

EFB

Areas Of
Application



FULL ENERGY

Enhanced Flooded Battery

Full energy and solar batteries are critical power sources for applications requiring longer operation periods. With reinforced interior design and high charging levels, Mutlu EFB batteries are designed for longer cycle life for cleaning machines, electric vehicles, alarm and security systems, solar power systems, disabled chairs, elevators, pallet lifting equipment, golf carts, camper vans and UPS. Up to 50% deep discharge in applications requiring higher power, EFB batteries for marine applications do not require maintenance due to lower water loss levels.



Superior Technical Features



Advanced patented Ca-Ca, silver alloy grid technology exclusively designed for EFB batteries



Advanced active material developed for EFB batteries



More vibration resistant



Spill proof electrolyte system up to 55° tilt angle



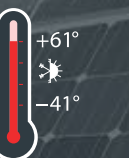
Maintenance-free product technology



QR and barcode system enabling tracking of products



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

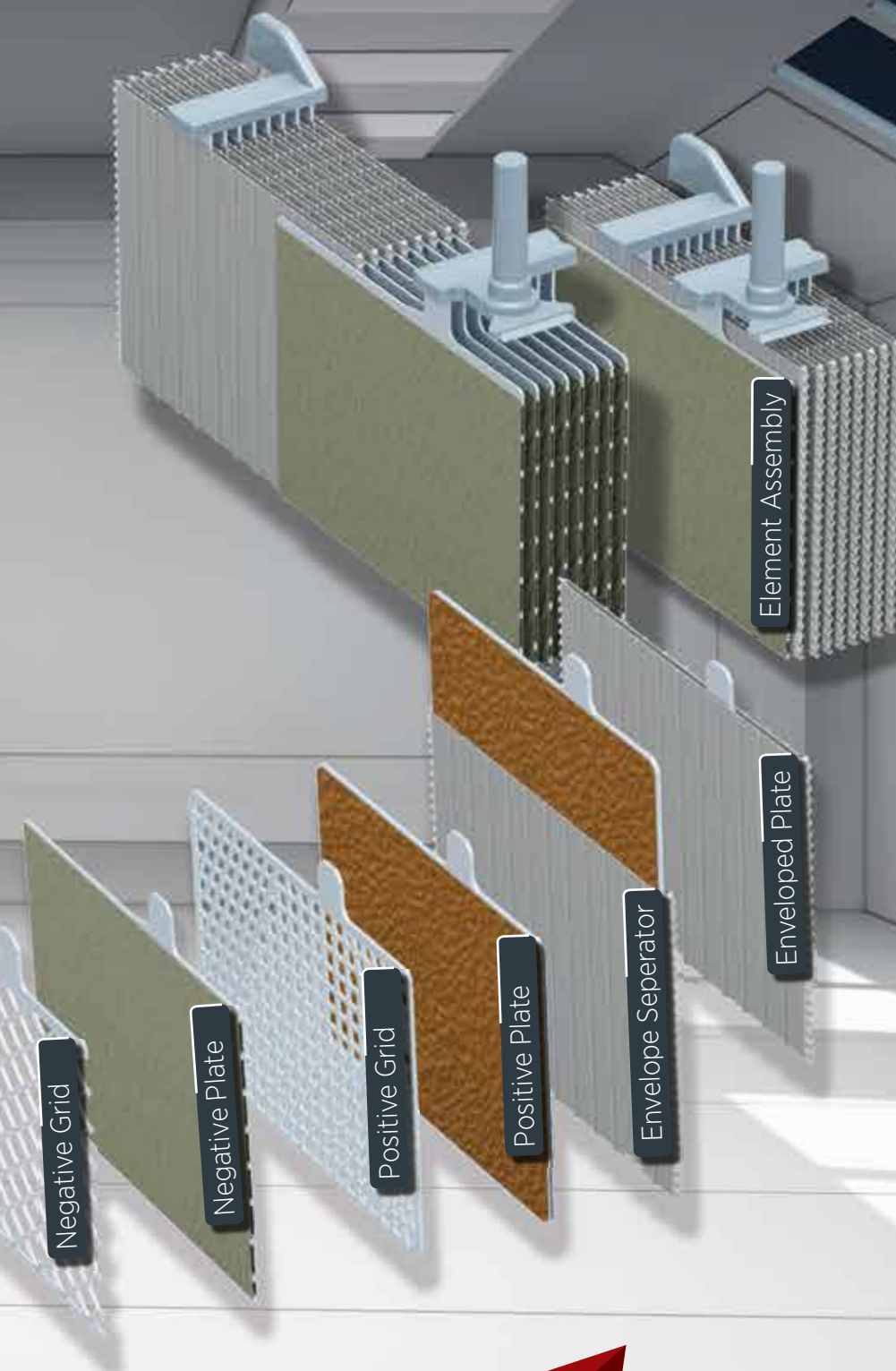
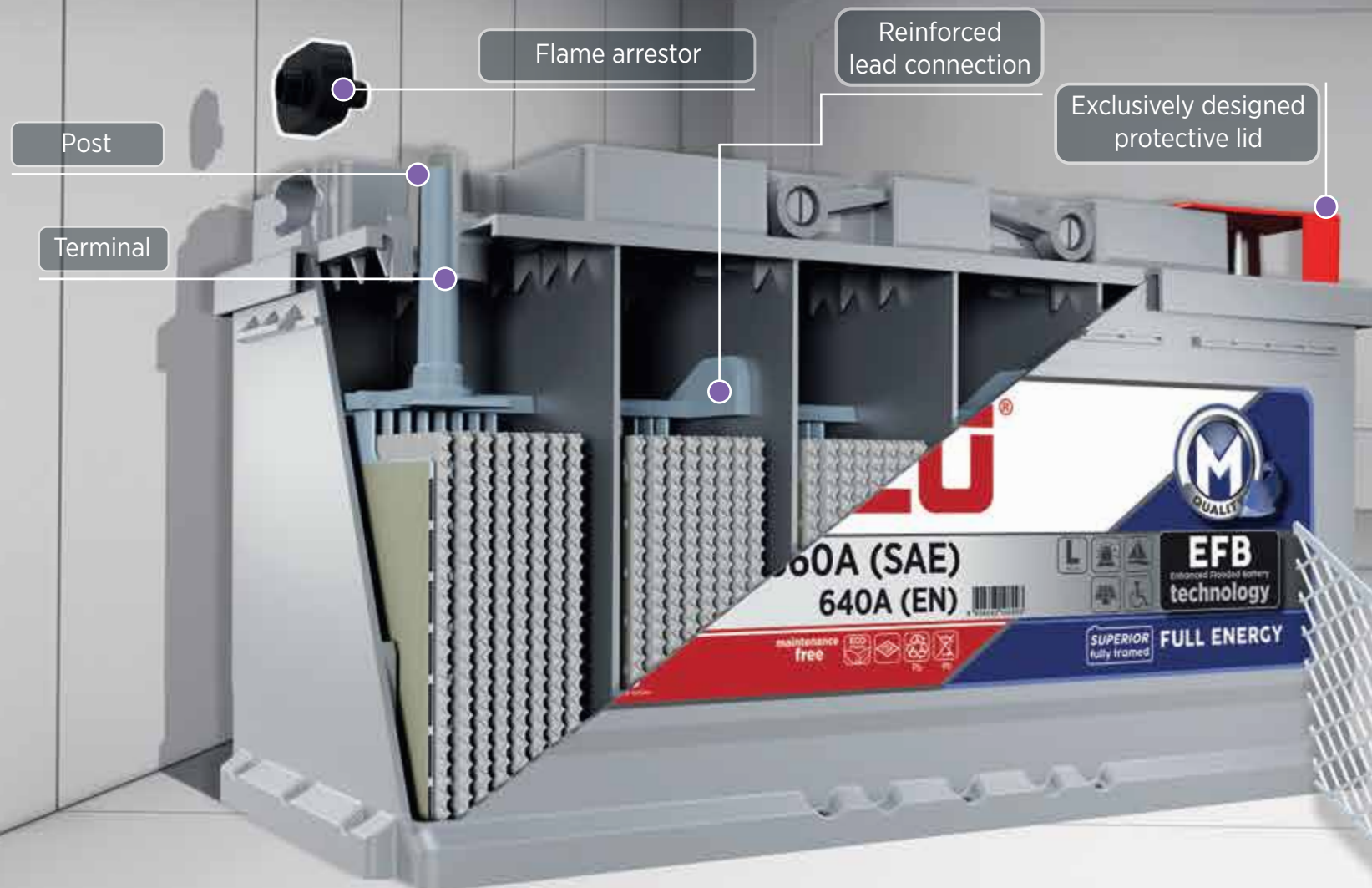


Higher performance under severe climate and working conditions compared to standard batteries



EFB
Enhanced Flooded Battery
technology

FULL ENERGY



GEL

Areas Of
Application



Mutlu Valf Regulated Lead Acid (VRLA) batteries contain gel electrolytes which are accepted to be the cutting edge lead acid battery technology. As Gel batteries reprocess almost 100% of the gas generated during operation and this feature allows indoor area usage and creates more environmental friendly batteries. These batteries empower your fleet with their high performance while reducing your costs thanks to their longer life cycle. With minimum discharge feature, they enable a longer shelf life and are suitable for seasonal stand-by periods.

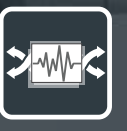
Superior Technical Features



Advanced patented Ca-Ca, silver alloy grid technology exclusively designed for **GEL** batteries



Advanced active material developed for **GEL** batteries



More vibration resistant



Spill proof electrolyte system up to 55° tilt angle



Exclusively designed valve system with pressure control (VRLA)



Spill proof gel electrolytes



QR and barcode system enabling tracking of products



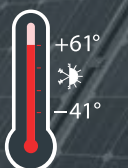
Maintenance-free product technology



Compatible with deep discharge



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



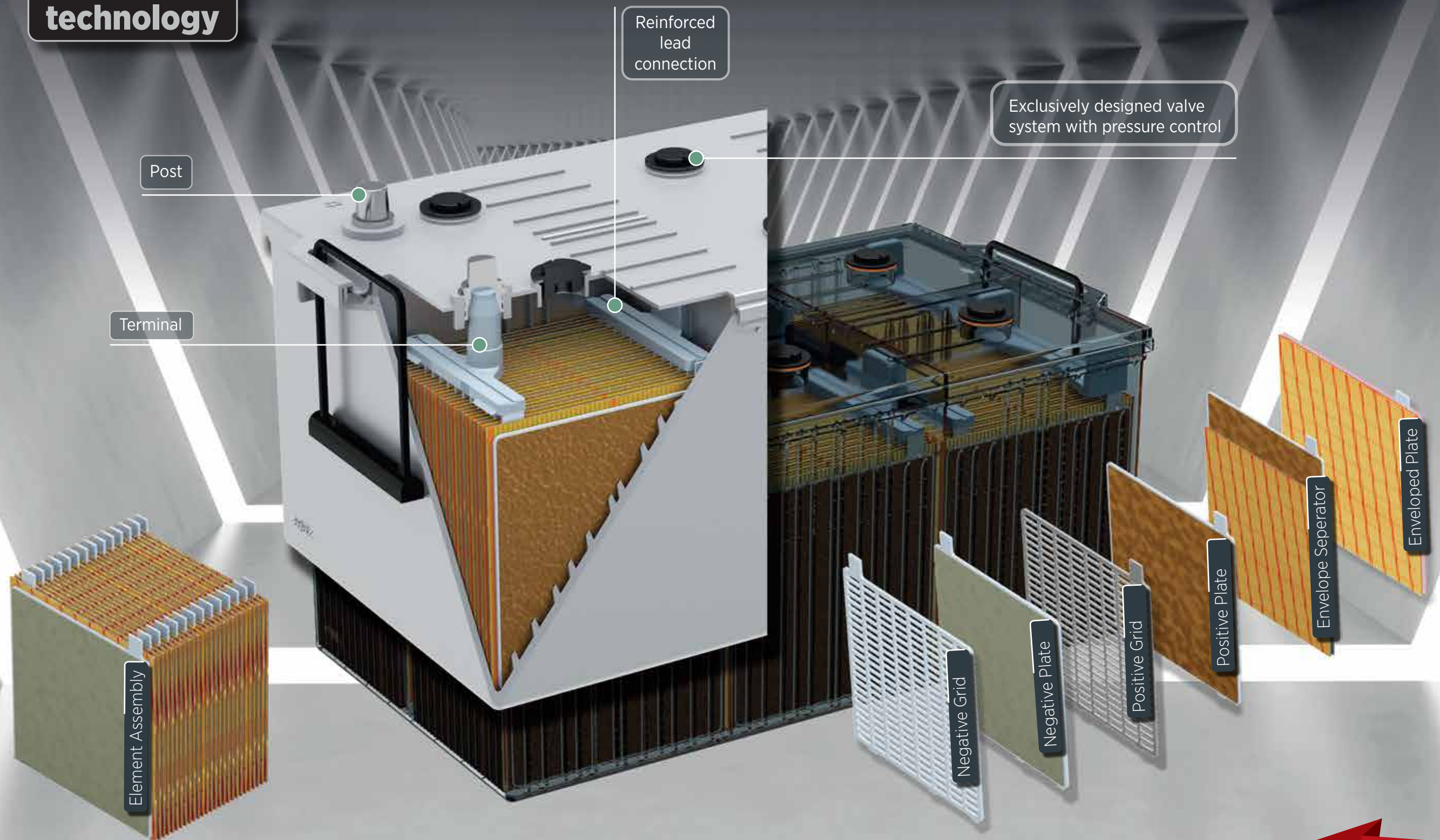
Higher performance under severe climate and working conditions compared to standard batteries





GEL
technology

GEL





SFB Superior Flooded Battery technology



EFB Enhanced Flooded Battery technology



GEL technology

Technologic Specifications

Areas of Application



Advanced patented Ca-Ca, silver alloy grid technology exclusively designed for SFB marine batteries



Advanced active material developed for SFB marine batteries



Sealed lid technology



Advanced patented Ca-Ca, silver alloy grid technology exclusively designed for EFB Full Energy batteries



Advanced active material developed for EFB Full Energy batteries



Advanced patented Ca-Ca, silver alloy grid technology exclusively designed for GEL batteries



Advanced active material developed for GEL batteries



Exclusively designed lid with pressure controlled valve system (VRLA)



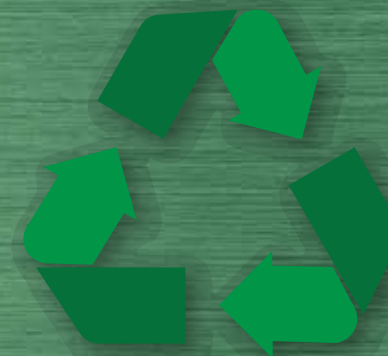
Spill proof gel electrolytes



Compatible with deep discharge

SUPERIOR
fully framed

RECYCLING ABOVE INDUSTRY STANDARDS



Recycling plant
with an annual
capacity of
40.000 tons

Nearly **100%**
recycling capability in
all products.

Higher energy efficiency
acquired by purification
through direct refining
technology

TS EN ISO 14001
and **TS EN ISO 50001**
certified
environment-friendly
manufacturing facility



Maintenance-free
product
technology



More vibration
resistant



Architecture
storing electrolytes
up to a melting
point of 55°



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



QR and barcode
system enabling
tracking of
products

* Fully sealed in certain type of batteries.

Product Dimensions List

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	MUTLU CODE	PART NUMBER							Lenght mm	Width mm	Height Except Terminal mm	Height mm	

SFB MARINE BATTERIES

L5	ML5.90.060.A	90	600	650	0	1	B13	353	175	190	190	22,2
D3	MD3.125.090.A	125	900	950	0	1	B0	349	175	263	286	32,5
D5	MD5.180.100.A	180	1000	1050	3	1	B3	513	223	195	223	48,5
D6	MD6.200.100.B	200	1000	1050	3	1	B0	518	273	216	242	62,2



EFB FULL ENERGY BATTERIES

L1	FL1.48.030.A	48	300	320	0	1	B3	207	175	190	190	14,0
L2	FL2.60.036.A	60	360	380	0	1	B3	242	175	190	190	17,5
L3	FL3.75.048.A	75	480	500	0	1	B3	278	175	190	190	20,0
L5	FL5.95.064.A	95	640	660	0	1	B13	353	175	190	190	26,0
H3	FH3.100.064.A	100	640	660	0	1	B3	323	176	207	228	27,5
D4	FD4.135.068.A	135	680	750	3	1	B3	513	186	195	223	37,0
D5	FD.165.095.A	165	950	1000	3	1	B3	513	223	195	223	44,5
D6	FD.225.110.B	225	1100	1150	3	1	B0	518	273	215	242	61,5

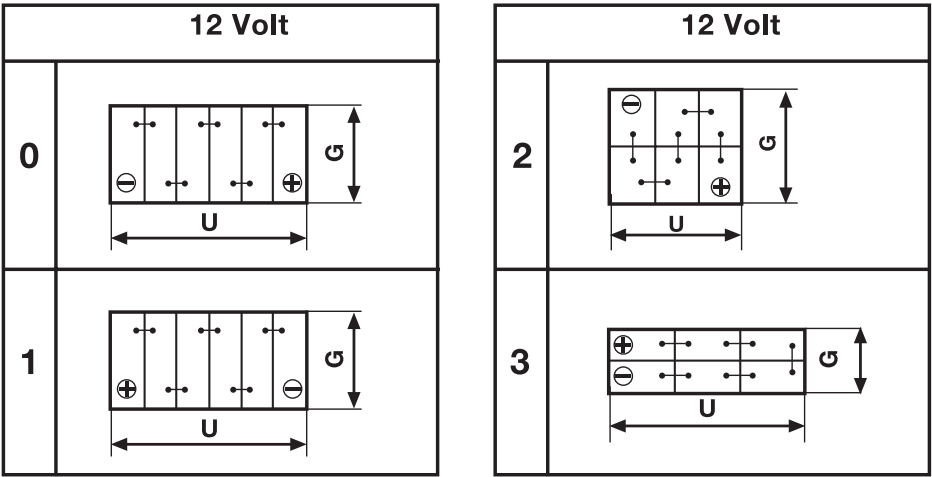


GEL BATTERIES

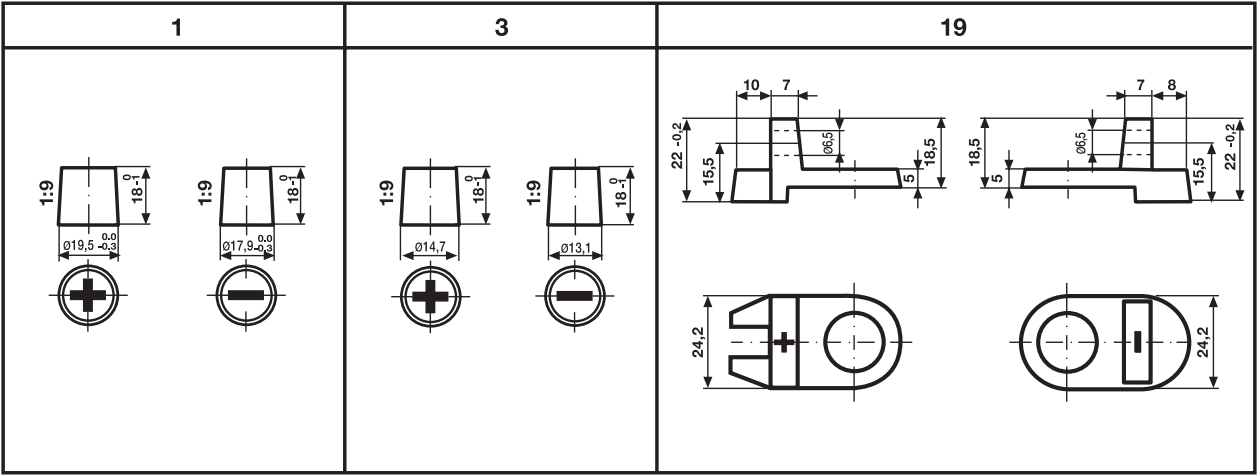
D6	GD6.210.084.B	210	840	900	3	1	B0	518	273	216	242	75,0
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Type of Installation



CONNECTION TERMINALS



HOLD DOWNS

