 400 cycles at 75% D.O.D.
- ❑ More than 800 cycles according to IEC 61427 (PVES Application)
- ❑ Long service life
- ❑ High resistance to deep and repeated discharge cycles
- ❑ Available in SMF version



LEISURE/MARINE APPLICATION

MONBAT
GROUP

LEISURE/MARINE

SPECIFICATIONS



- ❑ A specialized construction to withstand the discharge / charge cycling conditions demanded by leisure equipment
- ❑ To fit: Motorboats, Canal Boats, Yachts, Motor Homes, Caravans

Battery Type	Nominal Voltage [V]	Capacity [Ah]	Dimensions, [mm] L / W / H			Layout	Terminals	Hold Down
Leisure 60	12	60	270	175	210	1	1	B1/B5
Leisure 75	12	75	270	175	210	1	1	B1/B5
Leisure 90	12	90	345	175	230	1	1	B0
Leisure 100	12	100	345	175	230	1	1	B0
Leisure 110	12	110	345	175	230	1	1	B0
Leisure 130	12	130	345	175	285	1	1	B0

INDUSTRIAL BATTERIES

MONBAT[®]
GROUP

VRLA-AGM

TELECOM AND RESERVED POWER BATTERIES



Maintenance free product

Over 12 years of design life, EUROBAT specification Very Long Life

Nominal parameters in accordance with best practices

Bond container-lid: heat sealed for durable performance

AGM internal gas recombination efficiency 99%

Three-layer terminal sealing for leak-free operation

Shock-resistant ABS Flame Retardant V0 containers

One way valve regulated system with flame-arrester

Unified sizes and integrated carry handles

Ready for use immediately after installation

Central degassing outlet for all front terminal batteries

Easy installation with insulated inter-cell connectors

Optimal correlation "electrolyte / active mass"

Fully recyclable

Proven low rate of self-discharge

Overall balance for float and cyclic application

Wide range of operating temperature -20°C / +55°C

ETSI 19" / 21" / 23" integration

Reduced installation and ownership cost

INDUSTRIAL BATTERIES

MONBAT[®]
GROUP

STABLE GRID FLOATING



TELECOM AND RESERVED POWER BATTERIES

Battery Type	Nominal Voltage	Capacity C ₁₀ , Ah	Dimensions		
			L	W	H
12MVR65TA	12 V	60	395	105	255
12MVR80TA	12 V	80	395	105	255
12MVR100TA	12 V	92	395	105	280
12MVR100	12 V	100	398	110	286
12MVR110F	12 V	105	510	110	235
12MVR130L	12 V	130	550	110	285
12MVR150	12 V	150	550	110	285
12MVR155L	12 V	155	555	125	276
12MVR180	12 V	180	555	125	316
12MVR200	12 V	190	555	125	316

Battery Type	Nominal Voltage	Capacity C ₁₀ , Ah	Dimensions		
			L	W	H
2MVR400	2 V	400	389	171	238
2MVR500	2 V	500	389	171	238
2MVR600	2 V	600	389	171	238
4MVR300	4 V	300	389	171	238
6MVR200	6 V	200	389	171	238

INDUSTRIAL BATTERIES

MONBAT
GROUP

HIGH TEMPERATURE



TELECOM AND RESERVED POWER BATTERIES

Battery Type	Nominal Voltage	Capacity C ₁₀ , Ah	Dimensions		
			L	W	H
12HVR100	12 V	103	400	110	286
12HVR130	12 V	130	557	125	276
12HVR150	12 V	150	557	125	276
12HVR170	12 V	170	557	125	316
12HVR190	12 V	190	557	125	316

HIGH CYCLING CARBON



HYBRID AND RESERVED POWER BATTERIES

Battery Type	Nominal Voltage	Capacity C ₁₀ , Ah	Dimensions		
			L	W	H
12HVR100C	12 V	100	400	110	286
12HVR150C	12 V	150	557	125	276
12HVR170C	12 V	170	557	125	316
12HVR190C	12 V	190	557	125	316

INDUSTRIAL BATTERIES

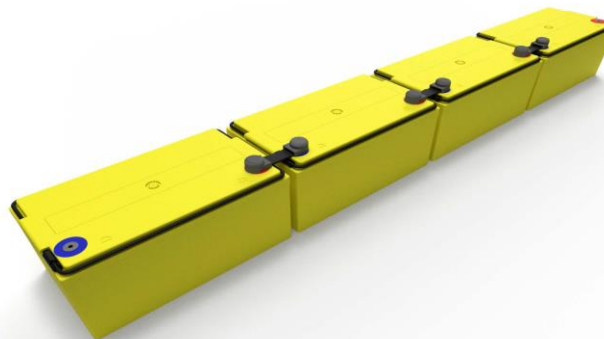
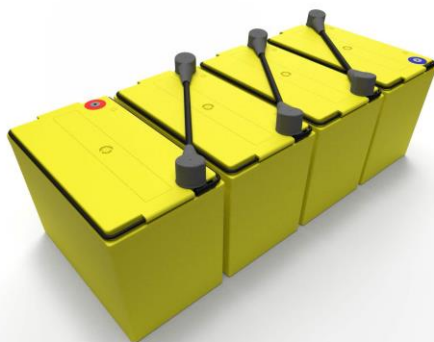
MONBAT
GROUP

UPS



UPS AND RESERVED POWER BATTERIES

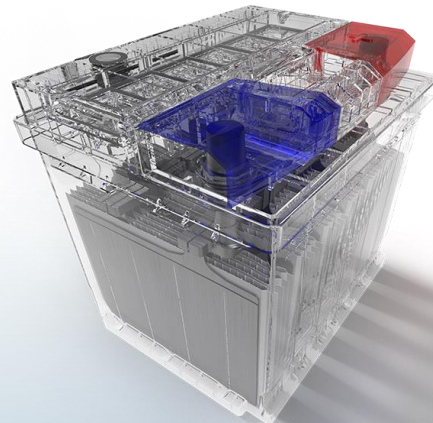
Battery Type	Nominal Voltage	Capacity C ₁₀ , Ah	Dimensions		
			L	W	H
12UPM1800	12 V	55	215	173	220
12UPM2000	12 V	75	305	173	220
12UPM2500	12 V	90	305	173	220
12UPM3500	12 V	100	340	173	220
12MVR5500	12 V	140	340	173	278



THANK YOU FOR YOUR ATTENTION!

MONBAT®

BATTERIES



Issue 4, 2022

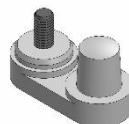


DEEP CYCLE

PROFESSIONAL

New Deep Cycle J305 battery with dual terminal

Monbat's Professional Deep Cycle series now contains a J305 battery with dual terminal.



Monbat DC batteries deliver reliable power for the most demanding equipment, operating in the harshest conditions and suitable for use in variety of applications:

- Mobile lifting platforms - Light Cranes, Aerial Work Platforms/Access, Pallet Jacks

Self-Mobile Elevated Work Platforms or Aerial work platform require extraordinary endurance and extended battery life without compromise. The brand offers exceptional battery technology with vast range of advanced features.

- Floor Cleaning Equipment - Floor cleaners, Wet scrubbers, Polishers

Floor Machines equipped with 6V batteries needs high performance and outstanding durability and Monbat J305 is fully capable to deliver it.

- Recreation – Marine & RV

Nothing brings you closer to the nature than your favorite boat or RV. Monbat DC batteries can get you where you want to go.

DEEP CYCLE series



Key Features & Benefits

- Perfect option for applications demanding extremely high resistance to deep and repeated discharge cycles
- Up to 900 cycles at 50% DoD
- Up to 2000 cycles (PVES application)



Technical Specifications

Part No.	T01T6US3_1
Dimensions in mm (LxWxH)	311x180x356
Case Type	J305
Terminal Type	Dual
Capacity at C5 (Ah)	287 Ah
Capacity at C20 (Ah)	350 Ah
Capacity at C100 (Ah)	385 Ah
Weight with Acid (kg)	47.2 kg

Equivalent to

- *Trojan - J305P-AC Trojan 6V 330Ah*
- *US Battery - US305HC*
- *Rolls - S6-370AGM – 6V 335Ah*
- *Crown - CR-305 Crown 6V 305Ah*

MONBAT[®]

BATTERIES



CATALOGUE

INDUSTRIAL BATTERIES

HIGH RATE POWER UPS RESERVED POWER HIGH TEMPERATURE HIGH CYCLING CARBON

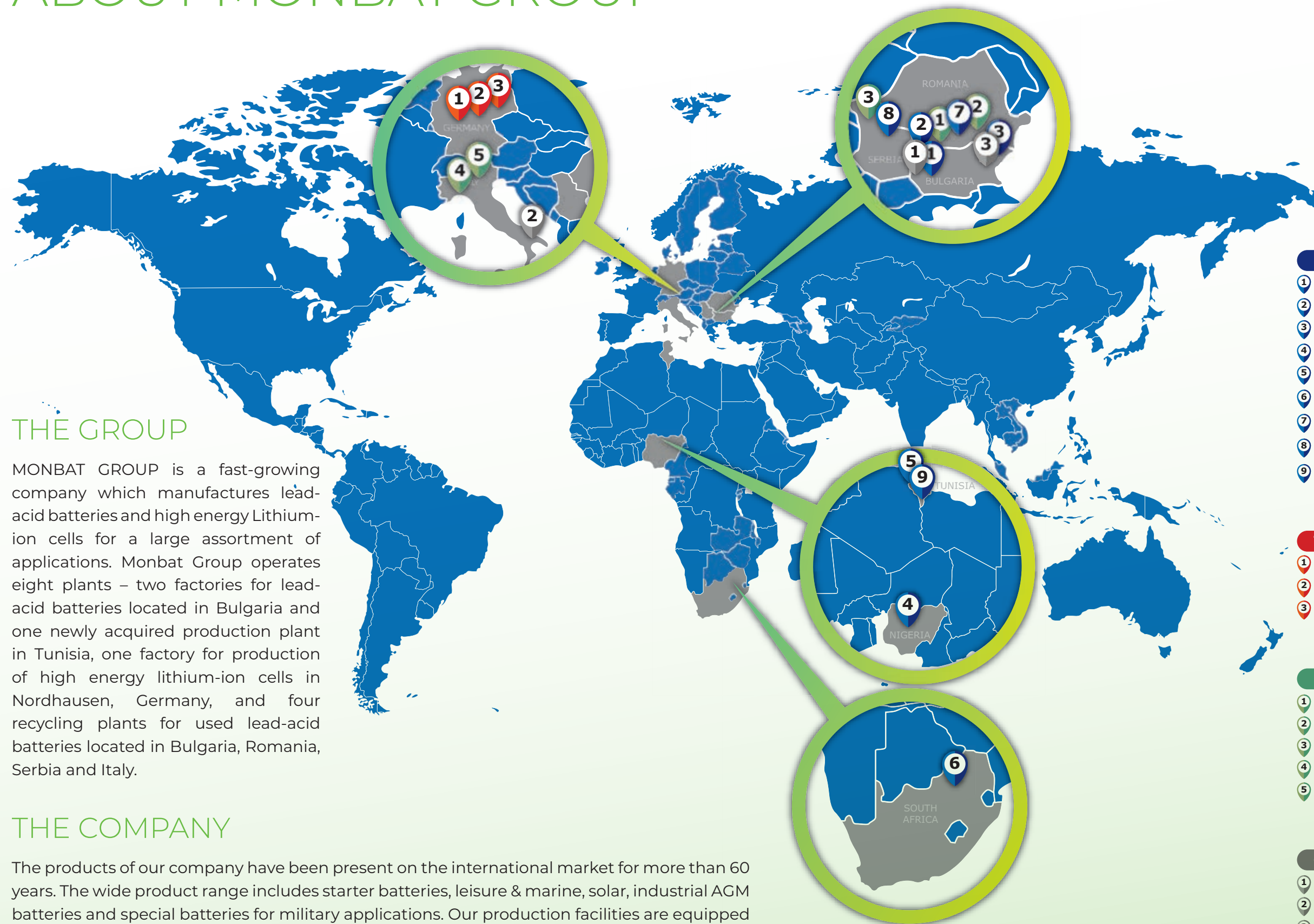
ABOUT MONBAT GROUP

THE GROUP

MONBAT GROUP is a fast-growing company which manufactures lead-acid batteries and high energy Lithium-ion cells for a large assortment of applications. Monbat Group operates eight plants – two factories for lead-acid batteries located in Bulgaria and one newly acquired production plant in Tunisia, one factory for production of high energy lithium-ion cells in Nordhausen, Germany, and four recycling plants for used lead-acid batteries located in Bulgaria, Romania, Serbia and Italy.

THE COMPANY

The products of our company have been present on the international market for more than 60 years. The wide product range includes starter batteries, leisure & marine, solar, industrial AGM batteries and special batteries for military applications. Our production facilities are equipped with state-of-the-art equipment and machines using the latest technologies, granting high quality products and reaching an annual sales volume of over 5M batteries.



THE LEAD-ACID BUSINESS

- 1 MONBAT TRADING OOD SOFIA, BULGARIA
- 2 MONBAT AD MONTANA, BULGARIA
- 3 START AD DOBRICH, BULGARIA
- 4 ENERGY BATTERIES NIGERIA LIMITED LAGOS, NIGERIA
- 5 SOCIÉTÉ NOUVELLE DES ACCUMULATEURS BEN AROUS, TUNISIA
- 6 MONBAT SOUTH AFRICA PROPRIETARY LTD MEADOWDALE, SOUTH AFRICA
- 7 MONBAT ROMANIA SRL BUCHAREST, ROMANIA
- 8 YU MONBAT DOO YAGODINA, SERBIA
- 9 SOCIÉTÉ NOUR DE DISTRIBUTION BEN AROUS, TUNISIA

THE LITHIUM-ION BUSINESS

- 1 MONBAT HOLDING GMBH NORDHAUSEN, GERMANY
- 2 EAS BATTERIES GMBH NORDHAUSEN, GERMANY
- 3 MONBAT NEW POWER GMBH NORDHAUSEN, GERMANY

RECYCLED INDUSTRIAL MATERIALS

- 1 MONBAT RECYCLING EAD MONTANA, BULGARIA
- 2 SG MONBAT RECYCLING SRL ILFOV, ROMANIA
- 3 MONBAT PLC DOO INDIJA, SERBIA
- 4 MONBAT ITALY SRL LA SPECIA, ITALY
- 5 PIOMBIFERA ITALIANA S.P.A. LA SPECIA, ITALY

OTHER ACTIVITIES

- 1 MONBAT SPED EOOD SOFIA, BULGARIA
- 2 STC S.R.L. MESAGNE, ITALY
- 3 A.R.T. MONBAT AD DOBRICH, BULGARIA

MONBAT INDUSTRIAL BATTERIES



INDUSTRIAL BATTERIES

RESERVED POWER

HIGH CYCLING CARBON

HIGH TEMPERATURE

HIGH RATE POWER UPS

MVR RANGE

HVR C RANGE

HVR RANGE

UPM RANGE

APPLICATION

TELECOM TEMPERATURE CONTROLLED ENVIRONMENT	■ ■ ■ ■ ■
TELECOM EVALUATED TEMPERATURE ENVIRONMENT	■ ■ ■
TELECOM HYBRID	■ ■ ■ ■
UPS SYSTEMS	■ ■ ■ ■ ■
INVERTER SYSTEMS	■ ■ ■ ■ ■
RENEWABLE SOURCES	■ ■ ■ ■
RAILWAY SYSTEMS	■ ■ ■ ■ ■
BUILDING AUTOMATION	■ ■ ■ ■ ■
TRAFFIC LIGHT	■ ■ ■

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RESERVED POWER BATTERIES

MVR SERIES

Reserved power batteries are used for applications where power is necessary on a standby, emergency or moderate cycling basis. Reserved power batteries remain on a continuous float charge so that they can be used on demand. Reserved power batteries are also used for backup emergency power, telecommunications equipment, uninterruptible power supplies and solar application. The dimensions of this type of batteries comply with international standards for battery stands and cabinets.



BENEFITS

- Extremely long float life performance
- Special designed robust VRLA AGM battery
- Compact design with high energy density
- Anti-corrosion grid technology
- Special designed valve technology for less water loss
- Wide operating temperature range: -20°C to +60°C
- Excellent deep cycling performance



EXTENDED
FLOAT LIFE



EXCELLENT DEEP CYCLING
PERFORMANCE



WIDE OPERATING
TEMPERATURE RANGE:



MINIMIZED TOTAL COST
OF OWNERSHIP

APPLICABLE STANDARDS

- IEC 60896 - 21/22;
- EN 50272 – 2;
- IEC 61427 – 1/2;
- IEC 61056 – 1;
- IEEE 1184;
- IEEE 1187;
- IEEE 1188.

CONTAINER MATERIAL

Shock resistant ABS FR flammability
class UL94 V0

EUROBAT DESIGN LIFE

VERY LONG LIFE 12+ YEARS

SPECIFICATIONS

Type	Un, V	Nominal Capacity C10, Ah	Dimensions, mm			Terminal type
			Length	Width	Height	
12MVR65TA	12	60	395	105	255	Front
12MVR75TA	12	75	395	105	255	Front
12MVR80TA	12	80	395	105	255	Front
12MVR100TA	12	92	395	105	280	Front
12MVR100	12	100	398	110	286	Front
12MVR110F	12	105	510	110	235	Front
12MVR130L	12	130	550	110	285	Front
12MVR150	12	150	550	110	285	Front
12MVR155L	12	155	555	125	276	Front
12MVR180	12	180	555	125	316	Front
12MVR200	12	190	555	125	316	Front
8MVR160	8	160	262	181	276	Top
6MVR200	6	200	389	171	238	Top
4MVR300	4	300	389	171	238	Top
2MVR400	2	400	389	171	238	Top
2MVR500	2	500	389	171	238	Top
2MVR600	2	600	389	171	238	Top

HIGH CYCLING CARBON BATTERIES

HVR-C SERIES

HIGH CYCLING CARBON BATTERIES cells produced by Monbat, are designed with negative plates containing a series of different carbon additives. The cycle life of MONBAT carbon modified cells is increased significantly compared to standard unmodified cells. Graphitic carbon and carbon black blend in the active material support faster recharge of the batteries increasing their efficiency for operation in harsh environment.



BENEFITS

- Extended cycle life achieved through innovative Carbon technology
- Excellent deep cycling performance
- High Active material utilization for high energy density
- Active material additives for faster capacity recovery
- Minimized total cost of ownership
- Wide operating temperature range: -20°C to +60°C



EXCELLENT DEEP CYCLING
PERFORMANCE



EXTENDED
CYCLE LIFE



WIDE OPERATING
TEMPERATURE RANGE:



MINIMIZED TOTAL COST
OF OWNERSHIP

APPLICABLE STANDARDS

- IEC 60896 - 21/22;
- EN 50272 - 2;
- IEC 61427 - 1/2;
- IEC 61056 - 1;
- IEEE 1184;
- IEEE 1187;
- IEEE 1188.

CONTAINER MATERIAL

Shock resistant ABS FR flammability
class UL94 V0

EUROBAT DESIGN LIFE

VERY LONG LIFE 12+ YEARS

SPECIFICATIONS

Type	Un, V	Nominal Capacity C10, Ah	Dimensions, mm			Terminal type
			Length	Width	Height	
12HVR100C	12	100	400	110	286	Front
12HVR150C	12	150	557	125	276	Front
12HVR170C	12	170	557	125	316	Front
12HVR190C	12	190	557	125	316	Front

HIGH TEMPERATURE BATTERIES

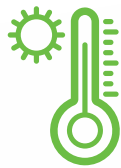
HVR SERIES

Designed for harsh environment and implementation with new energy sources and models of operation, suitable for operation in higher ambient temperature. Safe and reliable source of power for telecom and industrial application in extraordinary conditions. These batteries are mainly used in remote locations without main electricity, areas with frequent power outages, wind and photovoltaic storage systems, cyclic and hybrid applications.



BENEFITS

- Precise ratio of active materials for high temperature conditions
- Manufactured in highest grade ABS-FR UL94 V-0 containers
- Special alloys and active materials resistant to corrosion
- Special designed valve technology for less water loss
- Wide operating temperature range: -20°C to +60°C
- Excellent deep cycling performance



HIGH TEMPERATURE
PERFORMANCE:



EXTENDED FLOAT LIFE AT
ELEVATED TEMPERATURE



EXCELLENT DEEP CYCLING
PERFORMANCE



MINIMIZED TOTAL COST
OF OWNERSHIP

APPLICABLE STANDARDS

- IEC 60896 - 21/22;
- EN 50272 - 2;
- IEC 61427 - 1/2;
- IEC 61056 - 1;
- IEEE 1184;
- IEEE 1187;
- IEEE 1188.

CONTAINER MATERIAL

Shock resistant ABS FR flammability
class UL94 V0

EUROBAT DESIGN LIFE

LONG LIFE 10 - 12 YEARS

SPECIFICATIONS

Type	Un, V	Nominal Capacity C10, Ah	Dimensions, mm			Terminal type
			Length	Width	Height	
12HVR100	12	100	400	110	286	Front
12HVR130	12	130	557	125	276	Front
12HVR150	12	150	557	125	276	Front
12HVR170	12	170	557	125	316	Front
12HVR190	12	190	557	125	316	Front

HIGH RATE POWER UPS BATTERIES UPM SERIES

A battery backup, or uninterruptible power supply (UPS), is primarily used to provide a backup power source to important equipment. In addition to acting as a backup when the power goes out, most battery backup devices also act as power "conditioners" by ensuring that the electricity flowing to protected equipment is free from drops or surges. Monbat produces a range of HIGH RATE POWER UPS BATTERIES especially for UPS applications.



BENEFITS

- Special designed to protect from power disturbances
- High Active material utilization for high energy density
- Long life grid technology
- 100% Maintenance free
- Compact and easy for installation
- Fully compatible dimensions to the industry



HIGH POWER
DENSITY



EXTENDED
FLOAT LIFE



WIDE OPERATING
TEMPERATURE RANGE:



MINIMIZED TOTAL COST
OF OWNERSHIP

APPLICABLE STANDARDS

- IEC 60896 - 21/22;
- EN 50272 - 2;
- IEC 61427 - 1/2;
- IEC 61056 - 1;
- IEEE 1184;
- IEEE 1187;
- IEEE 1188.

CONTAINER MATERIAL

Shock resistant ABS FR flammability
class UL94 V0

EUROBAT DESIGN LIFE

LONG LIFE 10 - 12 YEARS

SPECIFICATIONS

Type	Un, V	Nominal Capacity C10, Ah	Dimensions, mm			Terminal type
			Length	Width	Height	
12UPM1800	12	55	215	173	220	TOP
12UPM2000	12	75	305	173	220	TOP
12UPM2500	12	90	305	173	220	TOP
12UPM3500	12	100	340	173	220	TOP
12UPM5500	12	140	340	173	278	TOP

CONNECTION OVERVIEWS

**12V FT BATTERY SERIAL
CONNECTION**



**12V BATTERY L SHAPE
CONNECTION FOR TRUE
FRONT ACCESS**



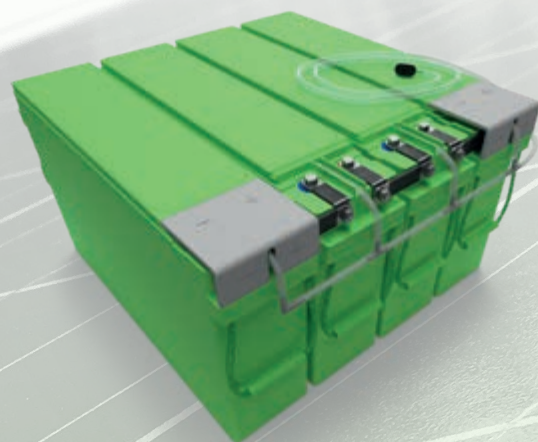
**4V TOP ACCESS
BATTERY SERIAL
CONNECTION**



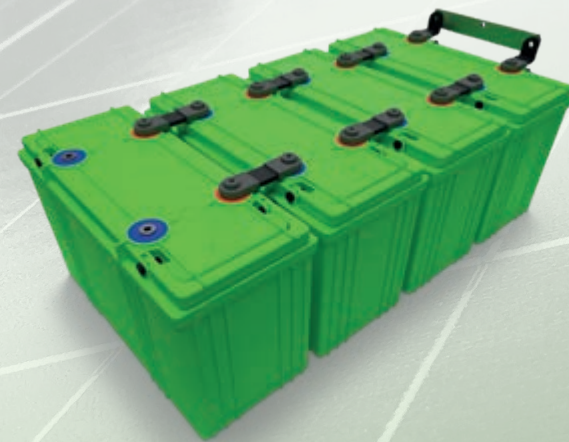
**6V TOP ACCESS
BATTERY SERIAL
CONNECTION**



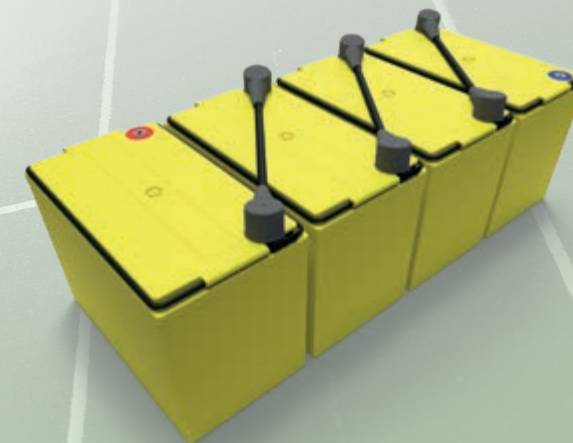
**12V FT BATTERY
DEGASSING
SYSTEM CONNECTION**



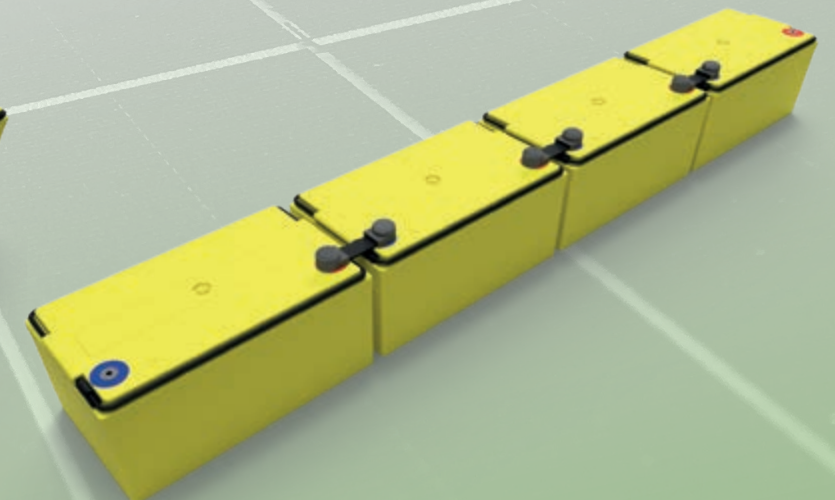
**2V TOP ACCESS
BATTERY SERIAL
CONNECTION**



**12V UPS BATTERY
LONG SIDE SERIAL
CONNECTION**

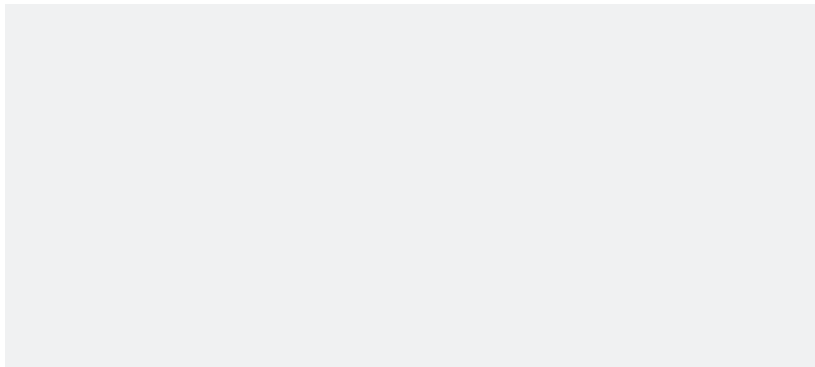


**12V UPS BATTERY
SHORT SIDE SERIAL
CONNECTION**





MONBAT®



THE SOURCE OF POWER

HEAD OFFICE

32 A Cherni vrah blvd.

1407 Sofia, Bulgaria

tel. +359 2 962 11 50

fax: +359 2 962 11 46

e-mail: contact@monbat.com

www.monbatgroup.com

November 2021

ISO 9001
ISO 14001
ISO 45001
IATF 16949



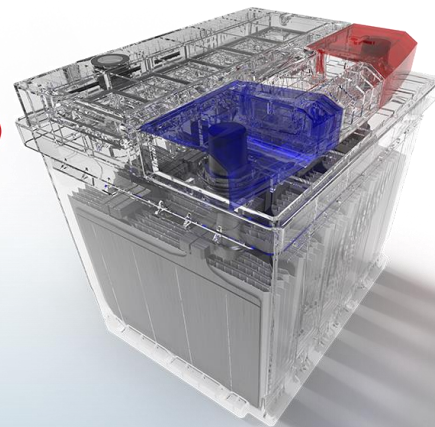
Intertek



Intertek

MONBAT®

BATTERIES

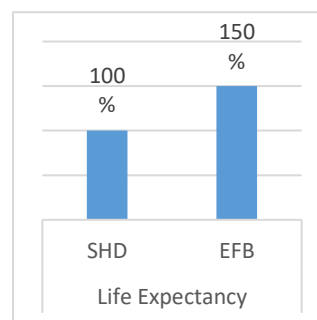
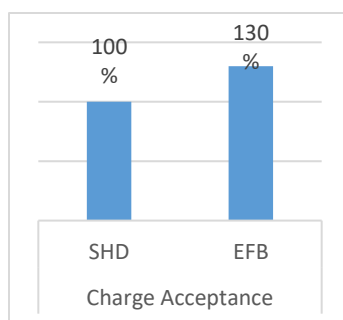


Issue 2, 2023

MONBAT EFB+C CV range had a significant improvement in terms of extended service life (CNT additives in NAM) and further increase of charge acceptance and vibration resistance.

Quick charge acceptance, working in partial state of charge, more cycling – these are the most important features of any battery which can fulfill the very high demands of nowadays commercial fleets.

In this new reality the Enhanced Flooded Batteries are one of the best options along with MONBAT AGM. EFB batteries can withstand multiple electrical loads while providing sufficient cranking power to start the engine. The MONBAT R&D worked in these directions and the new EFB+C battery has a significant improvement in terms of charge acceptance and cycle life.



SPECIFICATIONS

Battery Type	Performance		Box	Dimensions			Technical Characteristics			
	Capacity, Ah	CCA, A [EN]		L	W	H	Layout		Terminals	Hold Down
685 002 110 EFB	185	1100	B	513	223	223	3		1	B00
735 002 125 EFB	235	1250	C	514	276	242	3		1	B00

B & C containers are covering more than 60% of Heavy Commercial application

NEW TREND

EFB SUPER HEAVY DUTY

Unbeatable in any heavy commercial application.

Today commercial vehicles are no longer simple trucks which are used as pure transport or work vehicles. Increased environmental regulations are changing the trends on the market and truck batteries today must provide not only reliable starting power but the ability to supply high power electronic equipment in EURO 5/6 vehicles.

Key Features & Benefits

- Original equipment (OE) quality product and specification
- 3 times the cycle life stability compared to conventional batteries
- Completely *remastered SMF labyrinth system* for gas recombination and better control over gassing
- *Micro 4BS* Crystal Structure of Active Material and *Teflon additives* in positive plate for better cycling endurance
- Exceptional dynamic charge acceptance thanks to new formula containing *CNT in NAM*
- Highest Vibration Resistance V3/V4 thanks to robust design and *hot melt resin* both on top of plates and at the bottom of the box
- High cold cranking amperes (CCA) and reliable starting after overnight stay
- Eco Friendly Product and 99% Recyclable



BATTERY CLASSIFICATION AS PER EN 50342 - 1:2015

Water Consumption	Charge Retention	Vibration Resistance	Endurance Level
W4	C2	V3	E3

RECOMMENDED FOR:

- Rear chassis installation (EURO5/6)
- Power hungry long-haul trucks including hoteling function
- Advanced City buses and Coaches with additional electrical equipment & consumers
- Express delivery trucks with power hungry equipment or deep cycling needs
- Applications with partial state of charge operation
- Rough terrain machines and vehicles with high vibrations
- Compatibility with any standard power train commercial vehicle with lots of regular short journeys & stops

Technical Specifications

Part No.	E823BX0_1	E856CX0_1
ETN Reference	685 002 110	735 002 125
Dimensions in mm (LxWxH)	513x223x223	514x274x242
Case Type	B box/4D	C box/8D
Terminal Type	Standard conical	Standard conical
Capacity at C20 (Ah)	185 Ah	235 Ah
RC (min)	365 min	480 min
Cold Cranking Amps (A)	1100 A	1250 A

Equivalent to:

VARTA ProMotive EFB B90 & C40
 Exide Strong Pro EFB+ EE1853 & EE2353
 TAB EFB Stop&Go Truck 69032 & 74027
 Banner Buffalo Bull EFB 690 17 & 740 17
 Yuasa HD EFB YBX7625 & YBX7629
 Bosch Truck POWER EFB 185Ah TP0E7 & TP0E8