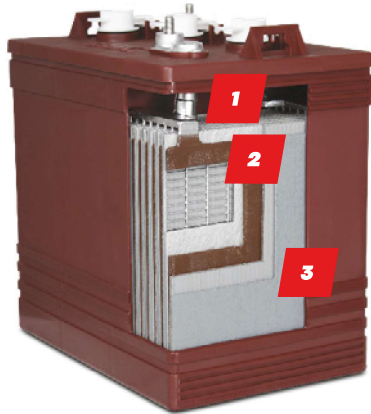


BATTERIES

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							
6 V deep-cycle flooded batteries													
J250G	901	195	235	309	174	290	✓	EUTR	Bayo		Nuts/bolts	28	166TA4197
J250P	901	215	250	296	176	293		DT	Bayo	✓	Hex nut	28	166TA4198
J305E-AC	902	250	305	312	174	366	✓	EUTR	Bayo	✓	Nuts/bolts	30	166TA4199
J305G-AC	902	258	315	312	174	366	✓	EUTR	Bayo	✓	Nuts/bolts	30	145TA1961
J305H-AC	902	295	360	296	176	366		DT	Bayo	✓	Hex nut	30	166TA4201
J305P-AC	902	271	330	296	176	366		DT	Bayo	✓	Hex nut	30	106TA8679
L16E-AC	903	303	370	311	174	417	✓	EUTR	Bayo	✓	Nuts/bolts	28	166TA4203
L16G-AC	903	320	390	311	174	417	✓	EUTR	Bayo		Nuts/bolts	28	166TA4204
L16H-AC	903	357	435	296	176	425		DT	Bayo	✓	Hex nut	26	166TA4206
L16HG-AC	903	357	435	311	174	417	✓	EUTR	Bayo	✓	Nuts/bolts	26	166TA4207
L16P-AC	903	344	420	296	176	425		DT	Bayo	✓	Hex nut	28	106TA8680
T-105	GC2	185	225	262	181	281	✓	ELPT	Bayo		Hex nut	48	106TA8677
T-105-EUT	GC2	185	225	262	181	281	✓	EUT	Bayo		Hex nut	48	166TA4211
T-125	GC2	195	240	262	181	281	✓	ELPT	Bayo		Hex nut	48	166TA4216
T-145	GC2H	215	260	262	181	302	✓	EHPT	Bayo		Hex nut	45	106TA8678
T-605	GC2	175	210	262	181	281	✓	ELPT	Bayo		Hex nut	48	166TA4228
TE35	DIN	200	245	244	191	269		AP	Screw in	✓	N/A	48	166TA4230
8 V deep-cycle flooded batteries													
DC-8V	GC8	135	160	259	179	283	✓	EHPT	Master		Hex nut	48	166TA4231
T-875	GC8	145	170	259	179	283	✓	ELPT	Bayo		Hex nut	48	166TA4234
T-890	GC8	155	190	259	179	283	✓	ELPT	Bayo		Hex nut	48	166TA4237
12 V deep-cycle flooded batteries													
24TMX	24	70	85	277	168	235		AP	Pod	✓	Nuts/bolts	54	166TA4238
27TMH	27	95	115	323	168	235		AP	Pod	✓	N/A	28	166TA4241
27TMX	27	85	105	323	168	235		AP	Pod	✓	N/A	42	165TA4535
27TMXWNT	27	85	105	323	168	235		WNT	Pod	✓	WNT	28	166TA4247
30XH5	30H	105	130	355	171	256		AP	Pod	✓	N/A	36	166TA4248
31XH5	31	105	130	329	171	243		Stud	Screw in	✓	Hex nut	24	166TA4251
J185P-AC	921	168	205	380	176	374		DT	Bayo	✓	Hex nut	24	166TA4260
SCS225	30H	105	130	354	171	253		DWNT	Pod	✓	WNT	36	166TA4264
T-1275	GC12	120	150	329	181	272	✓	ELPT	Master		Hex nut	36	166TA4266

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 outperforms 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



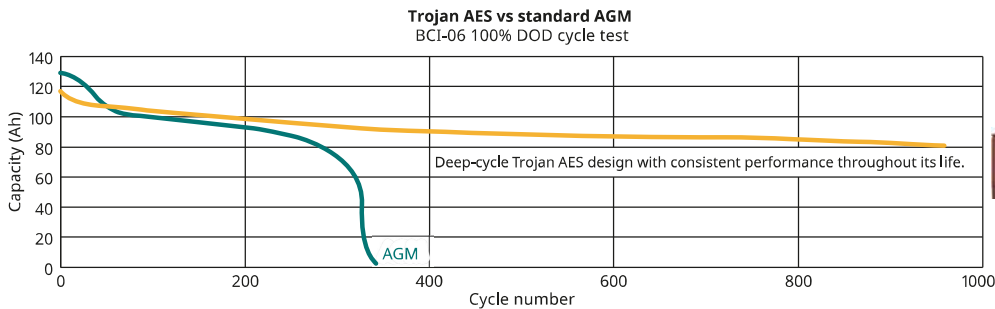
PERFORMS IN HARSH CONDITIONS

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 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
6 V										
J305-AES-DT	902	279	228	296	176	358	DT	45	28	168TA2867
L16-AES-DT	903	355	294	296	176	417	DT	55	28	168TA2868
T105-AES-AP	GC2	207	170	262	179	273	AP	32	31	168TA2869
8 V										
T875-AES-AP	GC8	158	131	262	179	273	AP	33	31	168TA2870
12 V										
24-AES-DT	24	76	67	274	174	219	DT	25	54	168TA2871
27-AES-DT	27	89	77	306	174	237	DT	30	42	168TA2872
31-AES-DT	29	102	82	235	173	238	DT	31	36	168TA2873
J185-AES-DT	921	175	140	380	176	367	DT	57	24	168TA2874
OVERDRIVE-31-AES-STUD	31	104	83	325	173	240	STUD	31	36	168TA2875
T1275-AES-AP	GC12	130	99	329	179	278	AP	39	23	168TA2876

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% recycable)
- 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 serve 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	Capacity amp – hours			Energy	Length	Width	Height	Operating temp	Terminal type	REF
	minutes	5 hr	10 hr	20 hr							
TRL-GC2-24-M	156	65	65	65	1.75	264	180	278	-20 to 60 °C	M8	168TA2877
TRL-GC2-36-M	108	45	45	45	1.75	264	180	278	-20 to 60 °C	M8	168TA2878
TR-GC2-48-G	72	30	30	30	1.53	264	180	278	-40 to 60 °C	M8	168TA2879

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