



01.

# **BATTERIES**

# BATTERIES

## CYCLIC BATTERIES

### NICETO KNOW



### CYCLIC BATTERIES

Cyclic batteries can withstand many deep discharges. This makes these batteries perfect for mobile elevating work platforms, industrial cleaning machines, forklifts, golf carts and other electric powered vehicles...

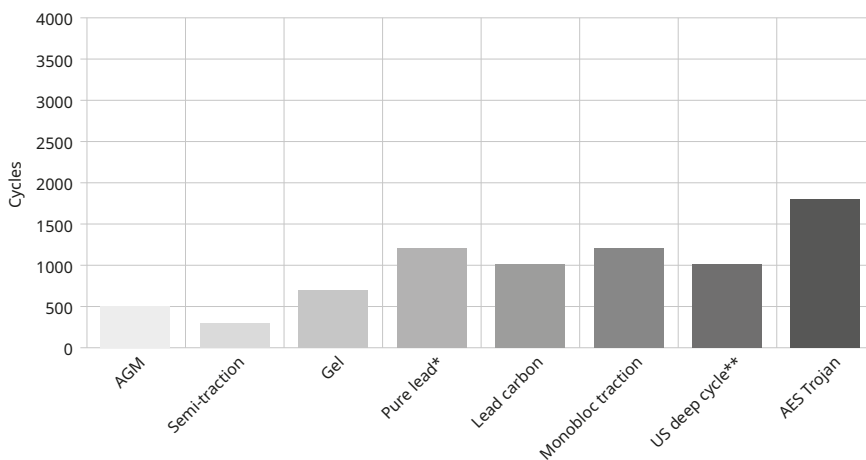
Within this battery category, we distinguish open lead-acid and maintenance-free batteries.

Cyclic batteries differ in their number of cycles (according to DIN), below you find an overview of the number of cycles per technology.

With this information we want to help you to make the right choice to power your vehicle.

The electrolyte of flooded batteries is in liquid form and required a regular water level up. Whereas the electrolyte of sealed batteries is gel form or acid soaked glass mat form. Hence sealed batteries don't require any water and these batteries can be placed upside down or on their side. When selecting the battery do make sure that your charger is suitable for your battery and it has the right charge profile for your battery type (open lead-acid / maintenance-free).

### CYCLIC BATTERIES (80% D.O.D)



\* @ 60% (D.o.D)

\*\* Depending on model

## CROWN BATTERY

The Power Behind Performance



Over 90 years ago, Crown Battery opened its doors as a sole-proprietary battery repair shop. Today, thanks to their loyal global customer network, dedicated workforce, commitment to manufacturing excellence and use of advanced technology, Crown Battery has become one of the major manufacturers of deep-cycle batteries. Customers have trusted Crown Battery innovation since 1926 to meet their power needs.

The line-up of deep-cycle batteries includes models designed for mobile elevating work platforms, industrial cleaning machines, golf & utility carts and other EV leisure applications, solar energy storage, traffic control and marine applications. Our batteries are proudly manufactured in the USA and distributed globally.

### Key product features:

- Exclusive C-Force Active Mass for increased charge acceptance, even in less than optimal charging conditions and discharge times.
- Rugged, solidcast plates that result in longer battery lifetime.
- Posi-Wrap plate separators and other proprietary Crown components reduced maintenance and prevent failure due to short circuit.
- PROeye level indicator to easily inspect electrolyte levels that signals when watering is required.

### WE PUT MORE IN OUR DEEP-CYCLE BATTERIES

So you can get better performances, higher productivity and less maintenance.

#### 1. Z3 PLATE CONSTRUCTION

The Z3 plate design combines four integrated features for superior performance and durability.

- The signature "Diamond Z" grid architecture
- An inset lug position
- Upgraded "Active Life Plus" paste material!
- Heavy-duty - construction: more lead = more power!

#### 2. POSI-WRAP ENVELOPE SEPARATORS

Posi-Wrap separators reduce maintenance and prevent failure due to short circuiting and plate shredding, ensuring reliability and durability.

#### 3. IGID CONNECTORS

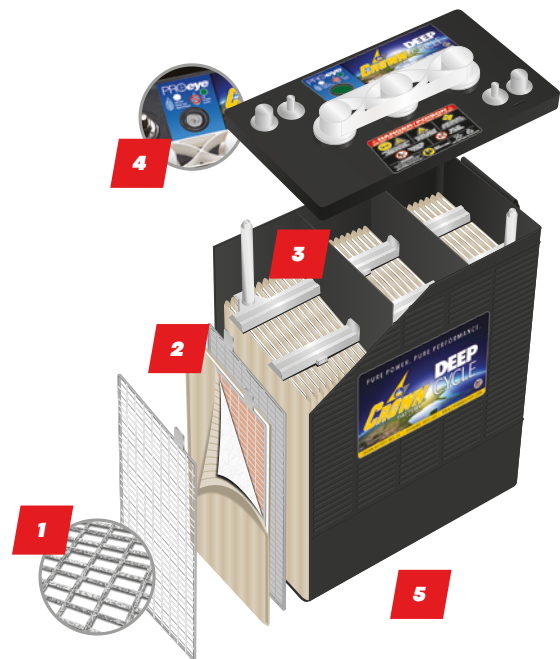
Heavy-duty TTP, COS and Post connectors deliver maximum electrical efficiency and durability.

#### 4. PROEYE LEVEL INDICATOR

A simple, safe and reliable system for inspecting electrolyte levels that signals when watering is required.

#### 5. X-TEND CONTAINER DESIGN

X-Tend provides more electrolyte above the battery plates so batteries can perform longer between watering intervals.



# BATTERIES

## CYCLIC BATTERIES

### US DEEP-CYCLE



CR165



CR185HD



CR195HD



CR220HD



CR240HD



Kit filler caps



CR250



CR305HD



CR330HD



CR350HD



CR390HD

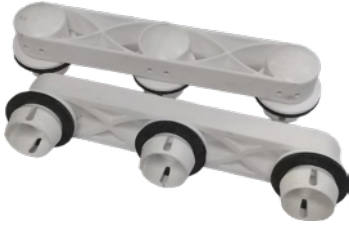
\*This kit is suitable for providing exactly one battery with the necessary filler caps and floats

### CROWN/CROSS REFERENCES

Model	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	PRO Eye	REF Batteries	Kit filler caps*	Old REF Kit filler caps*
<b>Batteries 6 V deep-cycle</b>												
CR220HD	220	180	260	179	278	27.2	0	DT 1 + 8	No	<a href="#">168TA1047</a>	<a href="#">168TA1071</a>	BAT/47541
CR235HD	235	190	260	179	278	28.6	0	DT 1 + 8	No	<a href="#">168TA1048</a>	<a href="#">168TA1071</a>	BAT/47541
CR240HD	240	195	260	179	278	30.8	0	DT 1 + 8	No	<a href="#">168TA1049</a>	<a href="#">168TA1071</a>	BAT/47541
CR240E	240	195	245	191	273	29.0	0	1	No	<a href="#">168TA1050</a>	<a href="#">168TA1072</a>	BAT/47548
CR260HD	260	215	260	179	295	34.0	0	DT 1 + 8	No	<a href="#">168TA1051</a>	<a href="#">168TA1073</a>	BAT/47549
CR250	250	200	298	183	283	33.1	0	DT 1 + 8	No	<a href="#">168TA1052</a>	<a href="#">168TA1073</a>	BAT/47549
CR305HD	305	255	310	183	359	40.8	0	DT 1 + 8	Yes	<a href="#">168TA1053</a>	<a href="#">168TA1070</a>	BAT/47550
CR330HD	330	270	310	183	359	42.2	0	DT 1 + 8	Yes	<a href="#">168TA1054</a>	<a href="#">168TA1070</a>	BAT/47550
CR350HD	350	290	310	183	359	45.8	0	DT 1 + 8	Yes	<a href="#">168TA1055</a>	<a href="#">168TA1073</a>	BAT/47549
CR370HD	370	295	314	183	410	46.0	0	DT 1 + 8	Yes	<a href="#">168TA1056</a>	<a href="#">168TA1070</a>	BAT/47550
CR390HD	390	310	314	183	410	52.2	0	DT 1 + 8	Yes	<a href="#">168TA1057</a>	<a href="#">168TA1070</a>	BAT/47550
CR390HD-ZHV	390	310	292	183	410	52.2	0	DT 1 + 8	Yes	<a href="#">168TA1058</a>	<a href="#">168TA1070</a>	BAT/47550
CR430HD	430	340	314	183	410	55.3	0	DT 1 + 8	Yes	<a href="#">168TA1059</a>	<a href="#">168TA1073</a>	BAT/47549
<b>Batteries 8 V deep-cycle</b>												
CR165	165	140	262	179	275	29.0	1	S	No	<a href="#">168TA1060</a>	<a href="#">168TA1074</a>	BAT/47551
CR190	190	155	262	179	275	31.3	1	S	No	<a href="#">168TA1061</a>	<a href="#">168TA1074</a>	BAT/47551
<b>Batteries 12 V deep-cycle</b>												
24DC95	95	75	278	171	238	22.7	1	DT 1 + 8	No	<a href="#">168TA1062</a>	-	-
27DC115	115	95	321	171	238	23.6	1	DT 1 + 8	No	<a href="#">152TA4591</a>	-	-
31DC130	130	105	330	171	238	30.4	1	DT 1 + 8	No	<a href="#">152TA7108</a>	-	-
GCCR150	150	123	328	179	267	36.7	1	DT 1 + 8	No	<a href="#">168TA1063</a>	<a href="#">168TA1075</a>	BAT/47552
GCCR155	155	125	328	179	267	39.9	1	DT 1 + 8	No	<a href="#">168TA1064</a>	<a href="#">168TA1075</a>	BAT/47552
CR185HD	185	150	394	178	372	48.5	0	DT 1 + 8	Yes	<a href="#">168TA1065</a>	<a href="#">168TA1076</a>	BAT/47570
CR195HD	195	160	394	178	372	49.9	0	DT 1 + 8	Yes	<a href="#">168TA1066</a>	<a href="#">168TA1076</a>	BAT/47570
CR215HD	215	180	394	178	372	54.4	0	DT 1 + 8	Yes	<a href="#">168TA1067</a>	<a href="#">168TA1076</a>	BAT/47570
<b>Accessories</b>												
Quick release for 6 V batteries with 3 plugs										<a href="#">115TA6845</a>	-	BAT/21157
Quick release for 8V batteries with 4 plugs										<a href="#">168TA1077</a>	-	BAT/21158

\* ZHV = without handles

## SNAPCAP™ VENTS



REF [168TA1648](#)  
Old: BAT/48840



REF [168TA1649](#)  
Old: BAT/48839

### One-piece design

Now available on Crown 6 and 12 V deep-cycle batteries

### The new convenience

Crown battery will begin producing our range of high capacity 6 and 12 V deep-cycle batteries with the company's proprietary one-piece SnapCap vent component.

### The SnapCap vent component delivers a number of major benefits to battery owners and users:

A highly convenient one-piece locking vent component that makes battery inspection easier and more efficient.

The SnapCap utilizes a lock-in base that secures the vent to the cell opening by manual compression. Installation is fast and easy and does not require tightening of the vent after installation.

The SnapCap design includes a low-profile and multiple safety features that makes it one of the safest vents on the market.

### Flooded lead deep-cycle batteries with "SnapCap" vents

Vent component design change

### Effective in June 2016 for the following deep-cycle group sizes and battery models:

BCI Group 901: CR-250 and CR-275

BCI Group 903: CR-370, CR-390 and CR-430

BCI Group 902: CR-305, CR-330 and CR-350

BCI Group 921: CR-185, CR-195 and CR-215

## HANDLE



REF [115TA6846](#)  
Old: BAT/20016

## CONNECTIONS & CABLES



Battery connection Ø 25 mm

Length mm	REF	Old REF
75	<a href="#">168TA1650</a>	BAT/23477
95	<a href="#">168TA1651</a>	BAT/23479
190	<a href="#">168TA1652</a>	BAT/23481
280	<a href="#">168TA1653</a>	BAT/23483
300	<a href="#">168TA1654</a>	BAT/23485
350	<a href="#">168TA1655</a>	BAT/23487
400	<a href="#">168TA1656</a>	BAT/23489

\* Other dimensions are available on demand.



Terminal cable Ø 25 mm

Length mm	REF	Old REF
75	<a href="#">168TA1657</a>	BAT/23651
95	<a href="#">168TA1658</a>	BAT/23653
190	<a href="#">168TA1659</a>	BAT/23655
280	<a href="#">168TA1660</a>	BAT/23657
300	<a href="#">168TA1661</a>	BAT/23659

## QUICK RELEASE



REF [115TA6845](#) – Quick release for 6 V batteries with 3 plugs  
Old: BAT/21157  
REF [168TA1077](#) – Quick release for 8 V batteries with 4 plugs  
Old: BAT/21158



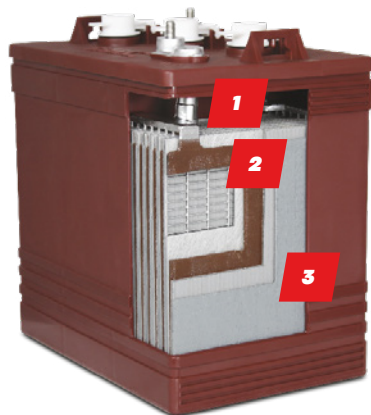
Diameter mm	Colour	REF	Old REF
32	Red	<a href="#">131TA7018</a>	BAT/38794
32	Black	<a href="#">131TA7019</a>	BAT/38796
30	Red	<a href="#">131TA7020</a>	BAT/38792
30	Black	<a href="#">131TA7021</a>	BAT/38285
26	Red	<a href="#">131TA7022</a>	BAT/38788
26	Black	<a href="#">131TA7023</a>	BAT/38790
24	Red	<a href="#">131TA7024</a>	BAT/38784
24	Black	<a href="#">131TA7025</a>	BAT/38786
20	Red	<a href="#">131TA7026</a>	BAT/38780
20	Black	<a href="#">131TA7027</a>	BAT/38782

# BATTERIES

## CYCLIC BATTERIES



### NICETO KNOW



### TROJAN BATTERIES

With nearly 100 years of experience powering business and industry, Trojan is the world's leading supplier of deep-cycle batteries. Trojan batteries are synonymous with high performance, reliability, durability and a long lifespan. A truly outstanding battery is ready for action, day in and day out. At TVH, we know you need to be able to count on your batteries at all times. That's why we recommend Trojan. We offer a broad range of high-quality Trojan batteries to suit any need: deep-cycle flooded batteries, AGM batteries and gel batteries. Trojan has become the leading supplier of deep-cycle batteries for industries ranging from transportation to renewable energy. Their superior batteries power a wide range of vehicles, such as mobile elevating work platforms (MEWPs), industrial cleaning machines, golf carts, marine and recreational vehicles.

### INNOVATIVE DEEP-CYCLE FLOODED BATTERIES

Trojan's deep-cycle flooded batteries are their flagship product. They're engineered to provide durability, outstanding performance and a long lifespan, even in rugged conditions. This makes them perfect for a variety of electric vehicles. Featuring Trojan's historically proven engineering and T2 Technology™, an advanced battery technology for maximum sustained performance, these powerful deep-cycle flooded batteries are the best in the business.



For more information



#### LITHIUM

Next in a long line of trusted Trojan power, our new GC2 deep cycle lithium-ion batteries deliver the ultimate in performance and requires virtually no maintenance. And with a smart battery maintenance system (BMS) that self-protects against short circuits and overheating, Trojan lithium-ion deep cycle batteries take safety to the next level.

- 24 V, 36 V and 48 V
- Long life cycle
- Safe chemistry

#### TROJAN AES

The new Trojan AES Batteries deliver up to 3 x the cycle life with high, sustained performance versus standard AGM. And, the battery maintains high capacity in extreme deep-cycling (up to 100% DoD), partial charging, and challenging environments.

**It outperforms the competition in these areas:**

- Up to 3 x lift of AGM
- Robust performance
- Maintenance free

#### FLOODED LEAD-ACID

Trojan flooded lead-acid batteries, also called wet or wet cell lead-acid batteries, are our all-around powerhouse and workhorse batteries. Utilizing Trojan advanced T2™ technology, these rugged, durable, long life batteries deliver maximum sustained performance for your golf and utility vehicles, AWP, floor machine, marine, RVs, renewable energy and more.

Trojan flooded deep cycle batteries are the longest lasting of the lead-acid batteries. They require regular watering with distilled water after charging, and to prevent spillage, they must remain upright.

- Low cost
- Robust and reliable
- 99% recyclable

## DEEP-CYCLE FLOODED BATTERIES WITH T2 TECHNOLOGY



Motive 6 V



Rugged Motive 6 V



Motive 8 V



Motive 12 V

Model	BCI Group size	Capacity 5-Hr	Capacity 20-Hr	Length	Width	Total height	Compatible with Hydrolink	Terminal type	Vents	Handle	Hardware	Max qty/pallet	REF
				mm	mm	mm							
<b>6 V deep-cycle flooded batteries</b>													
J250G	901	195	235	309	174	290	✓	EUTR	Bayo		Nuts/bolts	28	<a href="#">166TA4197</a>
J250P	901	215	250	296	176	293		DT	Bayo	✓	Hex nut	28	<a href="#">166TA4198</a>
J305E-AC	902	250	305	312	174	366	✓	EUTR	Bayo	✓	Nuts/bolts	30	<a href="#">166TA4199</a>
J305G-AC	902	258	315	312	174	366	✓	EUTR	Bayo	✓	Nuts/bolts	30	<a href="#">145TA1961</a>
J305H-AC	902	295	360	296	176	366		DT	Bayo	✓	Hex nut	30	<a href="#">166TA4201</a>
J305P-AC	902	271	330	296	176	366		DT	Bayo	✓	Hex nut	30	<a href="#">106TA8679</a>
L16E-AC	903	303	370	311	174	417	✓	EUTR	Bayo	✓	Nuts/bolts	28	<a href="#">166TA4203</a>
L16G-AC	903	320	390	311	174	417	✓	EUTR	Bayo		Nuts/bolts	28	<a href="#">166TA4204</a>
L16H-AC	903	357	435	296	176	425		DT	Bayo	✓	Hex nut	26	<a href="#">166TA4206</a>
L16HG-AC	903	357	435	311	174	417	✓	EUTR	Bayo	✓	Nuts/bolts	26	<a href="#">166TA4207</a>
L16P-AC	903	344	420	296	176	425		DT	Bayo	✓	Hex nut	28	<a href="#">106TA8680</a>
T-105	GC2	185	225	262	181	281	✓	ELPT	Bayo		Hex nut	48	<a href="#">106TA8677</a>
T-105-EUT	GC2	185	225	262	181	281	✓	EUT	Bayo		Hex nut	48	<a href="#">166TA4211</a>
T-125	GC2	195	240	262	181	281	✓	ELPT	Bayo		Hex nut	48	<a href="#">166TA4216</a>
T-145	GC2H	215	260	262	181	302	✓	EHPT	Bayo		Hex nut	45	<a href="#">106TA8678</a>
T-605	GC2	175	210	262	181	281	✓	ELPT	Bayo		Hex nut	48	<a href="#">166TA4228</a>
TE35	DIN	200	245	244	191	269		AP	Screw in	✓	N/A	48	<a href="#">166TA4230</a>
<b>8 V deep-cycle flooded batteries</b>													
DC-8V	GC8	135	160	259	179	283	✓	EHPT	Master		Hex nut	48	<a href="#">166TA4231</a>
T-875	GC8	145	170	259	179	283	✓	ELPT	Bayo		Hex nut	48	<a href="#">166TA4234</a>
T-890	GC8	155	190	259	179	283	✓	ELPT	Bayo		Hex nut	48	<a href="#">166TA4237</a>
<b>12 V deep-cycle flooded batteries</b>													
24TMX	24	70	85	277	168	235		AP	Pod	✓	Nuts/bolts	54	<a href="#">166TA4238</a>
27TMH	27	95	115	323	168	235		AP	Pod	✓	N/A	28	<a href="#">166TA4241</a>
27TMX	27	85	105	323	168	235		AP	Pod	✓	N/A	42	<a href="#">165TA4535</a>
27TMXWNT	27	85	105	323	168	235		WNT	Pod	✓	WNT	28	<a href="#">166TA4247</a>
30XHS	30H	105	130	355	171	256		AP	Pod	✓	N/A	36	<a href="#">166TA4248</a>
31XHS	31	105	130	329	171	243		Stud	Screw in	✓	Hex nut	24	<a href="#">166TA4251</a>
J185P-AC	921	168	205	380	176	374		DT	Bayo	✓	Hex nut	24	<a href="#">166TA4260</a>
SCS225	30H	105	130	354	171	253		DWNT	Pod	✓	WNT	36	<a href="#">166TA4264</a>
T-1275	GC12	120	150	329	181	272	✓	ELPT	Master		Hex nut	36	<a href="#">166TA4266</a>

# BATTERIES

## CYCLIC BATTERIES



### AES BATTERIES

## THE NEW TROJAN AES BATTERY DELIVERS UP TO 3 X THE CYCLE LIFE OF STANDARD AGM

The Trojan AES battery delivers up to 3 x the cycle life with high sustained performance versus standard AGM. The battery maintains high capacity in extreme deep-cycling (up to 100% DoD), partial charging, and challenging environments. It out performs the competition in these areas:



#### LAST LONGER

Up to 3 x more cycle life than standard AGM. Validated at 1200 cycles at 100% DoD vs. 400 cycles for AGM



#### PERFORMS IN HARSH CONDITIONS

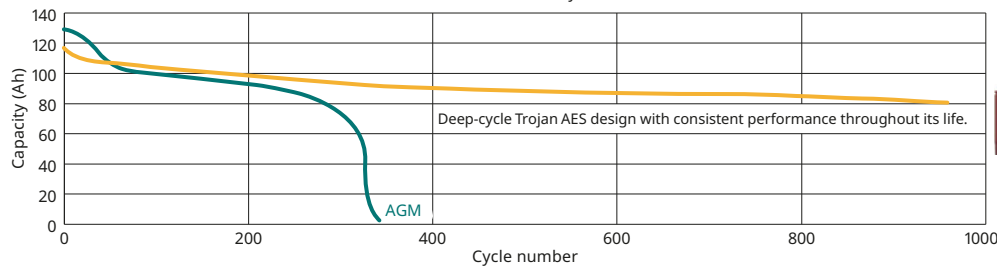
Robust performance in extreme temperatures and conditions. Temperature range from -40 to 71 °C (-40 to 160 °F)



#### DELIVERS HARMLESS PSOC

Tested to withstand Partial State of Charge, again and again

Trojan AES vs standard AGM  
BCI-06 100% DOD cycle test



Trojan AES maintains high capacity in extreme deep-cycling (up to 100% DoD) with consistent performance throughout its life compared to standard AGM.

#### WITH AES, ENJOY THESE ADDED BENEFITS.

- **Maintenance free:** Virtually no maintenance as watering is not required.
- **Safe and sustainable:** Trojan AES is classified as non-spillable and can be safely mounted horizontally to fit difficult locations. It's made using 80% recycled materials and is 99% recyclable.
- **Rugged design:** Designed and manufactured to absorb vibration and shock.
- **AGM charger:** This VRLA battery is charged with existing AGM profiles.

#### AES CAN HELP OEMS AND MASTER DISTRIBUTORS PREEMPT COSTLY PROBLEMS.

The Trojan AES Battery is locally available, reliable and proven to meet high performance standards, so you can assure customers are getting the best experience.

#### AES boosts productivity and cuts downtime for:

- Equipment rental companies
- Hospitals, airports, and educational facilities
- Warehousing/material handling equipment

Trojan AES is ideal for floor-cleaning machines, aerial work platforms, and material-handling equipment.

Model	BCI group size	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Terminal type	Weight kg	Max qty pallet	REF
<b>6 V</b>										
J305-AES-DT	902	279	228	296	176	358	DT	45	28	<a href="#">168TA2867</a>
L16-AES-DT	903	355	294	296	176	417	DT	55	28	<a href="#">168TA2868</a>
T105-AES-AP	GC2	207	170	262	179	273	AP	32	31	<a href="#">168TA2869</a>
<b>8 V</b>										
T875-AES-AP	GC8	158	131	262	179	273	AP	33	31	<a href="#">168TA2870</a>
<b>12 V</b>										
24-AES-DT	24	76	67	274	174	219	DT	25	54	<a href="#">168TA2871</a>
27-AES-DT	27	89	77	306	174	237	DT	30	42	<a href="#">168TA2872</a>
31-AES-DT	29	102	82	235	173	238	DT	31	36	<a href="#">168TA2873</a>
J185-AES-DT	921	175	140	380	176	367	DT	57	24	<a href="#">168TA2874</a>
OVERDRIVE-31-AES-STUD	31	104	83	325	173	240	STUD	31	36	<a href="#">168TA2875</a>
T1275-AES-AP	GC12	130	99	329	179	278	AP	39	23	<a href="#">168TA2876</a>



## LITHIUM INSERT BATTERY KIT 24 V AND AGM INSERT BATTERY KIT 24 V



- Kit with support and cover to be easily inserted in material handling class 3 applications:
- Maintenance free
- Deepfreezer proof, performs great in temp range of -40 to 71 °C
- 1200 cycles ta 100% DOD (3 times longer then standard AGM)
- Safe and durable (99% recyclable)
- Battery can be installed in horizontal position
- Robuust design vibration proof
- Can be charged with standard AGM charge profice

Only for class 3 type pallettrucks, must fit these case dimensions L677 x W200 x H566 mm

REF [168TA7805](#)

### OTHER SPECIFICATIONS

- Charging voltage settings (@ 25 °C (77 °F))
- Sytem voltage: 24 V
- Maximum charge current: 50% c20
- Absorption voltage (2.40 V/cell): 28.80
- Float voltage (2.25 V/cell): 27.00
- Do not install or charge batteries in a sealed or non-ventilated compartment. Constant under or overcharging will damage the battery and shorten its life as with any battery.

Voltage	Capacity A minutes		Capacity B AMP-hours (Ah)				Energy (kWh)
	@ 25 Amps	@ 75 Amps	5 hr	10 hr	20 hr	100 hr	100 hr
24	420	113	170	185	207	225	1.35

# BATTERIES

## CYCLIC BATTERIES



### LITHIUM-ION BATTERIES

**8-YEAR WARRANTY - YOUR INVESTMENT IS PROTECTED AND YOU CAN STILL BE AROUND IN 8 YEARS TO HONOR IT**

**4000 CYCLES @70% DOD (TO 70% OF INITIAL CAPACITY) AT 25 A)**



### WHY TROJAN BATTERY IS A TRUSTED NAME FOR LITHIUM-ION TECHNOLOGY

Internal temperature sensors are a key component in lithium-ion battery charging and safety. They provide critical temperature data required to keep the lithium-ion battery in the optimum condition during the charging cycle.

Unlike other lithium-ion batteries that have only two or three, Trojan GC 24 V, 36 V and 48 V lithium-ion batteries have five internal temperature sensors. Three are positioned to monitor cell temperature gradients. One ensures balance between the two sides of the battery. The fifth is on the BMS board to monitor discharge current path and electronics temperature.

#### Temperature sensors sever two main purposes:

- Preventing damage to the cells when changed in low temperatures
- Preventing dangerous overheating conditions within a cell or cells during charge

More sensors provide more feedback to the BMS, giving it better control of the charging. The result is longer battery life and safer operation.

#### Trojan lithium-ion batteries have four levels of safety redundancy at the cell level:

1. Stable cell chemistry/(Lithium Iron Phosphate)
2. Independent charge/discharge control unit
3. Secondary charge and discharge control circuit
4. Emergency mechanical fusing

With your safety in mind first, Trojan lithium-ion batteries feature a battery management system (BMS) that protects against short circuits, overheating and other unsafe conditions. They are equipped with a truly "smart" design that utilizes dual processors for full back-up ensuring the system is always running.

Model	Capacity minutes @25 A	Capacity amp - hours			Energy kWh	Length mm	Width mm	Height mm	Operating temp	Terminal type	REF
		5 hr	10 hr	20 hr							
TRL-GC2-24-M	156	65	65	65	1.75	264	180	278	-20 to 60 °C	M8	<a href="#">168TA2877</a>
TRL-GC2-36-M	108	45	45	45	1.75	264	180	278	-20 to 60 °C	M8	<a href="#">168TA2878</a>
TR-GC2-48-G	72	30	30	30	1.53	264	180	278	-40 to 60 °C	M8	<a href="#">168TA2879</a>

## TROJAN CLASS 3 INSERT LI-ION BATTERY



REF [168TA8010](#) – 25.6 V 130 Ah 3328 Wh 2 in parallel  
 REF [168TA8011](#) – 25.6 V 195 Ah 4992 Wh 3 in parallel  
 REF [168TA7804](#) – 25.6 V 260 Ah 6656 Wh 4 in parallel

### OTHER SPECIFICATIONS

Performance and system specifications @ 25 °C (77 °F)	
Maximum continuous discharge current	90 A
Maximum pulse discharge current (30 sec)	100 A
Maximum instantaneous discharge current (0.4 sec)	160 A
Reserve capacity @ 25 A	156 min
Battery internal protection	Short circuit current Temperature Over voltage Under voltage Over-current
Battery functions	Cell balancing State of charge CAN-bus communication
Safety system	Fuse, hardware, BMS
Discharge voltage cutoff	20.24 V
Environmental protection	IP67
Shipping classification	UN3480, class 9
Case flame rating	IUL94 V-0

# BATTERIES

## CYCLIC BATTERIES

### TERMINAL CONFIGURATIONS



**1 - ELPT**  
Embedded  
Low profile



**2 - EHPT**  
Embedded  
High profile



**3 - EAPT**  
Embedded  
Automotive post



**4 - EUT/R**  
Embedded  
Universal/reverse



**5 - LT**  
L-terminal



**6 - DT**  
Automotive  
Post and stud



**7 - UT**  
Universal



**8 - AP**  
Automotive post



**9 - WNT**  
Wingnut



**10 - DWNT**  
Dual wingnut



**11 - ST**  
Stud



**12**  
Cable and plug



**14 - IND**  
Industrial



**15 - M6/M8**  
6 mm/8 mm  
Insert



**16 - SLT**  
Small  
L-terminal

### VENTS



**1 - BAYO**



**2 - FLIP**



**3 - MASTER**

## ABOUT DYNO EUROPE



Dyno Europe offers a complete range of batteries and accessories for the Access Industry

## SEMI-TRACTION (EU) DYNO



Kit filler caps

**300 CYCLES**

**FLAT PLATE**

A semi-traction battery is almost identical to a traction battery, the big difference between the two is that a traction battery has more cycles, so lasts longer than a semi-traction battery. These batteries must be able to supply a constant current for a long period of time. They have thicker lead plates and glass fiber separation what makes these batteries easier to discharge. The Micro-porous rubber separators are a technical solution and thanks to a precise choice of materials used our batteries give the best performance and ensure proven reliability and long life.

### Properties:

- Thicker plates
- Grid plates with radial geometry
- Active material with specific composition to resist the cyclical discharges
- Grids of Pb/Sb/Sn/As/Se alloy which improves corrosion resistance and improves the contact between the active material
- Microporous rubber separators with glass fiber mats to prevent the loss of active materials
- Up to 300 cycles

### EUROPEAN TYPES SEMI-TRACTION

Model	Type	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF	Kit filler caps*	Old REF Kit filler caps*
<b>6 V</b>												
9.080.1	Semi	100	80	231	176	222	14.0	0	1	<a href="#">167TA9932</a>	-	-
9.095.2	Semi	120	96	260	175	221	17.0	0	1	<a href="#">134TA8592</a>	-	-
9.180.1	Semi	240	197	244	190	274	29.4	0	1	<a href="#">167TA9946</a>	<a href="#">167TA9947</a>	BAT/47553
<b>12 V</b>												
9.540.1	Semi	50	40	207	175	190	12.4	0	1	<a href="#">167TA9954</a>	-	-
9.550.2	Semi	60	50	242	175	190	16.0	0	1	<a href="#">167TA9955</a>	-	-
9.560.2	Semi	75	60	278	175	190	18.6	0	1	<a href="#">167TA9933</a>	-	-
9.555.1	Semi	70	50	270	175	220	17.2	1	1	<a href="#">167TA9934</a>	-	-
9.575.1	Semi	90	75	353	175	190	24.0	0	1	<a href="#">167TA9935</a>	-	-
9.575.1 MF	Semi MF	90	75	353	175	190	24.0	0	1	<a href="#">167TA9957</a>	-	-
9.580.3	Semi	100	80	304	175	220	23.7	0	1	<a href="#">167TA9956</a>	-	-
MF31DC	Semi MF	100	80	330	172	242	23.2	1	DT 1 + 8	<a href="#">167TA9958</a>	-	-
9.580.4	Semi	105	90	345	175	230	26.0	0	1	<a href="#">167TA9937</a>	-	-
9.590.3	Semi	120	90	304	175	220	24.0	0	1	<a href="#">167TA9938</a>	-	-
9.820.0	Semi	135	100	360	253	240	37.5	0	1	<a href="#">167TA9960</a>	<a href="#">167TA9948</a>	BAT/47555
9.600.2	Semi	125	100	345	175	285	33.3	0	1	<a href="#">129TA8810</a>	-	-
9.605.1	Semi	140	120	513	189	223	39.0	3	1	<a href="#">167TA9961</a>	<a href="#">167TA9949</a>	BAT/47556
9.605.1 MF	Semi MF	140	120	513	189	220	34.5	3	1	<a href="#">167TA9962</a>	-	-
9.635.1	Semi	180	155	513	223	223	47.5	3	1	<a href="#">167TA9967</a>	<a href="#">167TA9949</a>	BAT/47556
9.680.1	Semi	230	190	518	274	242	59.0	3	1	<a href="#">167TA9939</a>	<a href="#">167TA9950</a>	BAT/47557

MF: maintenance-free

# BATTERIES

## CYCLIC BATTERIES



### PZS MONOBLOC DYNO



**1200 CYCLES**

**TUBULAR PLATE**

Monobloc traction batteries must be able to provide a constant current over a long period of time. The open lead-acid batteries do require some attention to maintenance, such as topping up the cells. This can be time-consuming and should not be forgotten, to help you with this, we also offer an automatic filling system (see below for more information). The positive plates of the monobloc traction batteries are specially made out of tube plates instead of flat plates. Monobloc batteries combine a very high capacity with a maximum lifespan of 1200 cycles. This long life is due to the tubes or plates.

#### Properties:

- Premium tubular plate construction with free electrolyte ensure a long service life
- Accepts high discharge currents
- Perfect solution for applications that are used in difficult working conditions
- Reliable and sustainable
- Up to 1200 cycles

#### MONOBLOC TRACTION

Model	Type	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF	Kit filler caps*	Old REF Kit filler caps*
<b>6 V</b>												
6PZS195	Traction	240	195	244	190	270	30.5	0	1	<a href="#">167TA9963</a>	<a href="#">167TA9951</a>	BAT/47558
6PZS205	Traction	250	210	244	190	270	32.4	0	1	<a href="#">167TA9964</a>	<a href="#">167TA9951</a>	BAT/47558
6PZS180	Traction	225	175	260	180	275	31.0	0	1	<a href="#">167TA9965</a>	<a href="#">167TA9952</a>	BAT/47572
PZS265	Traction	348	290	311	183	365	45.0	0	1	<a href="#">167TA9940</a>	-	-
PZS320	Traction	390	320	311	183	365	50.0	0	1	<a href="#">167TA9966</a>	<a href="#">167TA9947</a>	BAT/47553
<b>8 V</b>												
PZS160	Traction	195	160	264	183	275	32.0	0	1	<a href="#">167TA9968</a>	-	-
<b>12 V</b>												
2PZS38	Traction	50	36	205	175	190	13.5	0	1	<a href="#">167TA9969</a>	-	-
2PZS36L2	Traction	50	36	240	175	190	14.0	0	1	<a href="#">167TA9970</a>	-	-
3PZS57	Traction	60	55	278	175	190	18.9	0	1	<a href="#">167TA9971</a>	-	-
2PZS56	Traction	68	56	265	175	210	20.0	0	1	<a href="#">167TA9972</a>	-	-
PZS72	Traction	96	72	352	175	190	23.0	0	1	<a href="#">167TA9941</a>	-	-
PZS80	Traction	105	80	352	174	215	28.0	0	1	<a href="#">167TA9974</a>	-	-
3PZS75	Traction	110	90	303	175	228	28.7	0	1	<a href="#">167TA9975</a>	-	-
4PZS90	Traction	115	95	344	172	234	30.0	0	1	<a href="#">134TA8609</a>	<a href="#">167TA9953</a>	BAT/47571
4PZS118	Traction	140	118	344	172	284	37.3	0	1	<a href="#">167TA9943</a>	<a href="#">167TA9953</a>	BAT/47571
4PZS126	Traction	146	126	510	175	225	39.0	4	1	<a href="#">167TA9944</a>	<a href="#">167TA9949</a>	BAT/47556
PZS150	Traction	183	150	510	222	225	47.0	4	1	<a href="#">167TA9976</a>	<a href="#">167TA9953</a>	BAT/47571

\*This kit is suitable for providing exactly one battery with the necessary filler caps and floats

## LEAD CARBON



**1000 CYCLES 80% DOD**

**MAINTENANCE-FREE**

Standard lead-acid batteries have a big advantage over lithium batteries, namely a large discharge capacity (up to C3). But to counter sulphation that would greatly reduce the life of the battery, there is a much longer charge time with lead-acid batteries (up to 10 hours = 0.1). The new lead carbon technology offers the solution here.

The negative plates of these batteries are made from lead and carbon and thus combine the advantages of normal lead-acid batteries with those of a supercapacitor. The addition of carbon ensures that these batteries have a higher charge acceptance and therefore have to charge for less time than regular lead-acid batteries. Moreover, they provide more power and are more resistant to (extremely) low temperatures. By adding lead (pb) to the negative plate there is also less resistance, resulting in a longer lifespan. In addition, this latest technology suppresses sulphation better than any other technology.

### Properties:

- Maintenance-free alternative for AGM and gel
- Better cycle life: > 1300 cycles (70% DoD) and up to 1000 cycles with 80% DoD
- Excellent performance in (extreme) low temperatures
- Price-friendly
- Charging time is shorter than normal AGM
- Lead carbon batteries can be used with good performance without being charged 100%

Model	Alt	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF
<b>6 V</b>										
DLC6-200EV	GC2	205.0	173.5	260	181	266	30.3	0	M8	<a href="#">167TA9977</a>
DLC6-225EV		226.0	190.5	243	188	275	32.0	0	M8	<a href="#">167TA9978</a>
DLC6-330EV	S4	330.0	257.5	295	178	360	46.9	0	M8	<a href="#">167TA9979</a>
DLC6-420EV	L16	428.0	334.0	295	179	424	59.0	0	M8	<a href="#">167TA9980</a>
<b>8 V</b>										
DLC8-160EV		163.0	138.0	260	180	280	36.0	0	M8	<a href="#">167TA9981</a>
<b>12 V</b>										
DLC12-55EV		59.5	50.5	229	138	208	17.5	1	M6	<a href="#">167TA9982</a>
DLC12-80EV		86.4	71.5	258	168	214	26.4	1	M8	<a href="#">167TA9983</a>
DLC12-100EV		108.6	92.0	330	171	219	32.0	1	M8	<a href="#">167TA9984</a>
DLC12-135EV		145.0	120.5	340	173	286	45.0	1	M8	<a href="#">167TA9985</a>
DLC12-200EV		216.0	182.5	522	240	222	59.0	4	M8	<a href="#">167TA9986</a>
DLC12-250EV		270.0	228.0	520	268	223	70.5	4	M8	<a href="#">167TA9987</a>

# BATTERIES

## CYCLIC BATTERIES



### ABOUT SONNENSCHIN

Sonnenschein is part of the Exide group and is a leading manufacturer in the world of batteries. Sonnenschein is a pioneer in gel batteries and are extremely suitable for cyclic applications in numerous industrial applications as well as in wheelchairs, golf carts,...

GF-V series: very suitable for industrial use such as aerial work platforms, stackers and cleaning machines.

GF-Y series: ideal for lighter applications such as scooters, wheelchairs and lower traction applications.

### SONNENSCHIN GF-Y RANGE (DRYFIT® A500 CYCLIC)



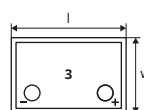
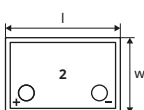
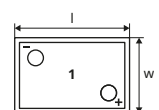
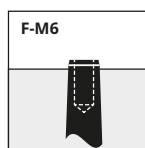
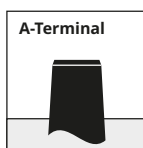
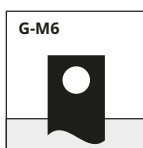
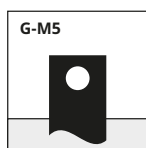
The GF-Y block battery range is particularly suitable for the leisure and mobility market (wheelchairs, scooters, golf carts and electric boats)

#### Main technical features and benefits:

- Battery technology: VRLA (valve regulated lead-acid)
- Maintenance-free (no topping up during the whole service life)
- Very high intrinsic safety
- Robust, safe and reliable
- Low self-discharge rate
- 450 cycles in accordance with IEC 60254-1
- Product range:
  - 12 V block batteries
  - 14 Ah up to 93.5 Ah (C5)
  - 15 Ah up to 110 Ah (C20)

#### TECHNICAL CHARACTERISTICS AND DATA

Model	Nominal capacity C5 (30 °C) Ah	Nominal capacity C20 (30 °C) Ah	Length max mm	width max mm	Height max mm	Weight kg	Terminal	Terminal position	REF
<b>12 V</b>									
GF12014YF	14	15	181	76	167	6	G-M5	3	<a href="#">167TA9998</a>
GF12022YF	22.2	24	167	176	126	9.6	G-M5	3	<a href="#">167TA9999</a>
GF12025YG	25	28	197	132	180	11.1	G-M5	2	<a href="#">168TA1000</a>
GF12033Y1	32.5	38	210	175	175	14.6	A-terminal	3	<a href="#">168TA1001</a>
GF12033YG1	32.5	38	210	175	175	14.6	G-M6	3	<a href="#">168TA1002</a>
GF12033YG2	32.5	38	210	175	175	14.6	G-M6	3	<a href="#">168TA1003</a>
GF12040Y	40	48	242	175	190	17.5	A-terminal	3	<a href="#">168TA1004</a>
GF12044Y	44	50	261	135	230	19	A-terminal	3	<a href="#">168TA1005</a>
GF12051Y1	51	56	278	175	190	20.8	A-terminal	3	<a href="#">168TA1006</a>
GF12051Y2	51	56	278	175	190	20.8	A-terminal	3	<a href="#">168TA1078</a>
GF12051YG1	51	56	278	175	190	20.8	G-M6	3	<a href="#">168TA1007</a>
GF12052YO	52.7	60	261	170	178	19.8	F-M6	2	<a href="#">168TA1008</a>
GF12063YO	63	70	261	171	210	23	F-M6	2	<a href="#">168TA1009</a>
GF12065Y	65	78	363	175	190	26.8	A-terminal	3	<a href="#">168TA1010</a>
GF12072Y	72	80	330	171	236	30	A-terminal	2	<a href="#">168TA1011</a>
GF12094Y	93.5	110	286	269	230	38.5	A-terminal	1	<a href="#">168TA1012</a>





## SONNENSCHIN GF-V RANGE (DRYFIT® TRACTION BLOCK)



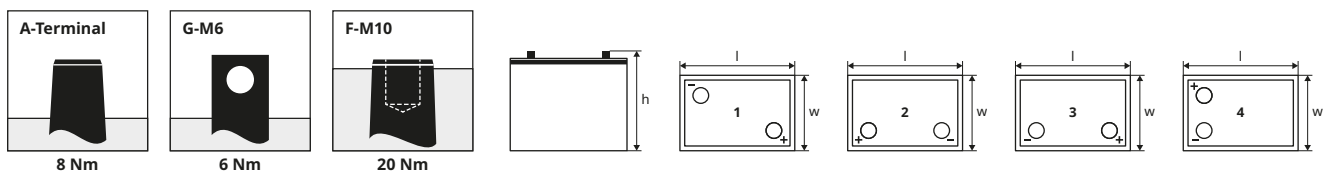
The GF-V block battery range is designed for hard industrial use. This includes applications such as cleaning machines, pallet trucks, automatic guided vehicles, mobile elevating work platforms, electric cars and buses.

### Main technical features and benefits:

- Battery technology: VRLA (valve regulated lead-acid)
- Maintenance-free (no topping up during the whole service life)
- Very high intrinsic safety
- Robust, safe and reliable
- Low self-discharge rate
- 700 cycles in accordance with IEC 60254-1
- Product range:
  - 6 V and 12 V block batteries
  - 50 Ah up to 240 Ah (C5)
  - 55 Ah up to 270 Ah (C20)

### TECHNICAL CHARACTERISTICS AND DATA

Model	Nominal capacity C5 (30 °C) Ah	Nominal capacity C20 (30 °C) Ah	Length max mm	width max mm	Height max mm	Weight kg	Terminal	Terminal position	REF
<b>6 V</b>									
GF06160V1	160	196	246	192	275	29	A-terminal	1	<a href="#">152TA5769</a>
GF160180V	180	200	246	192	275	31	A-terminal	1	<a href="#">152TA4411</a>
GF06180VQ	180	200	246	192	284	31.5	F-M10	1	<a href="#">168TA1013</a>
GF06240V	240	270	311	183	258	47	A-terminal	1	<a href="#">168TA1014</a>
<b>12 V</b>									
GF12050V	50	55	278	175	190	19	A-terminal	3	<a href="#">168TA1015</a>
GF12050VG	50	55	278	175	190	19	G-M6	3	<a href="#">168TA1016</a>
GF12076V	76	86	330	171	236	28.8	A-terminal	2	<a href="#">168TA1017</a>
GF12090V	90	98	513	189	219	36.5	A-terminal	4	<a href="#">168TA1018</a>
GF12105V	105	120	345	174	283	37.5	A-terminal	3	<a href="#">152TA5273</a>
GF12110V	110	120	513	223	219	45.5	A-terminal	4	<a href="#">168TA1019</a>
GF12160V	160	196	518	274	238	62.5	A-terminal	4	<a href="#">168TA1020</a>



# BATTERIES

## CYCLIC BATTERIES



### GEL BATTERIES



**MAINTENANCE-FREE**

Gel batteries are cyclic and just like AGM batteries completely closed and maintenance-free. As the name says, gel is added to the acid. Thus the electrolyte forms a gel-like substance that can not leak.

Due to this method of construction, the battery is leak-proof and no gas can form during normal use. The small amount of gas that can be generated is flown back to the electrolyte, just like with the AGM batteries. This way, the battery never needs to be refilled and should not be ventilated.

Gel batteries are more expensive than AGM batteries but they also have a longer lifespan and they can tolerate more loads.

#### Properties:

- Longer lifespan: up to 700 cycles
- Recovers completely from deep discharges, even when the battery isn't recharged immediately
- Perfect for cyclic use with daily charges/ discharges
- Perfect performances with long-lasting discharges
- Resists better with higher temperatures
- Sulfation (stratification) is impossible thanks to the gel
- Limited self-discharge
- Accepts the charge better thanks to the lower intern resistance
- Can be discharged, even when it isn't fully charged, without capacity loss
- Maintenance-free



M6 to M8 adaptor (reversible)  
REF [168TA1094](#)



Automot. adaptor M6  
REF [144TA1868](#)



Automot. adaptor M8  
REF [144TA1869](#)

Model	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF
<b>6 V</b>									
DGY6-110EV	100.0	86.0	194	170	212	16.5	1	M8	<a href="#">134TA8621</a>
DGY6-160EV	189.0	157.0	298	171	229	26.9	1	M8	<a href="#">168TA1021</a>
DGY6-180EV*	210.0	187.0	260	180	276	29.5	0	M8 + 1	<a href="#">168TA1022</a>
DGY6-200EV	248.0	220.0	322	178	231	34.0	1	M8	<a href="#">168TA1023</a>
DGY6-225EV	242.0	205.5	243	188	275	32.0	0	1	<a href="#">152TA4642</a>
<b>8 V</b>									
DGY8-180EV	157.0	128.0	260	182	298	36.4	1	DT 1 + 8	<a href="#">134TA8625</a>
<b>12 V</b>									
DGY12-7.5EV	8.5	7.9	151	65	103	2.3	3	T1	<a href="#">168TA1024</a>
DGY12-13EV	12.0	10.4	151	98	100	3.8	3	T2	<a href="#">168TA1025</a>
DGY12-18EV	18.0	15.6	181	77	167	5.5	0	M5	<a href="#">168TA1026</a>
DGY12-26EV	26.0	22.1	166	176	125	8.0	0	M5	<a href="#">168TA1027</a>
DGY12-33EV	36.4	28.3	195	130	160	10.2	1	M6	<a href="#">168TA1028</a>
DGY12-44EV	45.4	36.8	198	167	158	13.5	0	M6	<a href="#">168TA1029</a>
DGY12-55EV	59.0	49.1	229	138	208	16.5	1	M6	<a href="#">134TA8630</a>
DGY12-60EV	71.6	57.7	260	168	180	22.1	1	M6	<a href="#">168TA1030</a>
DGY12-65EV	75.0	61.1	279	175	190	22.7	0	M6	<a href="#">168TA1031</a>
DGY12-65EV-A pol	75.0	61.1	279	175	195	22.7	0	1	<a href="#">168TA1032</a>
DGY12-69EV	86.6	69.3	250	150	401	30.4	1	M8	<a href="#">168TA1033</a>
DGY12-70JEV	69.6	58.5	350	166	175	21.0	0	M6	<a href="#">134TA8632</a>
DGY12-80EV-M6	86.8	77.0	260	168	210	24.0	1	M6	<a href="#">168TA1034</a>
DGY12-100EV	105.0	99.0	307	168	214	30.7	1	M8	<a href="#">168TA1035</a>
DGY12-110EV	123.0	110.0	330	172	214	32.0	1	M8	<a href="#">134TA8635</a>
DGY12-135EV-M6	166.8	148.5	340	173	286	45.0	1	M6	<a href="#">168TA1036</a>
DGY12-150EV	161.4	136.5	483	170	241	45.0	1	M8	<a href="#">134TA8639</a>
DGY12-160EV	180.0	155.0	532	207	219	53.0	4	M8	<a href="#">134TA8640</a>
DGY12-200EV	214.0	178.5	522	240	222	62.5	4	M8	<a href="#">134TA8641</a>
DGY12-225EV	263.0	216.0	521	269	208	74.5	4	M8	<a href="#">134TA8642</a>
<b>Model C20 C5 Length Width Height Weight Layout Terminals REF</b>									
<b>6 V</b>									
DGY6-225DEV	205.0	175.0	242	190	275	34.0	0	1	<a href="#">168TA1037</a>
<b>12 V</b>									
DGY12-30DEV	30.0	24.0	197	132	186	11.7	1	F	<a href="#">134TA8627</a>
DGY12-40DEV	40.0	29.0	210	175	175	15.0	0	F	<a href="#">168TA1038</a>
DGY12-60DEV	60.0	50.0	278	175	190	21.3	0	1	<a href="#">168TA1039</a>
DGY12-80DEV	80.0	70.0	353	175	190	25.8	0	1	<a href="#">168TA1040</a>
DGY12-85DEV	85.0	75.0	352	175	232	28.4	0	1	<a href="#">168TA1041</a>
DGY12-110DEV	110.0	90.0	286	269	230	38.7	2	1	<a href="#">168TA1042</a>
DGY12-120DEV	120.0	95.0	513	189	223	40.0	3	1	<a href="#">168TA1043</a>
DGY12-125DEV	120.0	105.0	345	171	285	41.0	0	1	<a href="#">168TA1044</a>
DGY12-140DEV	150.0	130.0	514	223	222	53.8	3	1	<a href="#">134TA8638</a>
DGY12-210DEV	200.0	165.0	517	270	240	71.0	3	1	<a href="#">168TA1045</a>

**DISCOVER AGM/GEL**



**HIGH BATTERY CAPACITY**

**LONG RUN-TIMES**

**ABOUT DISCOVER**

**Discover battery makes batteries that thrive in real-world applications.**

What began as a regional battery distribution business in 1949 has grown into an international manufacturing and engineering company that provides leading-edge battery technology for transportation, motive power, and energy storage industries.

Discover battery's high value lead-acid and lithium power solutions are engineered and purpose-built with award-winning patented technology and industry-leading power electronics.

Discover battery makes our products available through the best knowledge-based distribution and service organizations for the people and businesses who rely on batteries to work, live, or get away.

**Dry cell AGM traction/industrial**

Trusted by OEMs around the world, dry cell

AGM traction/industrial deep-cycle batteries outperform traditional flooded, AGM, and gel batteries in demanding traction and industrial applications. Dry cell batteries are designed to deliver long high operating current runtime and to be regularly cycled to >50% DOD when proper charging sources are available.

**Dry cell AGM key benefits:**

- Ideal for deep-cycle applications with an emphasis on long high discharge run-times
- Sealed valve regulated. Non spill-able
- Compressed AGM cells for extreme vibration resistance
- Repeated high rate deep-cycles up to 80% DOD
- Maintenance-free. Unrestricted transport
- Enhanced safety with built-in flame arrestor
- Built-in handles

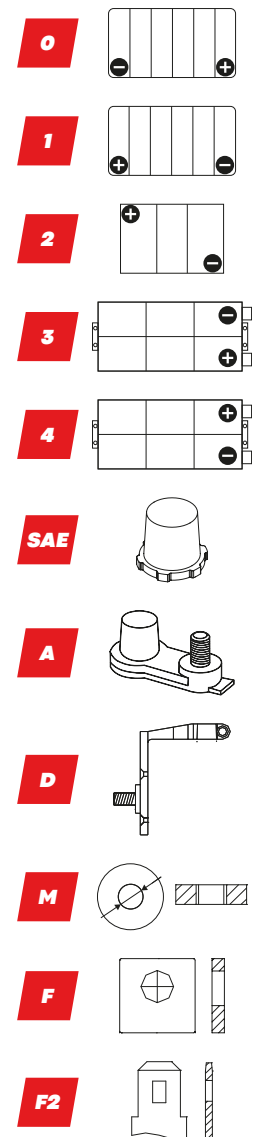
**DRY CELL TRACTION/INDUSTRIAL**

Model	C20 1.80 VPC 25 °C Ah	C5 1.75 VPC 25 °C Ah	C3 1.70 VPC 25 °C Ah	Length (L) mm	Width (W) mm	Height (H)* mm	Weight kg	Layout/ polarity	Terminals	REF
<b>6 V</b>										
EVGC6A-A	220	190	170	260	180	254	30	2	AM	<a href="#">167TA8663</a>
EVGT6A-A	260	222	200	260	180	276	35	2	M8	<a href="#">167TA8665</a>
EV506A-230	230	200	170	244	189	254	32	2	M8	<a href="#">167TA8666</a>
EV305A-A	330	290	260	295	180	345	46	2	AM	<a href="#">167TA8667</a>
EVL16A-A	390	340	295	295	180	383	53	2	AM	<a href="#">167TA8668</a>

<b>12 V</b>										
EVU1A-A	33	30	27	195	130	169	11	1	M6	<a href="#">167TA8676</a>
EV22A-A	58	50	44	229	138	210	18	1	M6	<a href="#">167TA8678</a>
EV34A-A	65	55	48	258	167	178	20	1	SAE	<a href="#">167TA8679</a>
EV512A-70	68	60	51	278	175	190	22	0	SAE	<a href="#">167TA8681</a>
EV512A-90	87	80	68	350	175	190	27	0	SAE	<a href="#">167TA8682</a>
EV24A-A	85	72	66	258	172	214	24	1	AM	<a href="#">167TA8683</a>
EV24LA-A	85	72	66	261	172	206	24	1	M6	<a href="#">167TA8684</a>
EV27A-A	100	90	80	308	172	212	29	1	AM	<a href="#">167TA8685</a>
EV31A-A	120	98	92	330	172	216	33	1	AM	<a href="#">167TA8686</a>
EV12A-A	145	125	110	327	180	254	40	1	AM	<a href="#">167TA8688</a>
EV512A-150	150	130	117	341	173	284	42	1	M8	<a href="#">167TA8690</a>
EV185A-A	230	200	175	386	178	352	62	1	AM	<a href="#">167TA8692</a>
EV4DA-A	235	200	175	524	225	222	63	4	AT	<a href="#">167TA8693</a>
EV8DA-A	280	240	215	522	275	222	78	4	AT	<a href="#">167TA8695</a>

Model	C20 1.80 VPC 25 °C Ah	C5 1.75 VPC 25 °C Ah	C3 1.70 VPC 25 °C Ah	Length (L) mm	Width (W) mm	Height (H)* mm	Weight kg	Layout/ polarity	Terminals	REF
<b>6 V</b>										
EV506G-180	210	180	162	244	189	271	32	2	SAE	<a href="#">168TA7918</a>
EV506G-250	290	250	235	293	180	343	46	2	AM	<a href="#">168TA7919</a>
<b>12 V</b>										
EV512G-028	33	28	24	195	130	169	11	1	M6	<a href="#">168TA8012</a>
EV512RG-044	55	45	42	229	138	208	18	0	M6	<a href="#">168TA7921</a>
EV512RG-050	61	50	46	258	167	178	19	0	SAE	<a href="#">168TA7922</a>
EV512LG-063	73	63	53	261	172	206	23	1	M6	<a href="#">168TA7923</a>
EV512G-076	88	76	63	330	172	216	28	1	AM	<a href="#">168TA7924</a>
EV512RG-103	120	103	90	327	180	254	36	0	AM	<a href="#">168TA7925</a>

\* Height refers to the distance from the bottom to the top of the case, and does not include the terminals.



# BATTERIES

## CYCLIC BATTERIES



### AGM BATTERIES



**MAINTENANCE-FREE**

AGM batteries are built differently than open lead-acid batteries. In AGM batteries there is a fiberglass mat between the plates that is saturated with acid/electrolyte. This mat is packed between the plates and compressed. This ensures a super-fast reaction between the acid and the plates. Because the sheets and mats are tightly packed, they are almost immune to vibrations.

This type of battery is maintenance-free and in normal use there is no gas formation. The little gas that would still occur is returned to the electrolyte, so the batteries should never be refilled. Also no ventilation is needed and for safety there is an overpressure valve on the battery. The batteries can be installed in any position, except upside down.

Due to the high production cost these batteries are a lot more expensive than open lead-acid batteries, but still cheaper than gel batteries.

#### Properties:

- Sealed lead-acid batteries
- Can be used in any position
- Cheaper than a gel battery
- Better performance with a shorter duration/ higher current discharge
- A smaller battery size can be used for higher discharge
- Absorbed Glass Mat Technology (= AGM)
- Up to 500 cycles

Model	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF
<b>6 V</b>									
DAB6-110EV	100.0	86.0	194	170	212	16.5	1	M8	<a href="#">134TA8663</a>
DAB6-160EV	178.0	145.0	298	171	229	26.4	1	M8	<a href="#">134TA8664</a>
DAB6-180EV*	210.0	187.0	260	180	250	29.5	0	M8	<a href="#">134TA8665</a>
DAB6-200EV	248.0	220.0	322	178	231	34.0	1	M8	<a href="#">134TA8666</a>
DAB6-225EV	242.0	205.0	243	188	275	32.0	0	M8	<a href="#">134TA8667</a>
DAB6-270EV	272.0	242.0	260	180	273	35.0	0	M8	<a href="#">168TA1079</a>
<b>8 V</b>									
DAB8-160EV	161.0	131.0	260	182	298	36.8	1	M8	<a href="#">134TA8668</a>
<b>12 V</b>									
DAB12-7.5EV	9.6	8.5	151	65	103	2.6	3	T1	<a href="#">168TA1080</a>
DAB12-14EV	16.4	14.5	151	99	100	4.4	3	T2	<a href="#">134TA8669</a>
DAB12-18EV-HD	27.2	24.2	181	77	170	6.9	0	M5	<a href="#">168TA1081</a>
DAB12-26EV	26.0	22.6	166	175	125	7.7	0	M5	<a href="#">134TA8672</a>
DAB12-26EV-HD**	33.6	28.0	168	178	124	8.9	0	M5	<a href="#">168TA1082</a>
DAB12-28EV	28.0	24.3	165	125	175	8.0	0	M5	<a href="#">134TA8673</a>
DAB12-32EV	39.6	35.2	267	77	170	9.2	0	M5	<a href="#">168TA1083</a>
DAB12-33EV	34.0	28.0	196	131	160	10.0	1	M6	<a href="#">134TA8674</a>
DAB12-33EV-HD	41.1	35.7	195	130	163	11.6	1	M6	<a href="#">168TA1084</a>
DAB12-44EV	46.2	37.7	198	167	158	13.0	0	M6	<a href="#">134TA8675</a>
DAB12-44EV-HD	52.0	46.0	197	165	175	14.5	0	M6	<a href="#">168TA1085</a>
DAB12-60DEV	60.0	45.0	242	175	190	17.9	0	1	<a href="#">168TA1086</a>
DAB12-55EV	56.2	44.5	229	138	212	16.0	1	M6	<a href="#">142TA3204</a>
DAB12-70DEV	70.0	55.0	278	175	190	20.5	0	1	<a href="#">168TA1087</a>
DAB12-70JEV	70.0	59.0	350	166	175	21.0	0	M6	<a href="#">168TA1088</a>
DAB12-80DEV	80.0	60.0	315	175	190	23.2	0	1	<a href="#">168TA1089</a>
DAB12-80EV-M6	99.0	88.0	260	168	210	26.0	1	M6	<a href="#">168TA1090</a>
DAB12-95DEV	95.0	70.0	353	175	190	26.0	0	1	<a href="#">168TA1091</a>
DAB12-100EV	103.2	82.0	307	168	211	30.7	1	M8	<a href="#">168TA1092</a>
DAB12-110EV	129.8	115.5	330	172	214	33.5	1	M8	<a href="#">134TA8681</a>
DAB12-120EV	128.0	109.0	409	177	227	37.0	1	M8	<a href="#">134TA8682</a>
DAB12-135EV	166.8	148.5	336	172	279	45.0	1	M8	<a href="#">134TA8683</a>
DAB12-150EV	185.6	165.0	481	170	239	50.0	1	M8	<a href="#">134TA8684</a>
DAB12-160EV	180.0	155.0	532	207	219	51.0	4	M8	<a href="#">134TA8685</a>
DAB12-200EV	225.0	190.5	522	240	222	61.5	4	M8	<a href="#">134TA8686</a>
DAB12-230EV	254.0	208.0	521	270	208	74.0	4	M8	<a href="#">134TA8687</a>



J-type adaptor M6  
REF [168TA1093](#)



Automot. adaptor M6  
REF [144TA1868](#)

Automot. adaptor M8  
REF [144TA1869](#)



M6 to M8 adaptor  
(reversible)  
REF [168TA1094](#)

# BATTERIES

## LITHIUM BATTERIES

### LITHIUM-ION - LIFEPO4 - PALLETTRUCK BATTERIES



**CUSTOM MADE**

**FITS IN 50+ MODELS**

#### THE BATTERY IS SUPPLIED WITH

- Battery connector (to be specified)
- (external) LED screen: voltage, temp., RSOC, current
- Drive protection between machine and charger
- Charger (standard not included): efficiency > 90%
- Compatible with Zivan chargers both for fast charging and night charging

#### ADVANTAGES

- 100% maintenance-free
- Opportunity charging = no need to have exchange battery
- Can be charged in 2 hours (with adapted charger)
- No acid or hydrogen gasses
- Expected lifetime: up to 4000 cycles

### AQ-LITH® LIT/DYN BATTERIES

#### FOR HIGH DEMANDING APPLICATIONS. MADE UPON YOUR DEMAND!

Developed and assembled by Battery Supplies

- The tray fits perfectly in the machine without need of filler material
- Extra weight is included in the bottom of the battery tray if this is required for ballast. No need to add extra weight in the machine.

#### Premium quality with high expected cycle life

Canbus communication to charger to allow a perfect charging profile and balancing action.

#### SUITABLE FOR FOLLOWING TYPES

BT	645 x 196 x 570 h	24 V - 160 - 165 Ah/c5
BT	645 x 245 x 570 h	24 V - 210 - 225 Ah/c5
Jungheinrich	624 x 212 x 573 h	24 V - 180 Ah/c5
Jungheinrich	624 x 212 x 627 h	24 V - 250 Ah/c5
Linde	624 x 284 x 537 h	24 V - 270 Ah/c5
Linde	786 x 210 x 630 h	24 V - 375 Ah/c5
Linde	624 x 212 x 627 h	24 V - 250 Ah/c5
Linde	624 x 212 x 537 h	24 V - 180 Ah/c5
Linde	624 x 284 x 627 h	24 V - 375 Ah/c5
Still	624 x 284 x 627 h	24 V - 375 Ah/c5
Still	624 x 284 x 627 h	24 V - 250 Ah/c5
Still	624 x 284 x 627 h	24 V - 200 Ah/c5
...		

Model	Capacity			Charger: standard charging (4 to 8 hrs)	Charger: fast charging (2 to 3 hrs)	REF
	Ah	kWh	kWh net			
<b>24 V</b>						
DYN24-210	210	5.04	4.032	NG1/24-45 RE-L	NG3/24-95RE-L	<a href="#">168TA8286</a>
DYN24-315	315	7.56	6.048	NG1/24-45RE-L	NG9/24-145 RE-L	<a href="#">168TA8287</a>

# BATTERIES

## LITHIUM BATTERIES

### LITHIUM-ION - LIFEP04 - PALLETTRUCK BATTERIES



#### ECONOMICAL SOLUTION

### AQ-LITH® INSERT

#### ADVANTAGES

- Delivery time: in stock
- Economical solution
- Can resist high currents: use of contactors instead MOSFET
- INSERT battery: we reduced the dimensions of the battery to a minimum. Doing so, this battery fits in mostly all pallet jacks, even if the width is limited

#### SPECIFICATIONS

- Battery excl spacers and ballast plates
- 4 options: in 100 Ah or 200 Ah, with built-in charger or without charger
- With internal fuse and precharge contactor
- With remote control box with start/stop button, buzzer and display
- With autosleep function to increase autonomy of the battery
- Perfect replacement of standard lead-acid batteries. if you want to replace a Li-ion battery, then please take care as some machines need a special canbus-communication with the battery. Please contact us

Model	LIT/INS24-100 24 V 100 Ah	LIT/INS24-100C 24 V 100 Ah with charger	LIT/INS24-200 24 V 200 Ah	LIT/INS24-200C 24 V 200 Ah with charger
<b>Battery specifications</b>				
Technology	LFP	LFP	LFP	LFP
Type of cell	Prismatic	Prismatic	Prismatic	Prismatic
Nominal voltage (V)	25.6	25.6	25.6	25.6
Max continuous charging current	0.5C	0.5C	0.5C	0.5C
Max continuous discharging current	0.5C	0.5C	0.5C	0.5C
Max discharging current during 10s	2.5C	2.5C	2.5C	2.5C
Operating temp during charge	0 to 45 °C	0 to 45 °C	0 to 45 °C	0 to 45 °C
Operating temp during discharge	-20 to 50 °C	-20 to 50 °C	-20 to 50 °C	-20 to 50 °C
IP	IP20	IP20	IP20	IP20
Dimensions (W x L x H mm)	130 x 450 x 500	130 x 450 x 570	190 x 550 x 500	190 x 550 x 569
Weight (kg)	42	45	62	67
Charging cable	1.1 m - REMA 160 A	1.5 m - 1ph 220 V	1 m - REMA 160 A	1.5 m - 1ph 220 V
Discharging cable	1.1 m - REMA 160 A	1.1 m - REMA 160 A	1.1 m - REMA 160 A	1.1 m - REMA 160 A
Charger profile	CCCV	CCCV	CCCV	CCCV
Expected life time (cycles or years)	2000 cycles	2000 cycles	2000 cycles	2000 cycles
Warranty	3 years with 80% EOL	3 years with 80% EOL	3 years with 80% EOL	3 years with 80% EOL
REF	<a href="#">168TA3021</a>	<a href="#">168TA3022</a>	<a href="#">168TA3023</a>	<a href="#">168TA3024</a>
<b>Charger specifications</b>				
Voltage in (VAC)		220		220
Monophase		Yes		Yes
Current in (A)		7		10
Voltage out (V DC nominal)		25.6		25.6
Profile		CCCV		CCCV
Current out (A)		30		45
REF separte charger		<a href="#">168TA3025</a>		<a href="#">168TA3026</a>

## LITHIUM DROP-IN BATTERIES



### LIFEPO4 TECHNOLOGY

## PLUG-AND-PLAY SOLUTIONS

Our lithium-ion drop-in replacement batteries can directly replace your current SLA batteries in many applications. They have an excellent lifespan of up to 2000 cycles. These maintenance-free batteries have the same dimensions as SLA batteries but are up to 70% lighter and have much better performance and economic life. The lithium-ion drop-in replacement batteries are extremely safe: they can charge quickly without overheating and gasification, they are also protected against overload and full discharge thanks to the built-in BMS. These batteries are much more ecological because they contain no acid, no lead and no other toxic substances.

## USE IN SERIES OR PARALLEL

### General:

First, the batteries must be charged separately until they have the same state. Only connect them in parallel or in series after charging and only if the batteries are from the same production batch.

### Parallel configuration:

Do not connect more than 4 batteries in parallel. If batteries connected in parallel are discharged (fully or partially), it is harmful to replace one of the batteries with a full battery. First, disconnect the batteries, charge them separately and then switch them back into parallel.

### Serial configuration:

Do not connect more than 4 batteries (12 V) in series. We even recommend buying a 24 V, 36 V or 48 V battery instead of connecting 12 V batteries in series. PLEASE NOTE: the batteries should first be charged separately and only then connected in series. The batteries connected in series should be simultaneously charged by several 12 V chargers. Requirement: the chargers can not share the negative pole.

Model	Terminals	Voltage	Capacity	Energy	Length	Width	Height	Weight	Recom charge current	Max charging current	Charge cut-off voltage	Max discharge current	REF	REF suitable charger
		V	Ah	Wh	mm	mm	mm	kg	A	A	V	A		
<b>12.8 V</b>														
D12-9K	T2	12.8	9	115.2	151	65	94	1.1	1.8	4.5	10.0	9.0	<a href="#">168TA7497</a>	<a href="#">168TA1119</a>
D12-12K	T2	12.8	12	153.6	151	98	95	1.6	6	12.0	10.0	12.0	<a href="#">168TA1099</a>	<a href="#">168TA1120</a>
D12-20k	M5	12.8	20	256.0	181	76	166	3.0	10	25.0	10.0	12.0	<a href="#">168TA1100</a>	<a href="#">168TA1120</a>
D12-42K	M8	12.8	42	537.6	198	166	170	5.4	8.4	21.0	10.0	42.0	<a href="#">168TA1102</a>	<a href="#">166TA6246</a>
D12-54K	M6	12.8	54	691.2	197	166	171	6.5	11	54.0	10.0	54.0	<a href="#">168TA7498</a>	<a href="#">166TA6246</a>
D12-75K	M6	12.8	75	960.0	260	168	213	9.8	30	50.0	10.0	50.0	<a href="#">168TA1104</a>	<a href="#">168TA1121</a>
D12-100K	M8	12.8	100	1280.0	330	172	223	10.1	20	100.0	10.0	100.0	<a href="#">168TA7499</a>	<a href="#">168TA1121</a>
D12-150K	M8	12.8	150	1920.0	483	170	240	17.8	30	100.0	10.0	100.0	<a href="#">168TA7500</a>	<a href="#">168TA1121</a>
D12-200K	M8	12.8	200	2560.0	552	240	218	23.5	40	50.0	10.0	100.0	<a href="#">168TA7501</a>	<a href="#">168TA1121</a>
D12-300K	M8	12.8	300	3840.0	552	240	218	37.0	20	100.0	10.0	100.0	<a href="#">168TA7502</a>	<a href="#">168TA1121</a>
<b>25.6 V</b>														
D24-20K	M6	25.6	20	512.0	197	165	170	4.5	4	10.0	20.0	20.0	<a href="#">168TA7503</a>	<a href="#">168TA1123</a>
D24-30K	M6	25.6	30	768.0	223	150	178	7.5	8	15.0	20.0	30.0	<a href="#">168TA7504</a>	<a href="#">168TA1123</a>
D24-54K	M8	25.6	54	1382.4	330	172	223	14.0	11	54.0	20.0	54.0	<a href="#">168TA7505</a>	<a href="#">168TA1124</a>
D24-80K	M8	25.6	80	2048.0	408	177	224	24.8	16	80.0	20.0	80.0	<a href="#">168TA7496</a>	<a href="#">168TA1124</a>
D24-100K	M8	25.6	100	2560.0	530	235	220	27.0	20	100.0	20.0	100.0	<a href="#">168TA7506</a>	<a href="#">168TA1124</a>
D24-200K	M8	25.6	200	5120.0	522	240	218	79.0	40	100.0	20.0	100.0	<a href="#">168TA7507</a>	<a href="#">168TA1124</a>
<b>51.2 V</b>														
D48-20K	M8	51.2	20	1024.0	330	172	223	10.5	4	10.0	40.0	20.0	<a href="#">168TA7508</a>	<a href="#">168TA1126</a>
<b>12.8 V for caravan/motorhome Ducato under-seat battery range with bluetooth</b>														
D12-100KC	M8	12.8	100.0	1280.0	355	175	188	10.5	20	50.0	10.0	100.0	<a href="#">168TA7509</a>	<a href="#">168TA1121</a>
D12-150KC	M8	12.8	150.0	1920.0	483	170	240	17.8	20	50.0	10.0	100.0	<a href="#">168TA7510</a>	<a href="#">168TA1121</a>

# BATTERIES

## LITHIUM BATTERIES

### LITHIUM P-SERIES: IP66



**WATERPROOF  
IDEAL FOR MARINE**

#### Features:

- LiFePO4 batteries
- Aluminum housing
- IP66 – dustproof and water resistant
- High peak discharge capability
- Bolt holes on the side to secure the battery
- Indicator on the battery (voltage, current and SOC)
- Possibility to add a second external indicator

#### Use in series or parallel:

It's not allowed to connect in series. Parallel connection is allowed, but contact us for more information and usage instructions.

#### PRO version: NO

Only the standard equipment is available: connection for a second indicator.

#### PRO version: YES

These batteries are equipped with a special multi-pin connector. Optionally, you can choose to connect an extra connector to send signals regarding voltage, current and temperature. The connector is equipped with enough pins to connect a second external indicator. The PRO version is very important when connecting these batteries in parallel.

Model	Terminals	Capacity	Length	Width	Height	Weight	Discharge current		Cut-off voltage	Charge current	PRO version	REF	REF suitable charger*
							Max (30 min)	Peak (3S)					
		Ah	mm	mm	mm	kg	A	A	V	A			
<b>12.8 V</b>													
LIT/D12-200P	M8	200	310	266	229	22.3	200	400	≤10.4	≤100	No	<a href="#">168TA1130</a>	<a href="#">168TA1592</a>
LIT/D12-400P	M8	400	432	266	254	40.5	200	400	≤10.4	≤200	Yes	<a href="#">168TA1131</a>	<a href="#">168TA1593</a>
<b>25.6 V</b>													
LIT/D24-100P	M8	100	310	266	229	22.3	120	260	≤20.8	≤50	No	<a href="#">168TA1132</a>	<a href="#">168TA1594</a>
LIT/D24-200P	M8	200	432	266	254	40.5	200	400	≤20.8	≤100	Yes	<a href="#">168TA1133</a>	<a href="#">168TA1595</a>
<b>38.4 V</b>													
LIT/D36-100P	M8	100	432	266	254	33.7	120	260	≤31.2	≤50	Yes	<a href="#">168TA2674</a>	<a href="#">168TA2675</a>
<b>51.2 V</b>													
LIT/D48-100P	M8	100	432	266	254	40.5	120	260	≤41.6	≤50	Yes	<a href="#">168TA1134</a>	<a href="#">168TA1596</a>

\*Specific connector on request. Optional: external indicator REF [168TA2676](#) CB (with CAN bus)

### SOC INDICATORS (BASED ON COULOMB COUNTING)



Max current	With contact MIN SOC%	With serial TTL communication
A		
50	<a href="#">168TA1135</a>	<a href="#">168TA1139</a>
100	<a href="#">168TA1136</a>	<a href="#">168TA1140</a>
350	<a href="#">168TA1137</a>	<a href="#">168TA1141</a>
500	<a href="#">168TA1138</a>	<a href="#">168TA1144</a>



## LITHIUM-ION BATTERIES

**8-YEAR WARRANTY - YOUR INVESTMENT IS PROTECTED AND YOU CAN STILL BE AROUND IN 8 YEARS TO HONOR IT**

**4000 CYCLES @70% DOD (TO 70% OF INITIAL CAPACITY) AT 25 A)**



## WHY TROJAN BATTERY IS A TRUSTED NAME FOR LITHIUM-ION TECHNOLOGY

Internal temperature sensors are a key component in lithium-ion battery charging and safety. They provide critical temperature data required to keep the lithium-ion battery in the optimum condition during the charging cycle.

Unlike other lithium-ion batteries that have only two or three, Trojan GC 24 V, 36 V and 48 V lithium-ion batteries have five internal temperature sensors. Three are positioned to monitor cell temperature gradients. One ensures balance between the two sides of the battery. The fifth is on the BMS board to monitor discharge current path and electronics temperature.

### Temperature sensors serve two main purposes:

- Preventing damage to the cells when charged in low temperatures
- Preventing dangerous overheating conditions within a cell or cells during charge

More sensors provide more feedback to the BMS, giving it better control of the charging. The result is longer battery life and safer operation.

### Trojan lithium-ion batteries have four levels of safety redundancy at the cell level:

1. Stable cell chemistry/(Lithium Iron Phosphate)
2. Independent charge/discharge control unit
3. Secondary charge and discharge control circuit
4. Emergency mechanical fusing

With your safety in mind first, Trojan lithium-ion batteries feature a battery management system (BMS) that protects against short circuits, overheating and other unsafe conditions. They are equipped with a truly "smart" design that utilizes dual processors for full back-up ensuring the system is always running.

Model	Capacity minutes @25 A	Capacity amp - hours			Energy kWh	Length mm	Width mm	Height mm	Operating temp	Terminal type	REF
		5 hr	10 hr	20 hr							
TRL-GC2-24-M	156	65	65	65	1.75	264	180	278	-20 to 60 °C	M8	<a href="#">168TA2877</a>
TRL-GC2-36-M	108	45	45	45	1.75	264	180	278	-20 to 60 °C	M8	<a href="#">168TA2878</a>
TR-GC2-48-G	72	30	30	30	1.53	264	180	278	-40 to 60 °C	M8	<a href="#">168TA2879</a>

# BATTERIES

## LITHIUM BATTERIES

### MOTORCYCLE BATTERIES















Shido Lithium batteries have 4 cells LiFePO<sub>4</sub> (Lithium Iron Phosphate) of 3.2 V connected in series in order to reach an OCV of 12.8 V. A perfect voltage to use as a starter battery for motorcycles. The electronic Battery Management System or BMS spread the charge and discharge regularly over the four cells. Thanks to its small internal resistance a Shido Lithium battery can generate a very high starting current with little Ah. This starting power delivers a powerful and quick start of the vehicle.

#### Advantages:

- Superb cranking capacity
- Up to 75% lighter than lead-acid batteries
- Long capacity retention
- Lower self discharge: longer shelf life
- Excellent cycle life: more than 1200 cycles
- More economical
- Drop-in replacement
- Less fuel consumption
- Super-fast recharge
- Safe in use
- No maintenance
- Stable discharge voltage
- No pollution, no lead and no acid
- Capacity indicator
- IP68 waterproof

Model	Capacity	CA	Energy	Dimensions				Weight	Charging current		Layout	REF
	Ah	A	Wh	L	B	H	HL		STD	MAX		
Shido Lion - 12 V												
	Ah	A	Wh	mm	mm	mm	mm	kg	A	A		
LB5L-B	1.6	95	19	120	60	92	120	0.4	1	8	0	<a href="#">168TA1335</a>
LTX4L-BS	1.6	95	20	113	70	85	85	0.4	1	8	0	<a href="#">168TA1336</a>
LTX5L-BS	1.6	95	20	113	70	85	105	0.4	1	5	0	<a href="#">168TA1337</a>
LTZ5S	2	120	24	113	69	85	85	0.5	1	10	0	<a href="#">168TA1338</a>
LTM2L	2	120	24	89	49	90	90	0.5	1	10	0	<a href="#">168TA1339</a>
LTZ7S	2.4	150	30	113	69	85	105	0.6	1.5	12	0	<a href="#">168TA1340</a>
LTX7A-BS	2.4	150	30	150	87	93	93	0.6	1.5	12	1	<a href="#">168TA1341</a>
LTX7L-BS	2.4	150	30	113	69	85	125	0.6	1.5	12	0	<a href="#">168TA1342</a>
LT7B-BS	3	180	36	150	65	92	92	0.7	1.5	15	1	<a href="#">168TA1343</a>
LB9-B Q	3	180	36	134	75	134	134	0.6	1.5	12	0/1	<a href="#">168TA1344</a>
LT9B-BS	3	180	36	150	65	92	106	0.7	1.5	15	1	<a href="#">168TA1345</a>
LTX9-BS	3	180	36	150	87	105	105	0.7	1.5	15	1	<a href="#">168TA1346</a>
LT12A-BS	3.5	210	42	150	87	93	107	0.9	2	18	1	<a href="#">168TA1615</a>
LTX10S	4	240	48	150	87	93	93	0.9	2	20	1	<a href="#">168TA1347</a>
LB12AL-A2 Q	4	240	48	130	75	134	160	0.9	2	20	0/1	<a href="#">168TA1348</a>
LTX12-BS	4	240	42	150	87	105	130	0.9	2	18	1	<a href="#">168TA1349</a>
LTX14-BS	4	240	48	150	87	105	145	1.1	2	20	1	<a href="#">168TA1350</a>
LTX14AHL-BS Q	4	240	48	134	75	133	168	1.1	2	20	0/1	<a href="#">168TA1351</a>
LTX14L-BS	4	240	48	150	87	105	145	1.1	2	20	0	<a href="#">168TA1352</a>
LTX8V	4.5	270	54	113	69	105	105	0.9	2.5	22.5	0	<a href="#">168TA1353</a>
LB16AL-A2	5	300	60	150	65	130	144	1.1	2.5	25	0	<a href="#">168TA1354</a>
LT12B-BS	5	300	60	150	65	130	130	1.1	2.5	25	1	<a href="#">168TA1355</a>
LTX12S	5	300	60	150	87	93	110	1.1	2.5	25	1	<a href="#">168TA1356</a>
LTX14S	5	300	60	150	87	93	110	1.1	2.5	25	1	<a href="#">168TA1357</a>
LT14B-BS	5	300	60	150	65	130	144	1.1	2.5	25	1	<a href="#">168TA1358</a>
LTX16-BS	6	360	72	150	87	105	164	1.4	3	24	1	<a href="#">168TA1359</a>
LTX20CH-BS	6	360	72	150	87	105	164	1.4	3	24	1	<a href="#">168TA1360</a>
LTX20L-BS Q	7	420	84	175	87	130	155	1.4	3.5	28	0/1	<a href="#">168TA1361</a>
LTX24HL-BS Q	7	420	84	175	87	130	163	1.7	3.5	28	0/1	<a href="#">168TA1616</a>
51913	7.5	420	90	181	77	170	170	1.7	4	28	0	<a href="#">168TA1362</a>
LIX30L-BS Q	8	480	96	167	124	163	163	2	4	32	0/1	<a href="#">168TA1363</a>








## LITHIUM PACKS

	Voltage V	Capacity Ah	Energy Wh	Used in machine	Remark	REF
	24	20	512	Can be found in Movexx		<a href="#">167TA9990</a>
	24	36	922	Can be found in Movexx		<a href="#">167TA9991</a>
	24	20	480	Can be found in Noblelift electric pallet trucks		<a href="#">167TA9992</a>
	48	20	960	Can be found in Noblelift electric pallet trucks		<a href="#">167TA9993</a>
	24	36	864	Can be found in BT		<a href="#">168TA7484</a>
	24	36	864	Can be found in Jungheinrich Li-ion machines		<a href="#">168TA7516</a>
	24	22	528	Can be found in Kärcher		<a href="#">168TA7485</a>
	24	20	480	Can be found in EP forklift and Climax	Without CAN bus	<a href="#">166TA6083</a>
	24	20	480	Can be found in EP forklift and Climax	Without CAN bus + CE version (higher then older models) *BMS not interchangeable with older models	<a href="#">167TA1561</a>
	24	30	720	Can be found in EP forklift, Linde and Clark		<a href="#">166TA9473</a>
	48	20	960	Can be found in EP forklift, Linde and Still		<a href="#">167TA1428</a>
	48	30	1140	Can be found in EP forklift, Linde and Still		<a href="#">167TA1427</a>

# BATTERIES

## LITHIUM BATTERIES

### LITHIUM PACKS

	Voltage V	Capacity Ah	Energy Wh	Used in machine	Remark	REF
	24	20	480	Can be found in EP forklift		<a href="#">168TA7486</a>
	24	20	480	Can be found in EP forklift		<a href="#">167TA9900</a>
	24	40	960	Can be found in EP forklift		<a href="#">168TA7487</a>
	48	10	480	Can be found in EP forklift, Hyster and Yale		<a href="#">168TA7488</a>
	48	20	960	Can be found in Xilin, Ameise, Jungheinrich and Mitsubishi		<a href="#">168TA7489</a>
	48	20	960	Can be found in Hangcha and AP		<a href="#">168TA7380</a>
	24	30	720	Can be found in Heli		<a href="#">168TA7490</a>

### NICKEL CADMIUM CITI ONE BATTERIES



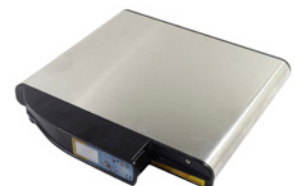
- Voltage: 36 V
- Capacity: 5 Ah
- Can be found in: Still and Linde
- Refit possible if BMS works: yes

REF [167TA9994](#)



- Voltage: 36 V
- Capacity: 9 Ah
- Can be found in: Still and Linde
- Refit possible if BMS works: yes

REF [167TA9995](#)



- Voltage: 36 V
- Capacity: 15 Ah
- Can be found in: Still and Linde
- Refit possible if BMS works: yes

REF [167TA9996](#)

# BATTERIES

## STARTER BATTERIES



### TRUST IN VARTA®

Wherever your journey may take you, VARTA® batteries provide all the power to take you there. Whether you own a vehicle with start/stop functionality, or you drive a highly equipped vehicle with high energy demands, VARTA® batteries offer the power you need. Today, you'll find our products in millions of cars, forklifts, tractors, MEWP's, construction equipments. Varta engineers put expertise and precision into each and every VARTA® battery. VARTA® batteries provide longer life, less corrosion and lower cost of ownership, qualities you'll find in all our products from our advanced start/stop automotive range to our professional powerboat products. When you choose VARTA®, you go for reliable precision technology that delivers best-in-class manufacturing quality.

#### Innovation with a purpose:

VARTA® batteries are the driving force behind fuel-saving innovations like start/stop engines. Manufactured with up to 20% fewer emissions, they'll reliably restart your vehicle's engine again and again, and effectively reduce your fuel consumption.

#### A powerful history:

The VARTA® brand has a history going back more than 130 years. VARTA® batteries are factory-fitted by major carmakers and trusted by drivers globally.

#### BACKED BY THE GLOBAL MARKET LEADER: CLARIOS

VARTA® automotive batteries are powered by Clarios, formerly Johnson Controls Power Solutions, a world leader in advanced energy storage solutions. We partner to meet increasing market demand for smarter applications, on a global scale. Varta's 16 000 employees develop, manufacture, and distribute a portfolio of evolving battery technologies for virtually every type of vehicle. Technologies that deliver uniquely sustainable, next-generation performance, and bring reliability, safety, and comfort to everyday lives. We add value at every link in the supply chain, contributing to the progress of the communities we serve and the planet we all share.

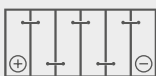
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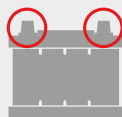
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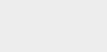
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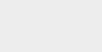
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3



Y4



#### BASE HOLD DOWN



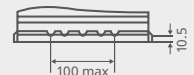
B00



B01



B13



# BATTERIES

## STARTER BATTERIES

### VARTA® SILVER DYNAMIC AGM



#### THE BENCHMARK FOR START/STOP AND ELECTRIC VEHICLES

The VARTA® Silver Dynamic AGM stands for unparalleled performance: with 3 times the cycle life of conventional batteries, the VARTA Silver Dynamic AGM is the perfect choice for vehicles with the highest energy demands, as start/stop or electric vehicles. This can be due to heavier usage, cold winters, hot summers or multiple accessories and equipment

- Unparalleled performance for start/stop and electric vehicles
- Best start/stop performance for maximum fuel economy – as the start/stop-system can be operated as often as possible.
- 90% recycled – 90% of a newly produced VARTA AGM battery consists of recycled lead.
- Original spare parts ensure the replacement battery has the same quality as the original one.
- 3 times cycle life compared to conventional batteries and therefore, a reliable power source for the large demands of highly equipped vehicles.

Keep in mind: an AGM battery must always be replaced with an AGM. VARTA batteries should be installed only by a professional workshop.

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm		kg				
<b>EN type</b>												
550901054	A9	50	540	207	175	190	H4/L1	15	0	1	B13	<a href="#">168TA7615</a>
560901068	A8	60	680	242	175	190	H5/L2	17.7	0	1	B13	<a href="#">167TA9371</a>
570901076	A7	70	760	278	175	190	H6/L3	20.4	0	1	B13	<a href="#">167TA9372</a>
580901080	A6	80	800	315	175	190	H7/L4	22.5	0	1	B13	<a href="#">167TA9373</a>
595901085	A5	95	850	353	175	190	H8/L5	26.4	0	1	B13	<a href="#">167TA9374</a>
605901095	A4	105	950	394	175	190	H9/L6	29.2	0	1	B13	<a href="#">167TA9375</a>

### VARTA® BLUE DYNAMIC EFB



#### FOR SUPERIOR POWER NEEDS

Entry-level start/stop systems are usually equipped with an EFB (enhanced flooded battery). The VARTA Blue Dynamic EFB fits vehicles with higher than normal energy demands. So, if you're looking for a battery with extended cycle life compared to a conventional VARTA battery, the VARTA Blue Dynamic EFB is the right choice.

#### Made for entry-level start/stop systems:

- 2 times the cycle life compared to conventional VARTA batteries
- Made for vehicles with higher than normal energy demands
- Available in 5 models of varying capacity, CCA and size
- Recyclable and produced in an energy-saving way

Keep in mind: Some entry-level start/stop vehicles come with an EFB. EFB batteries should always be replaced with like-for-like OE spare parts such as the Blue Dynamic EFB. To improve performance, EFB batteries can also be replaced with a VARTA Silver Dynamic AGM battery.

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm		kg				
<b>EN type</b>												
550500055	N50	50	540	207	175	190	H4/L1	14.2	0	1	B13	<a href="#">168TA7699</a>
560500064	N60	60	640	242	175	190	H5/L2	16.5	0	1	B13	<a href="#">167TA9376</a>
565500065	D54	65	650	278	175	175	T6/LB3	19.9	0	1	B13	<a href="#">167TA9377</a>
570500076	N70	70	760	278	175	190	H6/L3	21.3	0	1	B13	<a href="#">167TA9378</a>
575500073	E46	75	730	315	175	175	T7/LB4	18.4	0	1	B13	<a href="#">167TA9379</a>
580500080	N80	80	800	315	175	190	H7/L4	20.7	0	1	B13	<a href="#">167TA9380</a>
595500085	N95	95	850	353	175	190	H8/L5	24.5	0	1	B13	<a href="#">167TA9381</a>
<b>JIS type</b>												
565501065	N65	65	650	232	173	225	D23	16.9	0	1	B00	<a href="#">167TA9382</a>
572501076	N72	72	760	261	175	220	D26	19.5	0	1	B01	<a href="#">167TA9383</a>
585501080	N85	85	800	306	173	225	D31	21.8	0	1	B01	<a href="#">167TA9384</a>

## VARTA® SILVER DYNAMIC AUXILIARY



VARTA Auxiliary batteries provide electrical components with seamless functionality. Modern vehicle's consume a significant amount of electricity. Therefore, these vehicles with a combustion engine often come with two batteries: a regular 12 volt starter battery and an auxiliary battery. Thus, when it comes to replacing a weak or defective auxiliary battery, it is vital to rely on a high performing substitution. Furthermore, it is important to always replace an AGM auxiliary battery with another AGM auxiliary battery to avoid the risk of malfunctions and car breakdown.

### Made for a dual battery system:

- Increase the length of the start/stop moment
- Support comfort functions during engine start
- Support the electrical system (brake-by-wire)
- Protect the electrical system
- Serve as emergency support

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm	kg					
<b>AGM</b>												
509106013	AUX9	9	130	151	87	106	YTX9	2.9	1	Y4	B00	<a href="#">168TA1153</a>
513106020	AUX14	13	200	150	87	146	YTX14	4.6	1	Y4	B00	<a href="#">168TA1154</a>
<b>SLI</b>												
535106052	AUX1	35	520	212	175	140	POB4	10.8	0	1	B13	<a href="#">168TA1155</a>

## VARTA® SILVER DYNAMIC



### BEST IN CLASS PERFORMANCE FOR HIGHEST POWER NEEDS

You've got a highly equipped vehicle? The VARTA Silver Dynamic is the perfect choice for non-start/stop technology with the highest power needs. It offers supreme starting power that will meet the toughest energy demands without compromise.

- For extra power and premium performance
- The premium battery for vehicles with non-start/stop technology
- Up to 15% higher starting power than Blue
- Available in 11 models of varying capacity, CCA and size
- Recyclable and produced in an energy-saving way

Keep in mind: compared to our VARTA Blue Dynamic the VARTA Silver Dynamic offers 15% higher starting power.

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm	kg					
<b>EN types</b>												
552401052	C6	52	520	207	175	175	T4/LB1	12.5	0	1	B13	<a href="#">167TA8698</a>
554400053	C30	54	530	207	175	190	H4/L1	13.1	0	1	B13	<a href="#">168TA1170</a>
561400060	D21	61	600	242	175	175	T5/LB2	14.6	0	1	B13	<a href="#">168TA1171</a>
563400061	D15	63	610	242	175	190	H5/L2	15.3	0	1	B13	<a href="#">168TA1156</a>
563401061	D39	63	610	242	175	190	H5R/L2R	15.3	1	1	B13	<a href="#">168TA1157</a>
574402075	E38	74	750	278	175	175	T6/LB3	17.4	0	1	B13	<a href="#">167TA8699</a>
577400078	E64	77	780	278	175	190	H6/L3	18.3	0	1	B13	<a href="#">167TA8700</a>
585200080	F18	85	800	315	175	175	T7/LB4	19.6	0	1	B13	<a href="#">167TA8701</a>
585400080	F19	85	800	315	175	190	H7/L4	19.8	0	1	B13	<a href="#">168TA1158</a>
600402083	H3	100	830	353	175	190	H8/L5	22.6	0	1	B13	<a href="#">167TA8702</a>
610402092	I1	110	920	393	175	190	H9/L6	25.2	0	1	B13	<a href="#">167TA8703</a>

# BATTERIES

## STARTER BATTERIES

### VARTA® BLUE DYNAMIC



Entry-level start/stop systems are usually equipped with an EFB (enhanced flooded battery). The VARTA® Blue Dynamic EFB fits vehicles with higher than normal energy demands. So, if you're looking for a battery with extended cycle life compared to a conventional VARTA battery, the VARTA Blue Dynamic EFB is the right choice.

#### Made for Entry-Level Start/stop Systems:

- 2 times the cycle life compared to conventional VARTA batteries
- Made for vehicles with higher than normal energy demands
- Available in 9 models of varying capacity, CCA and size
- Recyclable and produced in an energy-saving way

Keep in mind: Some entry-level start/stop vehicles come with an EFB. EFB batteries should always be replaced with like-for-like OE spare parts such as the Blue Dynamic EFB. To improve performance, EFB batteries can also be replaced with a VARTA Silver Dynamic AGM battery.

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm				kg		
<b>EN types</b>												
544401042	B36	44	420	175	175	190	H3/L0	10.5	0	1	B13	<a href="#">168TA1159</a>
544402044	B18	44	440	207	175	175	T4/LB1	11.5	0	1	B13	<a href="#">167TA8704</a>
552400047	C22	52	470	207	175	190	H4/L1	12.7	0	1	B13	<a href="#">167TA8705</a>
560409054	D59	60	540	242	175	175	T5/LB2	14.6	0	1	B13	<a href="#">167TA8706</a>
560408054	D24	60	540	242	175	190	H5/L2	14.6	0	1	B13	<a href="#">167TA8707</a>
560127054	D43	60	540	242	175	190	H5R/L2R	14.6	1	1	B13	<a href="#">168TA1160</a>
572409068	E43	72	680	278	175	175	T6/LB3	16.6	0	1	B13	<a href="#">167TA8708</a>
574012068	E11	74	680	278	175	190	H6/L3	17.3	0	1	B13	<a href="#">167TA8709</a>
574013068	E12	74	680	278	175	190	H6/L3R	17.3	1	1	B13	<a href="#">167TA8710</a>
580406074	F17	80	740	315	175	175	T7/LB4	18.8	0	1	B13	<a href="#">167TA8711</a>
580400074	F16	80	740	315	175	190	H7/L4	19.1	0	1	B13	<a href="#">168TA1161</a>
595402080	G3	95	800	353	175	190	H8/L5	21.9	0	1	B13	<a href="#">167TA8712</a>
<b>JIS types</b>												
540125033	A13	40	330	187	127	227	B19H	10.2	0	3	B01	<a href="#">168TA1162</a>
540126033	A14	40	330	187	127	227	B19L	10.2	0	3	B00	<a href="#">167TA8713</a>
540127033	A15	40	330	187	127	227	B19R	10.2	1	3	B00	<a href="#">167TA8714</a>
545155033	B31	45	330	238	129	227	B24L	11.7	0	3	B00	<a href="#">168TA1164</a>
545156033	B32	45	330	238	129	227	B24R	11.7	0	1	B00	<a href="#">167TA8716</a>
545157033	B33	45	330	238	129	227	B24S	11.7	1	3	B00	<a href="#">167TA8717</a>
545158033	B34	45	330	238	129	227	B24RS	11.7	1	1	B00	<a href="#">167TA8718</a>
560410054	D47	60	540	232	173	225	D23L	15.8	0	1	B00	<a href="#">167TA8715</a>
560411054	D48	60	540	232	173	225	D23R	15.8	1	1	B00	<a href="#">168TA1163</a>
570412063	E23	70	630	261	175	220	D26L	16.9	0	1	B01	<a href="#">167TA8719</a>
570413063	E24	70	630	261	175	220	D26R	16.9	1	1	B01	<a href="#">167TA8720</a>
595404083	G7	95	830	306	173	225	D31L	21.7	0	1	B01	<a href="#">167TA8721</a>
595405083	G8	95	830	306	173	225	D31R	21.7	1	1	B01	<a href="#">167TA8722</a>



## VARTA® BLACK DYNAMIC



For cars with lower power needs that are built before 2000, we recommend the VARTA® Black Dynamic – a trustworthy and maintenance-free choice that offers good value for money. Of course, you can rely on our latest technology and long-term performance as usual. So, choose the VARTA Black Dynamic and see for yourself.

Powered by Clarios, VARTA® Blue Dynamic batteries are factory-fitted by major carmakers and trusted by drivers globally. VARTA® Blue Dynamic batteries provide longer life, less corrosion and lower cost of ownership. Take your vehicle to a workshop which works with VARTA® in order to experience excellent replacement service.

Keep in mind: to ensure the function of safety systems and comfort features, an AGM battery must always be replaced with an AGM. VARTA batteries should be installed only by a professional workshop.

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm	kg					
<b>EN types</b>												
066017036	D42	66	360	178	175	188	-	9.5	0	1	B00	<a href="#">168TA7616</a>
077015036	E30	77	360	216	170	191	-	11.5	0	1	B06	<a href="#">168TA7617</a>
540406034	A16	40	340	175	175	190	H3/L0	9.9	0	1	B13	<a href="#">168TA1165</a>
541400036	A17	41	360	207	175	175	T4/LB1	10.9	0	1	B13	<a href="#">167TA8723</a>
545412040	B19	45	400	207	175	190	H4/L1	11.7	0	1	B13	<a href="#">168TA1166</a>
545413040	B20	45	400	207	175	190	H4R/L1R	11.7	1	1	B13	<a href="#">167TA8724</a>
553401050	C11	53	500	242	175	175	T5/LB2	13.3	0	1	B13	<a href="#">168TA1167</a>
556400048	C14	56	480	242	175	190	H5/L2	13.9	0	1	B13	<a href="#">168TA1168</a>
556401048	C15	56	480	242	175	190	H5R/L2R	13.9	1	1	B13	<a href="#">167TA8725</a>
570144064	E9	70	640	278	175	175	T6/LB3	16.4	0	1	B13	<a href="#">167TA8726</a>
570409064	E13	70	640	278	175	190	H6/L3	16.9	0	1	B13	<a href="#">168TA1169</a>
588403074	F5	88	740	353	175	175	T8/LB5	20.6	0	1	B13	<a href="#">167TA8727</a>
590122072	F6	90	720	353	175	190	H8/L5	21.1	0	1	B13	<a href="#">167TA8728</a>
<b>JIS types</b>												
545077030	B23	45	300	219	135	225	E2	10.8	0	1	B01	<a href="#">168TA1172</a>
545079030	B24	45	300	219	135	225	E2R	10.8	1	1	B01	<a href="#">168TA1173</a>

# BATTERIES

## STARTER BATTERIES



### QUICK FINDER LIST

Short code	Ah (20h)	CCA (EN)	Case size	REF
<b>A</b>				
<b>VARTA® Silver Dynamic AGM</b>				
D52	60	680	H5/L2	<a href="#">167TA9371</a>
E39	70	760	H6/L3	<a href="#">167TA9372</a>
F21	80	800	H7/L4	<a href="#">167TA9373</a>
G14	95	850	H8/L5	<a href="#">167TA9374</a>
H15	105	950	H9/L6	<a href="#">167TA9375</a>
<b>VARTA® Blue Dynamic EFB</b>				
N60	60	640	H5/L2	<a href="#">167TA9376</a>
D54	65	650	T6/LB3	<a href="#">167TA9377</a>
N70	70	760	H6/L3	<a href="#">167TA9378</a>
E46	75	730	T7/LB4	<a href="#">167TA9379</a>
N80	80	800	H7/L4	<a href="#">167TA9380</a>
N95	95	850	H8/L5	<a href="#">167TA9381</a>
N65	65	650	D23	<a href="#">167TA9382</a>
N72	72	760	D26	<a href="#">167TA9383</a>
N85	85	800	D3	<a href="#">167TA9384</a>
<b>VARTA® Silver Dynamic EFB</b>				
AUX9	9	130	YTX9	<a href="#">168TA1153</a>
AUX14	13	200	YTX14	<a href="#">168TA1154</a>
AUX1	35	520	POB4	<a href="#">168TA1155</a>
<b>VARTA® Silver Dynamic</b>				
C6	52	520	T4/LB1	<a href="#">167TA8698</a>
C30	54	530	H4/L1	<a href="#">168TA1170</a>
D21	61	600	T5/LB2	<a href="#">168TA1171</a>
D15	63	610	H5/L2	<a href="#">168TA1156</a>
D39	63	610	H5R/L2R	<a href="#">168TA1157</a>
E38	74	750	T6/LB3	<a href="#">167TA8699</a>
E44	77	780	H6/L3	<a href="#">167TA8700</a>
F18	85	800	T7/LB4	<a href="#">167TA8701</a>
F19	85	800	H7/L4	<a href="#">168TA1158</a>
H3	100	830	H8/L5	<a href="#">167TA8702</a>
I1	110	920	H9/L6	<a href="#">167TA8703</a>
<b>VARTA® Blue Dynamic</b>				
B36	44	420	H3/L0	<a href="#">168TA1159</a>
B18	44	440	T4/LB1	<a href="#">167TA8704</a>
C22	52	470	H4/L1	<a href="#">167TA8705</a>

Short code	Ah (20h)	CCA (EN)	Case size	REF
<b>A</b>				
D59	60	540	T5/LB2	<a href="#">167TA8706</a>
D24	60	540	H5/L2	<a href="#">167TA8707</a>
D43	60	540	H5R/L2R	<a href="#">168TA1160</a>
E43	72	680	T6/LB3	<a href="#">167TA8708</a>
E11	74	680	H6/L3	<a href="#">167TA8709</a>
E12	74	680	H6/L3	<a href="#">167TA8710</a>
F17	80	740	T7/LB4	<a href="#">167TA8711</a>
F16	80	740	H7/L4	<a href="#">168TA1161</a>
G3	95	800	H8/L5	<a href="#">167TA8712</a>
A13	40	330	B19H	<a href="#">168TA1159</a>
A14	40	330	B19	<a href="#">167TA8704</a>
A15	40	330	B19R	<a href="#">167TA8705</a>
D47	60	540	D23R	<a href="#">167TA8706</a>
D48	60	540	D23R	<a href="#">167TA8707</a>
B31	45	330	B24	<a href="#">168TA1160</a>
B32	45	330	B24R	<a href="#">167TA8708</a>
B33	45	330	B24S	<a href="#">167TA8709</a>
B34	45	330	B24RS	<a href="#">167TA8710</a>
E23	70	630	D26	<a href="#">167TA8711</a>
E24	70	630	D26R	<a href="#">168TA1161</a>
G7	95	830	D31	<a href="#">167TA8712</a>
G8	95	830	D31R	<a href="#">167TA8722</a>
<b>VARTA® Black Dynamic</b>				
A16	40	340	H3/L0	<a href="#">168TA1165</a>
A17	41	360	T4/LB1	<a href="#">167TA8723</a>
B19	45	400	H4/L1	<a href="#">168TA1166</a>
B20	45	400	H4R/1LR	<a href="#">167TA8724</a>
C11	53	500	T5/LB2	<a href="#">168TA1167</a>
C14	56	480	H5/L2	<a href="#">168TA1168</a>
C15	56	480	H5R/L2R	<a href="#">167TA8725</a>
E9	70	640	T6/LB3	<a href="#">167TA8726</a>
E13	70	640	H6/L3	<a href="#">168TA1169</a>
F5	88	740	T8/L5	<a href="#">167TA8727</a>
F6	90	70	H8/L5	<a href="#">167TA8728</a>
B23	45	300	E2	<a href="#">168TA1172</a>
B24	45	300	E2R	<a href="#">168TA1173</a>

## VARTA® DUAL PURPOSE



Lower-spec boats and motorhomes still need the right product to perform at their best. That's why we've developed VARTA® Professional Dual Purpose batteries. Long-lasting and maintenance-free, they're ideal for seasonal use.

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	Pallet quantity	REF
			A	mm	mm	mm		kg					
<b>EN types</b>													
930 060 064	LED60	60	640	242	175	190	LN2	16.84	0	1	B13	63	<a href="#">168TA7683</a>
930 070 076	LED70	70	760	277	175	190	LN3	19.45	0	1	B13	48	<a href="#">168TA7684</a>
812 071 000	LFS75	75	600	272	175	225	EG4	18.10	1	1	B01	48	<a href="#">168TA7685</a>
930 080 080	LED80	80	800	314	175	190	LN4	21.59	0	1	B13	42	<a href="#">168TA7686</a>
930 095 085	LED95	95	850	352	175	190	LN5	24.39	0	1	B13	36	<a href="#">168TA7687</a>
820 055 080	LFS105M	105	800	330	172	238	Grp 31	23.14	9	8	B01	36	<a href="#">168TA7688</a>
820 054 080	LFS105N	105	800	330	172	238	Grp 31	23.14	9	1	B01	36	<a href="#">168TA7689</a>
930 140 080	LFD140	140	800	513	189	223	A	35.76	3	1	B00	24	<a href="#">168TA7690</a>
930 190 105	LED190	190	1050	513	223	223	B	46.99	3	1	B00	21	<a href="#">168TA7691</a>
930 240 120	LED240	240	1200	518	276	242	C	56.75	3	1	B00	12	<a href="#">168TA7692</a>

## VARTA® DUAL PURPOSE AGM



For leisure applications with moderate energy demands, VARTA® Professional Dual Purpose AGM batteries can be used to start the engine of your motorhome and deliver service power for accessories and electronics. These batteries are ideal for seasonal use, so when you take your boat or caravan out of winter storage, it's ready to go.

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	Pallet quantity	REF
			A	mm	mm	mm		kg					
<b>EN types</b>													
840 060 068	LA60	60	680	242	175	190	H5/L2	17.50	0	1	B13	57	<a href="#">168TA7693</a>
840 070 076	LA70	70	760	278	175	190	H6/L3	20.40	0	1	B13	48	<a href="#">168TA7694</a>
840 080 080	LA80	80	800	315	175	190	H7/L4	22.76	0	1	B13	36	<a href="#">168TA7695</a>
840 105 095	LA105	105	950	394	175	190	H9	29.40	0	1	B13	36	<a href="#">168TA7696</a>
840 210 120	LA210	210	1200	518	276	242	C	61.30	3	1	B00	12	<a href="#">168TA7697</a>
840 095 085	LA95	95	850	353	175	190	H8/L5	26.40	0	1	B13	36	<a href="#">168TA7698</a>

# BATTERIES

## STARTER BATTERIES



### VARTA PROMOTIVE

The VARTA® ProMotive range delivers reliable power that can handle a high amount of electrical consumers and vibration while minimizing downtime. The perfect choice for TCO savings.

- Optimum starting power
- Reliable power for ever increasing number of electrical consumers
- Excellent vibration resistance for construction and plant use

### VARTA® PROMOTIVE AGM



#### UNLOCK YOUR TRUCK'S FULL POTENTIAL

Thanks to the efficient AGM technology, the truck battery ProMotive AGM provides heavy commercial vehicles with a high degree of reliability to numerous electronic consumers. It is the only battery for unlocking the highest demanding applications and power-consuming functions including the parking cooler/heater without the battery wearing out and causing downtime. It has been developed in collaboration with the leading commercial vehicle manufacturers to support innovations that will be standard equipment for commercial vehicles in the future.

#### Hoteling on wheels:

- 6 times the cycle life compared to conventional batteries
- Highest vibration resistance
- Fulfils all of the requirements of governmental regulations on higher emission standards
- Suitable for end of frame installation (EURO 5/6)

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm		kg				
710901120	A1	210	1200	518	276	242	C	61	3	1	B00	<a href="#">167TA9385</a>

## VARTA® PROMOTIVE EFB



### TRUSTED BY DRIVERS ALL OVER THE WORLD

The unique VARTA® ProMotive EFB is a powerful battery for commercial vehicles with high energy requirements. Its performance, combined with a high vibration resistance, ensures absolute reliability and a longer service life. This truck battery was developed to meet the increasing demands of extensive hotel functions.

#### The right choice for TCO savings:

- 3 times the cycle life compared to conventional batteries
- For hotel functions
- Highest vibration resistance
- Fulfills all of the requirements of governmental regulations on higher emission standards
- Suitable for end of frame installation (EURO 5/6)

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm	kg					
690500105	B90	190	1050	513	223	223	B	47.2	3	1	B00	<a href="#">167TA9386</a>
740500120	C40	240	1200	518	276	242	C	59.7	3	1	B00	<a href="#">167TA9387</a>

## VARTA® PROMOTIVE SUPER HEAVY-DUTY



### RELIABLE PERFORMANCE FOR MEDIUM POWER NEEDS

The VARTA® ProMotive Super Heavy-duty is designed for commercial vehicles, like delivery vehicles, with reliable starting power requirements. It is OE quality and helps your fleet do its job reliably.

#### For continuous starting power:

- Ideal vibration resistance for urban distribution applications
- Fulfills all requirements of the state emission regulations
- Cranking and standard electric demands
- Perfect solution for delivery vehicles in city traffic

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm	kg					
640400080	K8	140	800	513	189	223	A	35.7	3	1	B03	<a href="#">167TA9388</a>
645400080	K7	145	800	513	189	223	A	37.1	3	1	B00	<a href="#">167TA9389</a>
670104100	M9	170	1000	513	223	223	B	44.2	3	1	B03	<a href="#">167TA8729</a>
680108100	M18	180	1000	513	223	223	B	44.1	3	1	B00	<a href="#">167TA8730</a>
725103115	N9	225	1150	518	276	242	C	57.5	3	1	B00	<a href="#">167TA8731</a>

# BATTERIES

## STARTER BATTERIES

### VARTA® PROMOTIVE HEAVY-DUTY



#### MINIMIZE YOUR DOWNTIME

The VARTA® ProMotive Heavy-duty is designed for commercial and agricultural vehicles with reliable starting power requirements. It is OE quality and helps your fleet do its job reliably while minimizing downtime.

#### For reliable starting power:

- Ideal vibration resistance for agricultural and construction vehicles
- Continuous multi start
- Cranking and standard electric demands
- The perfect choice for TCO savings

Model	Short code	Ah (20h)	CCA (EN)	Length	Width	Height	Case size	Weight	Lay-out	Terminal types	Base hold down	REF
			A	mm	mm	mm		kg				
070011030	E29	70	300	175	167	220	M1	9.35	0	1	B00	<a href="#">168TA1174*</a>
112025051	I11	112	510	260	175	236	M4	16.5	0	1	B01	<a href="#">168TA1175*</a>
140023072	K13	140	720	260	175	236	M4	19.5	0	1	B01	<a href="#">168TA1176*</a>
545200030	B39	45	300	207	175	175	T4	10.7	0	1	B13	<a href="#">167TA8732</a>
555064042	C20	55	420	242	175	190	H5	13.4	0	1	B13	<a href="#">168TA1179</a>
566047051	D33	66	510	278	175	190	H6	15.8	0	1	B13	<a href="#">168TA1180</a>
588038068	F10	88	680	353	175	190	H8	20.3	0	1	B13	<a href="#">168TA1181</a>
590040054	G1	90	540	345	175	234	LOT7	25.2	0	1	B00	<a href="#">168TA1182</a>
590041054	G2	90	540	345	175	234	LOT7	25.2	1	1	B00	<a href="#">168TA1183</a>
600035060	H4	100	600	413	175	220	D	27.4	1	1	B00	<a href="#">168TA1184</a>
600047060	H5	100	600	413	175	220	D	26.7	0	1	B00	<a href="#">167TA8733</a>
600123072	H9	100	720	313	175	205	GB28	22.3	0	1	B13	<a href="#">168TA1185</a>
605102080	H17	105	800	330	172	238	GR31	23.7	9	1	B01	<a href="#">168TA1186</a>
605103080	H16	105	800	330	172	238	GR31	23.7	9	8	B01	<a href="#">168TA1187</a>
610013076	I2	110	760	514	175	210	MAC110	32.3	3	1	B03	<a href="#">167TA8734</a>
610048068	I5	110	680	345	175	236	LOT7	28.5	1	1	B00	<a href="#">167TA8735</a>
610050085	I6	110	850	413	175	220	D	29.6	0	1	B03	<a href="#">168TA1188</a>
610404068	I18	110	680	349	175	236	LOT7	28.5	0	1	B01	<a href="#">168TA1189</a>
620045068	I8	120	680	513	189	215	A	33.6	3	1	B00	<a href="#">167TA8736</a>
620109076	I16	120	760	510	175	235	MAC120	35.12	4	1	B03	<a href="#">167TA8737</a>
625012072	J1	125	720	349	175	290	WOR7	31.2	0	1	B00	<a href="#">167TA8738</a>
625014072	J2	125	720	349	175	290	WOR7	31.2	1	1	B00	<a href="#">167TA8739</a>
625023000	J3	125	950	286	269	230	NAT0	36.8	2	1	B00	<a href="#">168TA1191</a>
630014068	J5	130	680	514	218	208	MAC130	37.8	3	1	B00	<a href="#">167TA8740</a>
635052100	J10	135	1000	514	175	210	MAC110	35.4	3	1	B03	<a href="#">167TA8742</a>
643033095	K4	143	950	514	218	210	MAC140	39.8	3	1	B03	<a href="#">168TA1192</a>
643107090	K11	143	900	508	174	205	MAC132	36.5	0	1	B01	<a href="#">168TA1193</a>
645011115	M11	154	1150	513	189	223	A	39.8	3	1	B00	<a href="#">168TA1200</a>
655013090	L2	155	900	513	223	223	B	40.9	3	1	B00	<a href="#">167TA8743</a>
670043100	M6	170	1000	513	223	223	B	43.9	3	1	B00	<a href="#">168TA1195</a>
680011140	M12	180	1400	513	223	223	B	46.4	3	1	B00	<a href="#">167TA8744</a>
680033110	M7	180	1100	513	223	223	B	44.9	4	1	B03	<a href="#">168TA1196</a>
690033120	M10	190	1200	513	223	223	B	44.9	4	1	B03	<a href="#">168TA1197</a>
690034120	L3	190	1200	513	223	215	B	45.7	3	1	B03	<a href="#">168TA1198</a>
700038105	N2	200	1050	518	276	242	C	53.6	3	1	B00	<a href="#">167TA8745</a>
720018115	N5	220	1150	518	276	242	C	56.7	3	1	B00	<a href="#">168TA1199</a>

\* 6 Volt

## QUICK FINDER LIST



Short code	Ah (20h)	CCA (EN)	Case size	REF
<b>A</b>				
<b>VARTA® ProMotive AGM</b>				
A1	210	1200	C	<a href="#">167TA9385</a>
<b>VARTA® ProMotive EFB</b>				
B90	190	1050	B	<a href="#">167TA9386</a>
C40	240	1200	C	<a href="#">167TA9387</a>
<b>VARTA® ProMotive Super Heavy-Duty</b>				
K8	140	800	A	<a href="#">167TA9388</a>
K7	145	800	A	<a href="#">167TA9389</a>
M9	170	1000	B	<a href="#">167TA8729</a>
M18	180	1000	B	<a href="#">167TA8730</a>
N9	225	1150	C	<a href="#">167TA8731</a>
<b>VARTA® ProMotive Heavy-Duty</b>				
E29	70	300	M1	<a href="#">168TA1174*</a>
I11	112	510	M4	<a href="#">168TA1175*</a>
K13	140	720	M4	<a href="#">168TA1176*</a>
L14	150	760	M5	<a href="#">168TA1177*</a>
N12	200	950	M6	<a href="#">168TA1178*</a>
B39	45	300	T4	<a href="#">167TA8732</a>
C20	55	420	H5	<a href="#">168TA1179</a>
D33	66	510	H6	<a href="#">168TA1180</a>
F10	88	680	H8	<a href="#">168TA1181</a>
G1	90	540	LOT7	<a href="#">168TA1182</a>
G2	90	540	LOT7	<a href="#">168TA1183</a>
H4	100	600	D	<a href="#">168TA1184</a>
H5	100	600	D	<a href="#">167TA8733</a>
H9	100	720	GB28	<a href="#">168TA1185</a>
H17	105	800	GR31	<a href="#">168TA1186</a>

Short code	Ah (20h)	CCA (EN)	Case size	REF
<b>A</b>				
H16	105	800	GR31	<a href="#">168TA1187</a>
I2	110	760	MAC110	<a href="#">167TA8734</a>
I5	110	680	LOT7	<a href="#">167TA8735</a>
I6	110	850	D	<a href="#">168TA1188</a>
I18	110	680	LOT7	<a href="#">168TA1189</a>
I9	120	780	LOT7	<a href="#">168TA1190</a>
I8	120	680	A	<a href="#">167TA8736</a>
I16	120	760	MAC120	<a href="#">167TA8737</a>
J1	125	720	WOR7	<a href="#">167TA8738</a>
J2	125	720	WOR7	<a href="#">167TA8739</a>
J3	125	950	NAT0	<a href="#">168TA1191</a>
J5	130	680	MAC130	<a href="#">167TA8740</a>
J8	135	680	12C135	<a href="#">167TA8741</a>
J10	135	1000	MAC110	<a href="#">167TA8742</a>
K4	143	950	MAC140	<a href="#">168TA1192</a>
K11	143	900	MAC132	<a href="#">168TA1193</a>
M11	154	1150	A	<a href="#">168TA1200</a>
L2	155	900	B	<a href="#">167TA8743</a>
L5	155	900	MAC154	<a href="#">168TA1194</a>
M6	170	1000	B	<a href="#">168TA1195</a>
M12	180	1400	B	<a href="#">167TA8744</a>
M7	180	1100	B	<a href="#">168TA1196</a>
M10	190	1200	B	<a href="#">168TA1197</a>
L3	190	1200	B	<a href="#">168TA1198</a>
N2	200	1050	C	<a href="#">167TA8745</a>
N5	220	1150	C	<a href="#">168TA1199</a>

\* 6 Volt

# BATTERIES

## STARTER BATTERIES



### XTREME EXCELLENT

#### Properties:

- Premium range
- VRLA battery
- CaCa technology
- +15% of starting capacity
- Maintenance free
- Leak-proof

#### Applications:

- Trucks
- Cars and vans
- Marine

#### STARTER BATTERIES FOR CARS AND VANS

The Xtreme Excellent is a private label range of high quality starter batteries at attractive prices for cars, vans and trucks

- VRLA battery
- CaCa technology
- +15% of starting capacity
- Maintenance-free
- Leak-proof

#### E-SERIES

6 types covering 85% of all European Battery Types. Perfect as a reliable and powerful source of energy

- Magic Eye
- CaCa technology
- +30% of starting capacity!
- Minimal water consumption
- Environmentally friendly materials
- 100% maintenance-free
- Leak-proof

#### EXCELLENT STARTER BATTERIES FOR TRUCKS

- Sealed maintenance-free
- Sealed maintenance-free SMF
- Designed for extreme power demands
- Higher operational availability and safety
- Extended service life
- Suitable for commercial vehicles, buses and trucks with latest electrical equipment

#### EXCELLENT AGM START/STOP STARTER BATTERIES

- Designed for high power needs
- Optimal starting power and maximum capacity
- Perfect for advanced start/stop systems with regenerative braking
- Absolutely maintenance-free, leak-proof and vibration-resistant
- Flexible installation and safe operation
- Reduction in fuel consumption and CO<sup>2</sup> emissions

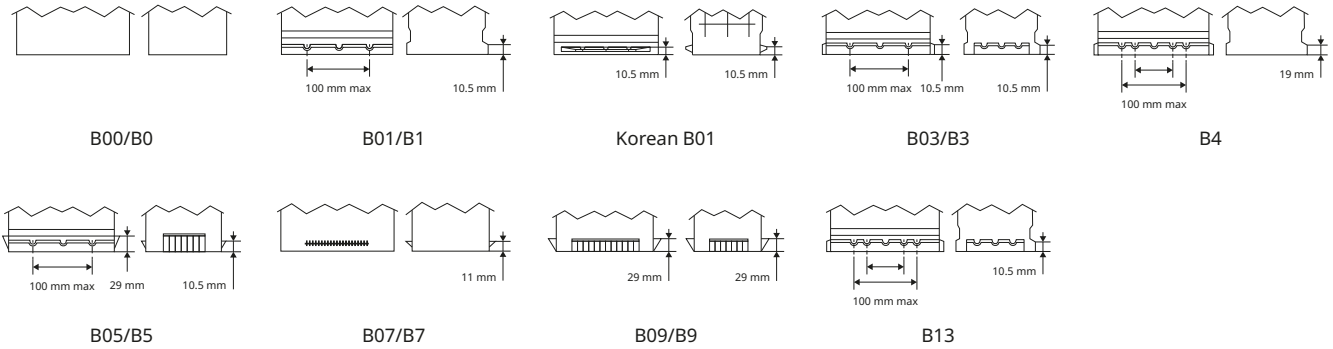
#### EXCELLENT EFB START/STOP STARTER BATTERIES

- Supports longer periods with the engine switched off
- High starting power and cyclical performance
- Perfect for standard start/stop systems
- Improved loading acceptance and vibrations resistance
- Closed maintenance-free (SMF)
- Long service life and reliability

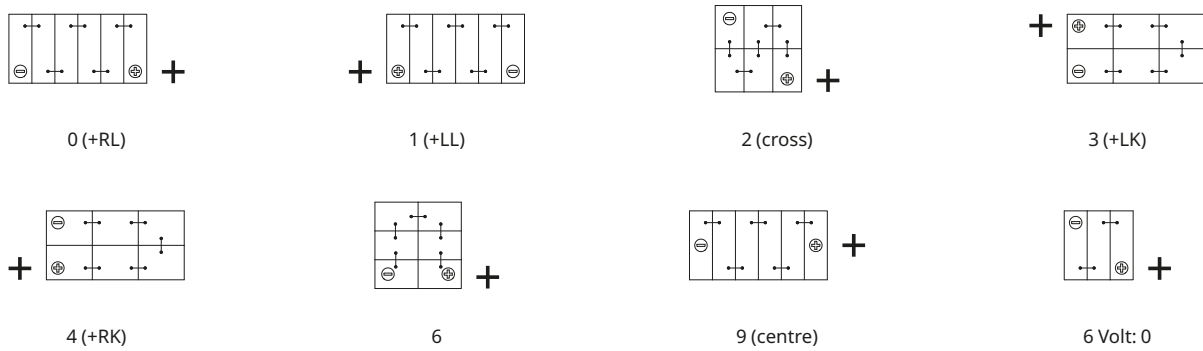


## HEAVY-DUTY STARTER BATTERIES

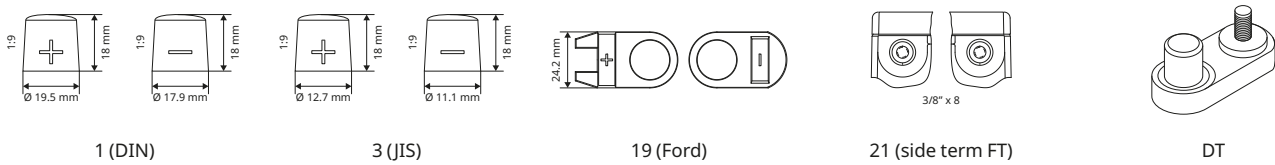
### FIXATION



### LAYOUT



### TERMINAL TYPE



# BATTERIES

## STARTER BATTERIES

### EXELLENT BATTERIES



### EXELLENT STARTER BATTERIES FOR CAR AND VAN

The Xtreme Excellent is a private label range of high-quality starter batteries for attractive prices for cars, vans, trucks ...

- VRLA battery
- CaCa technology
- More than 15% starting power
- Maintenance free
- Leak-proof

Model	Group n°	Capacity	CCA (EN)	Length	Width	Height	Weight	Layout	Fixation	Terminals	REF
		Ah	A	mm	mm	mm	kg				
<b>12 V</b>											
535.020.030SMF	B19	35	300	187	127	227	9.6	0	B00	3	<a href="#">165TA4536</a>
535.022.030SMF	B19	35	300	187	127	227	9.6	1	B00	3	<a href="#">165TA4537</a>
540.008.034SMF	L0	40	340	175	175	190	9.9	0	B13	1	<a href="#">168TA1201</a>
544.059.044SMF	LB1	44	440	207	175	175	11.3	0	B13	1	<a href="#">168TA1202</a>
545.023.033SMF	B24	45	330	238	129	227	11.7	0	B00	1	<a href="#">168TA1203</a>
545.024.033SMF	B24	45	330	238	129	227	11.7	1	B00	1	<a href="#">168TA1204</a>
545.084.033SMF	B24	45	330	238	129	227	11.7	0	B00	3	<a href="#">168TA1205</a>
545.051.033SMF	B24	45	330	238	129	227	11.7	1	B00	3	<a href="#">168TA1206</a>
545.077.030SMF	E2	45	300	219	135	225	11.3	0	B01	1	<a href="#">168TA1207</a>
545.079.030SMF	E2	45	300	219	135	225	11.3	1	B01	1	<a href="#">168TA1208</a>
552.054.047SMF	L1	52	470	207	175	190	12.4	0	B13	1	<a href="#">168TA1209</a>
553.059.047SMF	LB2	53	470	242	175	175	13.1	0	B13	1	<a href="#">168TA1210</a>
556.065.048SMF	L2	56	480	242	175	190	13.7	1	B13	1	<a href="#">168TA1211</a>
560.059.054SMF	L2	60	540	242	175	190	14.3	0	B13	1	<a href="#">168TA1212</a>
560.068.051SMF	D23	60	510	232	173	225	14.5	0	B00	1	<a href="#">168TA1213</a>
560.069.051SMF	D23	60	510	232	173	225	14.5	1	B00	1	<a href="#">168TA1214</a>
560.077.054SMF	LB2	60	540	242	175	175	14.3	0	B13	1	<a href="#">165TA4555</a>
566.019.064SMF	L2	66	640	242	175	190	15.2	0	B13	1	<a href="#">165TA4556</a>
568.024.055SMF	D26	68	550	261	175	220	17.0	1	B01	1	<a href="#">168TA1215</a>
568.029.055SMF	D26	68	550	261	175	220	17.0	0	B01	1	<a href="#">168TA1216</a>
570.026.064SMF	L3	70	640	278	175	190	16.9	1	B13	1	<a href="#">168TA1217</a>
572.013.068SMF	LB3	72	680	278	175	175	16.3	0	B13	1	<a href="#">168TA1218</a>
574.020.068SMF	L3	74	680	278	175	190	16.7	0	B13	1	<a href="#">168TA1219</a>
580.035.074SMF	LB4	80	740	315	175	175	18.3	0	B13	1	<a href="#">168TA1220</a>
580.043.074SMF	L4	80	740	315	175	190	18.7	0	B13	1	<a href="#">168TA1221</a>
583.015.072SMF	LB5	83	720	353	175	175	20.0	0	B13	1	<a href="#">168TA1222</a>
588.021.075SMF	L5	88	750	353	175	190	21.2	1	B13	1	<a href="#">165TA4567</a>
590.015.072SMF	L5	90	720	353	175	190	20.8	0	B13	1	<a href="#">168TA1223</a>
595.032.083SMF	D31	95	830	306	173	225	21.7	0	B01	1	<a href="#">168TA1224</a>
595.033.083SMF	D31	95	830	306	173	225	21.7	1	B01	1	<a href="#">168TA1225</a>
600.038.083SMF	L5	100	830	353	175	190	22.6	0	B13	1	<a href="#">168TA1226</a>

## AGM START/STOP TECHNOLOGY



### Advantages:

- Designed for high power needs
- Optimum starting power and maximum capacity
- Perfect for advanced start/stop systems with regenerative braking
- Absolutely maintenance-free, leakproof and vibration resistant
- High cyclic durability and long service life
- Flexible installation and safe operation
- Reduction of fuel consumption and CO<sub>2</sub> emissions

### AGM

Model	Group n°	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Fixation	Terminals	REF
<b>12 V</b>											
XTR/560.901.056	L2	60	640	242	175	190	18.5	0	B13	1	<a href="#">167TA9363</a>
XTR/570.901.076	L3	70	760	278	175	190	21.2	0	B13	1	<a href="#">167TA9364</a>
XTR/580.901.079	L4	80	840	310	175	190	23.6	0	B13	1	<a href="#">140TA7517</a>
XTR/590.901.085	L5	95	860	353	175	190	27.0	0	B13	1	<a href="#">167TA9365</a>
XTR/605.901.095	L6	105	950	393	174	190	29.2	0	B13	1	<a href="#">167TA9366</a>

## EFB START/STOP TECHNOLOGY



**MAGIC EYE**

### Advantages:

- Supports longer periods with the motor switched off
- High starting power and cyclic performance
- Perfect for standard start/stop systems
- Improved charge acceptance and vibration resistance
- Sealed maintenance-free (SMF)
- Long service life and reliability
- Magic Eye

### EFB

Model	Group n°	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Fixation	Terminals	REF
<b>12 V</b>											
XTR/560.002.056	L2	60	560	242	175	190	16.8	0	B13	1	<a href="#">167TA9367</a>
XTR/565.002.056L	D23	65	560	230	170	220	16.5	0	B1	1	<a href="#">168TA1231</a>
XTR/565.002.056R	D23	65	560	230	170	220	16.5	1	B1	1	<a href="#">168TA1232</a>
XTR/565.002.068	LB3	65	680	278	175	175	17.4	0	B13	1	<a href="#">168TA1233</a>
XTR/570.002.068	L3	70	680	278	175	190	19.3	0	B13	1	<a href="#">168TA1234</a>
XTR/572.002.068	D26	72	680	260	170	220	19.3	0	B1	1	<a href="#">168TA1228</a>
XTR/575.002.074	LB4	75	740	310	175	175	19.7	0	B13	1	<a href="#">168TA1235</a>
XTR/580.002.074	L4	80	740	310	175	190	22.0	0	B13	1	<a href="#">167TA9369</a>
XTR/585.002.074	D31	85	740	304	173	220	22.3	0	B1	1	<a href="#">168TA1229</a>
XTR/590.002.084	L5	90	840	353	175	190	24.7	0	B13	1	<a href="#">167TA9368</a>

# BATTERIES

## STARTER BATTERIES

### EXCELLENT E-SERIES

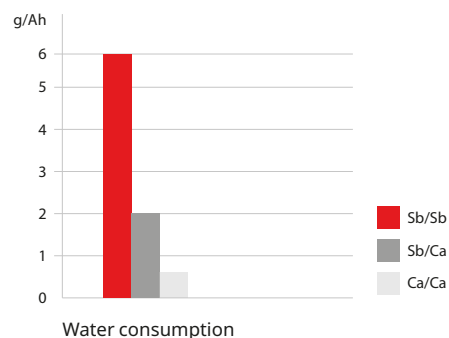


**MAGIC EYE**

### PERFECT AS A RELIABLE AND POWERFUL SOURCE OF ENERGY!

6 types covering 85% of all European battery types.

- Magic Eye
- CaCa technology
- +30% of starting capacity!
- Minimal water consumption
- Environmentally friendly materials
- 100% maintenance-free



Model	Group n°	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Fixation	Terminals	REF
<b>12 V</b>											
XTR/E1	LB1	50	420	207	175	175	12.0	0	B13(B04)	1	<a href="#">134TA8569</a>
XTR/E2	LB2	60	540	242	175	175	14.1	0	B13(B04)	1	<a href="#">134TA8570</a>
XTR/E3	LB3	80	720	278	175	175	17.7	0	B13(B04)	1	<a href="#">134TA8571</a>
XTR/E4	LB4	80	720	310	175	175	18.6	0	B13(B04)	1	<a href="#">134TA8572</a>
XTR/E5	LB5	100	840	353	175	175	21.7	0	B13(B04)	1	<a href="#">134TA8573</a>
XTR/E5H	L5	100	840	353	175	190	22.3	0	B13(B04)	1	<a href="#">167TA9370</a>

## XTREME TRUCK BATTERIES

**XTREME**  
**EXCELLENT**

### TRUCK BATTERIES SUPER HEAVY-DUTY



These starting batteries are top quality for lorries, tractors and machines which have a high fuel consumption, have to work in extreme conditions or drive on bad roads.

- High resistance to vibrations
- Additional cell confirmation
- Glass fiber separators
- High starting power at low temperatures
- Low self-discharge



#### SEALED MAINTENANCE FREE

- Sealed maintenance-free – SMF
- Designed for extreme power requirements
- Higher operational availability and safety
- Longer lifespan
- Suitable for commercial vehicles, buses and trucks with the latest electrical equipment

#### EFB TECHNOLOGY

- New EFB technology with punching grids
- Excellent for trucks with additional electrical equipment
- High cycling performance thanks to special polyester separator
- Improved charge acceptance compared to conventional batteries
- Longer service life
- Improved resistance to vibration

#### AGM TECHNOLOGY

- Extremely long service life
- Designed for extreme power requirements
- Absolutely maintenance-free, resistant to leaks and spills
- Exceptionally stable to high discharges and temperature variations
- Optimal starting power and maximum capacity
- Improved stability under mechanical vibration and/or shaking

Model	Group n°	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Fixation	Terminals	REF
<b>Open lead-acid – 12 V</b>											
605.027.076	LOT7	110	750	345	175	230	23.3	1	B00	1	<a href="#">168TA1236</a>
610.028.077	LOT7	110	750	345	175	230	23.3	0	B00	1	<a href="#">168TA1237</a>
610.013.080	MAC110	110	700	514	175	210	30.6	3	B03	1	<a href="#">168TA1238</a>
610.042.100	L6	110	1000	394	175	190	24.7	0	B13	1	<a href="#">168TA1239</a>
625.023.080	NATO	125	850	286	260	226	30.1	2	B00	1	<a href="#">168TA1240</a>
628.011.070	WOR7	130	840	345	175	285	28.9	0	B00	1	<a href="#">168TA1241</a>
635.039.095	MAC110	135	900	514	175	210	33.4	3	B03	1	<a href="#">168TA1242</a>
635.040.095	MAC110	135	900	514	175	210	33.4	4	B03	1	<a href="#">168TA1243</a>
635.042.076	12C135	135	950	360	253	240	37.8	6	B00	1	<a href="#">138TA7525</a>
640.020.090	A	140	800	513	189	220	32.7	3	B00	1	<a href="#">168TA1244</a>
640.021.076	A	140	800	513	189	223	32.7	4	B00	1	<a href="#">168TA1245</a>
650.020.100	A	150	900	513	189	220	34.4	3	B00	1	<a href="#">168TA1246</a>
650.089.100	B	155	950	513	223	223	39.8	3	B00	1	<a href="#">168TA1247</a>
680.045.115	B	180	1150	513	223	223	43.5	3	B00	1	<a href="#">168TA1248</a>
700.027.125	C	200	1200	514	276	242	53.4	3	B00	1	<a href="#">168TA1249</a>
730.027.130	C	230	1300	514	276	242	55.8	3	B00	1	<a href="#">168TA1250</a>
<b>Maintenance-free – 12 V</b>											
640.020.095SMF	A	140	900	513	189	220	34.5	3	B00	1	<a href="#">165TA4571</a>
680.045.115SMF	B	180	1150	513	223	223	43.6	3	B00	1	<a href="#">165TA4572</a>
730.012.140SMF	C	230	1300	514	276	242	55.8	3	B00	1	<a href="#">165TA4573</a>
<b>EFB – 12 V</b>											
680.002.110	B	185	1100	513	223	223	46.75	3	B00	1	<a href="#">168TA1251</a>
725.002.120	C	235	1250	514	276	242	60.2	3	B00	1	<a href="#">168TA1252</a>
<b>AGM – 12 V</b>											
640.901.095	A	140	950	513	189	220	40.7	3	B00	1	<a href="#">140TA7518</a>
670.901.105	B	170	1050	513	223	223	46.6	3	B00	1	<a href="#">140TA7519</a>
685.901.120	C	195	1200	518	274	242	56.2	3	B00	1	<a href="#">140TA7520</a>
720.901.140	C	220	1400	518	274	242	60.7	3	B00	1	<a href="#">140TA7521</a>

# BATTERIES

## STARTER BATTERIES

### XTREME CLASSIC



**DRY CHARGED\***

### OLDTIMER BATTERIES

\* Not filled with acid, battery needs to be filled with acid before usage



Acid 1 litre, only available for professional customers

REF [124TA2887](#)

Model	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	Acid l	REF
<b>6 V</b>										
DIN00811	8	40	90	81	165	1.65	0	1	0.25	<a href="#">168TA1253</a>
DIN05611	70	300	170	175	217	8.2	0	1	3	<a href="#">168TA1254</a>
DIN06612	66	270	177	175	185	8.0	0	1	3	<a href="#">168TA1255</a>
DIN07715	77	310	215	170	190	9.2	0	1	3	<a href="#">168TA1256</a>
DIN08411	89	330	225	174	217	12.3	0	1	3	<a href="#">168TA1257</a>
DIN09811	112	400	265	174	217	12.6	0	1	4	<a href="#">168TA1258</a>
DIN11211	117	465	291	170	227	13.0	0	1	6	<a href="#">168TA1259</a>
DIN11213	112	450	490	102	227	14.0	3	1	4	<a href="#">168TA1260</a>
DIN12018	131	450	263	176	235	14.0	0	1	4	<a href="#">168TA1261</a>
DIN12027	145	435	255	174	217	15.0	0	1	4	<a href="#">168TA1262</a>
DIN13518	131	485	329	175	235	14.5	0	1	6	<a href="#">168TA1502</a>
DIN15012	131	485	320	170	226	14.0	0	1	6	<a href="#">168TA1263</a>
DIN16025	160	600	348	175	220	18.0	0	1	6	<a href="#">168TA1264</a>
<b>12 V</b>										
DIN55623	60	350	250	175	225	15.4	1	1	4	<a href="#">168TA1265</a>
DIN55624	60	350	250	175	225	15.4	0	1	4	<a href="#">168TA1266</a>
DIN55789	65	315	332	133	203	15.0	1	1	4	<a href="#">168TA1267</a>
DIN57211	70	400	490	108	224	17.4	1	1	6	<a href="#">168TA1503</a>
DIN57022	70	400	308	175	225	18.8	1	1	6	<a href="#">168TA1269</a>
DIN57023	70	400	308	175	225	18.8	0	1	6	<a href="#">168TA1270</a>

### BATTERY RACK BLACK



Dimensions: 865 x 356 x 1370 mm

REF [168TA1271](#)

## MOTORCYCLE BATTERIES

**DYNAVOLT**  
power your life

**Beka**  
BATTERIES

**Xtreme**  
POWERSPORT



1



2



3



4



5



6



7



8

## POWER SPORTS BATTERIES FOR MOTORCYCLE, SCOOTER, JETSKI, ATV, LAWNMOWER ...

Model	Alt	Capacity 10 hr Ah	Dimensions (±1 mm)				Weight kg	Charging current A	Layout	Terminals	CCA/ -18 °C	Picture	REF
			L mm	B mm	H mm	HL mm							
<b>Dynavolt classic battery 6 V - with acid pack</b>													
6N6-3B-1	00612	6	99	57	113	113	1.1	0.6		5	48	1	<a href="#">168TA1272</a>
6N11A-1B	01199	11	122	62	132	132	1.7	1.1		5	88	1	<a href="#">168TA1273</a>
6N11A-3A	01214	11	121	59	129	129	1.9	1.1		5	88	1	<a href="#">168TA1274</a>
6N12A-2D	01225	12	155	56	114	114	1.9	1.2		5	120	1	<a href="#">168TA1275</a>
<b>Dynavolt high performance battery 12 V - with acid pack</b>													
D60-N24L-A	52515	28	185	126	170	170	8.2	2.8		3	280	2	<a href="#">168TA1276</a>
D60-N24-A	52830	28	185	126	170	170	8.2	2.8		3	280	2	<a href="#">168TA1277</a>
C60-N35L-A	53211	32	230	126	167	167	8.0	-		5	390	2	<a href="#">168TA1278</a>
<b>Dynavolt high performance battery 12 V - with acid pack</b>													
DB3L-B	50313	3	98	56	111	111	1.2	0.3		5	32	3	<a href="#">168TA1279</a>
DB4L-B	50411	4	120	70	92	92	1.6	0.4		4	40	3	<a href="#">168TA1280</a>
DB5L-B	50512	5	120	60	130	130	1.9	0.5		5	75	3	<a href="#">168TA1281</a>
DB7-A	50813	7	135	76	134	134	2.6	0.7		5	100	3	<a href="#">168TA1282</a>
DB9-B	50914	9	135	75	138	138	2.9	0.9		5	90	3	<a href="#">168TA1283</a>
DB9L-B	50915	9	135	75	138	138	2.9	0.9		5	90	3	<a href="#">168TA1284</a>
DB10L-A2	51112	11	134	90	145	145	3.6	1.1		4	140	3	<a href="#">168TA1285</a>
DB12A-A	51211	12	134	80	160	160	3.9	1.2		5	135	3	<a href="#">168TA1286</a>
DB12A-B	51215	12	134	80	160	160	3.9	1.2		5	135	3	<a href="#">168TA1287</a>
DB12AL-A2	51213	12	134	80	160	160	3.9	1.2		4	135	3	<a href="#">168TA1288</a>
DB14-A2	51412	14	134	89	164	164	4.4	1.4		4	160	3	<a href="#">168TA1289</a>
DB14-B2	51414	14	134	89	164	164	4.4	1.4		4	160	3	<a href="#">168TA1290</a>
DB14L-A2	51411	14	134	89	164	164	4.4	1.4		4	160	3	<a href="#">168TA1291</a>

# BATTERIES

## STARTER BATTERIES

### MOTORCYCLE BATTERIES

Model	Alt	Capacity 10 hr Ah	Dimensions (±1 mm)				Weight kg	Charging current A	Layout	Terminals	CCA/ -18 °C	Picture	REF
			L mm	B mm	H mm	HL mm							
DB14L-B2	51413	14	134	89	164	164	4.4	1.4		4	160	3	<a href="#">168TA1292</a>
DB16AL-A2	51616	16	205	70	162	162	5.2	1.6		2	190	3	<a href="#">168TA1293</a>
DB16CL-B	51914	19	175	100	175	175	6.3	1.9		4	230	3	<a href="#">168TA1294</a>
DB30CL-B	-	30	168	132	192	192	8.9	3.0		4	300	3	<a href="#">168TA1295</a>
DB30L-B	-	30	168	132	176	176	8.9	3.0		4	300	3	<a href="#">168TA1296</a>
<b>Dynavolt high performance maintenance-free battery 12 V – with acid pack</b>													
DTX4L-BS	50314	3	114	70	85	85	1.4	0.3	0	4	50	4	<a href="#">168TA1297</a>
DTX5L-BS	50412	4	114	70	106	106	1.7	0.4	0	4	75	4	<a href="#">168TA1298</a>
DTZ7S-BS	50702	5.5	114	70	106	106	1.9	0.6	0	4	60	4	<a href="#">168TA1299</a>
DTX7A-BS	50615	6	150	87	93	93	2.5	0.6	1	4	85	4	<a href="#">168TA1300</a>
DTX7L-BS	50614	6	114	70	130	130	2.4	0.6	0	4	75	4	<a href="#">168TA1301</a>
DTX9-BS	50812	8	150	87	105	105	2.9	0.8	1	4	90	4	<a href="#">168TA1302</a>
DTX12-BS	51012	10	150	87	130	130	3.7	1.0	1	4	160	4	<a href="#">168TA1303</a>
DTX12A-BS-C	51101	10	150	87	106	106	3.2	1.0	1	9	120	4	<a href="#">168TA1304</a>
DT12B-BS-C	51201	10	150	69	130	130	3.3	1.0	1	9	110	4	<a href="#">168TA1305</a>
DTZ12-BS-C	50901	11	150	87	110	110	3.7	1.1	1	9	170	4	<a href="#">168TA1306</a>
DTZ14-BS-C	51102	11.2	150	87	110	110	3.7	1.1	1	9	170	4	<a href="#">168TA1307</a>
DTX14-BS	51214	12	150	87	146	146	4.3	1.2	1	4	200	4	<a href="#">168TA1308</a>
DTX16-BS	51402	14	150	87	159	159	5.0	1.4	1	4	230	4	<a href="#">168TA1309</a>
DTX20-BS	51802	18	175	87	155	155	6.0	1.8	1	4	250	4	<a href="#">168TA1310</a>
DTX20CH-BS-C	-	18	150	87	161	161	5.5	1.8	1	9	240	4	<a href="#">168TA1311</a>
DTX20L-BS	51801	18	175	87	155	155	6.0	1.8	0	4	250	4	<a href="#">168TA1312</a>
DTX24HL-BS	-	24	205	87	162	162	7.4	2.4	0	4	310	4	<a href="#">168TA1313</a>
DTX30L-BS	-	30	168	127	176	176	9.3	3.0	0	4	350	4	<a href="#">168TA1314</a>
<b>Dynavolt AGM maintenance-free valve regulated sealed battery 12 V</b>													
MGS1218(TL)	DB16CL-B	18	181	77	165	165	6.0	1.8	0	17	160	5	<a href="#">168TA1315</a>
<b>Dynavolt nano gel maintenance-free valve regulated sealed battery 12 V</b>													
MG4L-BS-C	YTX4L-BS	4	113	69	85	85	1.4	0.4	0	9	60	6	<a href="#">168TA1316</a>
MG7ZS-C	YTZ7S	6	113	69	105	105	1.9	0.6	0	9	95	6	<a href="#">168TA1317</a>
MG10ZS-C	YTZ10S	8.6	150	86	94	94	2.8	0.9	1	9	145	6	<a href="#">168TA1318</a>
MG12B-4-C	YT12B-BS	10	150	69	130	130	3.7	1.0	1	9	155	6	<a href="#">168TA1319</a>
MG12ZS-C	YTZ12S	11.2	150	86	110	110	3.4	1.1	1	9	170	6	<a href="#">168TA1320</a>
MG14B-4-C	YT14B-BS	12	150	69	145	145	4.3	1.2	1	9	180	6	<a href="#">168TA1321</a>
MG14ZS-C	YTZ14S	11.2	150	86	111	111	3.7	1.1	1	9	245	6	<a href="#">168TA1322</a>
MG1218	BMW	18	181	77	165	165	6.1	1.8	0	15	190	6	<a href="#">168TA1323</a>
<b>Dynavolt nano gel Harley-Davidson battery 12 V</b>													
GHD14H-BS	65948-00	14	149	87	144	144	4.6	1.4	1	21	220	7	<a href="#">168TA1324</a>
GHD14HL-BS	65958-04/A	14	149	87	144	144	4.6	1.4	0	21	220	7	<a href="#">168TA1446</a>
GHD20H-BS	-	20	176	87	154	154	6.5	2.0	1	20	290	7	<a href="#">168TA1325</a>
GHD20HL-BS	65989-97A/B/C	20	176	87	154	154	6.5	2.0	0	20	290	7	<a href="#">168TA1326</a>
GHD30HL-BS	66010-97A/B/C	30	166	130	175	175	9.8	3.0	0	20	430	7	<a href="#">168TA1327</a>
<b>Deka Original Harley-Davidson battery 12 V</b>													
DEKA/ETX14	65948-00	12	150	88	145	145	5.2	-	1	20	220	8	<a href="#">168TA1324</a>
DEKA/ETX14L	65958-04/A	12	150	88	145	145	5.2	-	0	20	220	8	<a href="#">168TA1446</a>
DEKA/ETX16	65991-82B	19	175	100	155	155	7.7	-	1	20	325	8	<a href="#">168TA1325</a>
DEKA/ETX20L	65989-97A/B/C	17.5	178	90	155	155	6.8	-	0	20	310	8	<a href="#">168TA1326</a>
DEKA/ETX30L	66010-97A/B/C	26	168	131	175	175	9.8	-	0	20	400	8	<a href="#">168TA1327</a>
<b>Xtreme maintenance-free lawnmower battery (Ca/Ca sealed) 12 V</b>													
U1-32	-	32	196	127	159	185	8.0	-	1	5	350	-	<a href="#">168TA1332</a>
U1R-32	-	32	196	127	159	185	8.0	-	0	5	350	-	<a href="#">168TA1333</a>

\*Only VRLA batteries (AGM/gel) can be mounted in all positions. MF batteries are restricted to an angle of 45°

\*Starting February 2021 it is prohibited to sell separate acid packs to end consumers. No restrictions for B2B sales.



## MOTORCYCLE BATTERIES



Shido Lithium batteries have 4 cells LiFePO<sub>4</sub> (Lithium Iron Phosphate) of 3.2 V connected in series in order to reach an OCV of 12.8 V. A perfect voltage to use as a starter battery for motorcycles. The electronic Battery Management System or BMS spread the charge and discharge regularly over the four cells. Thanks to its small internal resistance a Shido Lithium battery can generate a very high starting current with little Ah. This starting power delivers a powerful and quick start of the vehicle

### Advantages:

- Superb cranking capacity
- Up to 75% lighter than lead-acid batteries
- Long capacity retention
- Lower self discharge: longer shelf life
- Excellent cycle life: more than 1200 cycles
- More economical
- Drop-in replacement
- Less fuel consumption
- Super-fast recharge
- Safe in use
- No maintenance
- Stable discharge voltage
- No pollution, no lead and no acid
- Capacity indicator
- IP68 waterproof

Model	Capacity	CA	Energy	Dimensions				Weight	Charging current		Layout	REF
	Ah	A	Wh	L	B	H	HL		STD	MAX		
Shido Lion - 12 V												
	mm	mm	mm	mm	mm	mm	mm	kg	A	A		
LB5L-B	1.6	95	19	120	60	92	120	0.4	1	8	0	<a href="#">168TA1335</a>
LTX4L-BS	1.6	95	20	113	70	85	85	0.4	1	8	0	<a href="#">168TA1336</a>
LTX5L-BS	1.6	95	20	113	70	85	105	0.4	1	5	0	<a href="#">168TA1337</a>
LTX25S	2	120	24	113	69	85	85	0.5	1	10	0	<a href="#">168TA1338</a>
LTM2L	2	120	24	89	49	90	90	0.5	1	10	0	<a href="#">168TA1339</a>
LTX7S	2.4	150	30	113	69	85	105	0.6	1.5	12	0	<a href="#">168TA1340</a>
LTX7A-BS	2.4	150	30	150	87	93	93	0.6	1.5	12	1	<a href="#">168TA1341</a>
LTX7L-BS	2.4	150	30	113	69	85	125	0.6	1.5	12	0	<a href="#">168TA1342</a>
LT7B-BS	3	180	36	150	65	92	92	0.7	1.5	15	1	<a href="#">168TA1343</a>
LB9-B Q	3	180	36	134	75	134	134	0.6	1.5	12	0/1	<a href="#">168TA1344</a>
LT9B-BS	3	180	36	150	65	92	106	0.7	1.5	15	1	<a href="#">168TA1345</a>
LTX9-BS	3	180	36	150	87	105	105	0.7	1.5	15	1	<a href="#">168TA1346</a>
LT12A-BS	3.5	210	42	150	87	93	107	0.9	2	18	1	<a href="#">168TA1615</a>
LTX10S	4	240	48	150	87	93	93	0.9	2	20	1	<a href="#">168TA1347</a>
LB12AL-A2 Q	4	240	48	130	75	134	160	0.9	2	20	0/1	<a href="#">168TA1348</a>
LTX12-BS	4	240	42	150	87	105	130	0.9	2	18	1	<a href="#">168TA1349</a>
LTX14-BS	4	240	48	150	87	105	145	1.1	2	20	1	<a href="#">168TA1350</a>
LTX14AHL-BS Q	4	240	48	134	75	133	168	1.1	2	20	0/1	<a href="#">168TA1351</a>
LTX14L-BS	4	240	48	150	87	105	145	1.1	2	20	0	<a href="#">168TA1352</a>
LTX28V	4.5	270	54	113	69	105	105	0.9	2.5	22.5	0	<a href="#">168TA1353</a>
LB16AL-A2	5	300	60	150	65	130	144	1.1	2.5	25	0	<a href="#">168TA1354</a>
LT12B-BS	5	300	60	150	65	130	130	1.1	2.5	25	1	<a href="#">168TA1355</a>
LTX12S	5	300	60	150	87	93	110	1.1	2.5	25	1	<a href="#">168TA1356</a>
LTX14S	5	300	60	150	87	93	110	1.1	2.5	25	1	<a href="#">168TA1357</a>
LT14B-BS	5	300	60	150	65	130	144	1.1	2.5	25	1	<a href="#">168TA1358</a>
LTX16-BS	6	360	72	150	87	105	164	1.4	3	24	1	<a href="#">168TA1359</a>
LTX20CH-BS	6	360	72	150	87	105	164	1.4	3	24	1	<a href="#">168TA1360</a>
LTX20L-BS Q	7	420	84	175	87	130	155	1.4	3.5	28	0/1	<a href="#">168TA1361</a>
LTX24HL-BS Q	7	420	84	175	87	130	163	1.7	3.5	28	0/1	<a href="#">168TA1616</a>
51913	7.5	420	90	181	77	170	170	1.7	4	28	0	<a href="#">168TA1362</a>
LIX30L-BS Q	8	480	96	167	124	163	163	2	4	32	0/1	<a href="#">168TA1363</a>

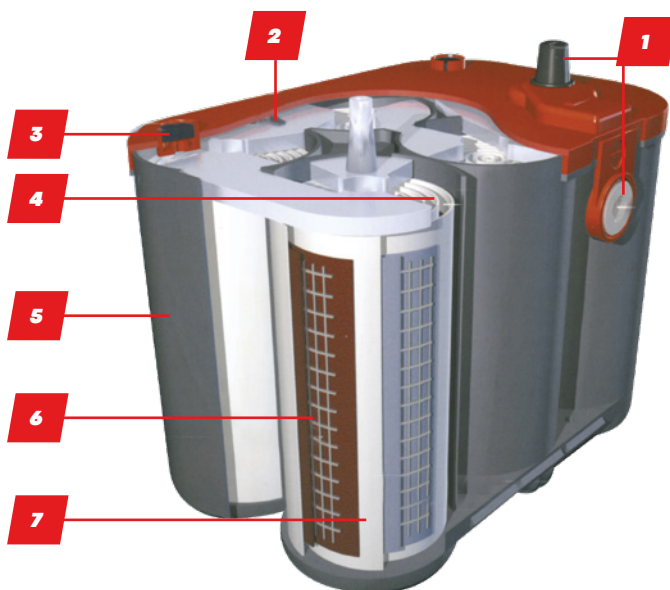
# BATTERIES

## STARTER BATTERIES



### OPTIMA SPIRALCELL TECHNOLOGY®

OPTIMA's unique anatomy is built on SpiralCell® Technology. Instead of flat plates used in ordinary batteries, OPTIMA uses two thin lead plates wound into a spiral cell with a glass-mat inbetween to contain the acid. The technique of winding the cells, which are linked with solid connections, gives maximum performance with a minimum of size and weight. This makes the battery compact, robust and easy to mount.



#### ADVANTAGES

- Absolutely maintenance-free
- Maximum vibration resistance
- Large cycle capacity
- Long storage period, high resistance to corrosion
- Leakproof, can be built-in in every position
- Quick charge, more capacity
- Better resistant to extreme temperatures

- 1.** Corrosion resistant terminals
- 2.** Heavy-duty straps for an optimal reliability
- 3.** Resalable pressure relief valve with flame trap
- 4.** SpiralCell construction with a maximum vibration resistance

- 5.** Impact resistant polypropylene case
- 6.** High purity lead grids for long life
- 7.** Absorbent Glass Mat separator holds electrolyte like a sponge

### STARTING BATTERY FOR PROFESSIONAL USE



- Maximum starting power for big diesel engines and heavy machines
- This technology guarantees a maximum of starting power, also at extreme temperature differences of -40 to 40 °C.

#### OPTIMA REDTOP™

Alt	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF	Old REF
<b>6 V</b>										
RT S-2.1	50	815	255	90	206	8.4	1	1	<a href="#">168TA1366</a>	BAT/28426
<b>12 V</b>										
RT S-3.7	44	730	237	171	197	14.4	1	1	<a href="#">168TA1367</a>	BAT/28421
RT U-3.7	44	730	237	171	197	15.0	1	1 + 21	<a href="#">168TA1368</a>	BAT/28419
RT R-3.7	44	730	237	171	197	14.4	0	1	<a href="#">168TA1369</a>	BAT/28423
RT S-4.2	50	815	254	175	200	17.2	1	1	<a href="#">168TA1370</a>	BAT/16941
RT U-4.2	50	815	254	175	200	17.6	1	1 + 21	<a href="#">168TA1371</a>	BAT/28417
RT R-4.2	50	815	254	175	200	17.2	0	1	<a href="#">168TA1372</a>	BAT/28325
RT C-4.2	50	815	254	175	200	17.2	1	1	<a href="#">168TA1373</a>	BAT/28324
RT F-4.2	50	815	254	185	184	17.9	1	21	<a href="#">168TA1374</a>	BAT/47598

### DUAL POWER BATTERIES FOR PROFESSIONAL USE



- OPTIMA YellowTop is a battery which combines the advantages of a starting battery with those of a traction battery.

#### OPTIMA YELLOWTOP™

Alt	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF	Old REF
<b>12 V</b>										
YT S-2.7J	38	460	237	129	227	12.4	1	3	<a href="#">142TA3199</a>	BAT/28429
YT S-2.7	38	460	237	129	227	11.8	1	1	<a href="#">142TA3200</a>	BAT/28430
YT R-2.7J	38	460	237	129	227	11.8	0	3	<a href="#">142TA3201</a>	BAT/31774
YT R-2.7	38	460	237	129	227	11.8	0	1	<a href="#">142TA3202</a>	BAT/28432
YT R-3.7	48	660	237	172	197	16.6	0	1	<a href="#">142TA3203</a>	BAT/31772
YT S-4.2	55	765	254	175	200	19.5	1	1	<a href="#">123TA9059</a>	BAT/28090
YT U-4.2	55	765	254	175	200	19.9	1	1 + 21	<a href="#">142TA3189</a>	BAT/28428
YT R-5.0	66	845	309	172	219	24.1	0	1	<a href="#">168TA1382</a>	BAT/47601
YT S-5.5	75	975	325	165	238	26.5	1	1	<a href="#">142TA3197</a>	BAT/28326

### STARTING & DEEP-CYCLE BATTERY FOR MARINE



- BT SLI 4.2: designed for engine starting applications. Not recommended or warranted for use in deep-cycle applications.
- BT DC 4.2/BT DC 5.5: dual purpose batteries. Designed for engine starting and deep-cycle applications and for use in boats with large accessory loads.

#### OPTIMA BLUETOP™

Alt	Capacity Ah	CCA (EN) A	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF	Old REF
<b>12 V</b>										
BT DC 5.5	75	975	325	165	238	26.5	1	DT 1 + 8	<a href="#">168TA1384</a>	BAT/28438
BT DC 5.0	66	845	309	172	221	24.4	1	DT 1 + 8	<a href="#">168TA1385</a>	BAT/28435
BT DC 4.2	55	765	254	175	200	19.7	1	DT 1 + 8	<a href="#">168TA1386</a>	BAT/28436
BT SLI 4.2	50	815	254	175	200	17.4	1	DT 1 + 8	<a href="#">168TA1387</a>	BAT/28434

# BATTERIES

## STARTER BATTERIES

**ODYSSEY**  
BATTERY

### ULTRA HIGH PERFORMANCE BATTERIES



#### THE WORLD'S MOST INNOVATIVE ENGINE STARTING & CYCLING TECHNOLOGY

- Thin Plate Pure Lead (TPPL): uniquely manufactured thin Pure Lead plates make them comparable to thick plates, allowing more plates in the same space.
- Twice the power and three-times the life of any other conventional battery.

### ODYSSEY PERFORMANCE (ODP) AUTOMOTIVE



Specially designed and developed for extremely heavy-duty applications, ODYSSEY Performance (ODP) batteries will easily handle the increasing demands of start/stop and onboard accessories, supplying twice the power and three-times the life of conventional batteries.

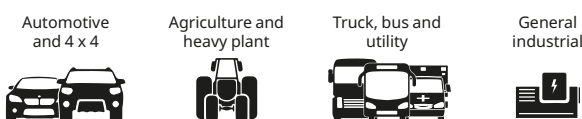
Model	C20 capacity	CCA	Reserve capacity (min)	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	REF
	Ah	A								
<b>12 V</b>										
ODP-AGM75 86	49	708	89	240	171	202	20	1	DT 1 + 21	<a href="#">168TA1478</a>
ODP-AGM96R	52	600	90	242	175	174	18	0	1	<a href="#">168TA1479</a>
ODP-AGM25	59	675	110	240	172	217	21	1	1	<a href="#">168TA1480*</a>
ODP-AGM35	59	675	110	240	172	217	21	0	1	<a href="#">168TA1388*</a>
ODP-AGM34	61	792	120	275	172	199	21	1	1	<a href="#">168TA1481</a>
ODP-AGM34R	61	792	120	275	172	199	21	0	1	<a href="#">168TA1482</a>
ODP-AGM78	61	792	120	275	172	187	21	1	21	<a href="#">168TA1483</a>
ODP-AGM24	63	725	155	276	172	225	23	1	1	<a href="#">168TA1484*</a>
ODP-AGM24F	63	725	155	276	172	225	23	0	1	<a href="#">168TA1485*</a>
ODP-AGM47 H5 L2	62	650	105	242	175	189	19	0	1	<a href="#">168TA1486</a>
ODP-AGM65	64	750	129	301	183	192	23	1	1	<a href="#">168TA1487</a>
ODP-AGM48 H6 L3	69	720	130	277	174	189	22	0	1	<a href="#">168TA1488</a>
ODP-AGM94R H7 L4	80	840	150	315	174	189	25	0	1	<a href="#">168TA1489</a>
ODP-AGM27	85	850	182	316	172	225	27	1	1	<a href="#">168TA1490*</a>
ODP-AGM27F	85	850	182	316	172	225	27	0	1	<a href="#">168TA1491*</a>
ODP-AGM49 H8 L5	94	950	160	353	174	189	29	0	1	<a href="#">168TA1389</a>
ODP-AGM31	100	925	200	330	172	243	32	1	8	<a href="#">168TA1492</a>
ODP-AGM31A	100	925	200	330	172	240	32	1	1	<a href="#">168TA1493</a>
ODP-AGMDINB	170	1300	370	518	226	218	53	3	1	<a href="#">168TA1390</a>
ODP-AGMDINC	220	1500	475	518	276	225	65	3	1	<a href="#">168TA1391</a>

\*Ask for availability

### ODYSSEY PERFORMANCE SERIES DIN B (REF 168TA1390) AND DIN C (REF 168TA1391)



- The only battery that can truly meet the severe demands of modern trucks.
- With a deep-cycle capability of 660 cycles to 50% DOD, these batteries allow truck operators to keep onboard accessories and tail lifts running day and night, and still be assured of an engine start – even in the coldest temperatures.

**ODYSSEY EXTREME (ODX)**


Where size and power matters, the ODYSSEY Extreme (ODX) battery gives you it all. With its heritage in military and specialist vehicle applications, this range is the toughest you can get – whether it's extreme terrain, temperatures or power demand, or all of them combined, the ODX range will deliver.

Model	C20 capacity	CCA	Reserve capacity (min)	Length	Width	Height	Weight	Layout	Terminals	REF
	Ah	A		mm	mm	mm	kg			
<b>12 V</b>										
ODX-AGM34	68	850	134	276	172	202	23	1	1	<a href="#">168TA1392</a>
ODX-AGM34R	68	850	134	276	172	200	23	0	1	<a href="#">168TA1494</a>
ODX-AGM34 78	68	850	134	276	172	200	23	1	DT 1 + 21	<a href="#">168TA1393</a>
ODX-AGM65	74	950	135	301	183	190	25	1	1	<a href="#">168TA1394</a>
ODX-AGM31*	100	1150	205	330	173	241	35	1	8	<a href="#">168TA1395</a>
ODX-AGM31A	100	1150	205	330	173	246	35	1	1	<a href="#">168TA1495</a>

\*Available with Metal Jacket (MJ)

**ODYSSEY POWER & MOTORSPORTS (ODS)**


With a pedigree and reputation known across the Power & Motorsports world, ODYSSEY Power & Motorsports (ODS) batteries provide concentrated extreme dual-purpose power while supplying exceptional reliability, service life and deep-cycle capabilities to keep you ahead.

Model	C20 capacity	CCA	Reserve capacity (min)	Length	Width	Height	Weight	Layout	Terminals	REF
	Ah	A		mm	mm	mm	kg			
<b>12 V</b>										
ODS-AGM8E	8	100	9	138	86	99	3	0	M4	<a href="#">168TA1664</a>
ODS-AGM15L*	13	150	18	176	84	124	5	0	M6	<a href="#">168TA1396</a>
ODS-AGM16B	14	200	21	170	99	158	5	1	M6	<a href="#">168TA1397</a>
ODS-AGM16L*	16	170	24	182	76	162	7	0	M6	<a href="#">168TA1398</a>
ODS-AGM16CL	18	220	26	170	99	177	6	0	M6	<a href="#">168TA1399</a>
ODS-AGM28	28	330	48	167	176	119	11	1	M6	<a href="#">168TA1400</a>
ODS-AGM28L*	28	330	48	169	179	148	11	0	M6	<a href="#">168TA1406</a>
ODS-AGM30E	34	400	60	250	97	156	9	0	M6 stud	<a href="#">168TA1407</a>
ODS-AGM42L*	42	540	78	198	166	163	17	0	M6	<a href="#">168TA1401</a>
ODS-AGM40E	45	500	87	250	97	206	13	0	M6 stud	<a href="#">168TA1408</a>
ODS-AGM70	68	810	142	331	168	168	28	0	M6	<a href="#">168TA1402</a>
ODS-AGM70A	68	810	142	331	168	197	28	0	1	<a href="#">168TA1496</a>

\*Available with Metal Jacket (MJ)

**ODYSSEY MARINE**


Especially designed for marine applications, although can be used in other applications where size and fitments allow.

Model	C20 capacity	CCA	Reserve capacity (min)	Length	Width	Height	Weight	Layout	Terminals	REF
	Ah	A		mm	mm	mm	kg			
<b>12 V</b>										
ODP-AGM34M	60	710	120	275	172	201	21.6	1	DT 1 + 8	<a href="#">168TA1497</a>
ODP-AGM24M	63	725	155	276	172	225	23.3	1	DT 1 + 8	<a href="#">168TA1498*</a>
ODX-AGM34M	68	850	134	276	172	202	22.5	1	DT 1 + 8	<a href="#">168TA1403</a>
ODP-AGM27M	85	850	182	316	147	225	27.1	1	DT 1 + 8	<a href="#">168TA1499*</a>
ODP-AGM31M	87	925	190	330	172	240	32.7	0	DT 1 + 8	<a href="#">168TA1500</a>
ODX-AGM31M	100	1150	205	330	173	239	35.3	1	DT 1 + 8	<a href="#">168TA1404</a>
ODS-AGM6M	126	1225	240	286	269	233	39.0	2	DT 1 + 8	<a href="#">168TA1501</a>
ODP-AGMDINB	170	1300	370	518	226	218	53.3	3	1	<a href="#">168TA1390</a>
ODS-AGM470FTT	214	1300	475	581	125	316	60.0	4	M10 stud	<a href="#">168TA1409</a>
ODP-AGMDINC	220	1500	475	518	276	225	65.0	3	1	<a href="#">168TA1391</a>

\* Ask for availability

# BATTERIES

## STARTER BATTERIES

### SPECIAL TYPES



Model	Capacity Ah	CCA A	Length mm	Width mm	Height mm	Weight kg	Layout	Fixation	Terminals	Picture	REF
<b>6 V</b>											
1-640	90	670 (SAE)	231	176	222	14.0	2	B00	1	1	<a href="#">168TA1410</a>
2-700	135	650 (SAE)	260	174	221	17.0	2	B00	1	2	<a href="#">168TA1411</a>
4H-950	150	950 (SAE)	321	178	241	29.0	2	B00	1	3	<a href="#">168TA1412</a>
112.013.052	112	920 (SAE)	487	109	248	23.0	9	B00	1	4	<a href="#">168TA1413</a>
<b>12 V</b>											
570.016.054	70	480 (SAE)	487	109	217	19.3	9	B00	1	5	<a href="#">138TA7524</a>
75-650	70	625 (SAE)	230	179	187	16.3	1	B00	21	6	<a href="#">168TA1414</a>
78-800	70	770 (SAE)	260	179	187	19.0	1	B00	21	7	<a href="#">168TA1415</a>
31A-1100	105	1100 (SAE)	330	171	240	28.0	9	B00	1	8	<a href="#">168TA1416</a>
635.042.076	135	950 (EN)	360	253	240	32.8	0	B00	1	9	<a href="#">138TA7525</a>

## DUAL PURPOSE CYCLIC BATTERIES



**Characteristics:**

- CaCa
- Maintenance free
- Type: MF 12 V – 100 Ah – 1000 MCA

REF [168TA1419](#)



**Characteristics:**

- CaCa
- Maintenance free
- Type: MF 12 V – 90 Ah – 800 A

REF [167TA9957](#)



**Characteristics:**

- CaCa
- Maintenance free
- Type: MF 12 V – 80 Ah – 680 A

REF [168TA1417](#)



**Characteristics:**

- CaCa
- Maintenance free
- Type: MF 12 V – 90 Ah – 750 A

REF [168TA1418](#)

### SPECIAL TYPES

Model	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Layout	Terminals	Magic Eye	REF
<b>Maintenance free deep-cycles CaCa dual purpose – 12 V</b>										
MF24DC	80	64	257	172	220	18.2	1	DT 1 + 8	Yes	<a href="#">168TA1417</a>
MF27DC	90	72	302	172	220	20.8	1	DT 1 + 8	Yes	<a href="#">168TA1418</a>
9.575.1 MF	90	75	353	175	190	22.5	0	1	No	<a href="#">167TA9957</a>
MF31DC	100	80	330	172	242	23.2	1	DT 1 + 8	Yes	<a href="#">168TA1419</a>

# BATTERIES

## STATIONARY BATTERIES



### VRLA-AGM



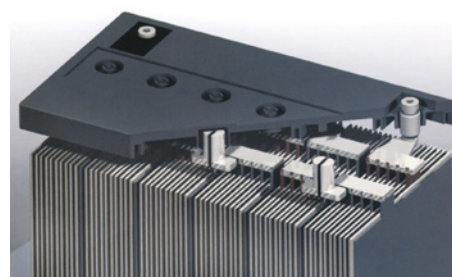
**100% MAINTENANCE-FREE**

Valve regulated lead-acid (VRLA) batteries for standby applications (floating use) such as UPS systems, emergency centres, telephone exchanges, medical applications, solar panels, navy navigation ...

### VRLA-AGM DAS-SERIES

Model	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Lay-out	Terminals	REF
<b>4 V</b>									
DAS4-4.5	4.0	3.5	47	47	107	0.50	1	T1	<a href="#">168TA1420</a>
<b>6 V</b>									
DAS6-1	1.2	1.1	98	25	53	0.25	1	T1	<a href="#">168TA1421</a>
DAS6-1.3	1.3	1.1	98	25	53	0.30	1	T1	<a href="#">168TA1422</a>
DAS6-3.2	3.2	2.8	125	35	63	0.63	1	T1	<a href="#">168TA1423</a>
DAS6-4.5	4.5	3.9	71	47	101	0.75	1	T1	<a href="#">134TA8650</a>
DAS6-7.2	7.0	6.1	151	34	97	1.10	1	T2	<a href="#">134TA8651</a>
DAS6-10	10.0	8.7	151	50	94	1.55	1	T1	<a href="#">168TA1424</a>
DAS6-12	12.0	10.5	151	50	94	1.75	1	T2	<a href="#">168TA1425</a>
DAS6-14	14.0	11.9	108	71	140	2.26	4	T1	<a href="#">134TA8653</a>
<b>12 V</b>									
DAS12-0.8	0.8	0.7	96	25	62	0.36	Cable and bullet conn		<a href="#">134TA8654</a>
DAS12-1.3	1.3	1.1	98	43	53	0.56	3	T1	<a href="#">168TA1432</a>
DAS12-2.2	2.2	1.9	177	35	60	0.88	1	T1	<a href="#">168TA1426</a>
DAS12-2.6	2.6	2.3	70	47	107	0.80	1	T1	<a href="#">168TA1433</a>
DAS12-2.9	2.9	2.5	79	55	105	1.10	0	T1	<a href="#">134TA8655</a>
DAS12-3.3	3.3	2.9	135	67	65	1.25	4	T1	<a href="#">168TA1434</a>
DAS12-5	5.0	4.4	90	70	101	1.58	3	T1	<a href="#">168TA1435</a>
DAS12-7.5	7.5	6.6	152	65	100	2.02	3	T1	<a href="#">134TA8658</a>
DAS12-9	9.0	7.9	152	65	100	2.54	3	T2	<a href="#">168TA1427</a>
DAS12-12	12.0	10.5	151	99	101	3.45	3	T2	<a href="#">134TA8660</a>
DAS12-14	14.0	11.9	150	98	99	4.18	3	T2	<a href="#">134TA8661</a>
DAS12-18	18.0	15.7	181	77	167	5.10	0	M5	<a href="#">168TA1428</a>
DAS12-18 AL	18.0	15.3	181	77	167	4.90	0	FLAG	<a href="#">168TA1436</a>
DAS12-26	26.0	22.6	166	175	125	7.70	0	M5	<a href="#">168TA1429</a>
DAS12-33	35.6	30.1	195	130	167	10.00	1	M6	<a href="#">168TA1437</a>
DAS12-44	48.4	41.0	197	165	172	14.50	0	M6	<a href="#">168TA1438</a>
DAS12-70	65.0	55.0	349	167	179	23.60	0	M6	<a href="#">168TA1439</a>

### 5 YEAR LIFE DESIGN "FLOATING USE"



VRLA: Valve Regulated Lead-Acid  
SLA: Sealed Lead-Acid  
AGM: Absorbed Glass Matt

### TERMINALS AND ADAPTORS

J-type adaptor M6 (one set is 2 adaptors)  
REF [168TA1663](#)

Automot. adaptor M6 (one set is 2 adaptors)  
REF [168TA1663](#)

Automot. adaptor M8 (one set is 2 adaptors)  
REF [144TA1869](#)



## VRLA-AGM



**FLAME RETARDANT  
UL94-V0 CASING**

Valve regulated lead-acid (VRLA) batteries for standby applications (floating use) such as UPS systems, emergency centres, telephone exchanges, medical applications, solar panels, navy navigation ...

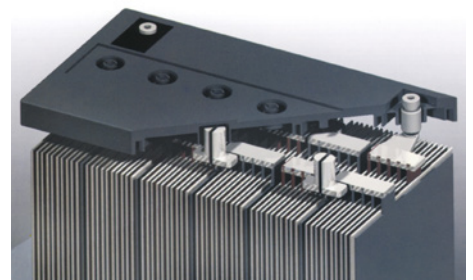
### VRLA-AGM DAS FR-SERIES

Model	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Lay-out	Terminals	REF
<b>12 V</b>									
DYN/DAS12-2.2FR	2.3	1.7	178	34.5	67	0.9	1	T1	<a href="#">168TA1440</a>
DYN/DAS12-7.5FR	7	6	151	65	101	2	3	T1	<a href="#">168TA1441</a>
DYN/DAS12-12FR	12	10.2	151	98	101	3.2	3	T2	<a href="#">168TA1442</a>
DYN/DAS12-18FR	18	15.3	181	77	166	5.15	0	M5	<a href="#">168TA1443</a>
DYN/DAS12-26FR	26	22.1	166	175	125	8	0	M5	<a href="#">168TA1444</a>

### VRLA-AGM DAB-SERIES

Model	C20 Ah	C5 Ah	Length mm	Width mm	Height mm	Weight kg	Lay-out	Terminals	REF
<b>6 V</b>									
DYN/DAB6-110	100.0	86.0	194	170	212	16.5	1	M8	<a href="#">134TA8663</a>
DYN/DAB6-160	178.0	145.0	298	171	229	26.4	1	M8	<a href="#">134TA8664</a>
DYN/DAB6-180	210.0	187.0	260	180	250	29.5	0	M8	<a href="#">134TA8665</a>
DYN/DAB6-200	248.0	220.0	322	178	231	34.0	1	M8	<a href="#">134TA8666</a>
DYN/DAB6-225	242.0	205.0	243	188	275	32.0	0	M8	<a href="#">134TA8667</a>
DYN/DAB6-270	272.0	242.0	260	180	273	35.0	0	M8	<a href="#">168TA1079</a>
<b>8 V</b>									
DYN/DAB8-160	161.0	131.0	260	182	298	36.8	1	M8	<a href="#">134TA8668</a>
<b>12 V</b>									
DYN/DAB12-7.5	9.6	8.5	151	65	103	2.6	3	T1	<a href="#">168TA1431</a>
DYN/DAB12-14	16.4	14.5	151	99	100	4.4	3	T2	<a href="#">134TA8669</a>
DYN/DAB12-26	26.0	22.6	166	175	125	7.7	0	M5	<a href="#">134TA8672</a>
DYN/DAB12-28	28.0	24.3	165	125	175	8.0	0	M5	<a href="#">168TA1445</a>
DYN/DAB12-32	39.6	35.2	267	77	170	9.2	0	M5	<a href="#">168TA1083</a>
DYN/DAB12-33	34.0	28.0	196	131	160	10.0	1	M6	<a href="#">134TA8674</a>
DYN/DAB12-44	46.2	37.7	198	167	158	13.0	0	M6	<a href="#">134TA8675</a>
DYN/DAB12-55	59.2	50.0	229	138	207	17.5	1	M6	<a href="#">168TA1430</a>
DYN/DAB12-70J	70.0	59.0	350	166	175	21.0	0	M6	<a href="#">134TA8677</a>
DYN/DAB12-100	103.2	82.0	307	168	211	30.7	1	M8	<a href="#">168TA1092</a>
DYN/DAB12-110	129.8	115.5	330	172	214	33.5	1	M8	<a href="#">134TA8681</a>
DYN/DAB12-120	128.0	109.0	409	177	227	37.0	1	M8	<a href="#">134TA8682</a>
DYN/DAB12-135	166.8	148.5	336	172	279	45.0	1	M8	<a href="#">134TA8683</a>
DYN/DAB12-150	185.6	165.0	481	170	239	50.0	1	M8	<a href="#">134TA8684</a>
DYN/DAB12-160	180.0	155.0	532	207	219	51.0	4	M8	<a href="#">134TA8685</a>
DYN/DAB12-200	225.0	190.5	522	240	222	61.5	4	M8	<a href="#">134TA8686</a>
DYN/DAB12-230	254.0	208.0	521	270	208	74.0	4	M8	<a href="#">134TA8687</a>

**12 YEAR LIFE DESIGN  
"FLOATING USE"**



VRLA: Valve Regulated Lead-Acid  
SLA: Sealed Lead-Acid  
AGM: Absorbed Glass Matt



# BATTERIES

## STATIONARY BATTERIES



### GEL BATTERIES



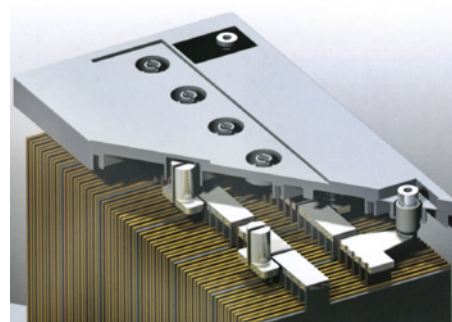
Closed gel batteries for standby applications (floating use) such as UPS systems, emergency centres, telephone exchanges, medical applications, solar panels, navy navigation ...

**100% MAINTENANCE-FREE**

#### GEL DGY-SERIES

	C20	C5	Length	Width	Height	Weight	Lay-out	Terminals	REF
	Ah	Ah	mm	mm	mm	kg			
<b>6 V</b>									
DYN/DGY6-110	100.0	86.0	194	170	212	16.5	1	M8	<a href="#">134TA8621</a>
DYN/DGY6-160	189.0	157.0	298	171	229	26.9	1	M8	<a href="#">168TA1021</a>
DYN/DGY6-180	210.0	187.0	260	180	276	29.5	0	M8 + 1	<a href="#">134TA8623</a>
DYN/DGY6-200	248.0	220.0	322	178	231	34.0	1	M8	<a href="#">134TA8624</a>
DYN/DGY6-225	242.0	205.5	243	188	275	32.0	0	1	<a href="#">168TA1465</a>
<b>8 V</b>									
DYN/DGY8-180	157.0	128.0	260	182	298	36.4	1	DT 1 + 8	<a href="#">134TA8625</a>
<b>12 V</b>									
DYN/DGY12-7.5	8.5	7.9	151	65	103	2.3	3	T1	<a href="#">168TA1024</a>
DYN/DGY12-13	12.0	10.4	151	98	100	3.8	3	T2	<a href="#">152TA7338</a>
DYN/DGY12-18	18.0	15.6	181	77	167	5.5	0	M5	<a href="#">168TA1026</a>
DYN/DGY12-26	26.0	22.1	166	176	125	8.0	0	M5	<a href="#">168TA1027</a>
DYN/DGY12-33	36.4	28.3	195	130	160	10.2	1	M6	<a href="#">134TA8628</a>
DYN/DGY12-44	45.4	36.8	198	167	158	13.5	0	M6	<a href="#">168TA1029</a>
DYN/DGY12-55	59.0	49.1	229	138	208	16.5	1	M6	<a href="#">168TA1467</a>
DYN/DGY12-60	71.6	57.7	260	168	180	22.1	1	M6	<a href="#">168TA1039</a>
DYN/DGY12-65	75.0	61.1	279	175	190	22.7	0	M6	<a href="#">168TA1031</a>
DYN/DGY12-70J	69.6	58.5	350	166	175	21.0	0	M6	<a href="#">134TA8632</a>
DYN/DGY12-80	87.0	78.0	260	168	211	24.0	1	M6	<a href="#">168TA1468</a>
DYN/DGY12-100	105.0	99.0	307	168	214	30.7	1	M8	<a href="#">168TA1469</a>
DYN/DGY12-110	123.0	110.0	330	172	214	32.0	1	M8	<a href="#">168TA1042</a>
DYN/DGY12-150	161.4	136.5	483	170	241	45.0	1	M8	<a href="#">134TA8639</a>
DYN/DGY12-160	180.0	155.0	532	207	219	53.0	4	M8	<a href="#">134TA8640</a>
DYN/DGY12-200	214.0	178.5	522	240	222	62.5	4	M8	<a href="#">134TA8641</a>
DYN/DGY12-225	263.0	216.0	521	269	208	74.5	4	M8	<a href="#">134TA8642</a>

**12 YEAR LIFE DESIGN**  
**"FLOATING USE"**



# BATTERIES

## HOUSEHOLD BATTERIES



### PRIMARY AND SECONDARY BATTERIES

#### NON-RECHARGEABLE AND RECHARGEABLE



Voltage	Size	# in packaging	REF
<b>V</b>			
<b>Rechargeable NiMh</b>			
1.2	AAA (650)	2	<a href="#">168TA1514</a>
1.2	AAA (850)	2	<a href="#">168TA1515</a>
1.2	AA	2	<a href="#">168TA1516</a>
1.2	AA	4	<a href="#">168TA1517</a>
1.2	C	2	<a href="#">168TA1518</a>
1.2	D	2	<a href="#">168TA1519</a>
9	E	1	<a href="#">168TA1520</a>

#### CHARGER NIMH (AAA/AA/9V/C/D)



REF [139TA3248](#)

#### DURACELL

Voltage	Size	# in packaging	REF
<b>V</b>			
<b>Alkaline</b>			
1.5	AAA	10	<a href="#">168TA1521</a>
1.5	AA	10	<a href="#">168TA1522</a>
1.5	C	10	<a href="#">168TA1523</a>
1.5	D	10	<a href="#">168TA1524</a>
9	E	10	<a href="#">168TA1525</a>
1.5	AA	638	<a href="#">168TA1526</a>
1.5	AAA	1200	<a href="#">168TA1527</a>
1.5	C	204	<a href="#">168TA1528</a>
1.5	D	100	<a href="#">168TA1529</a>
9	E	210	<a href="#">168TA1530</a>
1.5	AAAA	2	<a href="#">168TA1531</a>
6V	J	1	<a href="#">168TA1532</a>

#### RAYOVAC

Voltage	Size	# in packaging	REF
<b>V</b>			
<b>Hearing device</b>			
1.4	YELLOW/NR10	6	<a href="#">168TA1548</a>
1.4	ORANGE/NR13	6	<a href="#">168TA1545</a>
1.4	BROWN/NR312	6	<a href="#">168TA1546</a>
1.4	BLUE/NR675	6	<a href="#">168TA1547</a>

# BATTERIES

## HOUSEHOLD BATTERIES



Voltage	Size	# in packaging	REF
<b>V</b>			
<b>Alkaline</b>			
1.5	AAA	4	<a href="#">168TA1504</a>
1.5	AA	4	<a href="#">168TA1508</a>
1.5	C	2	<a href="#">168TA1505</a>
1.5	D	2	<a href="#">168TA1509</a>
9	E	1	<a href="#">168TA1510</a>
1.5	AA	40	<a href="#">168TA1506</a>
1.5	AAA	10	<a href="#">163TA8917</a>
9	E	20	<a href="#">163TA8921</a>
4.5	4.5	1	<a href="#">168TA1507</a>
<b>Lithium</b>			
1.5	AA	4	<a href="#">168TA1511</a>
1.5	AAA	4	<a href="#">168TA1512</a>
9	E	1	<a href="#">168TA1513</a>



Voltage	Size	# in packaging	REF
<b>V</b>			
<b>Button cell</b>			
3	1220	1	<a href="#">168TA1533</a>
3	1620	1	<a href="#">168TA1534</a>
3	1616	1	<a href="#">168TA1535</a>
3	1632	1	<a href="#">168TA1536</a>
3	2016	1	<a href="#">168TA1537</a>
3	2025	1	<a href="#">168TA1538</a>
3	2032	1	<a href="#">168TA1539</a>
3	2325	1	<a href="#">168TA1540</a>
3	2330	1	<a href="#">168TA1541</a>
3	2354	1	<a href="#">168TA1542</a>
3	2450	1	<a href="#">168TA1543</a>
3	2477	1	<a href="#">168TA1544</a>



Voltage	Size	# in packaging	REF
<b>V</b>			
<b>Cylindrical cells</b>			
1.5	LR43	1	<a href="#">168TA1549</a>
1.5	LR44	1	<a href="#">168TA1550</a>
1.5	LR54	1	<a href="#">168TA1551</a>
1.5	V625U	1	<a href="#">168TA1552</a>
12	27A	1	<a href="#">168TA1553</a>
12	23A	1	<a href="#">168TA1554</a>
6	11A	2	<a href="#">168TA1555</a>
1.5	LR1	1	<a href="#">168TA1556</a>
6	4LR44	1	<a href="#">168TA1557</a>
3	CR2	1	<a href="#">168TA1561</a>
3	CR123A	1	<a href="#">168TA1558</a>
6	2CR5	1	<a href="#">168TA1559</a>
6	CR-P2	1	<a href="#">168TA1560</a>



Voltage	Size	# in packaging	REF
<b>V</b>			
<b>Watch</b>			
1.55	SR43SW LOW DRAIN	1	<a href="#">168TA1562</a>
1.55	SR44SW LOW DRAIN	1	<a href="#">168TA1563</a>
1.55	SR716SW LOW DRAIN	1	<a href="#">168TA1564</a>
1.55	SR516SW LOW DRAIN	1	<a href="#">168TA1565</a>
1.55	SR527SW LOW DRAIN	1	<a href="#">168TA1566</a>
1.55	SR616SW LOW DRAIN	1	<a href="#">168TA1567</a>
1.55	SR731SW LOW DRAIN	1	<a href="#">168TA1568</a>
1.55	SR44W HIGH DRAIN	1	<a href="#">168TA1569</a>
1.55	SR721SW LOW DRAIN	1	<a href="#">168TA1570</a>
1.55	SR621SW LOW DRAIN	1	<a href="#">168TA1571</a>
1.55	SR920W HIGH DRAIN	1	<a href="#">168TA1572</a>
1.55	SR920SW LOW DRAIN	1	<a href="#">168TA1573</a>
1.55	SR916SW LOW DRAIN	1	<a href="#">168TA1574</a>
1.55	SR626SW LOW DRAIN	1	<a href="#">168TA1575</a>
1.55	SR521SW LOW DRAIN	1	<a href="#">168TA1576</a>
1.55	SR1120SW LOW DRAIN	1	<a href="#">168TA1577</a>
1.55	SR41SW LOW DRAIN	1	<a href="#">168TA1578</a>
1.55	SR43W HIGH DRAIN	1	<a href="#">168TA1579</a>
1.55	SR1130W HIGH DRAIN	1	<a href="#">168TA1580</a>
1.55	SR1130SW LOW DRAIN	1	<a href="#">168TA1581</a>
1.55	SR1120W HIGH DRAIN	1	<a href="#">168TA1582</a>
1.55	SR41W HIGH DRAIN	1	<a href="#">168TA1589</a>
1.55	SR754W HIGH DRAIN	1	<a href="#">168TA1583</a>
1.55	SR936SW LOW DRAIN	1	<a href="#">168TA1584</a>
1.55	SR927SW LOW DRAIN	1	<a href="#">168TA1585</a>
1.55	SR726W HIGH DRAIN	1	<a href="#">168TA1586</a>
1.55	SR726SW LOW DRAIN	1	<a href="#">168TA1587</a>
1.55	SR927W HIGH DRAIN	1	<a href="#">168TA1588</a>



#### 4R25

Voltage	Nominal capacity	Weight	REF
V		kg	
6	7 Ah, > 600 mins	0.4	<a href="#">151TA3827</a>

#### 4R25-2

Voltage	Nominal capacity	Weight	REF
V		kg	
6	19 Ah	1.04	<a href="#">168TA1591</a>

Voltage	Capacity	Length	Width	Height	Cell type	Layout	REF
V	mAh	mm	mm	mm			
<b>Emergency lighting</b>							
3.6	1700	69	23	43	Sub-C		<a href="#">168TA1597</a>
3.6	1700	126	23	0	Sub-C		<a href="#">168TA1598</a>
4.8	1700	92	23	43	Sub-C		<a href="#">168TA1599</a>
4.8	1700	172	23	0	Sub-C		<a href="#">168TA1600</a>
6.0	1700	115	23	43	Sub-C		<a href="#">168TA1601</a>
6.0	1700	215	23	0	Sub-C		<a href="#">168TA1602</a>
7.2	1700	138	23	43	Sub-C		<a href="#">168TA1603</a>
7.2	1700	258	23	0	Sub-C		<a href="#">168TA1604</a>
4.8	2500	104	26	50	C		<a href="#">168TA1605</a>
4.8	2500	200	26	0	C		<a href="#">168TA1606</a>
6.0	2500	130	26	50	C		<a href="#">168TA1607</a>
6.0	2500	250	26	0	C		<a href="#">168TA1608</a>
2.4	4500	68	34	60	D		<a href="#">168TA1609</a>
2.4	4500	120	34	0	D		<a href="#">168TA1610</a>
3.6	4500	102	34	60	D		<a href="#">168TA1611</a>
3.6	4500	180	34	0	D		<a href="#">168TA1590</a>
4.8	4500	136	34	60	D		<a href="#">168TA1612</a>
4.8	4500	240	34	0	D		<a href="#">168TA1613</a>
4.8	4000	207	27	0	C		<a href="#">168TA1614</a>

\* With connector, connectors can be added on request