SAGA
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.

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

ISO 9001 : 2015
ISO 14001: 2015
ISO 45001: 2018

CONFORMITY 'N COMPLIANCE SERVICES

Pakistan Standards

DuraLife® Technology Installed™

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

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.

Scan for Data Sheet

CMF Calcium Plus, Automotive Batteries (JIS Standard)

Range & Specifications

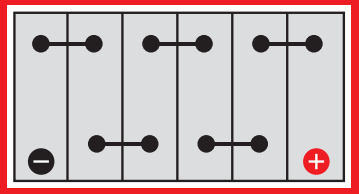
JIS Group	Battery Type	Battery Box Size	Plates per Cell	Capacity @ 20HR (AH)	RCT Min	CCA-18°C Amp	Dimension (mm)				Weight Wet (Kg)	Layout	Terminal	Hold Down
							L	W	H	TH				
B19	CMF40GENR	NS40	5	20	18	190	198	126	198	222	7.90	0	B	B0
	CMF40GENL		5	20	18	190	198	126	198	222	7.90	1	B	B0
	CMF42B20R		9	35	45	350	198	126	198	222	10.20	0	B	B0
	CMF42B20L		9	35	45	350	198	126	198	222	10.20	1	B	B0
	CMF46B20R		11	38	55	370	198	126	198	222	11.00	0	B	B0
	CMF46B20L		11	38	55	370	198	126	198	222	11.00	1	B	B0
B24	CMF48B24R	N40	9	35	60	385	236	128	200	224	11.20	0	B	B0
	CMF48B24L		9	35	60	385	236	128	200	224	11.20	1	B	B0
	CMF50B24R		11	40	65	410	236	128	200	224	12.60	0	B	B0
	CMF50B24L		11	40	65	410	236	128	200	224	12.60	1	B	B0
D23	CMF55D23R	55D23	11	60	80	440	230	173	204	220	16.80	0	A	B0
	CMF55D23L		11	60	80	440	230	173	204	220	16.80	1	A	B0
D26	CMF58D26R	N50	7	40	70	350	254	170	198	221	14.20	0	A	B0
	CMF58D26L		7	40	70	350	254	170	198	221	14.20	1	A	B0
	CMF60D26R		9	50	75	400	254	170	198	221	15.60	0	A	B0
	CMF60D26L		9	50	75	400	254	170	198	221	15.60	1	A	B0
	CMF80D26R		11	65	80	440	254	170	198	221	16.90	0	A	B0
	CMF80D26L		11	65	80	440	254	170	198	221	16.90	1	A	B0
D31	CMF85D31R	N70	10	70	80	460	304	171	200	220	18.10	0	A	B0
	CMF85D31L		10	70	80	460	304	171	200	220	18.10	1	A	B0
	CMF90D31R		12	75	85	490	304	171	200	220	19.30	0	A	B0
	CMF90D31L		12	75	85	490	304	171	200	220	19.30	1	A	B0
	CMF95D31R		13	80	95	550	304	171	200	220	19.90	0	A	B0
	CMF95D31L		13	80	95	550	304	171	200	220	19.90	1	A	B0
	CMF100D31R		15	90	100	560	304	171	200	220	20.80	0	A	B0
	CMF100D31L		15	90	100	560	304	171	200	220	20.80	1	A	B0

TH total height with terminal

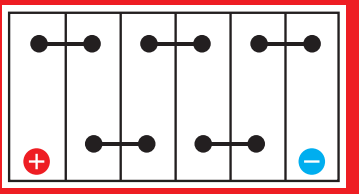
• Terminal : "A" is "Standard" & "B" is "Small" terminal.

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.

Scan for Data Sheet

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

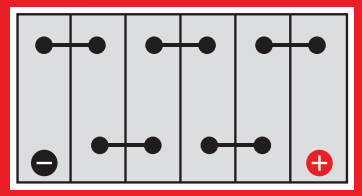
Range & Specifications

JIS Group	Battery Type	Battery Box Size	Plates per Cell	Capacity @ 20HR (AH)	RCT Min	CCA-18°C Amp	Dimension (mm)				Weight Wet (Kg)	Layout	Terminal	Hold Down
							L	W	H	TH				
6X15	CMF6X15	6X15	15	95	100	600	365	170	202	222	24.50	1	A	B0
E41	CMF115E41R	N100	17	100	160	650	398	168	208	228	26.20	1	A	B0
	CMF115E41L		17	100	160	650	398	168	208	228	26.20	0	A	B0
F51	CMF130F51R	N120	19	115	190	710	504	182	208	234	33.20	4	A	B0
	CMF130F51L		19	115	190	710	504	182	208	234	33.20	3	A	B0
	CMF140F51R		21	120	205	750	504	182	208	234	34.10	4	A	B0
	CMF140F51L		21	120	205	750	504	182	208	234	34.10	3	A	B0
G51	CMF145G51R	N150	21	130	210	800	504	218	210	235	38.80	4	A	B0
	CMF150G51R		23	135	220	820	504	218	210	235	39.40	4	A	B0
	CMF160G51R		25	145	230	850	504	218	210	235	41.60	4	A	B0
	CMF170G51R		27	155	260	900	504	218	210	235	42.70	4	A	B0
H52	CMF190H52R	N200	29	195	350	900	509	276	238	260	51.70	4	A	B0
	CMF210H52R		31	185	400	950	509	276	238	260	53.10	4	A	B0
	CMF245H52R		33	200	420	1000	509	276	238	260	54.20	4	A	B0

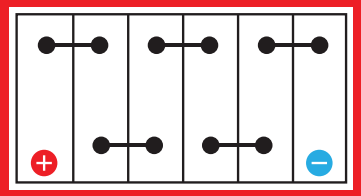
TH total height with terminal

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

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



L Polarity 0

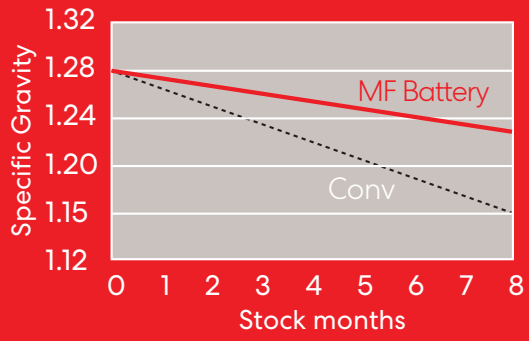


R Polarity 1

Charge Indicators

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

Good Condition | Needs Charging | Replace Battery



Self-Discharge Characteristic

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.

Scan for Data Sheet

CMF Calcium Plus, Automotive Batteries (DIN Standard)

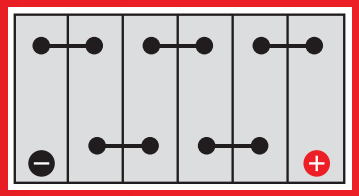
Range & Specifications

JIS Group	Battery Type	Battery Box Size	Plates per Cell	Capacity @ 20HR (AH)	RCT Min	CCA-18°C Amp	Dimension (mm)				Weight Wet (Kg)	Layout	Terminal	Hold Down
							L	W	H	TH				
L 1	CMF54459	DIN44	9	44	65	310	210	177	190	190	13.10	0	A	B13
	CMF54464		9	44	65	310	210	177	190	190	13.10	1	A	B13
L 2	CMF55559	DIN55	11	55	85	390	245	177	190	190	16.30	0	A	B13
	CMF55565		11	55	85	390	245	177	190	190	16.30	1	A	B13
L 3	CMF56018	DIN66	11	60	89	480	277	177	190	190	17.50	0	A	B13
	CMF56638		13	66	110	480	277	177	190	190	19.00	0	A	B13
	CMF56640		13	66	110	480	277	177	190	190	19.00	1	A	B13
L 5	CMF57220	DIN88	15	72	120	520	350	177	190	190	21.50	0	A	B13
	CMF58827		17	88	130	580	350	177	190	190	23.50	0	A	B13
	CMF58828		17	88	130	580	350	177	190	190	23.50	1	A	B13

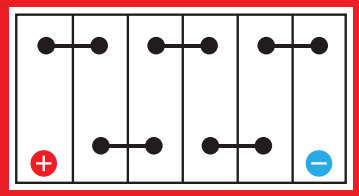
TH total height with terminal

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

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

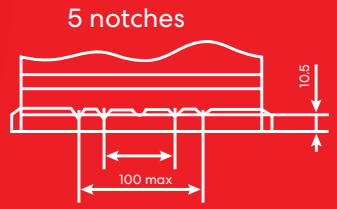


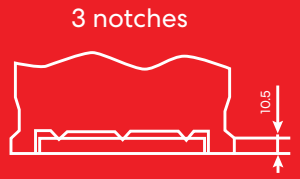
L Polarity 0



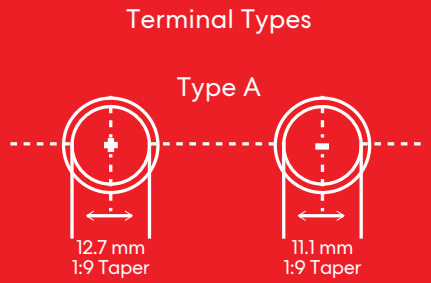
R Polarity 1

B 13





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.

Scan for Data Sheet

Deep Cycle Tubular Series

Range & Specifications

Battery Type		Battery Box Size	No. of plate/ cell	Rated Capacity @ 25 *C		Dimensions (mm)				Wet Weight (Kg) ±1
				20 HR	10 HR	L	W	H	Ht	
Small Tubular	ST-600	N50	3	35	30	257	170	204	304	14
	ST-700	N70	5	75	55	300	170	207	242	20
Jumbo Tubular	JT-1000	6X15	5	83	70	345	175	265	295	31
	JT-1200		7	125	115	345	175	265	295	38
Jumbo Tubular	JT-1100	N150 (Tubular)	5	90	80	506	220	220	296	40
	JT-1300		7	110	100	506	220	220	296	46
	JT-1400		7	135	120	506	220	220	296	48
	JT-1600		9	150	140	506	220	220	296	49
Low Height Tubular	LT-1500	Low Height	5	140	130	500	190	352	360	48
	LT-1700		7	170	150	500	190	352	360	54
	LT-2000		9	230	200	500	190	352	360	61
Tall Tubular	TT-1800	Tall Tubular	5	165	150	500	190	373	410	56
	TT-2000		6	200	170	500	190	373	410	61
	TT-2500		7	230	190	500	190	373	410	64
	TT-3500		9	260	240	500	190	373	410	72

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 ($LiFePO_4$)

Lithium $LiFePO_4$ 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.

Scan for Data Sheet

Rechargeable Lithium Battery

Nomenclature	Capacity (AH)	Nominal Voltage	Dimension (mm) L	Weight W	H	Kg App.	
SG-LFP25100	100	25.6	532	206	215	24	
SG-LFP48100R	100	48	440	450	133	46	
SG-LFP48100W	100	51.2	520	141.5	471	47.2	

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 $LiFePO_4$ 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

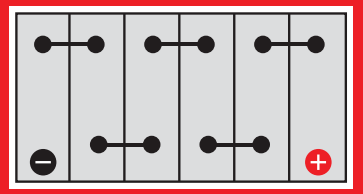
SAGA Lead-Acid Dry Charged Batteries are a hallmark of superior quality and reliability, designed to meet the demanding needs of SLI/Automotive and general backup applications. Produced with precision in state-of-the-art manufacturing facilities, these batteries undergo rigorous quality control processes 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.

Scan for Data Sheet

Dry Charged Lead Acid Batteries (JIS Standard)

Range & Specifications

JIS Group	JIS Battery Type	Battery Type	Battery Box Size	Plates per Cell	Capacity @ 20HR	CCA-18°C Amp	RCT Min	Dimension (mm)				Weight (Kg)	Layout	Terminal
								L	W	H	TH			
B20	28B20R	SG Solar50	NS40	5	20	...	...	195	127	200	223	5.00	1	A
	28B20L	SG Solar50+		5	20	...	...	195	127	200	223	5.00	0	A
	28B20R	SG 50		7	25	...	...	195	127	200	223	6.10	1	A
	28B20L	SG 50+		7	25	...	...	195	127	200	223	6.10	0	A
	38B20R	SG 60		9	34	243	47	195	127	200	223	7.70	1	A
	38B20L	SG 60L		9	34	243	47	195	127	200	223	7.70	0	A
	42B20R	SG CR65		11	40	274	52	195	127	200	223	8.60	1	A
	42B20L	SG CR65L		11	40	274	52	195	127	200	223	8.60	0	A
B24	42B24R	SG 70	N40	11	40	238	57	232	132	202	223	8.66	1	B
	42B24L	SG 70L		11	40	238	57	232	132	202	223	8.66	0	B
	54B24R	SG 75		12	50	325	71	232	132	202	223	9.40	1	A/B
	54B24L	SG 75L		12	50	325	71	232	132	202	223	9.40	0	A/B
D26	54D26R	SG 80	N50	9	50	278	81	257	168	202	229	9.80	1	B
	54D26L	SG 80L		9	50	278	81	257	168	202	229	9.80	0	B
	65D26R	SG 90		11	60	356	95	257	168	202	229	11.50	1	B
	65D26L	SG 90L		11	60	356	95	257	168	202	229	11.50	0	B
D31	65D31R	SG 115+	N70	11	72	356	101	302	170	202	227	12.80	0	B
	65D31L	SG 115L+		11	72	356	101	302	170	203	227	12.80	0	B
	67D31R	SG 115		13	80	413	113	302	170	203	227	13.50	1	B
	67D31L	SG 115L		13	80	413	113	302	170	203	227	13.50	0	B
	80D31R	SG 120		15	85	415	125	302	170	203	228	15.40	1	B
	80D31L	SG 120L		15	85	415	125	302	170	203	228	15.40	0	B
6x15		SG 130	NS100	15	100	512	180	367	170	202	223	16.25	0	B
		SG 140		17	105	512	182	367	170	202	223	18.10	0	B
E41	105E41	SG 145	N100	17	110	512	182	405	172	208	238	18.20	1	B
	115E41	SG 155		19	115	531	198	405	172	208	238	20.10	1	B
F51	130F51	SG 210+	N120	21	130	638	228	500	178	210	238	24.60	4	B
G51	145G51	SG 210	N150	23	145	680	260	502	218	210	241	25.30	4	B
	160G51	SG 240+		23	155	710	285	502	218	210	241	27.25	4	B
	165G51	SG 260		27	180	750	325	502	218	210	241	29.60	4	B
H52	200H52	SG 280	N200	31	200	874	370	515	274	212	241	33.90	4	B
	210H52	SG 300		33	215	920	400	515	274	212	241	35.60	4	B
		6TN	6TN	25	100	462	170	280	265	200	221	21.60	4	B



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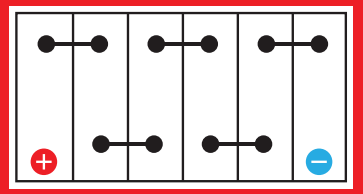
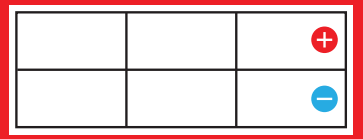


Layout 1

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.

Scan for Data Sheet

Motorcycle Batteries

VRLA (AGM) Range of Batteries

Nomenclature	Battery Types	Plates per Cell	Capacity 10 Hr	Dimension (mm)			Weight Kg (Wet)
				L	W	H	
YBX3L-BS	12V 3AH	3	3	80	78	106	1.20
YBX5L-BS	12 V 5AH	5	5	120	60	128	1.90
YBX7L-BS	12V 7AH	7	7	148	60	130	2.70
YBX9R-BS	12 V 9AH	7	9	135	75	140	3.50

Dry Charge Batteries

Nomenclature	Battery Types	Plates per Cell	Capacity 10 Hr	Dimension (mm)			Weight Kg (Dry)
				L	W	H	
12N3-3C	12V 3AH	3	3	71/80	70.5	104.3	0.80
12N5-3B	12V 5AH	7	5	118/128	59.0	132.6	1.65
12N6.5-3B	12V 6.5AH	5	6.5	140/150	67	100.6	1.40
12N7B-3B	12V 7 AH	9	7	148/157	58.0	130.1	2.10
12N9-3B	12V 9 AH	7	9	136/144	75.0	141.6	2.57

Specialized Small VRLA Batteries

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.

6-GFM VRLA AGM E-Bike Battery

Features

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

VRLA NP Series Batteries

Type	No. of plates	Capacity @ 20 Hr	Dimensions (mm)			Weight Kg (Wet)	Boost Charging Current
			L	W	H		
NP5-12	05	5.0	90	70	101.5	1.65	0.5 Amp
NP7-12	07	7.2	152	65	100	2.50	7.2 Amp
NP12-12	13	12.0	151	98	93	3.50	12.0 Amp

Type	No. of plates	Capacity @ 20 Hr	Volts	Dimensions (mm)			Weight (Grm)
				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

VRLA 6-GFM Series Small Batteries

Type	No. of plates	Capacity @ 20 Hr	Dimensions (mm)			Weight Kg (Wet)	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

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.

Scan for Data Sheet

NP Series & 6-GFM Series

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity	Terminal Type	Dimensions (mm) Tolerance ±2			Approx. Weight (Kg) ±1
				L	W	H	
NP-4-4	4	4AH(C20)	F1	47	48	102	0.53
NP-4.5-6	6	5AH(C20)	F1	70	47	102	0.84
NP-5-12	12	5AH(C20)	F2	90	70	102	1.65
NP-7-12	12	7AH(C20)	F2	152	65	100	2.50
NP-12-12	12	12AH(C20)	F2	151	98	93	3.60
6-GFM-18	12	18AH(C20)	M5	181	76	167	5.70
6-GFM-22	12	22AH(C20)	M5	181	76	167	6.10
6-GFM-28	12	28AH(C20)	M5	167	176	126	9.80
6-GFM-40	12	40AH(C20)	F4	197	165	170	13.00
6-GFM-45	12	45AH(C20)	F4	197	165	170	14.00
6-GFM-200	12	200AH(C10)	M8	522	259	236	71.00

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: $0.2C_{10}$
- Recommended Charging Current $0.15C_{10}$
- 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.

Scan for Data Sheet

6-FMX Series (12V)

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity (C10) AH	Terminal Type	Dimensions (mm) Tolerance ±2			Approx. Weight (Kg) ±1
				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

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: $0.2C_{10}$
- Recommended Charging Current $0.15C_{10}$
- Recombination Efficiency: >96%

Features:

- AGM Technology
- Rated Voltage: 12V
- Capacity Range (C_{10}): 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

VALVE REGULATED LEAD ACID

VRLA BATTERIES

The 6-GFMJ Top Access VRLA Deep Cycle GEL Batteries are advanced energy storage solutions designed for high-performance and long-lasting applications. Utilizing AGM/GEL 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 backup power applications. Engineered for durability and consistent performance, 6-GFMJ batteries meet the demands of modern energy needs with reliability and efficiency.

Scan for Data Sheet

NPJ Series & 6-GFMJ Series

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity	Terminal Type	Dimensions (mm) Tolerance ±2			Approx. Weight (Kg) ±1
				L	W	H	
NPJ-4-4	4	4AH(C20)	F1	47	48	102	0.53
NPJ-4.5-6	6	5AH(C20)	F1	70	47	102	0.84
NPJ-5-12	12	5AH(C20)	F2	90	70	102	1.65
NPJ-7-12	12	7AH(C20)	F2	152	65	100	2.50
NPJ-12-12	12	12AH(C20)	F2	151	98	93	3.60
6-GFMJ-18	12	18AH(C20)	M5	181	76	167	5.70
6-GFMJ-22	12	22AH(C20)	M5	181	76	167	6.10
6-GFMJ-28	12	28AH(C20)	M5	167	176	126	9.80
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	71.00

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: $0.2C_{10}$
- Recommended Charging Current $0.15C_{10}$
- 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-FMXJ Front Access VRLA Deep Cycle GEL Batteries are specifically designed to meet the energy storage demands of modern applications, offering exceptional reliability and ease of maintenance. Featuring AGM/GEL technology, these batteries deliver superior deep-cycle performance, long service life, and maintenance-free operation. The front access 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-FMXJ batteries are the perfect choice for dependable and space-saving energy storage.

Scan for Data Sheet

6-FMXJ Series (12V)

Range & Specifications

Battery Type	Nominal Voltage (V)	Rated Capacity (C10) AH	Terminal Type	Dimensions (mm) Tolerance ±2			Approx. Weight (Kg) ±1
				L	W	H	
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	57

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: $0.2C_{10}$
- Recommended Charging Current $0.15C_{10}$
- Recombination Efficiency: >96%

Features:

- AGM Technology
- Rated Voltage: 12V
- Capacity Range (C_{10}): 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.

Scan for Data Sheet

Motive Power Batteries

Range & Specifications

Nomenclature	Volts	Capacity @ 20 HRS	Over all Dimensions (mm)			Weight Wet (Kg)
			L	W	TH	
8-GCF	8	160 AH	258	181	282	31.5
6-GCT	6	210 AH	260	182	302	30.5
6-GCF	6	225 AH	258	181	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 Machineries

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.

Scan for Data Sheet

Traction Batteries

Range & Specifications

Model	Nominal Voltage	Rated Capacity (AH) 5 Hr	Overall Dimensions ±2(mm) with Acid				Approx. Weight (±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 compiles 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.

Scan for Data Sheet

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) +1
				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 (C_{10}) 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.

Scan for Data Sheet

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)±1
				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	46
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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