# Product 2018 Catalogue







# **OUR PRODUCTION FACILITY IN ROERMOND**

For the past 90-odd years, Centurion has been manufacturing batteries at its own site. This vast wealth of experience, combined with our knowledge and skills, has enabled Centurion to establish itself as a manufacturer with an excellent reputation on the European market, both for assembly and aftersales. Centurion always strives for optimum customer satisfaction – our customers must be in no doubt they have made the right choice by opting for one of our products. Centurion Battery is the place for purchasing top-end batteries for trucks, buses, trailers, ships, boats, caravans, campervans, cars, delivery vans, and solar panels, to name but a few. We have been manufacturing batteries on site in the Dutch town of Roermond for nearly 90 years, working with seasoned experts when it comes to both our products and the market. Centurion is therefore more than happy to advise and inform you on any battery-related topics, techniques and applications.



Our batteries are also available dry-charged. For more information on dry-charging and our manufacturing process can be found on page 28.

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# **CHOOSE YOUR BATTERY**

#### **1. CHOOSE YOUR VEHICLE**



**C**3

**HEAVY DUTY APPLICATION Full Equipment** 



Long-haul Trucks





Trailer/Tail Lift



**Emergency Services** 



Truck



Agricultural Machines



Heavy Road Construction





Solar panels





Camper

**Light Trucks** 



Tractor



Road Construction Machine



Garden Diggers

**START ONLY** Standard Equipment



Car



Delivery Van



Caddy

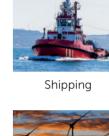


Mini Car











Caravan









Boat



### 2. CHOOSE YOUR BATTERY (BASED ON AVERAGE CONSUMPTION)

EXTR	REME		ENHANCED		STAN	DARD
~	~	×	×	×	×	×
*	~	~	~	×	×	×
*	*	×	×	~	~	×
×	*	*	~	×	×	×
×	×	×	×	×	×	~
96903 96451 STR / EFB	96803 96351 STR / EFB	Supreme B-225 B-180	Start serie	Solar serie	Robustak serie	Supreme serie

NEW

# CENTURION BATTERYEFBSOLAR96451



### We proudly present the eagerly awaited innovations in our product range

Centurions brand new Solar series is especially developed to store solar power that can be used at any time, even when the sun doesn't shine. With the new Enhanced Flooded Battery (EFB) series, we are now able to present you with our first, maintenance-free battery, that guarantees both superior reliability and excellent performance. The following DIN standards are now available with EFB and countersunk caps: 96051, 96151, 96803 and 96903. And introducing another new semi-traction battery, also available with EFB technology: the 96451. All of our new products are manufactured on site in Roermond, and are the result of years of rigorous testing in field conditions. They capture the best of both worlds: extremely suitable for continuous discharge with relatively low power, such as for lighting, audio, and communications equipment, combined with very high take-off power, so that even the biggest combustion engine can start.

## **NEW PRODUCTS**

	CENTURION E	FB	12V EFB BATTERIE	S						
	ETN nr.	Туре	Colourscheme Container - Lid	Version Caps lid	Notes*	Cap Ah/20h	Availability*	Page		
NEW	960051EFB	EFB 96051	Natural-Blue	Sunk caps	HG	130	NOS	9		
NEW	961051EFB	EFB 96151	Natural-Blue	Sunk caps	HG	140	NOS	9		
EW	963051EFB	EFB 96351	Natural-Blue	Sunk caps	HG	180	NOS	9		
IEW	964051EFB	EFB 96451	Natural-Blue	Sunk caps	HG	190	NOS	9		
EW	968003EFB	EFB 96803	Natural-Blue	Sunk caps	HG	230	NOS	9		
EW	969003EFB	EFB 96903	Natural-Blue	Sunk caps	HG	240	NOS	9		

#### **CENTURION SEMI-TRACTION**

#### **12V SEMI-TRACTION BATTERIES**

	ETN nr.	Туре	Colourscheme Container - Lid	Version Caps lid	Notes*	Cap Ah/20h	Availability*	Page
	96051	96051 Semi-Traction	Natural-Black	NEW Both	HG	130	NOS	9
	96151	96151 Semi-Traction	Natural-Black	NEW Both	HG	140	NOS	9
	96351	96351 Semi-Traction	Natural-Black	NEW Both	HG	180	NOS	9
NEW	96451	96451 Semi-Traction	Natural-Black	NEW Both	HG	190	NOS	9
	96803	96803 Semi-Traction	Natural-Black	NEW Both	HG	230	NOS	9
	96903	96903 Semi-Traction	Natural-Black	NEW Both	HG	240	NOS	9

	CENTURION S	SOLAR	12V SOLAR BATT	ERIES				
	ETN nr.	Туре	Colourscheme Container - Lid	Version Caps lid	Notes*	Cap Ah/20h	Availability*	Page
NEW	958003SOL	SOLAR 100	Black-Black	Sunk caps		100		27
NEW	961051SOL	SOLAR 140	Black-Black	Sunk caps	HG	140		27
NEW	968003SOL	SOLAR 230	Black-Black	Sunk caps	HG	230		27
NEW	969003SOL	SOLAR 240	Black-Black	Sunk caps	HG	240		27



#### Battery with unsunk caps

Battery with sunk caps

\* Abbreviations explained in Comments and Availability:



SUPREME

# SEMI TRACTION

EFB

# Trucks and Buses

Centurion Battery is the go-to partner when looking for reliable batteries for trucks and buses. Nowadays, these vehicles have been fitted with sundry electrical applications (such as on-board television, Wi-Fi, or heating). To supply the capacity needed, we offer you our semi-traction and EFB batteries. These batteries are fitted with thick plates and are extremely suitable for use in trucks and buses.

Regular starter batteries do not allow for more than 20% of their capacity to be extracted repeatedly without endangering their lifespan. Modern transport, however, is far more demanding – vehicles have to be able to start under the most extreme conditions. Exactly for this purpose, Centurion Battery has developed four powerhouse batteries that ensure a quick start, even after an arctic night with the block heater at full blast. Centurion super start batteries drive success...

CENTURIC	ON SUPREME	12	12V SUPREME SUPERSTART BATTERIES								
ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)		in mm W H	Floor fixing	Avail- ability*
001080110	Supreme B-180	Black-Black	HG	180	1100	3	49,1	513 2	223 223		NOS
002025125	Supreme B-225	Black-Black	HG	225	1250	3	60,3	513 2	270 242		NOS
001090115	Supreme C-190	Black-Black	HG	190	1150	3	51,4	513 2	223 223		NOS
002030105	Supreme C-230	Black-Black	HG	230	1200	3	62,6	513 2	270 242		NOS

**CENTURION SEMI-TRACTION 12V SEMI-TRACTION BATTERIES** Colourscheme Cap Cap Circuit Weight/kgs Floor Avail-Size in mm ETN nr. Notes\* Ah/20h Ah/5h Container - Lid diagram н fixing ability\* (charged) L W 96051 Natural-Black ΗG 130 105 3 45,6 513 189 223 NOS 96151 Natural-Black HG 140 115 3 45,6 189 223 NOS 513 Natural-Black 3 223 NOS 96351 HG 180 135 49,6 223 513 Natural-Black HG 190 3 51,7 223 223 NOS 96451 145 513 96803 Natural-Black HG 230 180 3 62.3 270 242 NOS 513 96903 HG 240 3 242 NOS Natural-Black 190 65,8 513 270

	CENTURION	12V EFE	12V EFB BATTERIES								
	ETN nr.	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Size in m L W	im H	Floor fixing	Avail- ability*
NEW	960051EFB	Natural-Blue	HG	130	105	3	45,6	513 189	223		NOS
NEW	961051EFB	Natural-Blue	HG	140	115	3	45,6	513 189	223		NOS
NEW	963051EFB	Natural-Blue	HG	180	135	3	49,6	513 223	223		NOS
NEW	964051EFB	Natural-Blue	HG	190	145	3	51,7	513 223	223		NOS
NEW	968003EFB	Natural-Blue	HG	230	180	3	62,3	513 270	242		NOS
NEW	969003EFB	Natural-Blue	HG	240	190	3	65,8	513 270	242		NOS



\* Abbreviations explained in Notes and Availability:



EF<u>B</u>

# Trailers

When it comes to trailers, Centurion Battery has the perfect solution, too. Most trailers are equipped with a tail lift. The coachbuilder will have fitted the tailgate in accordance with its requisite capacity. The tail lift is usually powered by one or two batteries. For this purpose, we recommend our EFB and semi-traction batteries. These batteries come with thick plates and are supremely suited for operating tail lifts.

**CENTURION EFB** 

CENTURION S	CENTURION SEMI-TRACTION			12V SEMI-TRACTION BATTERIES						
ETN nr.	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Size ir L W		Floor fixing	Avail- ability*
96051	Natural-Black	HG	130	105	3	45,6	513 18	9 223		NOS
96151	Natural-Black	HG	140	115	3	45,6	513 18	9 223		NOS
96351	Natural-Black	HG	180	135	3	49,6	513 22	3 223		NOS
96803	Natural-Black	HG	230	180	3	62,3	513 27	0 242		NOS

#### 12V EFB BATTERIES

	A CONTRACTOR OF	Control of the second second second second				1	A CONTRACT OF STREET	and the second second second second		
	ETN nr.	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
NEW	960051EFB	Natural-Blue	HG	130	105	3	45,6	513 189 223		NOS
NEW	961051EFB	Natural-Blue	HG	140	115	3	45,6	513 189 223		NOS
NEW	963051EFB	Natural-Blue	HG	180	135	3	49,6	513 223 223		NOS
NEW	964051EFB	Natural-Blue	HG	190	145	3	51,7	513 223 223		NOS
NEW	968003EFB	Natural-Blue	HG	230	180	3	62,3	513 270 242		NOS
NEW	969003EFB	Natural-Blue	HG	240	190	3	65,8	513 270 242		NOS



### WHY CHOOSE CENTURION EFB?

<	Highest standards of quality	<b>~</b>	Enhanced vi
<b>√</b>	Completely maintenance free	<b>√</b>	Significantly

Enhanced vibration resistance
Significantly longer life-span

\* Abbreviations explained in Notes and Availability:



SEMI TRACTION

SUPREME

# Shipping

The purchase of shipping batteries is entirely dependent on its intended applications. Is the battery meant to start the ship, or does it need to power appliances? The high-end Centurion batteries are supremely suited for both.

Centurion Battery covers just about the entire range of DIN registered semi-traction batteries. They are all manufactured with high-end, high density materials and equipped with thick grids, special separation, glass laminate, and Super Heavy Duty construction. Success is driven by Centurion...

CENTURION SUPREME			12V SUPREME SUPERSTART BATTERIES							
ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
001080110	Supreme B-180	Black-Black	HG	180	1100	3	49,1	513 223 223		NOS
002025125	Supreme B-225	Black-Black	HG	225	1250	3	60,3	513 270 242		NOS

CENTURION	6V SEM	I-TRACTIO	N BATTERI						
ETN nr.	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
48011	Natural-Black	HG	480	385	4	68,3	513 270 250		NOS

CENTURION S	SEMI-TRACTION	12V SEM	1I-TRACTIC	ON BATTER							
ETN nr.	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Siz L	ze in m W	im H	Floor fixing	Avail- ability*
96351	Natural-Black	HG	180	135	3	49,6	513	223	223		NOS
96803	Natural-Black	HG	230	180	3	62,3	513	270	242		NOS
96903	Natural-Black	HG	240	190	3	65,8	513	270	242		NOS



\* Abbreviations explained in Notes and Availability:





# **Campers and Caravans**

Centurion's recreational batteries are becoming increasingly heavy. The energy demand becomes ever greater as a result of the increasing amount of appliances – the days of just three lights are well and truly behind us. Our batteries are supremely suitable for the combined use of, for example, housekeeping duties, lighting, caravan movers, solar panels, heating pumps, radio, and fridge. For all of the above, the Robustak provides a robust source of power, suitable for caravan and campervan alike.

The Centurion Robustak series, Dutch-made portable power for recreational purposes, consists of five popular models, tailor-made for pleasure cruising, caravans, and campervans. The Robustak series' batteries are extremely solid semi-traction batteries, that come equipped with thick plates, special separation and glass laminate suited for deep discharge, as well as high-density active mass. This makes Robustak the preferred choice for pleasure cruise, campers, and caravans alike. Holidays are driven by success...

CENTURION	CENTURION ROBUSTAK			AK BATTEI	RIES				
ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
575005RTK	Robustak 75	White-Red		75	0	19,6	278 175 190	B3	NOS
590005RTK	Robustak 90	White-Red		90	0	25,3	353 175 190	B3	NOS
600005RTK	Robustak 100	White-Red		100	0	26,5	353 175 190	B3	NOS
605005RTK	Robustak 105	White-Red		105	0	28,2	344 172 235		NOS
620005RTK	Robustak 120	White-Red	HG	120	3	45,6	513 189 223		NOS



\* Abbreviations explained in Notes and Availability:



# Now available...

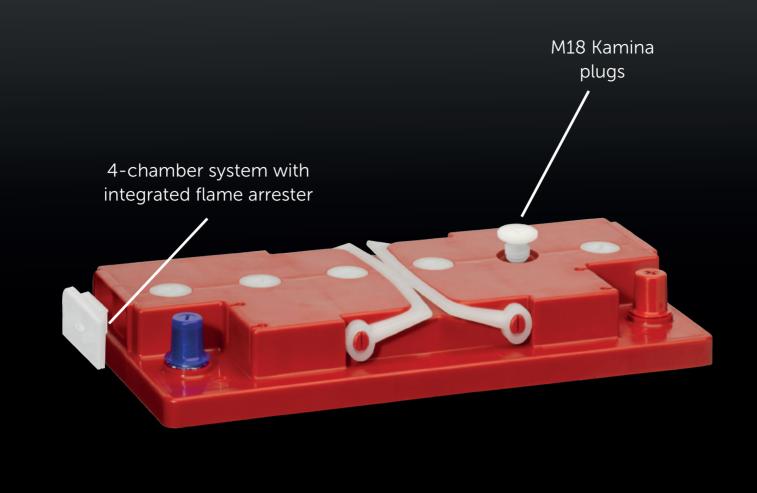
Double labyrinth with integrated flame arresters and gas exhaustion system

M18 Kamina

plugs

# MF series Heavy Duty lid with sunk caps

<b>~</b>	The completely flat lid with double labyrinth prevents the electrolyte from leaking
•	Gases produced by the battery are exhausted at the integrated flame arresters
•	Longer lifespan by avoiding excessive electrolyte usage
<	The 6 integrated M18 plugs, fitted with O-rings, ensure a high density
<b>~</b>	Suitable for all the equipments currently used in the production of batteries with standard lids



# Euro Kamina lid with flame-retardant 4K system

•	Lids upgraded with 4-chamber leakage protection system
•	Welded backfire system with integrated flash arrestor
•	Safe central degassing system with angle connectors
•	Lids available with standard M18 Kamina vent plugs with or without O-ring
•	Accessories: magic eyes, Kamina angles, pole covers and pole rings





# Boats

The Robustak series' batteries are supremely suited for pleasure cruising. The series is based on a full semi-traction design with thicker plates for cyclical applications. The lid, made of kamina fabric, allows for the straightforward disposal of gases on boats. The Centurion Robustak can be employed to start the boat's engines and to provide on-board appliances with power, as well.

The Centurion Robustak series, Dutch-made portable power for recreational purposes, consists of five popular models, tailor-made for pleasure cruising, caravans, and campervans. The Robustak series' batteries are extremely solid semi-traction batteries, that come equipped with thick plates, special separation and glass laminate suited for deep discharge, as well as high-density active mass. This makes Robustak the preferred choice for pleasure cruise, campers, and caravans alike. Holidays are driven by success...

CENTURION	ROBUSTAK	12V	ROBUST	AK BATTE	RIES				
ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
575005RTK	Robustak 75	White-Red		75	0	19,6	278 175 190	B3	NOS
590005RTK	Robustak 90	White-Red		90	0	25,3	353 175 190	B3	NOS
600005RTK	Robustak 100	White-Red		100	0	26,5	353 175 190	В3	NOS
605005RTK	Robustak 105	White-Red		105	0	28,2	344 172 235		NOS
620005RTK	Robustak 120	White-Red	HG	120	3	45,6	513 189 223		NOS



\* Abbreviations explained in Notes and Availability:



# Agriculture

We manufacture special Heavy Duty (HD) and Super Heavy Duty (SHD) starter batteries for use in tractors, combine harvesters and other agricultural machines. They make up Centurion Battery's heavy duty starter capacity range. Centurion manufactures a complete, EN50342 compliant, series of starter batteries. These are superior all-round starter batteries for trucks, tools, and agricultural vehicles. Centurion Battery provides a solution for every application.

Centurion Battery's 12-Volt starter batteries are manufactured in compliance with the international EN50342 standard, with its constructive properties particularly adapted for its intended application, such as vibration resistance and fixation in its standard, HD and SHD models. The start is driven by success...

CENTURIO	N START		12V STAR	FER BATT	ERIES							
ETN nr.	DIN number	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Si: L	ze in n W	nm H	Floor fixing	Avail- ability*
600026060	60026	Natural-Black	HG SHD	100	600	0	30,1	413	175	220		
600035060	60035	Natural-Black	HG SHD	100	600	1	30,1	413	175	220		
605027068	60527	Natural-Black	SHD	105	680	1	29,0	344	172	235		NOS
605028068	60528	Natural-Black	SHD	105	680	0	29,0	344	172	235		NOS
607028080	60728	Natural-Black	HDS	107	800	0	33,4	344	172	235		NOS
610039085	61039	Natural-Black	HG SHD	110	850	0	33,7	413	175	220	В3	
610040076	61040	Natural-Black	HG SHD	110	760	3	33,7	514	175	210	В3	
625012072	62512	Natural-Black	HD	125	720	0	40,5	344	172	290		
625014072	62514	Natural-Black	HD	125	720	1	40,5	344	172	290		
630013068	63013	Natural-Black	HG SHD	130	680	3	34,6	514	218	208		
635027076	63527	Natural-Black	HG SHD	135	760	6	39,7	360	253	235		
635043100	63543	Natural-Black	HG SHD	135	1000	3	39,4	514	175	210	В3	
670033100	67033	Natural-Black	HG SHD	170	1000	3	39,6	514	218	210	В3	



\* Abbreviations explained in Notes and Availability:



## SUPREME

START

# Cars

We offer very reliable starter batteries at a very affordable price. Centurion batteries are made on-site at our Roermond plant. This means we are extremely familiar with our product, and allows us to expertly advise and inform our customers. We strive for excellence, and our superior expertise guarantees we deliver exactly that to our customers.

Centurion Battery's Supreme power, captured in four super start batteries for passenger cars: small in size, big on performance. Our supreme series covers 80% of the passenger car market – when equipped with the special CJP adapter, the same goes for most Japanese makes and models.

CENTURION SUPREME     12V SUPREME SUPERSTART BATTERIES												
ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Siz L	e in m W	im H	Floor fixing	Avail- ability*
545041SUP	Supreme 45	Black-Green		45	410	0	12,8	207	175	175	B3+B4	NOS
562054SUP	Supreme 62	Black-Green		62	540	0	15,6	242	175	175	B3+B4	NOS
572064SUP	Supreme 72	Black-Green		72	640	0	18,0	278	175	175	B3+B4	NOS
592076SUP	Supreme 92	Black-Green		92	760	0	26,4	353	175	175	B3+B4	NOS

CENTURIO	N START	12	12V STARTER BATTERIES									
ETN nr.	DIN number	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Siz L	e in m W	im H	Floor fixing	Avail- ability*
562019048	56219	Natural-Black		62	480	0	17,5	242	175	190	В3	NOS
574012068	57412	Natural-Black		74	680	0	20,1	278	175	190	В3	NOS



\* Abbreviations explained in Notes and Availability:



SUPREME

START

# Delivery vans

Delivery vans require more power than passenger cars. That is why we have carefully tested and selected Centurion Supreme starter batteries, with a larger capacity, for use in delivery vans. By using antimony-light lead alloys, water consumption, self-discharge, and corrosion have been brought down to a minimum. In compliance with EN50342, our 12 Volt starter batteries, both in its standard and heavy-duty models, are very low maintenance.

Centurion Battery's 12-Volt starter batteries are manufactured in compliance with the international EN50342 standard, with its constructive properties particularly adapted for its intended application, such as vibration resistance and fixation in its standard, HD and SHD models. The start is driven by success...

CENTURIO	N SUPREME	12	V SUPRI	EME SUPE	ERSTART E	ATTERIE	S					
ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Siz L	ze in m W	nm H	Floor fixing	Avail- ability*
572064SUP	Supreme 72	Black-Green		72	640	0	18,0	278	175	175	B3+B4	NOS
592076SUP	Supreme 92	Black-Green		92	760	0	26,4	353	175	175	B3+B4	NOS

CENTURIO	N START	12	V START	ER BATT						
ETN nr.	DIN number	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
600044076	60044	Natural-Black		100	760	0	26,4	353 175 190	В3	NOS



\* Abbreviations explained in Notes and Availability:





# Solar panels

That solar energy is generated only when the sun is out, will come as no surprise to anyone. That, however, does not always coincide with those times you actually need that energy. This is why you can now store that energy with our Solar batteries for solar panels. With the Centurion batteries, especially designed to store excess solar energy, you can achieve a high degree of self-sufficiency.

Centurion has developed the Solar battery for solar panels. This product is the result of years of extensive field testing. The Solar battery is suitable in situations with continuous discharge with relatively low power. Its excellent current consumption makes it extremely suitable as a Solar battery for solar panels.

	CENTURIO	N SOLAR		12V SOLA	R BATTER	IES						
	ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Size in L W	mm H	Floor fixing	Avail- ability*
NEW	958003SOL	SOLAR 100	Black-Black		100	660	0	26,5	353 175	190	В3	
NEW	961051SOL	SOLAR 140	Black-Black	HG	140	640	3	45,6	513 189	223		
NEW	968003SOL	SOLAR 230	Black-Black	HG	230	1050	3	62,3	513 270	242		
NEW	969003SOL	SOLAR 240	Black-Black	HG	240	1200	3	65,8	513 270	242		



### WHY CHOOSE CENTURION SOLAR?

	A lifespan of up to 4 times higher than usual	<b>√</b>	No sulphate crystals when discharging
	No dange of explosion through backfire protection	<b>√</b>	Cold crank power as with starter batteries
-	Provides up to 20% more power	<b>√</b>	Completely maintenance free
-	Easily rechargeable	✓	Lids are provided with magic eye
	Comes with a four	year gua	arantee

\* Abbreviations explained in Notes and Availability:

# Our Research and Development department in Roermond

High-end materials, combined with injection mould grids and our own R&D department guarantee high performance and a much longer lifespan. With Centurion batteries you have a front row seat when it comes to quality and reliability.

Quality and development comes first for us. The market increasingly demands application oriented products. Centurion Battery can help you meet those demands, by delivering bespoke designs at premium quality.

Centurion has the advantage of having its own R&D department. Continuous product improvement, the application of new techniques and materials, bespoke designs – anything is possible, without wasting precious time.

Because of our in-house development, we understand our products through and through. This means that whenever you or your customers have any product or application based questions, we can always provide you with the right advice.

### **Dry charged Centurion batteries**

Before a dry charged battery can be put into use, electrolyte and charging are required. The electrolyte, a 37% sulphuric acid solution, is used to extend shelf life. A wet charged battery, on the other hand, has the electrolyte already added, and is therefore ready for immediate use. The advantage of dry-charged batteries, however, is that they have an unlimited life span under the right circumstances. They can also serve as a base for more uncommon batteries filled with tropic acid or hydrochloric acid. Unused wet charged batteries require more maintenance than dry charged batteries because they self-discharge. In the dry charge (plate) formation process, the first step consists of plates being placed in formation tanks. The battery plates are then charged (or formed) in the tanks. Next, the sulphuric acid is rinsed off the plates, after which they are placed in a kiln to dry. Once they are dry, the process is complete, and the dry charged plates, the basis of any dry charged battery, are ready.



Individual battery plates are placed in the formation trays

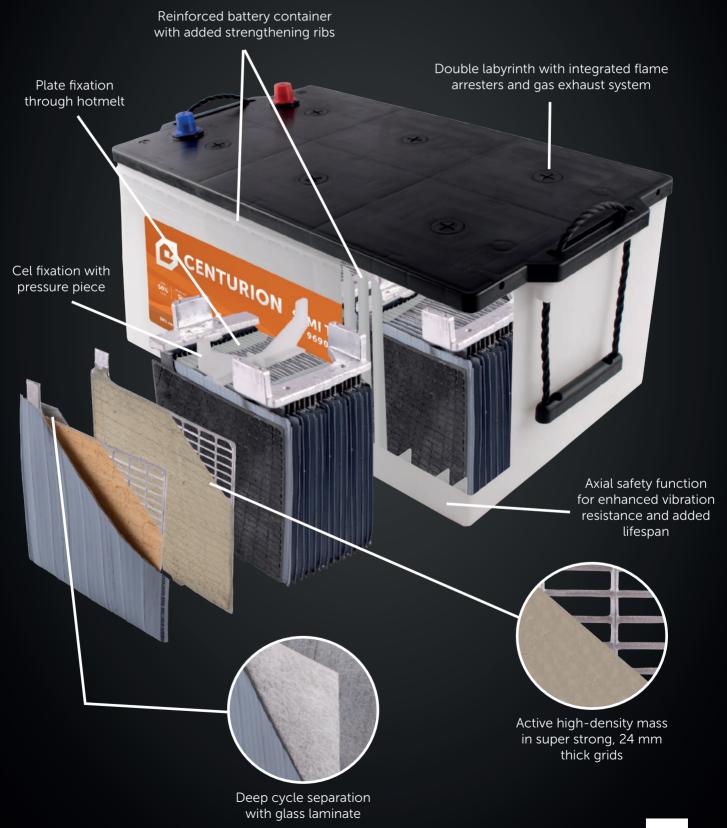


Formed battery plates



All Centurion Batteries are available dry-charged. Please see our product overview on pages 34 & 35.

# **Featured** The robust Centurion 96903



# Lead-Acid technologies

Centurion's force

#### LEAD-ACID TECHNOLOGIES

COMPARISON CHART

	Refillable after overcharging	Maintenance free	Cyclical Usage	High capacity	Max discharge depth	Regulated charger
Lead-antimony semi-traction	<b>~</b>		<b>~</b>	<b>~</b>	50 %	NOT REQUIRED
Lead-antimony full-traction	~	×	<b>~</b>	×	80 %	NOT REQUIRED
Calcium-antimony	~	✓	✓	<b>~</b>	50 %	NOT REQUIRED
Calcium-calcium	×	✓	×	<b>~</b>	20 %	> V
Gel	×	<b>~</b>	<b>~</b>	×	70 %	YES
AGM	×	<b>~</b>	×	<b>√</b>	50 %	YES

\* Maintenance only required when deep-cycling

#### **GENERAL NOTES:**

Wet batteries are broadly applicable

GEL for deep-cycling

AGM for light cyclical usage

Each battery needs to be ventilated

#### LAYOUTS

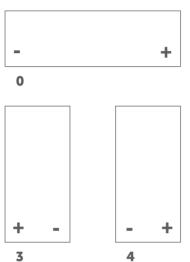
#### CIRCUIT DIAGRAMS & BASE PLATES

#### **CIRCUIT DIAGRAMS 6 VOLT**



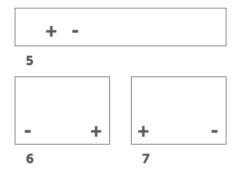


#### **CIRCUIT DIAGRAMS 12 VOLT**

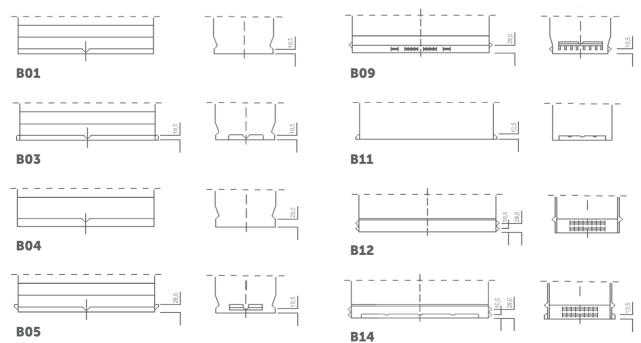


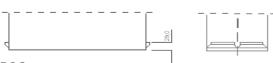


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**BASE PLATES** 







#### EURO6

To comply with the current Euro 6 emission requirements, manufacturers of trucks increasingly make use of a freewheel system for dynamos – instead of continually recharging, the dynamos 'disengage' from the engine, which saves fuel and reduces carbon emissions. This does mean, however, that at certain times, when a fixed charging voltage is reached, all users (such as lights, engine electronics, accessories) are fed directly by the batteries. They are no longer only used for starting the engine and 'living' in the cab, but are used more extensively. Centurion Battery has addressed this extensive use with the semi-traction batteries 963.051. STR (180Ah), the 968.003. STR and the heavy duty 240Ah 969.003.STR. A cyclical application is made possible by using thicker plates, which make starter batteries pale by comparison.

275 250 225 Capacity progression 200 175 150 125 100 100 125 150 175 200 225 250 275 Measurement time in hours

Furthermore, the Advanced Sb Technology ensures a more even mix of the acid when the batteries are used, even at a low charging voltage, allowing a larger plate surface to provide the capacity needed and the CCA. This way, the stratification process (whereby the acid sinks due to a poor mix), the curse of many modern batteries, is largely countered.

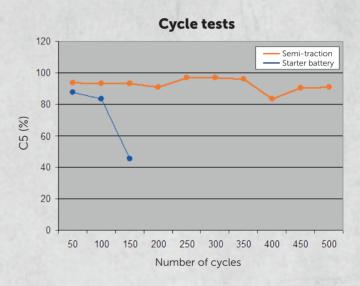
CENTURION 96903 STR versus Varta EFB

The charge capacity, as shown in the graph on the left, is up to 50% higher for a significantly longer amount of time, while the battery itself has a longer lifespan.

The test (expressed in hours) whereby two batteries were charged and discharged over a period of 10 days, shows that the Centurion 969.003 consistently retains more residual capacity, both during and at the end of the test, than the Varta EFB. This is additionally confirmed by the black trend lines you can see in the graph.

#### **CYCLE TESTS**

The way in which Centurion's semi-traction batteries are manufactured, with thick plates, high porous PE separation, and glass laminating, combined with the Advanced Sb Technology, ensure a long lifespan, especially when compared with starter batteries. The retention of active mass in the grids, together with the external support of the laminate prevents over-expansion, and with it premature capacity loss. De Advance Sb technology ensures a superior recovery from deep discharge and prevents stratification, resulting in a higher capacity utilisation.



#### Data logger

With the current environmental standards, the challenges facing batteries have increased exponentially. Before, batteries were charged during a journey, albeit with a low output voltage. Nowadays, however, the dynamo goes in freewheel mode, causing de cyclic load to be much higher. This is why Centurion Battery regularly subjects problem vehicles to data logging tests, so that the exact problem area can be determined unequivocally. Our expertise in that particular area is then used to make recommendations to solve any problems. Our showpiece battery, the 969.003.STR (240Ah), is a direct result of the many data logging tests we have conducted.

#### Hydrochloric- and Tropic acid

Centurion Batteries are world-beating – they are exported not just to temperate climes, but also to extremely hot and cold climates. Our manufacturing method allows us to make bespoke batteries for every condition – the application of tropic acid (low-density electrolyte) diminishes the chance of premature capacity loss as a result of grid corrosion. Conversely, for extremely cold conditions, we make use of hydrochloric acid: high-density electrolyte extends the range of useable capacity, diminishing the risk of freezing.

# Product overview Centurion Battery

CENTURIO	N START		12V STAR	TER BATT	ERIES					
ETN nr.	DIN number	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
562019048	56219	Natural-Black		62	480	0	17,5	242 175 190	B3	NOS
574012068	57412	Natural-Black		74	680	0	20,1	278 175 190	B3	NOS
595018064	59518	Natural-Black	HG	95	640	0	23,3	326 175 215	B1	NOS
595019064	59519	Natural-Black	HG	95	640	1	23,3	326 175 215	B1	NOS
600026060	60026	Natural-Black	HG SHD	100	600	0	30,1	413 175 220		
600035060	60035	Natural-Black	HG SHD	100	600	1	30,1	413 175 220		
600044076	60044	Natural-Black		100	760	0	26,4	353 175 190	B3	NOS
605027068	60527	Natural-Black	SHD	105	680	1	29,0	344 172 235		NOS
605028068	60528	Natural-Black	SHD	105	680	0	29,0	344 172 235		NOS
607028080	60728	Natural-Black	HDS	107	800	0	33,4	344 172 235		NOS
610039085	61039	Natural-Black	HG SHD	110	850	0	33,7	413 175 220	B3	
610040076	61040	Natural-Black	HG SHD	110	760	3	33,7	514 175 210	B3	
620034068	62034	Natural-Black	HG SHD	120	680	3	37,7	513 189 223		NOS
625012072	62512	Natural-Black	HD	125	720	0	40,5	344 172 290		
625014072	62514	Natural-Black	HD	125	720	1	40,5	344 172 290		
630013068	63013	Natural-Black	HG SHD	130	680	3	34,6	514 218 208		
635027076	63527	Natural-Black	HG SHD	135	760	6	39,7	360 253 235		
635043100	63543	Natural-Black	HG SHD	135	1000	3	39,4	514 175 210	B3	
640020076	64020	Natural-Black	HG SHD	140	760	3	39,6	513 189 223		NOS
654011115	65411	Natural-Black	HG HDS	154	1150	3	43,9	513 189 223		NOS
670033100	67033	Natural-Black	HG SHD	170	1000	3	39,6	514 218 210	B3	
674011140	67411	Natural-Black	HG HDS	174	1400	3	54,2	513 223 223		NOS
680019100	68019	Natural-Black	HG HD	180	1000	3	47,8	513 223 223	B3	
680032100	68032	Natural-Black	HG SHD	180	1000	3	47,8	513 223 223		NOS
680036100	68036	Natural-Black	HG SHD	180	1000	4	47,8	513 223 223	B3	
700038105	70038	Natural-Black	HG SHD	200	1050	3	59,8	513 270 242		NOS
700039105	70039	Natural-Black	HG SHD	200	1050	4	59,8	513 270 242		

#### **CENTURION SUPREME**

12V SUPREME SUPERSTART BATTERIES

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ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
545041SUP	Supreme 45	Black-Green		45	410	0	12,8	207 175 175	B3+B4	NOS
562054SUP	Supreme 62	Black-Green		62	540	0	15,6	242 175 175	B3+B4	NOS
572064SUP	Supreme 72	Black-Green		72	640	0	18,0	278 175 175	B3+B4	NOS
592076SUP	Supreme 92	Black-Green		92	760	0	26,4	353 175 175	B3+B4	NOS
001080110	Supreme B-180	Black-Black	HG	180	1100	3	49,1	513 223 223		NOS
002025125	Supreme B-225	Black-Black	HG	225	1250	3	60,3	513 270 242		NOS
001090115	Supreme C-190	Black-Black	HG	190	1150	3	51,4	513 223 223		NOS
002030105	Supreme C-230	Black-Black	HG	230	1200	3	62,6	513 270 242		NOS

CENTURION SEMI-TRACTION		6V SEM	6V SEMI-TRACTION BATTERIES									
ETN nr.	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*			
48011	Natural-Black	HG	480	385	4	68,3	513 270 250		NOS			

CENTURION	SEMI-TRACTION	12V SEM	4I-TRACTIC	ON BATTE	RIES				
ETN nr.	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability
95406	Natural-Black		50	40	0	13,8	210 175 190	B3	NOS
95502	Natural-Black		60	50	0	17,3	242 175 190	B3	NOS
95602	Natural-Black		80	60	0	19,6	278 175 190	В3	NOS
95803	Natural-Black		100	80	0	26,5	353 175 190	В3	NOS
95804	Natural-Black		100	80	0	26,5	344 172 235		
95851	Natural-Black	HG	105	85	0	20,0	326 175 215	B1	
95901	Natural-Black	HG	110	90	0	31,4	413 175 220		
96002	Natural-Black		125	100	0	33,1	344 172 290		NOS
96051	Natural-Black	HG	130	105	3	45,6	513 189 223		NOS
96151	Natural-Black	HG	140	115	3	45,6	513 189 223		NOS
96152	Natural-Black	HG	140	115	6	39,8	360 253 235		
96351	Natural-Black	HG	180	135	3	49,6	513 223 223		NOS
96451	Natural-Black	HG	190	145	3	51,7	513 223 223		NOS
96701	Natural-Black	HG	200	170	3	60,9	513 270 242		NOS
96803	Natural-Black	HG	230	180	3	62,3	513 270 242		NOS
96903	Natural-Black	HG	240	190	3	65,8	513 270 242		NOS

	<b>CENTURION E</b>	12V EFE	BATTERIE	S						
	ETN nr. Colourscheme Container - Lid		Notes*	Cap Ah/20h	Cap Ah/5h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Avail- ability*
NEW	960051EFB	Natural-Blue	HG	130	105	3	45,6	513 189 223		NOS
NEW	961051EFB	Natural-Blue	HG	140	115	3	45,6	513 189 223		NOS
NEW	963051EFB	Natural-Blue	HG	180	135	3	49,6	513 223 223		NOS
NEW	964051EFB	Natural-Blue	HG	190	145	3	51,7	513 223 223		NOS
NEW	968003EFB	Natural-Blue	HG	230	180	3	62,3	513 270 242		NOS
NEW	969003EFB	Natural-Blue	HG	240	190	3	65,8	513 270 242		NOS

CENTURION ROBUSTAK

#### 12V ROBUSTAK BATTERIES

ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	Circuit diagram	Weight/kgs (charged)	Size in mm L W H	Floor fixing	Availabil- ity*
575005RTK	Robustak 75	White-Red		75	0	19,6	278 175 190	В3	NOS
590005RTK	Robustak 90	White-Red		90	0	25,3	353 175 190	B3	NOS
600005RTK	Robustak 100	White-Red		100	0	26,5	353 175 190	B3	NOS
605005RTK	Robustak 105	White-Red		105	0	28,2	344 172 235		NOS
620005RTK	Robustak 120	White-Red	HG	120	3	45,6	513 189 223		NOS

	CENTURION SOLAR			12V SOLAR BATTERIES								
	ETN nr.	Туре	Colourscheme Container - Lid	Notes*	Cap Ah/20h	CCA EN/A	Circuit diagram	Weight/kgs (charged)	Size in r L W	nm H	Floor fixing	Avail- ability*
NEW	958003SOL	SOLAR 100	Black-Black		100	660	0	26,5	353 175	190	B3	
NEW	961051SOL	SOLAR 140	Black-Black	HG	140	640	3	45,6	513 189	223		
NEW	968003SOL	SOLAR 230	Black-Black	HG	230	1050	3	62,3	513 270	242		
NEW	969003SOL	SOLAR 240	Black-Black	HG	240	1200	3	65,8	513 270	242		

\* Abbreviations explained in Notes and Availability:



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