

SEC All Product Brochure



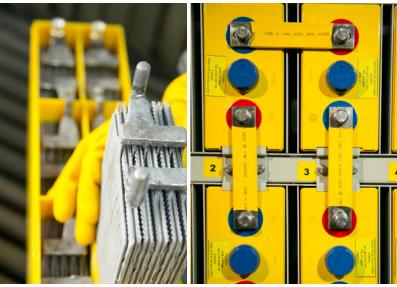


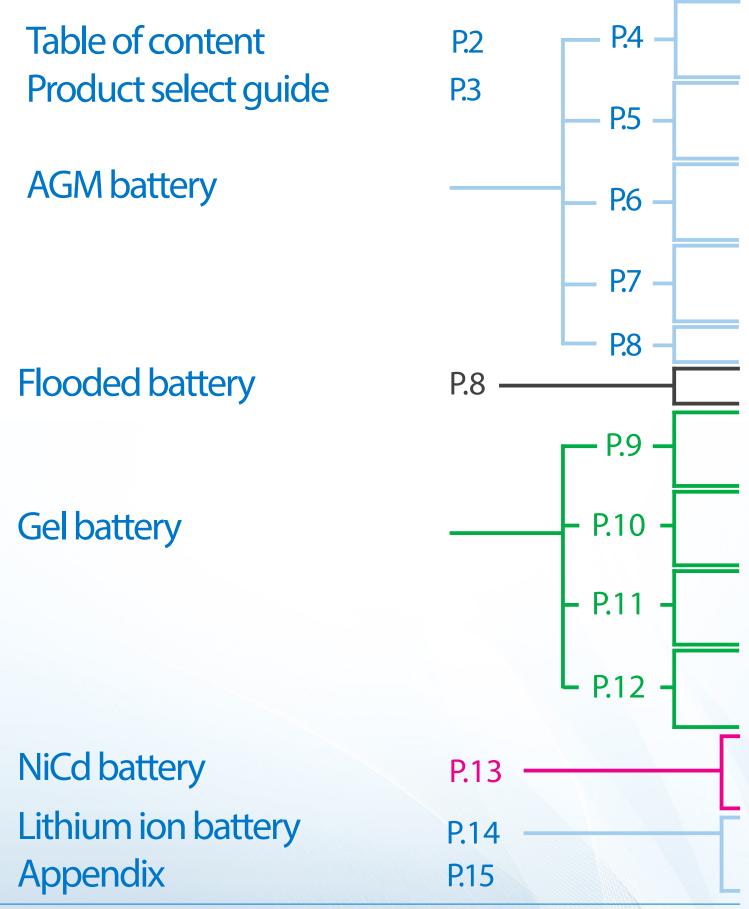








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Product select guide

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	UPS solution	Tele- comunication	Renewables	Railway	Oil&gas	Motive	Medical	Marine	Industrial standby	Grid service	Emergency light supply	Airport
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TLAM	\checkmark	\checkmark			\checkmark				\checkmark	\checkmark		\checkmark
CMT	1	1			\checkmark				\checkmark	\checkmark		\checkmark
2-TLA		/			1				/	\		\checkmark
MP	1						1		/		/	
MRT	1						1		1		1	
TLA	/						1		/		1	
TUA	/						/		1		1	
FTA		1		/								
UPS	1				/				1			√
TRA			1						1	1		
TLGM			1		1				1	1		
CMTG			1		1				1	1		
2-TLG			1		1				/	/		
ETG					1					1		
TLG			1		1	1		1				
TSG		1	1		1	1		1				
FTG			1	1								
ETGB			/		/	/		/				1
KP				/	/				/			
KG				/	/				/			
ML	/	/	/	/	/	/	\	/	/	1	/	/
RML	\checkmark	\checkmark	\checkmark		\checkmark				\checkmark			\checkmark

TLAM (AGM)







SEC's Cellyte TLAM series is an industry-leading single cell range. The heavy-duty Lead Calcium plates and the valve-regulated design make it virtually maintenance-free with a long float life.



Product specification

Positive electrode:	Lead Calcium Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

15-years in float service @ 30°C with an approved catalyst

1050 cycles @ 80% DOD @ 25°C



Capacity range

2V 100 - 1600 Ah

Product Benefits

Reliable VRLA AGM design

Fitted with CatVent™ catalyst

Suited for vertical and horizontal rack

Performs under temperature

fluctuation

Higher power and efficiency

Optimised grid design and paste formation

Extended battery life and cycle service

ISO:9001 approved

Product compliance



IEC 60896-21/22-2004

BS 6290 part 4

UL Component Approval

Eurobat

CMT (AGM)







The Cellyte CMT is our flagship large-capacity VRLA. It's globally acclaimed for its premium performance in high-specification standby systems and has been in production for over three decades.



Product specification

Positive electrode:	Lead Calcium high Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

20-years in float service @ 30°C with an approved catalyst

1200 cycles @ 80% DOD @ 25°C



2V 100 - 1600 Ah

Product Benefits

Reliable VRLA AGM design

Fitted with CatVent™ catalyst

Suited for vertical and horizontal rack

Performs under temperature fluctuation

Higher power and efficiency

Optimised grid design and paste formation

Extended battery life and cycle service

ISO:9001 approved

Product compliance



IEC 60896-21/22-2004 BS 6290 part 4

UL Component Approval

2-TLA (AGM)







The Cellyte 2TLA range provides industry-leading performance at a competitive price. With a proven 15-year battery life, the Cellyte 2TLA is engineered to the highest standards and suits all general standby applications.





Product specification

Positive electrode:	Lead Calcium Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

15-years in float service @ 30°C with an approved catalyst

500 cycles @ 80% DOD @ 25°C



50 - 3000 Ah

Product Benefits



Very low maintenance
Enhanced pressure release system
Excellent gas recombination
Long life in operation and storage
Wide operating temperature range
Suited for multiple application

Product compliance



EC 60896-21/22-2004 S 6290 part 4

UL Component Approval

Eurobat

MP (AGM)





SEC-12-MP-18
SEC-12-MP-18
SEC-12-MP-18
SEC-12-MP-18
SEC-12-MP-18

The Microlyte MP series is suitable for all general standby applications at the more cost-sensitive end of the market. Using valve-regulated AGM technology, the MP is spill-proof and leak-proof for extra safety.



Product specification

Positive electrode:	Lead Calcium Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

8 years in float service @ 25°C *
200 cycles @ 80% DOD @ 25°C



Capacity range

6V	1.2 - 205 Ah
121/	1.2 250 Ab

Product Benefits



increased safety
long design and shelf life
extremely low maintenance
Quick charging
Product consistency
High energy rating

Product compliance



EC 60896-21/22-2004 3S 6290 part 4

UL Component Approval

MRT (AGM)





The MRT AGM is a versatile battery suited to a wide range of applications. Crafted with high tin plates it's an energy dense battery with a long float life and renowned cycling capability.





Product specification

Positive electrode:	Lead Calcium high Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

10-years in float service @ 25°C *	
250 cycles @ 80% DOD @ 25°C	



Capacity range

6V	9.5 - 210 Ah
12V	3 - 248 Ah

Product Benefits



ISO:9001 approved
Increased safety
Universal design and shelf life

Highly efficient

Excellent product consistency

Long-lasting

High-quality component

low self-discharge

Product compliance



EC 60896-21/22-2004 S 6290 part 4

UL Component Approval

Eurobat

TLA (AGM)





The Cellyte 6/12-TLA series of powerful VRLA standby batteries are constructed with safety as a priority. A true industry workhorse, the 6/12-TLA range offers long, reliable service at a conservative price point.





Product specification

Positive electrode:	Lead Calcium Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc \pm 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

10-years in float service @ 25°C
250 cycles @ 80% DOD @ 25°C



Capacity range

6V	117 - 205 Ah
12V	15 - 240 Ah

Product Benefits



ISO:9001 approved
Increased safety
Universal design and shelf life
Highly efficient
Excellent product consistency
Long-lasting
High-quality component
Iow self-discharge

Product compliance



IEC 60896-21/22-2004 BS 6290 part 4

JL Component Approval

TUA (AGM)









Long lasting service for mission-critical, heavy-duty applications. The TUA offers consistent performance and rugged durability. The addition of a CatVent™ catalyst provides a low gassing, explosion-proof battery.



Product specification

Positive electrode:	Lead Calcium high Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

12-years in float service @ 30°C with an approved catalyst

340 cycles @ 80% DOD @ 25°C



Capacity range

6V	120 - 205 Ah
12V	16 - 244 Ah

Product Benefits



Long life in operation and storage Very low maintenance Patented valve system Wider operating temperature range Suited for multiple application ISO:9001 approved

Product compliance



60896-21/22-2004 IEC 6290 part 4 Component Approval

FTA (AGM)







The SEC Cellyte FTA series of VRLA AGM monoblocs was designed for rack-mounted applications. These power-dense, maintenance-free, monoblocs feature heavy-duty plates to ensure reliability, safety, and optimum performance at all times.





Product specification

Positive electrode:	Lead Calcium high Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

Capacity range

12-years in float service @ 30°C with an approved catalyst

250 cycles @ 80% DOD @ 25°C



12V 45 - 175 Ah

Product Benefits



Safe AGM design Rugged construction Added vented venting feature Extra wide temperature range Ideal for rack-mounted applications Low maintenance Maximum operating life low self-discharge

Product compliance



60896-21/22-2004 **IEC** 6290 part 4

UL Component Approval

UPS (AGM)









The Cellyte UPS provides consistent, high-power performance at a low cost. Abuse-resistant, it boasts a long service life. The Cellyte UPS will meets both your critical power and economic needs.



Product specification

Positive electrode:	Deep cycle Lead Calcium high Tin Aluminium grid
Negative electrode:	Standard Lead Calcium Tin Aluminium grid
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.50 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator





High power rating Minimum maintenance requirement High power efficiency Excellent product consistency

Reliable under temeperature fluctuation

Abuse resistant



Design life

12-years in float service @ 30°C with
an approved catalyst

340 cycles @ 80% DOD @ 25°C



6V	190 Ah
12V	22.3 - 152 Ah

Product compliance



60896-21/22-2004 BS 6290 part 4

Component Approval

TRA (FLOODED)





The Cellyte TRA series is an OPzS flooded tubular range engineered with an excellent float life and premium cycling capabilities. Its relentless reliability





Product specification

Positive electrode:	Tubular spine grid/low antimony/multi woven polyester sleeve
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.20 - 2.24 vpc ± 1% at 25°C
Max. charge voltage:	2.40 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Separators:	Mirco porous separator
Electrolyte:	Sulphuric acid with specific gravity 1.240



Low self-discharge Tolerates sub-zero temperatures Latest plate formation technology Accepts high charge rate Requires no equalization Explosion proof / Increased safety Long life deep cycle capability



Capacity Design life range

20-years in float service @ 25°C

2000 cycles @ 80% DOD @ 25°C





40736-1992 Eurobat

TLGM (GEL)









The SEC Cellyte TLGM Gel series was engineered specifically for demanding operational environments. This range of VRLA single cell batteries offers superior cycling capability and a long service life.



Product specification

Positive electrode:	Lead Calcium Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.45 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Safety valve:	1-3 psi self-resealing
Separators:	Microporous separator



Design life

15-years in float service @ 30°C with

1300 cycles @ 80% DOD @ 25°C

an approved catalyst



Capacity range

2V





Reliable VRLA AGM design

Fitted with CatVent™ catalyst

Suited for vertical and horizontal rack

Performs under temperature fluctuation

Higher power and efficiency

Optimised grid design and paste

formation

Extended battery life and cycle service ISO:9001 approved



IEC 60896-21/22-2004 BS 6290 part 4

UI Component Approval

Eurobat

CMTG (GEL)







The Cellyte CMTG series is SEC's flagship large capacity VRLA gel range. We've combined the benefits of gel electrolyte to build a deep cycling performer with an extremely long



Product specification

Positive electrode:	Lead Calcium high Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.45 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Safety valve:	1-3 psi self-resealing
Separators:	Microporous separator



Design life

20-years in float service @ 30°C with

1500 cycles @ 80% DOD @ 25°C

an approved catalyst



Capacity range

100 - 1500 Ah

Product Benefits



Fitted with CatVent™ catalyst

Suited for vertical and horizontal rack

Performs under temperature fluctuation

Higher power and efficiency

Optimised grid design and paste formation

Extended battery life and cycle service ISO:9001 approved

Product compliance



60896-21/22-2004 **IEC**

6290 part 4

UL Component Approval

2-TLG (GEL)







The Cellyte 2-TLG series is perfect for deep-cycle applications where rugged reliability is crucial. Featuring thixotropic gelled electrolyte combined with thick Lead Calcium grids. This tough monobloc boasts superior cycling capability and long service life.





Product specification

Positive electrode:	Lead Calcium Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.45 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Safety valve:	1-3 psi self-resealing
Separators:	Microporous separator



Design life

15-years in float service @ 30°C with an approved catalyst

650 cycles @ 80% DOD @ 25°C



Capacity range

2V 150 - 1000 Ah

Product Benefits

Reliable VRLA design

Performs well under variable temperature conditions

Well Sealed for extra safety

High power and efficiency

Optimised grid design and paste formation

Extended battery life and cycle service

Product compliance



EC 60896-21/22-2004

S 6290 part 4

UL Component Approval

Eurobat

ETG (GEL)







SEC's Cellyte ETG is an OPzV VRLA tubular plate gel series that incorporates SEC CatVent technology to ensure extreme durability. The ETG is a high cycling, low-maintenance premium range for off grid sites.



Product specification

Positive electrode:	Tubular design plate with optimised corrosion defense and creep resistant, Calcium Tin Lead alloy
Negative electrode:	Flat plate ultilising Lead Calcium low gassing grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.45 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Safety valve:	1-3 psi self-resealing
Separators:	Microporous separator



Design life

20-years in float service @ 30°C with an approved catalyst

1800 cycles @ 80% DOD @ 25°C



Product Benefits

Absol

Extended lifetime High energy rating

Absolute reliability under harsh conditions

increased safety

Maintenance free

Relatively quick charging

Product compliance



IEC 60896-21/22-2004

BS 6290 part 4

UL Component Approval

TLG (GEL)





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The Cellyte 6/12-TLG series is perfect for deep-cycle applications where rugged reliability is crucial. Featuring thixotropic gelled electrolyte combined with thick Lead Calcium grids. This tough monobloc boasts superior cycling capability and long service life.



Product specification

Positive electrode:	Lead Calcium Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.45 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Safety valve:	1-3 psi self-resealing
Separators:	Microporous separator



Design life

10-years in float service @ 25°C	
400 cycles @ 80% DOD @ 25°C	



Capacity range

6V	105 - 202 Ah
12V	14.9 - 235 Ah

Product Benefits

Reliable VRLA design

Performs well under variable temperature conditions

Well Sealed for extra safety

High power and efficiency

Optimised grid design and paste formation

Extended battery life and cycle service

Product compliance



EC 60896-21/22-2004

S 6290 part 4

UL Component Approval

Furobat

TSG (GEL)







The TSG is a flat plate monobloc built for deep cycling applications. The Cat-Vent catalyst reduces float current and extends service life to provide a solar battery with superior cycling capability.





Product specification

Positive electrode:	Lead Calcium high Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.45 vpc ± 1% at 25°C
Electrolyte:	Sulphuric acid absorbed into AGM separator
Safety valve:	1-3 psi self-resealing
Separators:	Absorptive glass mat (AGM) separator



Design life

12-years in float service @ 30°C with an approved catalyst

420 cycles @ 80% DOD @ 25°C



Capacity range

6V	105 - 202 Ah
12V	14.9 - 235 Ah

Product Benefits



High power rating

Extended lifetime

Exceptional operating costs over

Virtually maintenance free

increased safety

Excellend product consistency

Product compliance



IEC 60896-21/22-2004

BS 6290 part 4

UL Component Approval

FTG (GEL)







True Gel technology meets VRLA mechanics in the Cellyte FTG Series. The result is a front terminal range with outstanding deep-cycle capability. The FTG series is perfect for hybrid telecom applications or supplementing unreliable grids.





Positive electrode:	Lead Calcium high Tin grid alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.40 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Safety valve:	1-3 psi self-resealing
Separators:	Microporous separator



12-years in float service @ 30°C with an approved catalyst

300 cycles @ 80% DOD @ 25°C



Capacity range

12V 40 - 175 Ah

Product Benefits



Advanced gel design Rugged construction Added gas venting feature Extra wide temperature range ideal for rack mounted applications low-maintenance Maximum operating life low self-discharge One-way safety valve Suitable for deep-cycle service

Product compliance



IEC 60896-21/22-2004 BS 6290 part 4

UL Component Approval

Eurobat

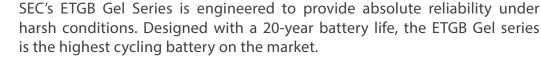
ETGB (GEL)













Product specification

Positive electrode:	Tubular plate design with Lead Calcium Tin alloy
Negative electrode:	Lead Calcium grid alloy
Float voltage:	2.25 - 2.30 vpc ± 1% at 25°C
Max. charge voltage:	2.45 vpc ± 1% at 25°C
Electrolyte:	Thixotropic high purity silica Gel electrolyte
Safety valve:	1-3 psi self-resealing
Separators:	Microporous separator



Design life

20-years in float service @ 30°C with an approved catalyst

1800 cycles @ 80% DOD @ 25°C



Capacity range

20 - 200 Ah

Product Benefits



Extended lifetime High energy rating

Absolute reliability under harsh conditions

increased safety

Maintenance free

Relatively quick charging

Product compliance



IEC 60896-21/22-2004 DIN 40742-1999 BS 6290 part 4

UL Component Approval

KP (NICAD)





The Nicacell flooded Nickel Cadmium range was crafted for extreme applications. Engineered with SEC's signature pocket plate design, these NiCad cells are guaranteed to provide optimum performance in extreme temperatures.





Product specification

Positive electrode:	Horizontal pockets of double-perforated steel strips
Negative electrode:	Horizontal pockets of double-perforated steel strips
Float voltage:	1.43 to 1.45 vpc ± 1% at 20°C
Boost charge voltage:	1.60 to 1.65 vpc ± 1% at 20℃
Electrolyte:	Potassium Hydroxide
Vent:	Flip top flame arresting vent
Separators:	Separating grids



Design life

20-years in float service @ 20°C up to 1,000 cycles @ 80% DOD @ 20°C as per IEC



Capacity range

1.2V low rate	10 - 1200 Ah
1.2V medium rate	10 - 1000 Ah
1.2V high rate	10 - 500 Ah

Product Benefits



Excellent high power performance
Extended lifetime at high temperatures
Absolute reliability under harsh
conditions

Superb power to weight and volume ratio

Extremely low internal resistance Wide operational temperature range Requires little to no maintenance

Product compliance



IEC 60623:2001 EN 61373

KG (NICAD)





Built using an advanced pocket plate design, the NiCad Avantgarde is an ultra low maintenance; long lasting and hard working battery that performs in a wide temperature range.



Product specification

Positive electrode:	Horizontal pockets of double-perforated steel strips
Negative electrode:	Horizontal pockets of double-perforated steel strips
Float voltage:	1.43 to 1.45 vpc ± 1% at 20°C
Boost charge voltage:	1.60 to 1.65 vpc ± 1% at 20℃
Electrolyte:	Potassium Hydroxide
Vent:	Flip top flame arresting vent
Separators:	Fibre mat separator



Design life

20-years in float service @ 20°C	
up to 1,000 cycles @ 80% DOD @ 20°C as per IEC	



Capacity range

1.2V low rate	20 - 1000 Ah
1.2V medium	20 - 60 Ah

Product Benefits

conditions

Excellent high-power rating
Absolute reliability under harsh

Suited to vibrational and high temperature environments

Low preventative maintenance

No risk of thermal runaway effect

Low internal resistance

No ice formation at temperatures below 0°C

Insensitive to deep discharge and misuse

Product compliance



IEC 60623:2001 EN 61373

ML (Lithium ion)







The Microlyte ML is renowned for its power density, light compact design and ability to withstand extreme temperatures. It's ideal for those looking for a premium, deep-cycle performer.



Product specification

Positive electrode:	Nano-LiFePO ₄ on Aluminum foil
Negative electrode:	Nano-Carbon on Copper foil
Max. Charge current:	0.5C for less than 180min or 0.8C for less than 120min at 25°C
Max. charge voltage:	14.6V ± 1% at 25°C
Electrolyte:	Lithium electrolyte salt LiPF6 with EC:DMC:EMC solvent
Safety valve:	0.8 MPa opening pressure
Separators:	PE film



Design life

10-years in float service @ 25°C

>2000 cycles for continuous 0.5C@ 80% DOD @ 25°C



Capacity range

12V 24 - 200Ah

Product Benefits

Bluetooth Technology

Energy dense

Light and compact

Excels in a wide temperature range

Extremely low internal resistance

Absolute reliability under harsh conditions





IEC 62133-2012

UL 1642

UN 38.3

RML (Lithium ion)







The Microlyte RML is a powerful Lithium battery purpose built for Telecom operations. Designed with Nano LiFePO4 cathode materials, the RML is extremely stable, compact and robust.



Product specification

Positive electrode:	Nano-LiFePO ₄ on Aluminum foil
Negative electrode:	Nano-Carbon on Copper foil
Max. Charge current:	0.5C for less than 180min or 0.8C for less than 120min at 25°C
Max. charge voltage:	58.4V ± 1% at 25°C
Electrolyte:	Lithium electrolyte salt LiPF6 with EC:DMC:EMC solvent
Safety valve:	0.8 MPa opening pressure
Separators:	PE film



Design life

10-years in float service @ 25°C

>2000 cycles for continuous 0.5C@ 80% DOD @ 25°C



Capacity range

48V 50, 75, 100 Ah

Product Benefits

Super compact

Excellent stability

Quick charging

High consistency

Prismatic cell design

Absolute reliability under harsh conditions





IEC 62133-2012

UL 1642

UN 38.3

The SEC global network



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