

SAGGA

BATTERIES

FOR AUTOMOTIVE AND POWER BACKUP SOLUTIONS

A NEW AGE OF **POWER**

VISION

Our vision is to be a driving force in empowering our customers for tomorrow, today. We envision a world where high-quality energy solutions are accessible to everyone, enabling daily independent energy needs without compromising on performance or affordability. SAGA Batteries are more than just power sources – they are enablers of a high-tech lifestyle, built to support the demands of modern living.

MISSION

Our mission is to revolutionize the battery industry by offering top-tier technology that not only meets the highest standards of quality and safety. We are committed to innovation, continually integrating advanced technologies into our products to ensure optimal performance and longevity. Our batteries are designed to be reliable in every situation, whether powering vehicles or sustaining energy systems.

ABOUT

We believe in the power of advanced technology to drive progress. SAGA brand launched by ACM Hi-Tech Engineering, a division of the ACM Group of Industries, we are committed to delivering premium-quality battery solutions that blend cutting-edge innovation with environmental responsibility. We strive to create a future where technology and sustainability coexist harmoniously. By offering products that are both durable and budget-friendly, we aim to equip our customers with the tools they need to thrive in a rapidly evolving world. Whether it's for automotive applications, home energy systems, or industrial use, our batteries are designed to meet the challenges of today and tomorrow, making reliable energy a cornerstone of progress.

Battery Products:

- Lithium-Ion (LiFePO₄) Batteries: 12.8 Volt to 51.2 Volt
- Maintenance Free Calcium+ Batteries: 20AH to 150AH
- Lead Acid Dry Charged Batteries: 20AH to 220AH
- Motorcycle Batteries: 3AH to 28AH
- Golf Cart Batteries: 160AH to 225AH
- Traction Cell/Batteries: 100AH to 1000AH
- Tubular Flooded Deep Cycle Batteries: 35AH to 280AH
- Valve Regulated Lead Acid Batteries (VRLA 12V): 4AH to 200AH
- OPzS/OPzV Batteries (2V): 150AH to 3000AH

MARKETS

MAIN MARKETS

LOCAL

ACM Group of Industries is present all over the Pakistan, having nine Regional offices and Customer Care Centres (Karachi, Lahore, Islamabad/Rawalpindi, Faisalabad, Multan, Hyderabad, Sukkur, Peshawar & Quetta) to ensure maximum coverage throughout the country.

EXPORTS

More than 29 countries around the world. (UAE, Saudi Arabia, Turkey, Qatar, China, Spain, France, Singapore, Afghanistan, Bahrain, Djibouti, Iraq, Jordan, Kuwait, Lebanon, Libya, Madagascar, Maldives, Mauritius, Nepal, Nigeria, Oman, Sri Lanka, Sudan, Syria, Tajikistan, Tanzania, Togo, Africa, and Yemen)

ACCREDITATION

- Quality Management Certification ISO 9001:2015
- Environment Management System ISO 14001:2015
- Occupational Health & Safety Management System ISO 45001:2018
- QA International UKAS (UK)
- IEC by CNC (Conformity 'n Compliance Services Nordheim Germany)
- Pakistan Standard Quality Control Authority (PSQCA)
- Maintenance Free Batteries collaboration with Duralife Daramic, USA

ISO Certified



USA

AWARDS

AWARDS

- FPCCI Export Award: Since 2004
- Brand of the year Award: Since 2006
- Consumer Choice Award: Since 2011
- NFEH Environment Excellence Award: Since 2018
- NFEH Fire Safety Award: Since 2018
- Best Battery Manufacturing of the year Excellence Award 2024
- 2nd International Solar Power Technology Excellence Award 2025



MAINTENANCE FREE CALCIUM⁺ AUTOMOTIVE BATTERIES

SAGA Maintenance-Free Calcium⁺ Batteries represent a leap forward in automotive battery technology, designed to provide unmatched reliability and convenience. Engineered with advanced Calcium⁺ technology, these batteries offer superior performance, extended lifespan, and enhanced durability, making them an ideal choice for modern vehicles. By eliminating the need for regular maintenance, SAGA Calcium⁺ Batteries simplify ownership and ensure comfort for customers.



CMF Calcium Plus, Automotive Batteries (JIS Standard)

Range & Specifications

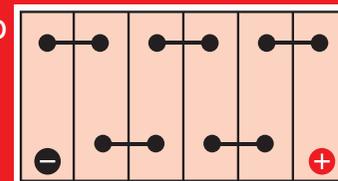
Battery Box Size	Battery Type	Plates per Cell	Capacity @ 20HR (AH)	RCT Min	CCA Amp	Dimension (mm)				Weight Wet (Kg) ±3%	Layout	Terminal	Hold Down
						L	W	H	TH				
NS40	SMF 50G	5	20	18	180	198	126	198	222	7.90	0	A	BO
	SMF 60R	9	38	45	350	198	126	198	222	9.85	0	A	BO
	SMF 60L	9	38	45	350	198	126	198	222	9.85	1	A	BO
	SMF 65R	11	40	55	370	198	126	198	222	10.70	0	A	BO
	SMF 65L	11	40	55	370	198	126	198	222	10.70	1	A	BO
N40	SMF 70R Thick/Thin	11	48	65	410	236	128	200	224	11.70	0	A/B	BO
	SMF 70L Thick/Thin	11	48	65	410	236	128	200	224	11.70	1	A/B	BO
	SMF 75R Thick/Thin	12	50	70	430	236	128	200	224	12.20	1	A/B	BO
	SMF 75L Thick/Thin	12	50	70	430	236	128	200	224	12.20	1	A/B	BO
N50	SMF 80R	9	50	80	400	254	170	198	221	15.00	0	B	BO
	SMF 80L	9	50	80	400	254	170	198	221	15.00	0	B	BO
	SMF 85R	11	75	90	440	254	170	198	221	16.60	0	B	BO
	SMF 85L	11	75	90	440	254	170	198	221	16.60	1	B	BO
55D23	SMF 55D23R	11	75	90	440	230	173	204	220	16.50	0	B	BO
	SMF 55D23L	11	75	90	440	230	173	204	220	16.50	1	B	BO
N70	SMF 110R	13	80	110	550	304	171	200	220	19.30	0	B	BO
	SMF 110L	13	80	110	550	304	171	200	220	19.30	1	B	BO
	SMF 120R	15	90	130	575	304	171	200	220	20.60	0	B	BO
	SMF 120L	15	90	130	575	304	171	200	220	20.60	1	B	BO

TH total height with terminal

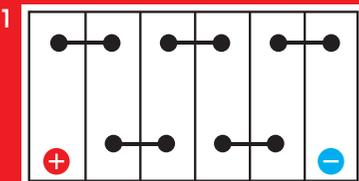
• Terminal : "A" is "Standard" & "B" is "Small" terminal.

Note : Specifications are subject to change with or without notice.

L Polarity 0



R Polarity 1



MAINTENANCE FREE CALCIUM⁺

AUTOMOTIVE BATTERIES

Manufacturing Excellence

Produced under stringent quality control measures, SAGA Calcium+ Batteries are manufactured using state-of-the-art technology and premium-grade materials. The production process integrates cutting-edge techniques to deliver consistent quality, meeting both local and international standards. Our facilities are equipped to ensure efficiency, sustainability, and precision, aligning with ACM Group's commitment to innovation and excellence in the automotive battery sector.



CMF Calcium Plus, Automotive Heavy Duty Batteries (JIS Standard)

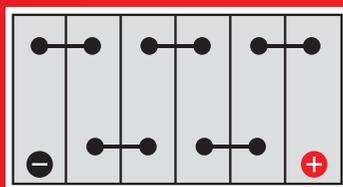
Range & Specifications

Battery Box Size	Battery Type	Plates per Cell	Capacity @ 20HR (AH)	RCT Min	CCA Amp	Dimension (mm)				Weight Wet (Kg) $\pm 3\%$	Layout	Terminal	Hold Down
						L	W	H	TH				
6X15	SMF 145	15	95	100	600	365	170	202	222	24.50	1	B	BO
N100	SMF 160	17	100	160	650	398	168	208	228	26.20	1	B	BO
N120	SMF 200	21	125	205	750	504	182	208	234	34.10	4	B	BO
N150	SMF 250	25	150	230	850	504	218	210	235	40.30	4	B	BO
N200	SMF 300	33	200	420	1000	509	276	238	260	53.40	4	B	BO

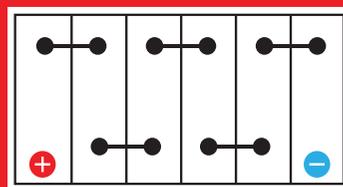
TH total height with terminal

* Terminal : "B" is "Standard" terminal.

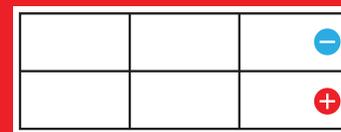
Note: Specifications are subject to change with or without notice.



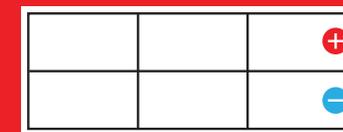
L Layout 0



R Layout 1



Layout 3



Layout 4

MAINTENANCE FREE CALCIUM+

AUTOMOTIVE DIN STANDARD BATTERIES

Sustainability Commitment

At the core of SAGA Calcium+ Batteries production is a focus on environmental responsibility. By leveraging eco-friendly materials and sustainable practices, we contribute to reducing the ecological footprint of battery manufacturing. These batteries are not only designed to perform optimally but also reflect our dedication to a greener future, ensuring that performance and sustainability go hand in hand.



CMF Calcium Plus, Automotive Batteries (DIN Standard)

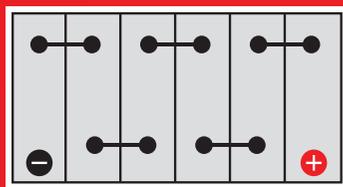
Range & Specifications

Battery Box Size	Battery Type	Plates per Cell	Capacity @ 20HR (AH)	RCT Min	CCA Amp	Dimension (mm)				Weight Wet (Kg) ±3%	Layout	Terminal	Hold Down
						L	W	H	TH				
DIN44	SMF DIN 555	9	45	65	310	210	175	190	190	12.30	1	B	B13
DIN55	SMF DIN 666	11	60	85	390	245	175	190	190	14.30	1	B	B13
DIN66	SMF DIN 777	13	66	110	480	277	175	190	190	18.10	1	B	B13
DIN88	SMF DIN 1000	17	88	130	580	350	175	190	190	21.70	1	B	B13

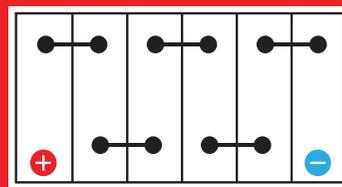
TH total height with terminal

* Terminal : "B" is "Standard" terminal.

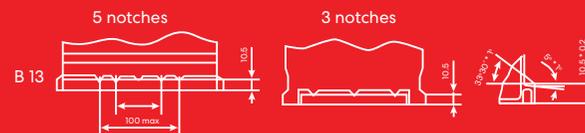
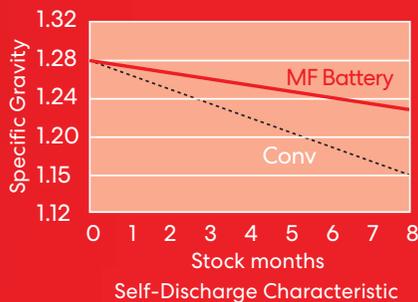
Note : Specifications are subject to change with or without notice.



L Polarity 0



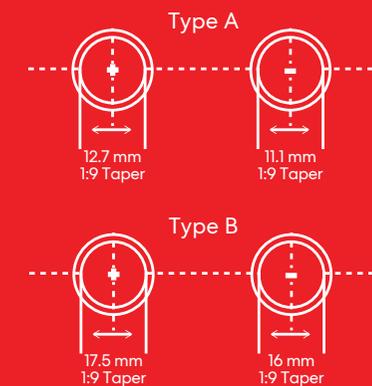
R Polarity 1



Charge Indicators
Each MF battery is equipped with indicator which shows charging conditions.



Terminal Types



TUBULAR DEEP CYCLE BATTERIES

SAGA Deep Cycle Flooded Tubular Batteries are designed to provide reliable and sustained energy for demanding applications, including renewable energy systems, off/on-grid setups, and industrial use. Built with robust tubular plate technology, these batteries ensure deep discharge capability, extended cyclic life, and superior performance under heavy-duty conditions. Manufactured with precision and adhering to international quality standards, SAGA Deep Cycle Batteries are engineered for durability and efficiency. Their advanced design makes them the ideal choice for customers seeking long-lasting and cost-effective energy storage solutions.



Deep Cycle Tubular Series

Range & Specifications

Battery Type		Battery Box Size	No. of plate/cell	Rated Capacity @ 25 °C	Dimensions (mm)				Wet Weight ±3% (Kg)
				20 HR	L	W	H	Ht	
Small Tubular	ST-700	N50	3	50	257	170	204	242	14
	ST-1000	N70	5	78	300	170	204	242	20
Jumbo Tubular	ST-1200	6X15	7	125	345	175	265	295	38
Jumbo Tubular	ST-1600	N150	9	150	506	220	245	295	49
Low Height Tubular	SLT-1500	Low Height	5	140	500	190	328	364	48
	SLT-1700		7	170	500	190	328	364	54
	SLT-2000		9	230	500	190	328	364	61
Premium Tall Tubular	ST-1800	Tall Tubular	5	185	500	190	373	410	52
	ST-2000		6	200	500	190	373	410	57
	ST-2500		7	250	500	190	373	410	60
	ST-3500		9	280	500	190	373	410	68
Jumbo Tall Tubular	ST-4000	JTT	9	330	545	220	370	407	76

Features

- Tubular Positive Plates & Thick Negative Plates are used for giving longer life to the Batteries.
- Better Electrical Performance due to low Electrical Resistance PE Separators and prevents oxidation.
- Float Indicators are fitted to determine the level of Electrolyte.
- Designed to have life of over 1250 Cycles at 80 % DOD.

Applications

- UPS/Inverters
- Telecommunication System
- Wind and Solar Energy
- Security & Surveillance Systems
- Electronic PABX System
- Office Automation Equipment
- Process Instrumental and control
- Emergency Lighting

Standards

Test Standards	Quality Standards
IEC 60896-11	ISO 9001
	ISO 14001
	ISO 45001

LITHIUM BATTERIES

RECHARGEABLE LI-ION BATTERY (LiFePO₄)

Lithium LiFePO₄ Battery offers a significant weight reduction, enormous energy reserves and stable voltage even under extreme loads. The Lithium LFP battery is specifically developed to fully meet the high demands placed on a storage battery.

It enables high safety and cyclic life span are guaranteed even with regular deep discharges with its enhanced chemistry, which offers numerous advantages in a variety of applications.



Rechargeable Lithium Battery

Nomenclature	Capacity (AH)	Nominal Voltage	Dimension (mm)			Weight	IP Rating
			L	W	H		
SG-LFP51314	314	51.2	552	299.5	862	130.00	IP 65
SG-LFP51205W	205	51.2	680	480	250	93.00	IP 65
SG-LFP51100W	100	51.2	520	141.5	471	47.20	IP 65
SG-LFP48100R	100	48	440	450	133	46.00	IP 20
SG-LFP25100W	100	25.6	395	150	587	28.00	IP 20
SG-LFP25100	100	25.6	532	206	215	24.00	IP 55
SG-LFP12200	200	12.8	522	238	218	27.00	IP 55
SG-LFP12150	150	12.8	483	170	240	19.20	IP 55
SG-LFP12100	100	12.8	328	172	215	13.10	IP 55
SG-LFP1260	60	12.8	229	138	210	6.70	IP 55

Features:

- * Built-in intelligent BMS with charge/discharge current limitations
- * Automatic protection for overcharge/discharge and temperature conditions
- * Compatible with standard rectifiers/inverters/UPS
- * High reliability design
- * Excellent battery life

Applications:

- Solar Energy Storage System
- UPS/Inverter
- Telecom Sites
- IT/Data Centres
- Commercial and Industrial Applications

* A powerful smart rechargeable LiFePO₄ intelligent energy storage unit, especially designed to provide Power Backup for Telecom Sites, IT/Data Centers and Solar Energy Storage Systems. Its design enables parallel installation to meet extended power backups.

* Wall mounted Household Energy Storage System with a sleek and space-saving solution for your energy storage needs. With its compact design and easy installation, it seamlessly blends into any environment. Whether at your Home, Office, Commercial & Industrial space, our wall-mounted unit provides reliable and efficient energy storage, empowering you to optimize energy usage and reduce waste.

Certifications

ISO 9001	IEC 62619
ISO 14001	UN 38.3
ISO 45001	

LEAD ACID DRY CHARGED

AUTOMOTIVE BATTERIES

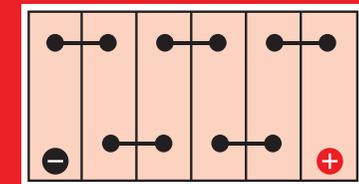
SAGA Lead-Acid Dry Charged Batteries are a hallmark of superior quality and reliability, designed to meet the demanding needs of SLI/Automotive and general backup applications. Produced with precision in state-of-the-art manufacturing facilities, these batteries undergo rigorous quality control processes to ensure consistent performance and durability. Utilizing premium-grade materials, SAGA batteries deliver exceptional starting power and resistance to extreme conditions. With a commitment to excellence, SAGA Dry Charged Battery is crafted to provide customers with dependable power solutions that stand the test of time.



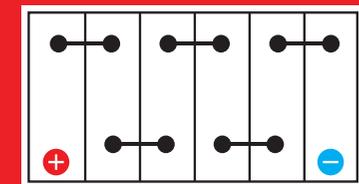
Dry Charged Lead Acid Batteries (JIS Standard)



Battery Box Size	Battery Type	Plates per Cell	Capacity @ 20HR	Dimension (mm)				Weight (Kg)+3%	Layout	Terminal
				L	W	H	TH			
NS40	SG Solar50 Plus	5	22	195	127	200	223	4.50	0	A/B
	SG 55R	7	32	195	127	200	223	5.70	1	A/B
	SG 55L	7	32	195	127	200	223	5.70	0	A/B
	SG 60R	9	38	195	127	200	223	6.60	1	A/B
	SG 60L	9	38	195	127	200	223	6.60	0	A/B
	SG 60R Plus	9	42	195	127	200	223	6.80	0	A/B
	SG 60L Plus	9	42	195	127	200	223	6.80	0	A/B
	SG CR65R	11	50	195	127	200	223	8.20	1	A/B
SG CR65L	11	50	195	127	200	223	8.20	0	A/B	
N40	SG 70R (Thick/Thin)	11	50	232	132	202	223	8.45	1	A/B
	SG 70L (Thick/Thin)	11	50	232	132	202	223	8.45	0	A/B
	SG 75R (Thick/Thin)	12	50	232	132	202	223	9.20	1	A/B
	SG 75L (Thick/Thin)	12	50	232	132	202	223	9.20	0	A/B
N50	SG 88R	9	50	257	168	202	229	9.50	1	B
	SG 88L	9	50	257	168	202	229	9.50	0	B
	SG 90ZR	11	60	257	168	202	229	11.10	1	B
	SG 90ZL	11	60	257	168	202	229	11.10	0	B
	SG 95ZR	13	70	257	168	202	229	12.65	1	B
	SG 95ZL	13	70	257	168	202	229	12.65	0	B
	SG Solar 90	9	50	257	168	202	229	9.50	0	B
N70	SG Solar 100	9	55	302	170	202	227	10.30	0	B
	SG 115R Plus A	11	72	302	170	202	227	11.90	0	B
	SG 120R	13	80	302	170	203	227	13.05	1	B
	SG 120L	13	80	302	170	203	227	13.05	0	B
	SG 125ZR	15	85	302	170	203	228	14.85	1	B
6X15	SG 125ZL	15	85	302	170	203	228	14.85	0	B
	SG 130	13	90	367	170	203	228	13.70	0	B
	SG 135	15	100	367	170	202	223	15.60	0	B
N100	SG 145	17	105	367	170	202	223	17.10	0	B
	SG 150	15	100	405	172	208	238	16.05	0	B
	SG 155	17	110	405	172	208	238	17.50	1	B
N120	SG 160	19	115	405	172	208	238	19.10	1	B
	SG 180	19	120	500	178	210	238	21.00	4	B
	SG 200	21	130	500	178	210	238	21.90	4	B
	SG 210 Plus	21	135	500	178	210	238	23.35	4	B
N150	SG 220	23	145	500	178	210	238	24.35	4	B
	SG 225	21	135	502	218	210	241	24.10	4	B
	SG 230	23	150	502	218	210	241	25.45	4	B
	SG 240 Plus	23	155	502	218	210	241	26.00	4	B
N200	SG 260	25	175	502	218	210	241	26.65	4	B
	SG 270	27	180	502	218	210	241	27.80	4	B
	SG 280	27	180	515	274	212	241	28.75	4	B
	SG 290	31	200	515	274	212	241	32.65	4	B
6TN	SG 300	33	215	515	274	212	241	34.30	4	B
	6TN	25	100	280	265	200	221	20.60	4	B



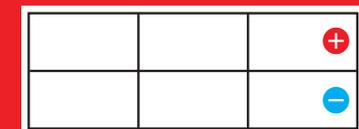
Layout 0



Layout 1



Layout 3



Layout 4

*TH total height with terminal

MOTORCYCLE BATTERIES

SAGA Dry Charged and VRLA Maintenance-Free Motorcycle Batteries are engineered to deliver exceptional performance and reliability for two-wheelers. The dry-charged batteries provide powerful starting capability and a longer shelf life, while the VRLA maintenance-free batteries offer convenience and zero upkeep, thanks to their sealed, spill-proof design. Manufactured with advanced technology and high-quality materials, these batteries ensure superior durability and consistent power delivery, even under demanding conditions. SAGA VRLA motorcycle batteries are available in AGM/GEL version. Our range of products in VRLA & Dry Charged versions is from 3 AH to 45 AH which are using also in multipurpose applications such as in utility equipment like lawn mowers, electric toys, small UPS, computers etc.



Motorcycle Batteries

VRLA (AGM) Range of Motorcycle Batteries

Nomenclature	Battery Types	Plates per Cell	Capacity 10 Hr	Dimension (mm)			Weight Kg Wet (±3%)
				L	W	H	
Supreme4	12V 3AH	3	3	80	78	106	1.20
Supreme6	12 V 5AH	5	5	120	60	128	1.90
Supreme8	12V 7AH	7	7	148	60	130	2.70
Supreme10	12 V 9AH	7	9	135	75	140	3.50

Dry Charge Motorcycle Batteries

Nomenclature	Battery Types	Plates per Cell	Capacity 10 Hr	Dimension (mm)			Weight Kg Dry (±3%)
				L	W	H	
Super4	12V 3AH	3	3	71/80	70.5	104.3	0.80
Super6	12V 5AH	7	5	118/128	59.0	132.6	1.65
Super7	12V 6.5AH	5	6.5	140/150	67	100.6	1.40
Super8	12V 7 AH	9	7	148/157	58.0	130.1	2.10
Super10	12V 9 AH	7	9	136/144	75.0	141.6	2.57

6-GFM VRLA AGM E-Bike Battery

Features

- Suitable for E-bikes.
- High impact strength.
- In opaque ABS fire retardant container.
- Provides long life.
- Maintenance free battery with AGM technology.

Type	No. of plates	Capacity @ 20 Hr	Dimensions (mm)			Weight Kg Wet (±3%)	Boost Charging Current
			L	W	H		
6-GFM-18	09	18	181	76	166	5.4	3.6 Amp
6-GFM-20	09	20	180	76	169	7.3	4.0 Amp
6-GFM-22	11	22	181	76	164	6.0	4.4 Amp
6-GFM-28	15	28	166	176	126	9.5	5.6 Amp
6-GFM-45	07	45	196	165	171	13.5	9.0 Amp

NP Series VRLA AGM/GEL Deep Cycle Battery

Features

- Suitable for deep cycle purpose.
- High impact strength.
- No top up required.
- Provides long life.
- In opaque ABS fire retardant container.
- Completely sealed maintenance free battery with AGM technology.

Type	No. of plates	Capacity @ 20 Hr	Dimensions (mm)			Weight Kg Wet (±3%)	Boost Charging Current
			L	W	H		
NP5-12	05	5.0	90	70	101.5	1.65	1.0 Amp
NP7-12	07	7.2	152	65	100	2.50	1.5 Amp
NP12-12	13	12.0	151	98	93	3.50	2.4 Amp

Type	No. of plates	Capacity @ 20 Hr	Volts	Dimensions (mm)			Weight (Grm) (±3%)
				L	W	H	
NP4-4	5	4	4V	47.2	47.7	102.2	531.00
NP4.5-6	5	5	6V	70.0	47.2	102.4	883.00

6-DZM-26 (12V 26AH) Graphene VRLA Battery

Features

- Maintenance - Free Operation
- AGM Technology
- Reduce Charging Time and Increase Power Efficiency
- Enhanced Cycling Stability
- Excellent for use in a variety of temperature environments

Type	No. of plates	Capacity @ 20 Hr	Volts	Dimensions (mm)			Weight Kg (±3%)
				L	W	H	
6-DZM-26	6	26	12V	181.5	77.0	170.0	7.25

VALVE REGULATED LEAD ACID

VRLA BATTERIES

The 6-GFM Top Access VRLA Deep Cycle AGM Batteries are advanced energy storage solutions designed for high-performance and long-lasting applications. Utilizing Absorbent Glass Mat (AGM) technology, these batteries offer superior deep-cycle capability, enhanced safety, and maintenance-free operation. With their top access design, they ensure easy installation and monitoring, making them ideal for renewable energy systems, telecommunication networks, and power backup applications. Engineered for durability and consistent performance, 6-GFM batteries meet the demands of modern energy needs with reliability and efficiency.



6-GFM/6-GFMJ Series

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity	Terminal Type	Dimensions (mm) Tolerance ± 2			Approx. Weight Kg (± 3)
				L	W	H	
6-GFM-18	12	18AH(C20)	M5	181	76	167	5.40
6-GFM-22	12	22AH(C20)	M5	181	76	167	6.10
6-GFM-28	12	28AH(C20)	M5	167	176	126	9.50
6-GFM-40	12	40AH(C20)	F4	197	165	170	13.00
6-GFM-45	12	45AH(C20)	F4	197	165	170	13.50
6-GFM-200	12	200AH(C10)	M8	522	259	236	72.00
6-GFMJ-18	12	18AH(C20)	M5	181	76	167	5.40
6-GFMJ-22	12	22AH(C20)	M5	181	76	167	6.10
6-GFMJ-28	12	28AH(C20)	M5	167	176	126	9.50
6-GFMJ-40	12	40AH(C20)	F4	197	165	170	13.00
6-GFMJ-45	12	45AH(C20)	F4	197	165	170	14.00
6-GFMJ-200	12	200AH(C10)	M8	522	259	236	72.00

Main Technical Specifications

- No Leakage & No Acid Smog Spray during the operation
- No need to add Acid or Water
- Number of Cycles vs Depth of Discharge (DOD) @ 25°C:
20% DOD 1600, 50% DOD 1000, 80% DOD 700
- Self-Discharge is under 3% (at 25°C, 30 Days)
- Operating Temperature Range: -15°C~+55°C
- Recommended Operating Temperature: 20°C~25°C
- Recommended Float Voltage (25°C): 13.5V
- Recommended Cyclic Voltage (25°C) :14.1V
- Maximum Charging Current Limit: 0.2C₁₀
- Recommended Charging Current 0.15C₁₀
- Recombination Efficiency: >96%

Features:

- AGM Technology
- Top Access
- Rated Voltage: 12V
- Capacity Range: 4AH - 200AH
- 10 Years Design Life (25°C)
- Flame Retardant Container & Cover with ABS Material
- High Reliability & Long Service Life

Applications:

- UPS/Inverter
- Telecom & IT Power Backup
- Power Plants / Transmission Substation
- Security & Surveillance Systems
- Microwave Relay Station
- Auto Control Equipment
- Security System
- Electro-Medical Equipment
- Remote Sensing Devices
- Emergency Light System
- Power Supply System
- Military Facilities
- Railway Signaling
- Solar Energy Backups

Standards

Test Standards	Quality Standards
IEC 60896-21	ISO 9001
IEC 60896-22	ISO 14001
IEC 61427-1	ISO 45001

VALVE REGULATED LEAD ACID

VRLA BATTERIES

The 6-FMX Front Access VRLA Deep Cycle AGM Batteries are specifically designed to meet the energy storage demands of modern applications, offering exceptional reliability and ease of maintenance. Featuring Absorbent Glass Mat (AGM) technology, these batteries deliver superior deep-cycle performance, long service life, and maintenance-free operations. The front access compact design ensures convenient installation and streamlined monitoring, making them ideal for telecom systems, data centers, and other critical power backup solutions. Built with durability and efficiency in mind, 6-FMX batteries are the perfect choice for dependable and space-saving energy storage.



6-FMX/6-FMXJ Series (12V)

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity (C10) AH	Terminal Type	Dimensions (mm) Tolerance ± 2			Approx. Weight Kg (± 3)
				L	W	H	
6-FMX-75B	12	75	M6	395	110	286	26
6-FMX-100B	12	100	M6	395	110	286	32
6-FMX-120B	12	120	M6	550	110	310	42
6-FMX-150B	12	150	M6	550	110	310	49
6-FMX-150C	12	155	M6	559	125	315	52
6-FMX-180B	12	180	M6	559	125	315	57
6-FMXJ-75B	12	75	M6	395	110	286	26
6-FMXJ-100B	12	100	M6	395	110	286	32
6-FMXJ-120B	12	120	M6	550	110	310	42
6-FMXJ-150B	12	150	M6	550	110	310	49
6-FMXJ-150C	12	155	M6	559	125	315	52
6-FMXJ-180B	12	180	M6	559	125	315	58

Main Technical Specifications

- No Leakage & No Acid Smog Spray during the operation
- No Need to Add Acid or Water
- Number of Cycles vs Depth of Discharge (DOD)
@ 25°C: 20% DOD 1600, 50% DOD 1000, 80% DOD 700
- Self-Discharge is under 3% (at 25°C, 30 Days)
- Recommended Operating Temperature: 20°C~25°C
- Operating Temperature Range: -15°C~+55°C,
- Recommended Float Voltage (25°C): 2.23V
- Recommended Cyclic Voltage (25°C) :2.30V
- Maximum Charging Current Limit: 0.2C₁₀
- Recommended Charging Current 0.15C₁₀
- Recombination Efficiency: >96%

Features:

- AGM Technology
- Rated Voltage: 12V
- Capacity Range (C₁₀): 75AH - 180AH
- 10 Years Design Life (25°C)
- Front Access Terminals for Easy Installation & Maintenance
- Flame Retardant Container & Cover with ABS Material
- High Reliability & Long Service Life

Applications:

- Uninterruptible Power Supply (UPS)
- Telecom & IT Power Backup
- Security & Surveillance Systems
- Power Plants
- Transmission Substation
- Lawn & Garden Tools
- Microwave Relay Station
- Remote Sensing Device
- Emergency Light System
- Power Supply System
- Military Facilities
- Railway Signaling
- Solar Energy Backups
- Auto Control Equipment

Standards

Test Standards	Quality Standards
IEC 60896-21	ISO 9001
IEC 60896-22	ISO 14001
IEC 61427-1	ISO 45001

MOTIVE POWER / ELECTRICAL VEHICLE BATTERIES

SAGA Deep Cycle Motive Power Batteries are engineered to deliver reliable and long-lasting power for golf carts and other electric vehicles. Designed with advanced deep-cycle technology, these batteries provide consistent performance, extended runtime, and superior durability, ensuring smooth operation on the course or in recreational settings. Manufactured to the highest quality standards, offer excellent resistance to vibration and extreme conditions, making them a dependable choice for users seeking efficiency and longevity.



Motive Power Batteries

Range & Specifications

Nomenclature	Volts	Capacity @ 20 HRS	Over all Dimensions (mm)			Weight Kg Wet (±3%)
			L	W	TH	
8-GCF	8	160 AH	258	181	282	31.5
6-GCT	6	210 AH	260	182	282	30.5
6-GCF	6	225 AH	260	182	282	31.0

Features:

- Thick antimonial lead alloy grids for long life & increase cycle life.
- Positive & negative terminals are covered with plastic caps.
- Heavy duty PE separators for long life.
- Containers/covers made of PP material and are heat sealed.
- High paste density for reduce shedding during cycling and extending battery Life.
- Designed for increased cycle life with low maintenance.
- Special expander is used for long backup time of the battery.
- Available in 8 volt & 6 volt version.
- Available in Tubular & flat positive plate.

Applications:

- For Golf Carts
- Electric Fork Lifters
- Electric Vehicles
- Electric Floor Machinerics

TRACTION

CELLS / BATTERIES

Traction batteries are used to propel battery-powered electric vehicles such as forklifts, electric golf carts, ride-on floor scrubbers, mining locomotives and a whole host of other vehicles.

Our traction batteries are some of the highest quality batteries to be found worldwide. The technology, designed, employs our original glass fiber tubes and is a unique differentiator, while still meeting our customers' more basic requirements of a long service life, stable quality and of course, easy maintenance.



Traction Batteries

Range & Specifications

Model	Nominal Voltage	Rated Capacity (AH) 5 Hr	Overall Dimensions $\pm 2(\text{mm})$ with Acid				Approx. Weight ($\pm 5\%$ kg)
			L	W	H	TH	
50AH /Plate							
8PZB400	2V	400	141	158	380	413	23.0
70AH /Plate							
3PZB210	2V	210	61	158	485	518	12.4
100AH /Plate							
5PZB500	2V	500	93	158	659	695	27.5

Features:

- Lead acid open type batteries with liquid electrolyte base.
- Robust tubular plate vented technology.
- High density tubular positive plate design proves more power.
- The cover and container are made from high impact, temperature resistant poly propylene and heat seal welded to prevent electrolyte leakage.
- Available in both JIS & DIN, JIS is widely accepted by global forklift manufacturers for its quality. DIN is popular for tubular type with a long cycle life.

Applications:

- Electric Fork Lifters
- Electric Cleaning Machines
- Electric Tractor
- Lifting Platforms

OPzS

CELLS / BATTERIES

Battery complies with IEC 60896-11 standards and DIN 40736-1, the product capacity range is from 150 AH to 3000 AH.

The OPzS Series is designed for regular and long deep discharge applications. It is ideal for power grid station and renewable energy applications. Very high expected service life due to optimized low-antimony alloy. Excellent discharge cycle stability and excellent medium to long rate discharge due to tubular plate design. This series provides high capacity application in area with unstable grid and unreliable power supply. Their designed life for standby usage is 18-20 years.



OPzS Series (2V)

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity (C10) 1.80V/Cell	Terminal Type	Dimensions (mm) Tolerance + 2				Approx. Weight Kg (+3)
				L	W	H	TH	
OPzS 150	2	150	M8	103	206	356	410	15
OPzS 200	2	200	M8	103	206	356	410	17
OPzS 250	2	250	M8	145	206	356	410	22
OPzS 300	2	300	M8	145	206	356	410	24
OPzS 600	2	600	M8	145	206	646	702	47
OPzS 800	2	800	M8	191	210	646	702	65
OPzS 1000	2	1000	M8	233	210	646	702	82
OPzS 1200	2	1200	M8	275	210	646	702	92
OPzS 1600	2	1600	M8	397	212	773	828	143
OPzS 3000	2	3000	M8	576	212	775	833	223

Features:

- Rated Voltage: 2V
- Tubular Positive Plates with special Low Antimony Lead alloy
- Reduced Water Loss
- Excellent Cycling Even in Partial Discharge State
- Additional Electrolyte to Reduce Topping Up
- Ceramic Plug Filter
- Installation in Vertical Position
- Long Service Life
- Capacity Range (C10) 2V: 150AH~3000AH
- 20 Years Design Life (25°C)
- Flame Retardant Container & Cover with ABS Material
- High Reliability & Long Service Life

Applications:

- Telecommunication/IT
- Traffic Systems (Signaling & Lighting)
- Mobile Phone Station
- Drinking Water Supply System
- Security Lighting
- Power Plants
- Industrial Control
- Electro Medical Systems
- Solar & Wind Energy Storage etc.

Standards

Test Standards	Quality Standards
IEC 60896-11	ISO 9001
	ISO 14001
	ISO 45001

OPzV

CELLS / BATTERIES

OPzV series is Valve Regulated Lead Acid battery adopting immobilised GEL and Tubular Plate technology, offering high reliability and stable performance. The OPzV series is designed and manufactured according to DIN standards, with die-casted positive grid and patented active material formula, they meets the DIN standard values which are more suitable for cyclic use under extreme operating conditions.



OPzV Series (2V)

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity (C10) 1.80V per Cell	Terminal Type	Dimensions (mm) Tolerance ± 2				Approx. Weight Kg (± 3)
				L	W	H	TH	
OPzV200	2	200	F28	103	206	356	391	18
OPzV300	2	300	F28	145	206	356	391	25
OPzV420	2	420	F28	145	206	471	506	35
OPzV600	2	600	F28	145	206	646	681	44.5
OPzV800	2	800	F28	191	210	646	681	64
OPzV1000	2	1000	F28	233	210	646	681	78
OPzV1500	2	1500	F28	275	210	795	830	115
OPzV2000	2	2000	F28	399	214	775	810	154
OPzV3000	2	3000	F28	576	212	775	810	215

Features:

- 2 Volts
- Tubular Positive Plates, Pressure Cast from Led-Calcium Alloy
- Electrolyte Immobilized in Gel Structure
- Excellent Cycling Even in Partial Discharge State
- Standard ABS Plastic
- Installation in Vertical or Horizontal Position
- Long Service Life

Applications:

- Telecommunication/IT
- Solar & Wind Energy Storage
- Traffic Systems (Signaling & Lighting)
- Mobile Phone Station
- Drinking Water Supply System
- Security Lighting
- Power Storage Plants
- Industrial Control
- Electro Medical Systems

Standards

Test Standards	Quality Standards
IEC 60896-21	ISO 9001
IEC 60896-22	ISO 14001
IEC 61427-1	ISO 45001



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