

Maintenance Free Sealed Lead Acid Batteries

- General Use Series
- High Rate UPS Series
- Long Life Standby Series
- Solar Power Series
- Deep Cycle Gel Series



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GENERAL INFORMATION FEATURES



Lead-acid batteries are in relation to their tension and capacity compact, light, perfectly maintenance free and cheap. They are suitable to be used standby or cyclical i.e. in security sector (alarm), electronical devices, telephone exchange and UPS.

These batteries are standard available from 2V until 12V and from 0.7Ah until 65Ah. Others on demand.

VABO - AGM VRLA batteries indicate Valve Regulated Lead Acid Batteries with the following features:

- Maintenance-free, no water adding required
- Sealed valve-regulated, spill proof and leak proof
- Using unilateralism exhaust (safe vent valve) design on the battery cover

When the battery internal pressure have been up to the specifically value, the safe vent valve will open automatically, and will close after the pressure has been discharged, which can prevent the air to enter into battery



Program:

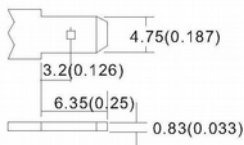
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BATTERY TERMINALS



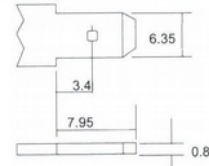
T1 Terminal

FASTON TYPE (Copper) quick disconnect tabs;
Silver coating for better conductivity



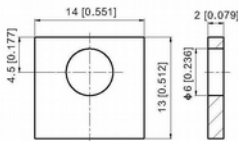
T2 Terminal

FASTON TYPE (Copper) quick disconnect tabs;
Silver coating for better conductivity



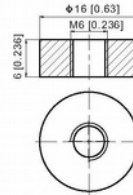
T3 Terminal

Brass Coated With Tin
Torque: 3.9 – 5.4 N*m



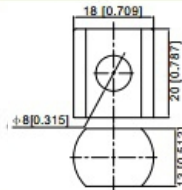
T6 Terminal

Brass Coated With Tin; Threaded Insert 6mm STUD
Torque: 3.9 – 5.4 N*m



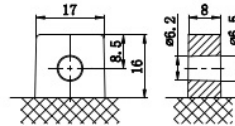
T9 Terminal

Lead
Torque: 11-14,7 N*m



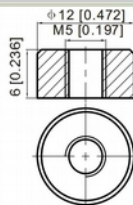
T10 Terminal

Lead
Torque: 3.9-5.4 N*m



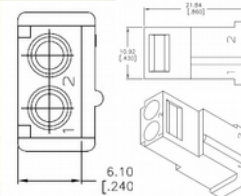
T12 Terminal

Brass Coated With Tin; Threaded Insert 5mm STUD
Torque: 2.0-3.0 N*m



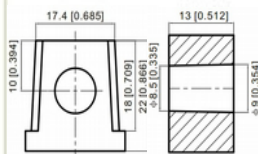
Connector

Toy Battery Connector
H-Connector



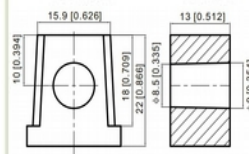
T14-1 Positive

Lead
Torque: 11-14,7 N*m



T14-2 Negative

Lead
Torque: 11-14,7 N*m



GENERAL USE

This is the all purpose series, a good battery for a good price. Expected lifetime is about 5 years. The most common types have the **VdS-certificats** for use in security systems.

So this is certainly a high quality battery.

This battery is used in small security systems, toys...



6 VOLT PM

PM 1,2-6



PM 4,0-6



PM 7,0-6



PM 10-6



12 VOLT PM

PM 0,8-12



PM 1,2-12



PM 2,2-12



PM 3,0-12



PM 5,0-12



PM 7,0-12



PM 12-12



PM 17-12



PM 18-12



PM 26-12



PM 45-12



PM 65-12



GENERAL USE



General Features AGM VRLA

- Using oxygen recombination technology: maintenance-free
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- ABS material: increase the strength of battery container. (Flame-retardant ABS is optional)
- High purity raw material: ensure low self discharge rate
- Silver-coated copper terminals (T1, T2 terminal), brass insert terminals and lead terminals improve the electric conductivity

Typical Applications

1. All purpose
2. Uninterruptable Power Supply (UPS)
3. Electric Power System (EPS)
4. Emergency light
5. Emergency backup power supply
6. Auto control system
7. Aircraft signal
8. Alarm and security system
9. Electronic apparatus and equipment
10. DC power supply
11. Communication power supply

VABO PM SERIES 6 VOLT

Type (Art Ref)	Nominal Voltage (V)	Capacity 20Hr-1,8V (AH)	Length (mm)	Width (mm)	Height (mm)	Total Height (mm)	Weight (kg)	Terminal	VDS
PM 1,2-6 (59201)	6	1,2	97	24	51,5	57,5	0,29	T1	
PM 4,0-6 (59202)	6	4,0	70	47	100	106	0,76	T1	
PM 7,0-6 (59004)	6	7,0	151	34	94	100	1,1	T1	
PM 10-6 (59256)	6	10,0	151	51	94	100	1,57	T1	

VABO PM SERIES 12 VOLT

Type (Art Ref)	Nominal Voltage (V)	Capacity 20Hr-1,8V (AH)	Length (mm)	Width (mm)	Height (mm)	Total Height (mm)	Weight (kg)	Terminal	VDS
PM 0,8-12 (59014)	12	0,8	96	25	62	62	0,35	H (plug)	
PM 1,2-12 (59207)	12	1,2	97	43	52	58	0,57	T1	YES
PM 2,2-12 (59224)	12	2,2	70	48	98	104	0,8	T1	YES
PM 3,0-12 (59209)	12	3,0	133	66	60,5	66,5	1,35	T1	
PM 5,0-12 (59225)	12	5,0	90	70	101	107	1,68	T1	
PM 7,0-12 (59211)	12	7,0	151	65	93,5	99	2,18	T1	YES
PM 12-12 (59217)	12	12,0	151	98	95	101	3,6	T2	YES
PM 18-12 (59220)	12	18,0	181,5	77	167,5	167,5	5,41	T3	YES
PM 26-12 (59221)	12	26,0	166	175	125	125	8	T3	YES
PM 45-12 (59222)	12	45,0	197	165	170	170	14,2	T6	YES
PM 65-12 (59216)	12	65,0	348	167	178	178	19,2	T6	YES

HIGH RATE UPS

This series is especially designed for high-rate applications as UPS-systems, Emergency power supply, Power tools, even starting systems.

The special thin plate technology, silver and brass components, high quality AGM separators improve the high current discharging properties and gives you a longer lifetime, 8 years.

Thanks to this high rate, a smaller battery can be sufficient for your application.

So, do you need a lot of power during a relative short time? Then this is the battery type you need!



12 VOLT UPS

PB UPS 5,4-12



PB UPS 7,6-12



PB UPS 12-12



PB UPS 20-12



PB UPS 24-12



PB UPS 38-12



PB UPS 65-12



HIGH RATE UPS



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General Features AGM VRLA

- Silver-coated copper terminals (T1, T2 terminal), brass insert terminals and lead terminals improve the electric conductivity
- Thin plate technology, special grid design, unique paste formula and plate curing process optimize high rate performance
- High quality AGM separators with less electrical resistance improve high current discharging properties
- ABS material: increase the strength of battery container (Flame-retardant ABS is optional)

Typical Applications

- | | | |
|----------------------|-----------------------------|---------------------------|
| 1. UPS (High rate) | 2. High power backup supply | 3. Emergency power supply |
| 4. Starting system | 5. Power tools | 6. Emergency lighting |
| 7. Electric starting | | |

VABO PB UPS SERIES 12 VOLT

Type (Art Ref)	Nom Volt (V)	15 min W/cell 1,6 V/cell	8HR 1,8 V/Cell	5HR 1,75 V/Cell	1HR 1,6 V/Cell	Length (mm)	Width (mm)	Height (mm)	Total Height (mm)	Weight (kg)	Plug
PB UPS 5,0-12 (59232)	12	20,4	5,0	4,85	4,39	90	69	101	107	1,735	T2
PB UPS 8,5-12 (59233)	12	32,2	7,6	6,95	6,28	151	64	93,5	99,5	2,437	T2
PB UPS 12-12 (59234)	12	49,8	12	10,5	8,77	151	98	95	101	4,02	T2
PB UPS 20-12 (59235)*	12	81,4	20	18,5	13,9	181,5	77	166,5	166,5	6,9	T3
PB UPS 26-12 (59257)	12	99,8	24,0	21,8	16,9	166	175	125	125	8,65	T12
PB UPS 38-12 (59237)	12	126,3	36,6	32,8	25,3	197	165	170	170	13,1	T6
PB UPS 65-12 (59238)*	12	221,2	65,5		41,8	348	167	178	178	21,3	T6

* on request

LONG LIFE STANDBY

The use of thicker plates, lower acid density and more electrolyte offers a lifetime of **10 years**.
You can also use these batteries in UPS-systems if you prefer a longer lifetime.
These batteries are used in: UPS-systems, emergency lighting, telecom, railway,...

General Features

AGM VRLA

- Special grid alloy and high purity raw material ensure less gassing, less self-discharging
- Grid refining technology and the thicker plates are used to extend the battery standby life and reduce the plate grid corrosion speed
- Lower acid density, excess of electrolyte and larger distance between plates to keep battery at low temperature and slow down plate grid corrosion speed
- Using oxygen recombination technology: maintenance-free
- ABS material: increase the strength of battery container.
- Unique vent valve design: control water losing, prevent air and spark going inside

Typical Applications

1. UPS and EPS
2. Emergency light
3. Railway signal and aircraft signal system
4. Marine and power stations
5. Alarm and security system
6. Electronic apparatus and equipment
7. Communication power supply
8. DC power supply

* on request

VABO LONG LIFE STANDBY SERIES 12 VOLT

Type (Art Ref)	Nom Volt. (V)	20HR 1,8 V/Cell	10HR 1,8 V/Cell	5HR 1,75 V/Cell	1HR 1,6 V/Cell	Length (mm)	Width (mm)	Height (mm)	Total Height (mm)	Weight (kg)	Plug
PB LONGLIFE 12V 7,0AH (59226)	12	7,42	7,0	6,07	4,31	151	65	94	99	2,448	T1
PB LONGLIFE 12V 18AH (59227)*	12	19,1	18	15,6	11,1	181	76	167,5	167,5	5,75	T3
PB LONGLIFE 12V 28AH (59228)	12	29,7	28	24,3	17,2	165	125	175	175	9,5	T3/ T10/ T12
PB LONGLIFE 12V 45AH (59229)*	12	45	42	36,6	26	197	165	170	170	14,5	T6
PB LONGLIFE 12V 55AH (59230)*	12	58,9	55	47,9	34,1	228	137	210	230	17,7	T9/T6
PB LONGLIFE 12V 65AH (59231)	12	69,6	65	56,6	40,3	348	167	178	178	21,3	T6

12 VOLT LONG LIFE STANDBY

PB LONGLIFE 12V 7,0AH



PB LONGLIFE 12V 18AH



SOLAR POWER



A high quality AGM-separator, larger distance between the plates and more electrolyte gives you good cyclic properties, enhanced overcharge and overdischarge endurance which makes it good for solar charging. The typical discharge is about 100 hours. So this battery gets interesting if you have low rates. This battery is used in Green energy systems (wind/sun), street lightening, parking meters ...

General Features AGM VRLA

- Good cyclic property. Enhanced overcharge endurance and overdischarge recovery property.
- High purity raw material: ensure low self discharge rate
- Using oxygen recombination technology: maintenance-free Lower acid density, excess of electrolyte and larger distance between plates to keep battery at low temperature and slow down plate grid corrosion speed
- ABS material: increase the strength of battery container. (Flame-retardant ABS is optional)
- Unique plate group configuration, high quality
- AGM separator and battery management system ensure battery with a longer service life
- Special vent valve design: control water losing, prevent air and spark going inside

1. Green energy systems (solar, wind, hydro, etc)

4. Telecommunications installations

7. Signal station

10. Caravans

14. Street signs and SOS pillars

2. Solar power stations

5. Measurement stations

8. Survey and Mapping system

11. Traffic lights and street lightening

15. Alarm installations

3. Pump systems

6. Boats or navigation buoys

9. Emergency lighting

12. Lawn lamp

16. Cottage & Camping

VABO SOLAR POWER SERIES 12 VOLT

Type	Nom Volt. (V)	100HR 1,8 V/Cell	10HR 1,8 V/Cell	5HR 1,75 V/Cell	1HR 1,6 V/Cell	Length (mm)	Width (mm)	Height (mm)	Total Height (mm)	Weight (kg)	Plug
PB SOLAR 12V 7,5AH (59219)	12	7,48	6,32	5,79	4,15	151	65	93,5	98	2,455	T1
PB SOLAR 12V 18AH (59223)*	12	18,4	16	14,2	9,76	181,5	76	167	167	5,75	T3

* on request

12 SOLAR POWER

PB SOLAR 12V 7,5AH



PB SOLAR 12V 18AH



DEEP CYCLE GEL

These lead-acid batteries are designed to perform many charges and discharges.

After every discharge, they provide an excellent recovery

This is not an AGM -battery, but the acid has been turned into a gel. The batteries have a little lower capacity, but in turn you get the excellent recovery after a deep discharge and the empty batteries don't freeze until -15°C

A lot of charges and discharges, you will use your battery to the bottom and expect that the battery will recover from this attack. If you want a real 'cycle' battery, this is the one you need. This battery is used in sweepers, wheelchairs, golf trolleys, electric outboard engines, medical equipment, etc...

12 VOLT PB DCG

PB DCG 12V 30AH



PB DCG 12V 40AH



PB DCG 12V 50AH



PB DCG12V 60AH



PB DCG 12V 70AH



DEEP CYCLE GEL



General Features

GEL

- Long time discharge
- Suitable for space and storage electric power use
- Special plate design, long cycle lifetime
- Using special lead-calcium alloy to boost up the grid anti-corrosive performance and extend the battery using lifetime
- Using special separator to boost up the battery performance inside
- High thermal capacity, reduce the risk of thermal out of control and drying hard, can be used in bad environment
- High gas recombined reaction efficiency
- Little water losing, no electrolyte stratification phenomenon
- Long storage time
- Good deep discharge resilience performance
- Using gas silicon dioxide, small granule degree, bigger than surface area

Typical Applications

1. Railway and marine systems
2. Electric tools
3. Vehicle in place of walking
4. Lawn mowers
5. Golf trolleys and golf cart
6. Electric toys
7. Portable power
8. Wheelchairs
9. Medical equipments

VABO DEEP CYCLE GEL SERIES 12 VOLT

Type	Nom Volt. (V)	20HR 1,8 V/Cell	10HR 1,8 V/Cell	5HR 1,75 V/Cell	1HR 1,6 V/Cell	Length (mm)	Width (mm)	Height (mm)	Total Height (mm)	Weight (kg)	Plug
PB DCG 12V 30AH (59239)	12	30	27,6	24,3	17,8	195	130	165	175	10,85	T6
PB DCG 12V 40AH (59240)	12	38	35	30,7	22,5	197	165	170	170	13,5	T6
PB DCG 12V 50AH (59241)	12	50	46,1	40,45	29,7	226	138	205	220	16,6	T6
PB DCG 12V 60AH (59242)	12	60	55,4	48,6	35,6	259	168	190	190	20,15	T6
PB DCG 12V 70AH (59243)	12	70	64,6	56,5	41,5	260	168	208	230	25,0	T14

VDS – The authority on Safety and Security

VdS Schadenverhütung* is the independent, international, accredited and notified testing and certification institution for fire prevention and safety technology as well as for physical and electronic protection against intrusion.

Looking back to a century of experience, VdS inspects and certifies products as well as services for the safety and security industry. All procedures follow standards and rules established by VdS in cooperation with the insurance industry and international organizations.

The European Perspective VdS Schadenverhütung is accredited according to the EN 45000 series of European standards and is a member of the European Fire and Security Group (EFSG). VdS experts are represented in all relevant German and international committees. The VdS mark of approval stands for quality and reliability wherever safety and security matters. VdS helps to steer clear of damage and loss.

VdS = Vertrauen durch Sicherheit

= Confidence through safety and security



Zertifikat

über die

Anerkennung

von

Bauteilen und Systemen

Inhaber der Anerkennung:

VABO NV
Boterbosstraat 20
3550 HEUSDEN-ZOLDER
BELGIEN

Anerkennungs-Nr.:	Anzahl der Seiten:	Gültig vom:	Gültig bis:
G 107021	4	19.08.2010	18.08.2014

Gegenstand der Anerkennung:

Wartungsfreie Blei-Batterie
59211 PM 7.0-12

Verwendung:

in Gefahrenmeldeanlagen

Anerkennungsgrundlagen:

VdS 2344:2005-12, Verfahrensrichtlinien
VdS 2841:2005-12, Durchführung von Produktüberwachungen
VdS 2227:2005-05, Allgemeine Anforderungen/Prüfmethode
VdS 2110:2003-01, Schutz gegen Umwelteinflüsse
VdS 2102:2007-01, Wartungsfreie Blei-Batterien

The information contained in this document is subject to change without prior notice.



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