

C -Rate

Amp-hours

Energy SI Unit:
Joules

Convenient alternative, especially for electricity:
Watt-hours

But batteries seem to want to talk about:
Amp-hours



POWER LINE



12V

80Ah (C20)

750A (EN)

110

580 110 075 B13



⊕

Ni-Cd Battery

C 1200mAh

⊖



GP



NiMH Battery

1.2V

min. 2200mAh

Standard charge

16 hours at 220mA

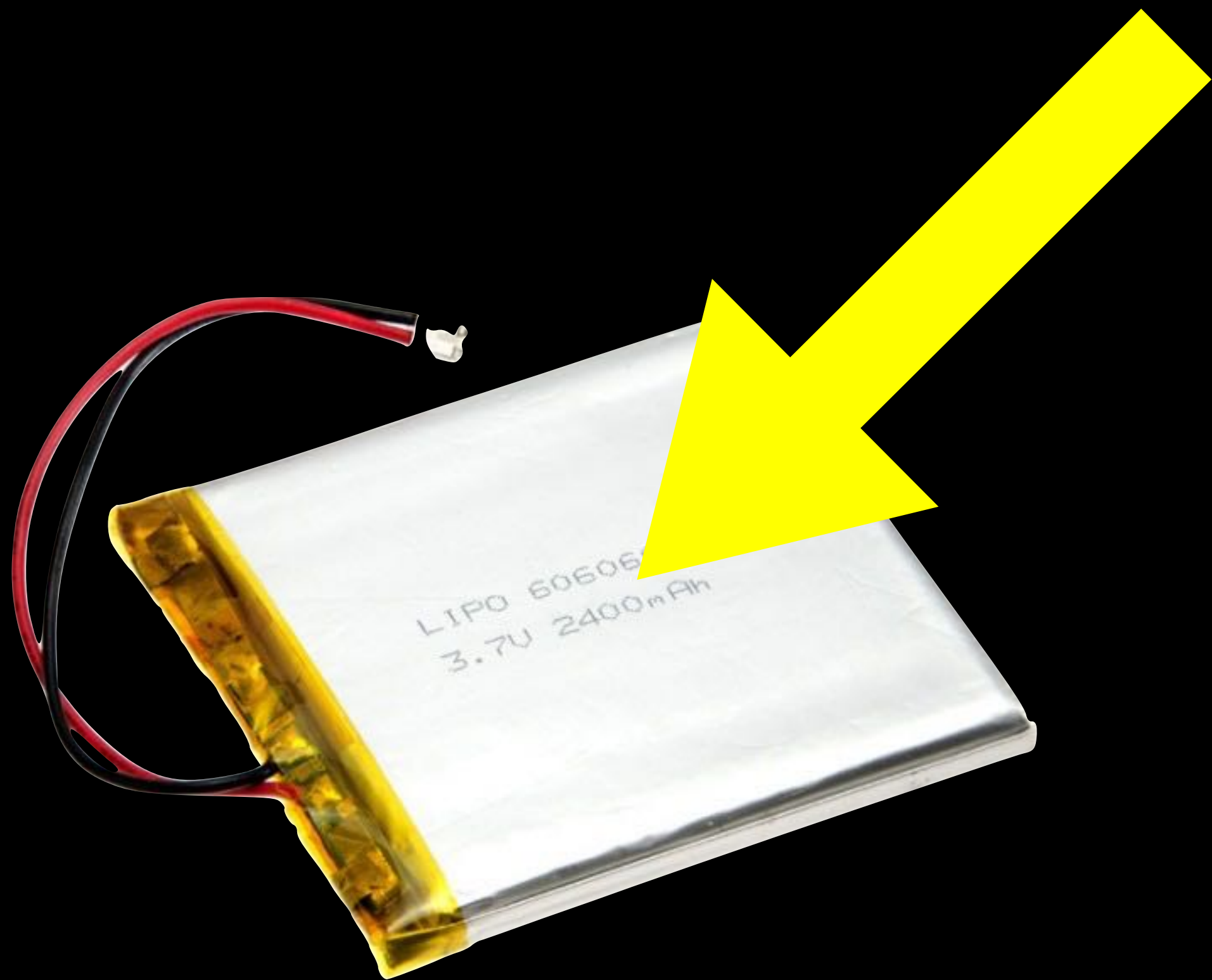




3.7V
2600 mAh

ORB-186P26

RECHARGEABLE
LITHIUM-ION BATTERY
FOR HIGH-DRAIN DEVICES



L1P0 60606
3.7V 2400mAh

Battery **Capacity** is often specified in
Amp-hours
Ah
(or milliamp-hours, mAh)

We can get Watt-hours by multiplying
Amp-hours x average voltage

(Amps x Volts = Watts; Watts x hours = Watt-hours)

Rating: 11.1V = 4400mAh, 49Wh
BTY-L74

CEFC

PG

PS
E

11.1V
4.3Ah



P/N: 91NMS17LD4SU1

Made in China/中国制造 by Celxpert

注意

1. 报废电池必须按照废弃电器电子产品回收处理。
2. 禁止投入火中或直接焚烧。
3. 若有任何不当操作使用电池，包含短路、摔落等，请立即送返检修。

VORSICHT!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.
Ersatz nur durch den gleichen oder einen vom Hersteller empfohlenen gleichwertigen Typ.
Öffnen Sie niemals die Batterie.
Erwärmen Sie die Batterie nicht über 60°C.
Werfen Sie die Batterie nicht ins offene Feuer.
Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

PRECAUTION!

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by manufacturer.
Dispose of used batteries according to the manufacturers instructions.
Never attempt to disassemble or reassemble.
Do not heat up above 60°C (140°F).
Do not dispose of in fire or directly short circuit.

PRECAUCION!

Peligro de explosión si la batería se substituye incorrectamente.
Substituya solamente por el mismo o el modelo equivalente recomendado por el fabricante.
Nunca procure desensamblar o volver a montar.
No exponga las pilas a temperaturas superiores a 60°C.
No arrojar al fuego.
Disponga de las baterías usadas según las instrucciones del fabricante.

Amp-hours x average voltage
11.1V * 4.4Ah = 48.84Wh
(175824 Joules)

However, it is useful to consider a battery's capacity in Amp-hours because **maximum charge- and discharge-rates are relative to the battery's capacity.**

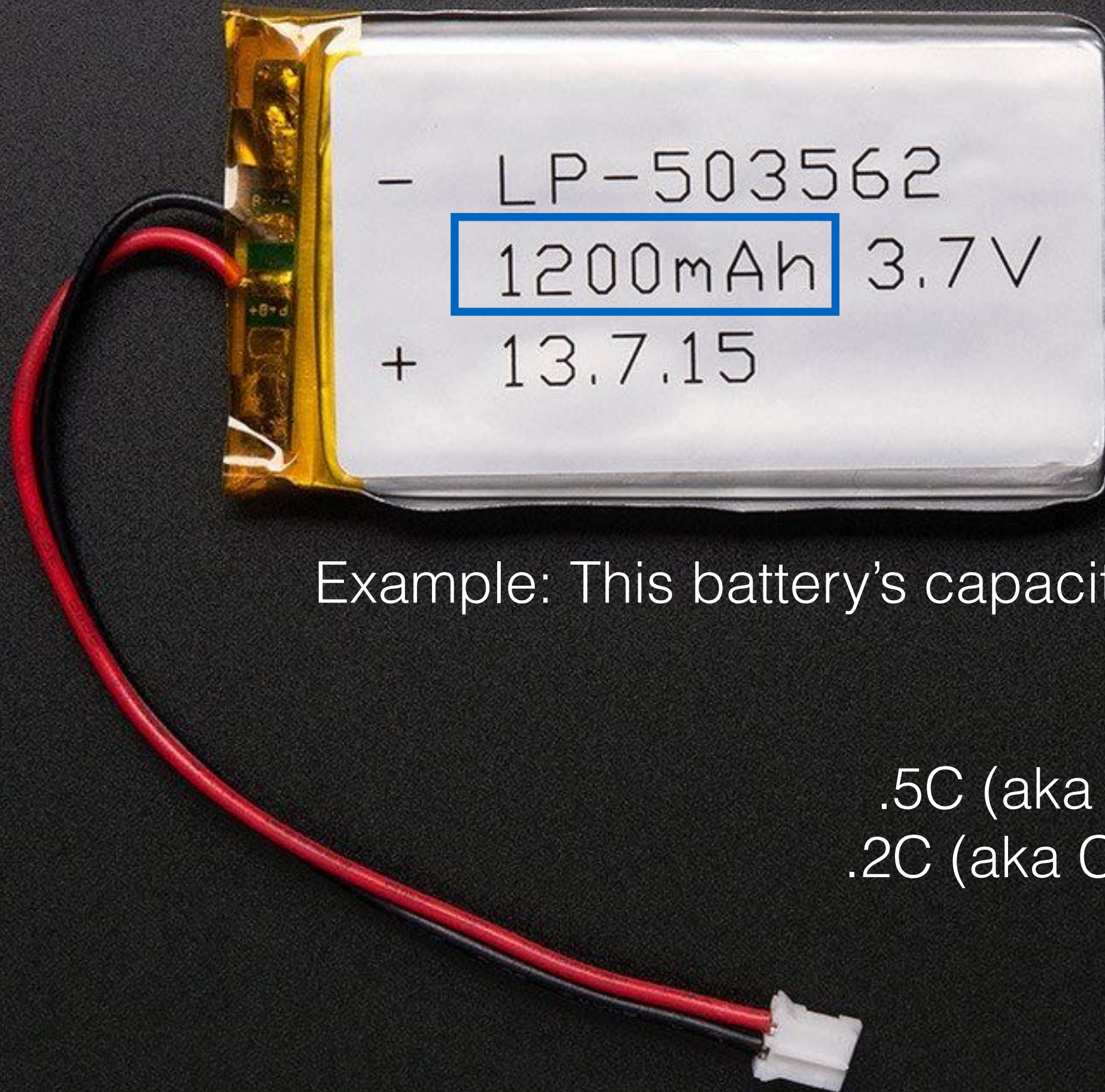
Larger batteries (other aspects equal) can supply higher currents and charge at higher currents.

Therefore, battery specifications typically specify charging and discharging currents as a multiple of the

“C-rate”

where

$1\text{C} = \text{battery's capacity} / 1\text{ hour}$



Example: This battery's capacity is **1.2Ah**

$$1C = 1.2A$$

$$2C = 2.4A$$

$$.5C \text{ (aka } C/2) = .6A$$

$$.2C \text{ (aka } C/5) = .24A$$

etc...

Features & Benefits

- High energy and power density
- Long, stable, high power
- High safety performance
- Ideal for power assisted bicycles, 2-way radios, medical devices and robotics.

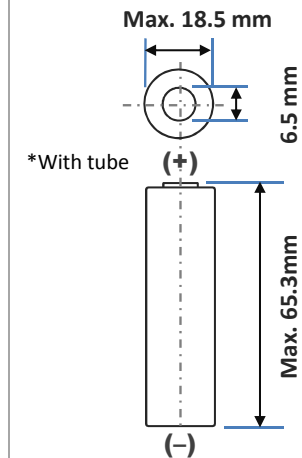
* At temperatures below 10°C, charge at a 0.25C rate.

Specifications

Rated capacity ⁽¹⁾	Min. 2700mAh
Capacity ⁽²⁾	Min. 2750mAh Typ. 2900mAh
Nominal voltage	3.6V
Charging	CC-CV, Std. 1375mA, 4.20V, 4.0 hrs
Weight (max.)	48.0 g
Temperature	Charge*: 0 to +45°C Discharge: -20 to +60°C Storage: -20 to +50°C
Energy density ⁽³⁾	Volumetric: 577 Wh/l Gravimetric: 207 Wh/kg

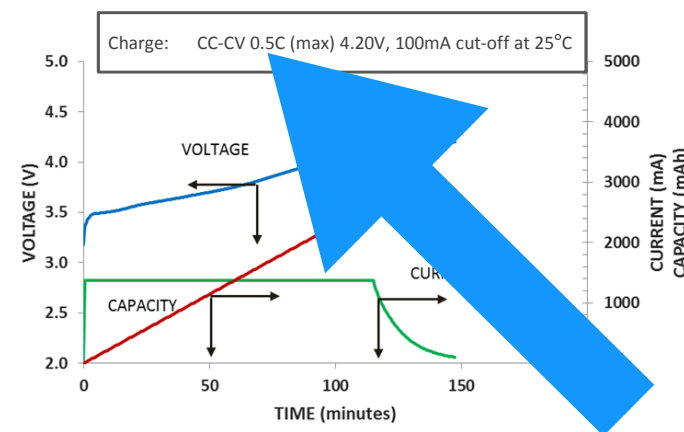
⁽¹⁾ At 20°C ⁽²⁾ At 25°C ⁽³⁾ Energy density based on bare cell dimensions

Dimensions

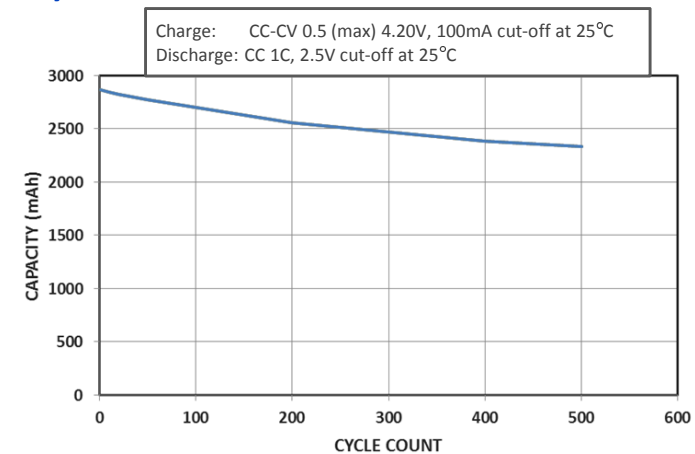


For Reference Only

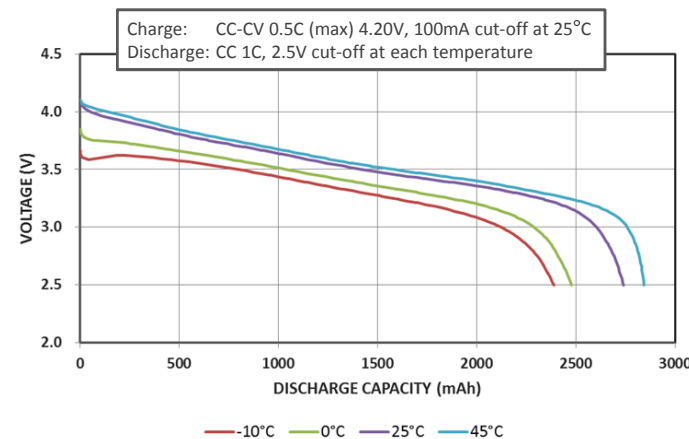
Charge Characteristics



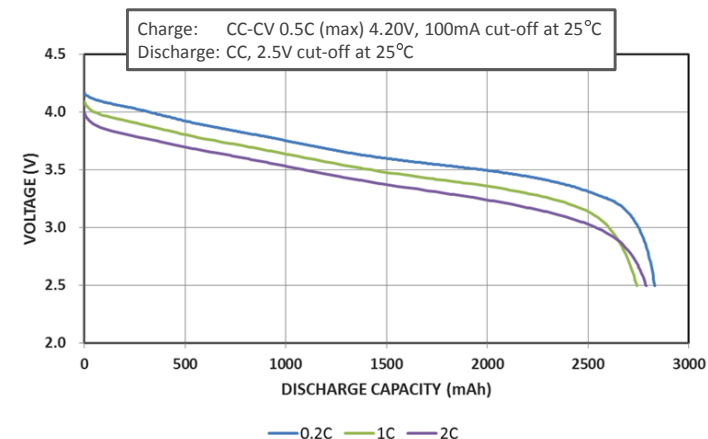
Cycle Life Characteristics



Discharge Characteristics (by temperature)



Discharge Characteristics (by rate of discharge)



The data in this document is for descriptive purposes only and is not intended to make or imply any guarantee or warranty.

Source: a typical rechargeable Li pack from Mouser



UBBL07

Technical Datasheet



Features

- Long cycle life
- High energy density
- Wide operating temperature range
- Lightweight

Applications

- Portable electronics
- Military radios
- Hand-held devices
- Medical equipment
- Unmanned vehicles
- Server back-up power

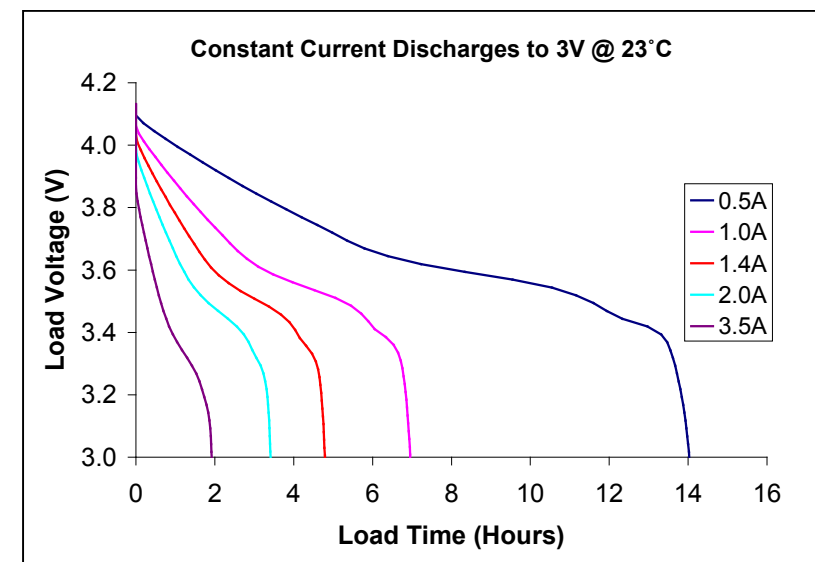
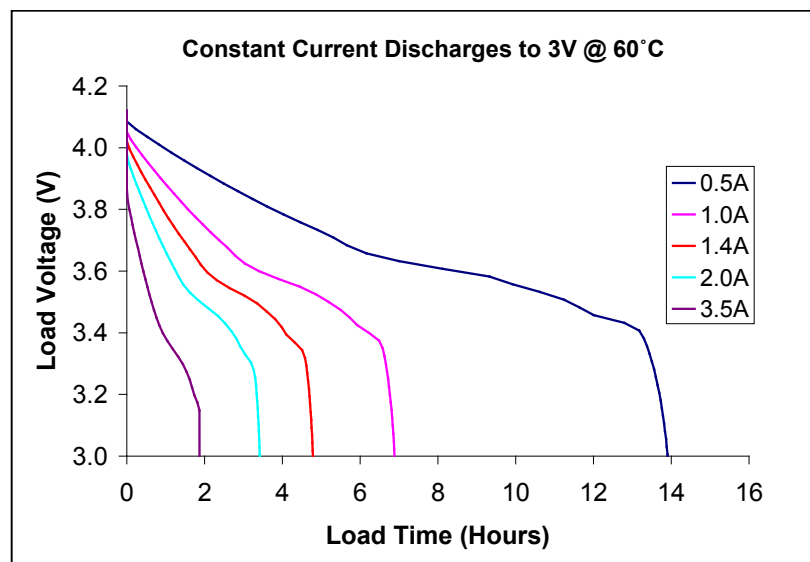
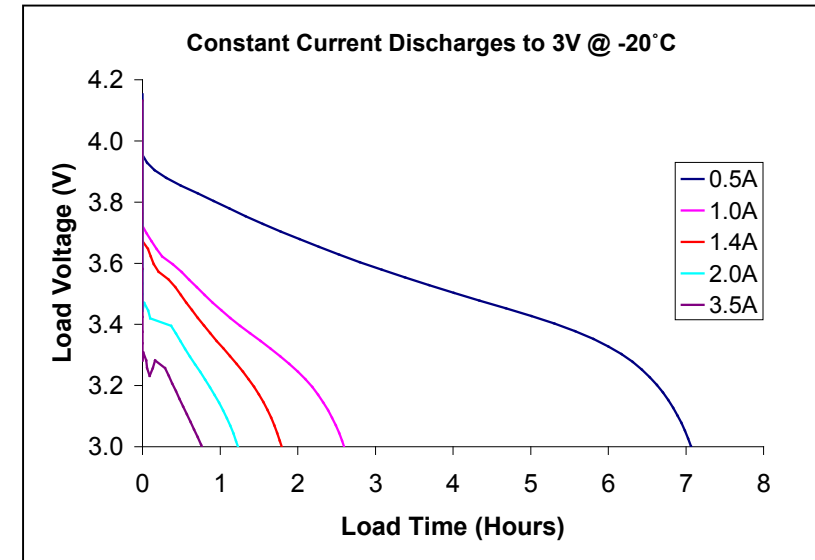
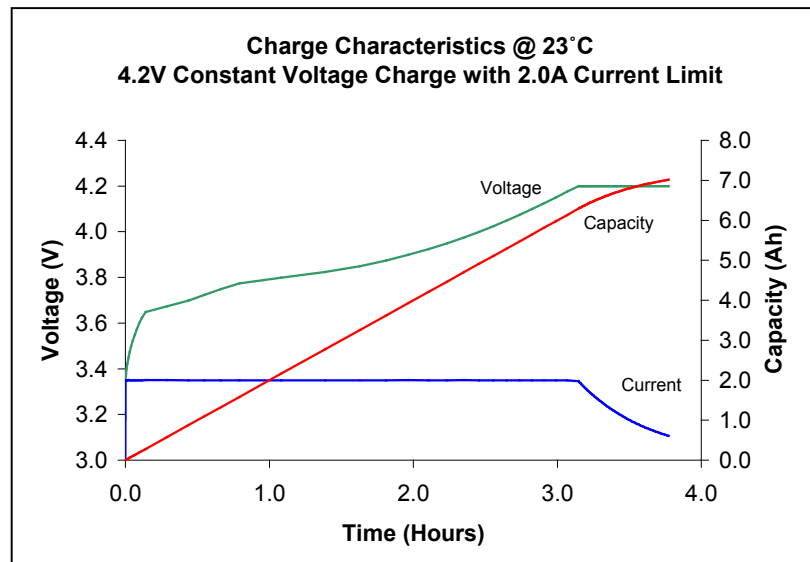
Optional Accessories

Technical Specifications

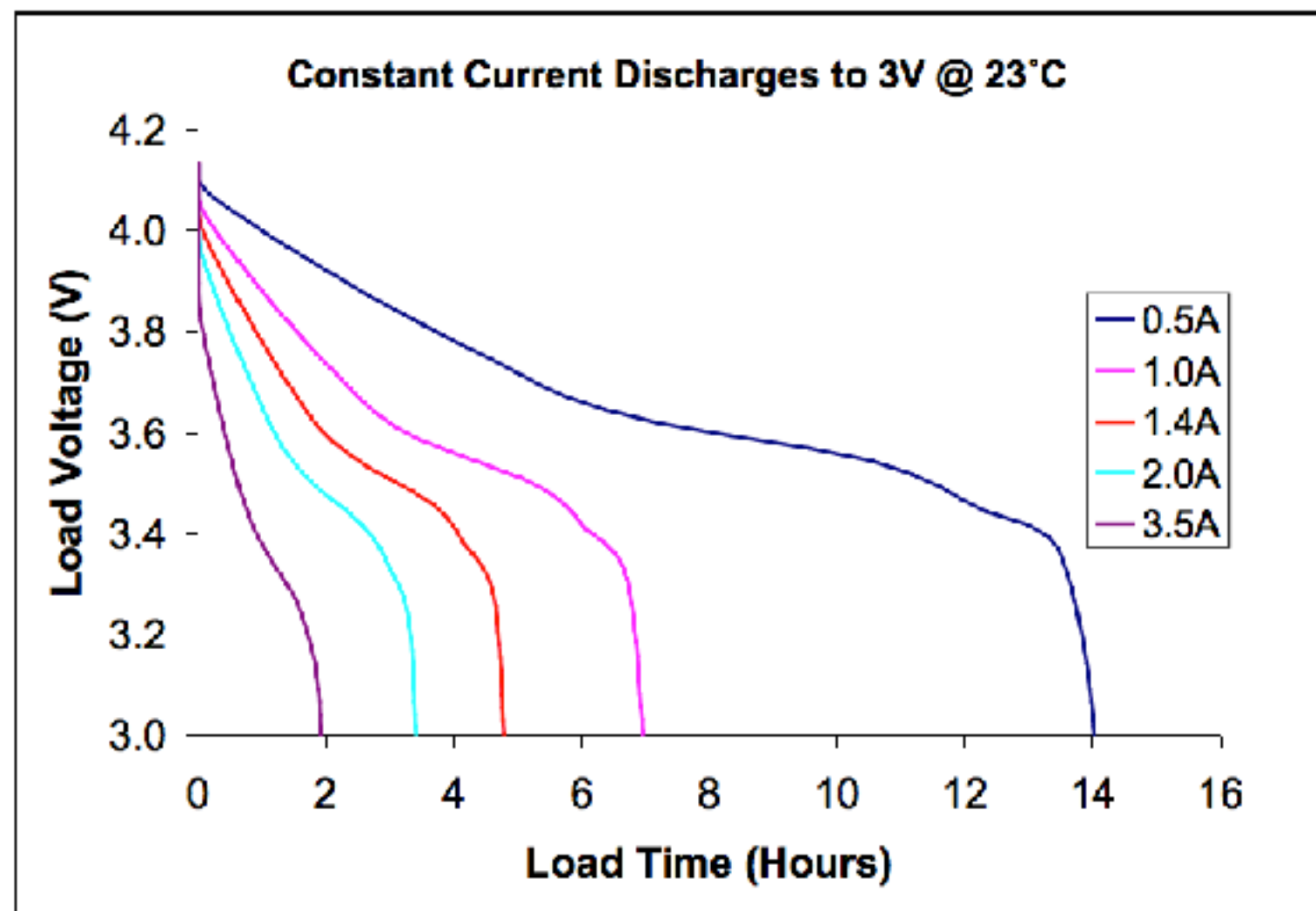
Part No.	UBBL07
NSN	6140-01-590-4132
Voltage Range	3.0 to 4.2V
Average Voltage	3.6V
Capacity	7.2Ah @C/5 Rate @ 23°C
Max. Discharge	3.5A continuous
Energy	26Wh
Energy Density	162Wh/kg, 317Wh/l
Weight	160g
Cycle Life	> 300 cycles @ C/5 to 80% of initial capacity
Memory	No Memory Effect
Operating Temperature	-20°C to 60°C
Storage Temperature	-20°C to 60°C
Self-Discharge	< 10% per month
Exterior/Housing	PVC Shrink Wrap
Terminals/Connector	Wire leads: 26 AWG: Red (+), Black (-) Molex connector 87439-0400 Mates with 87437 & 87438
Safety	UL Component Recognized IEC62133 Certified Material Safety Datasheet - MSDS041 Safety Guide UBM-5112
CB ID	DK-5969-UL
Transportation	Excepted from regulations for packages with gross mass of 10kg or less (see note)

Source: a typical rechargeable Li pack from Mouser

Performance Graphs



Average Voltage	3.6V
Capacity	7.2Ah @C/5 Rate @ 23°C
Max. Discharge	3.5A continuous
Energy	26Wh
Energy Density	162Wh/kg, 317Wh/l
Weight	160g
Cycle Life	> 300 cycles @ C/5 to 80% of initial capacity

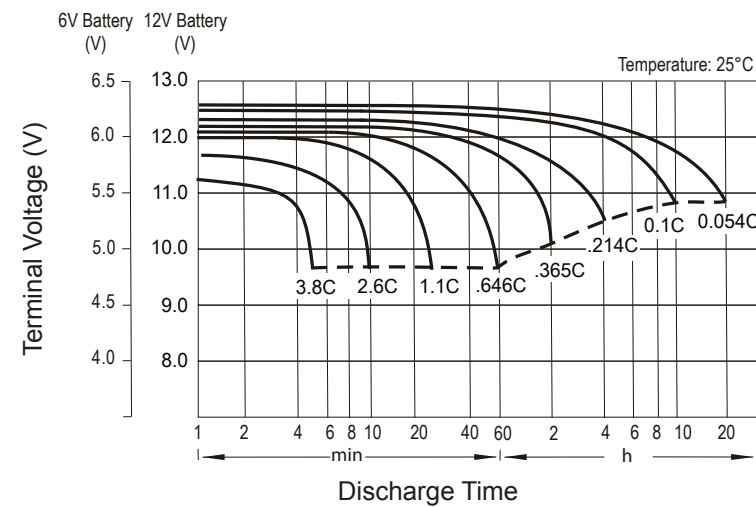


$$1C = 7.2A$$
$$.5C \sim = 3.5A$$
$$C/5 = 1.4A$$

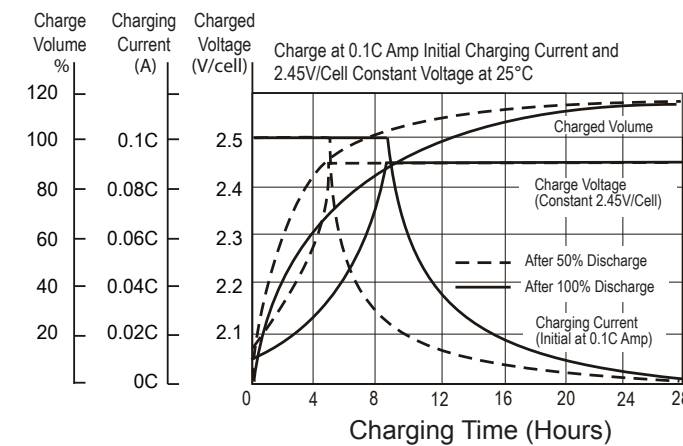
PDC Series - AGM Deep Cycle Batteries

Model	Nominal Voltage	Rated Capacity AH		Length		Width		Height		Total Height		Weight		Terminal Type
		20-hr	10-hr	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lbs.	kgs.	
PDC-1275	12	7.5	7.2	5.94	151	2.56	65	3.72	94.5	3.94	100	5.5	2.5	F2
PDC-1285	12	8.5	8.0	5.94	151	2.56	65	3.72	94.5	3.94	100	6.0	2.7	F2
PDC-12140	12	14.0	13.0	5.96	151.5	3.92	100	3.82	97	3.98	101	9.5	4.3	F2
PDC-12200	12	21.0	20.0	7.15	181.5	3.01	77	6.73	171	6.73	171	15	6.9	B (T12)
PDC-12260	12	28.0	26.0	6.56	166.5	6.89	175	4.92	125	4.92	125	21	9.4	NB
PDC-12260H	12	26.0	24.0	6.50	165	4.92	125	6.89	175	6.89	175	21	9.5	B (T12)
PDC-12350	12	35.0	33.0	7.68	195	5.12	130	6.46	164	7.09	180	25	11.2	NB
PDC-12400	12	40.0	38.0	7.76	197	6.50	165	6.69	170	6.69	170	32	14.5	B (T6)
PDC-12600	12	60.0	55.0	9.04	230	5.45	138	8.27	210	8.66	220	39	17.7	U (T9)
PDC-12800	12	80.0	75.0	10.24	260	6.61	168	8.27	210	9.06	230	50	22.7	U (T14)
PDC-121000	12	100	92.0	12.05	306	6.61	168	8.27	210	8.50	216	61	27.5	U (T14)
PDC-121100	12	107	100.0	12.99	330	6.81	173	8.46	215	8.66	220	67	30.4	B (T6)
PDC-122000	12	214	200.0	20.55	522	9.45	240	8.58	218	8.82	224	138	62.5	B (T11)

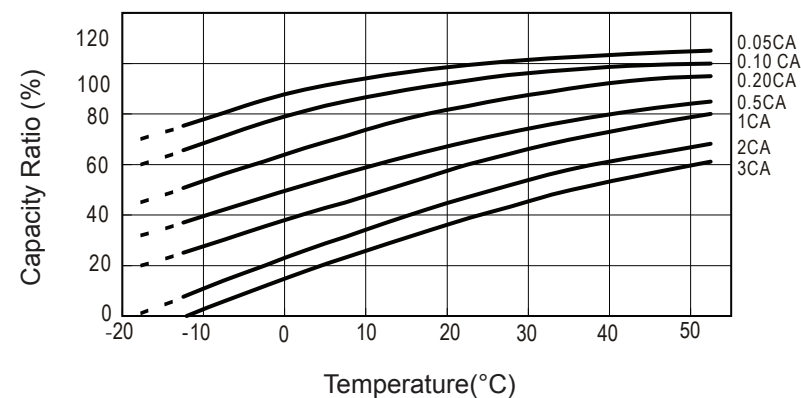
Discharge Characteristics



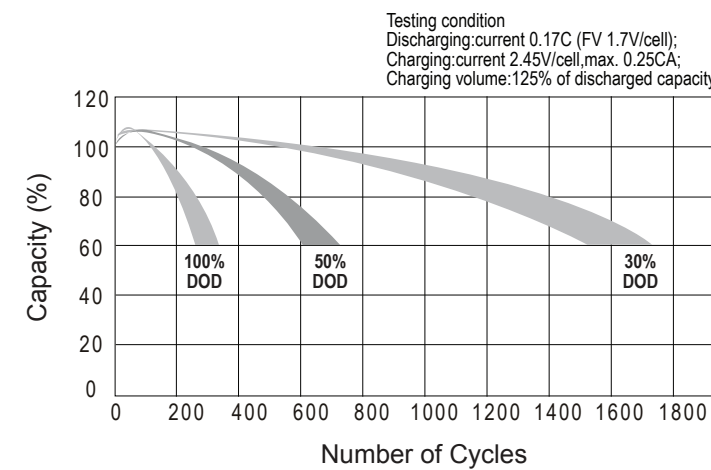
Float Charging Characteristics



Temperature Effects in Relation to Capacity



Cycle Life in Relation to Depth of Discharge





3S 100C Silicon Graphene
HV Shorty LiPo Battery
(11.4V/3600mAh) by
ProTek RC

w/T-Style Connector



\$59.99

Add To Cart



1S LiPo Battery 45C
(3.7V/220mAh) (5) by
Tattu



\$22.99

Add To Cart



6s LiPo Battery Pack 45C
w/EC5 (22.2V/5000mAh)
by Gens Ace



\$119.99

Add To Cart



1S LiPo Transmitter Battery
Pack (3.7V/3000mAh)
(Sanwa MT-44) by ProTek
RC



\$39.99

Add To Cart



6s LiPo Battery Pack 60C
w/EC5 (22.2V/5000mAh)
by Gens Ace



\$144.99

Add To Cart



2S LiPo Battery Pack 30C
(7.4V/280mAh) by E-flite



\$9.99

Add To Cart



1S 25C High Current LiPo
Battery Pack w/UMX
Connector (3.7V/500mAh)
by E-flite

Arriving Tuesday, February 27
2018

\$12.99

Back Order

Available in Stores



2S "Supreme Power" LiPo
25C Battery Pack
(7.4V/850mAh) by ProTek
RC



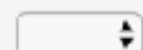
\$11.99

Add To Cart

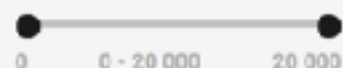
CATEGORIES

All Drone Batteries 62

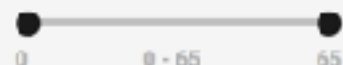
Discharge Plug



Capacity (mAh)



Discharge(c)



Number Of Cells

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6



SORT BY: Position



62 Item(s) SHOW: 100

Show: All categories 22747 Batteries & Chargers (1346) All Drone Batteries (62)



Quantum FPV Headset Battery 7.4V 1500mAh 3C

SKU: 914000015-0 | Weight: 94g | ★★★★★

QTY: - 1 +

\$9.35

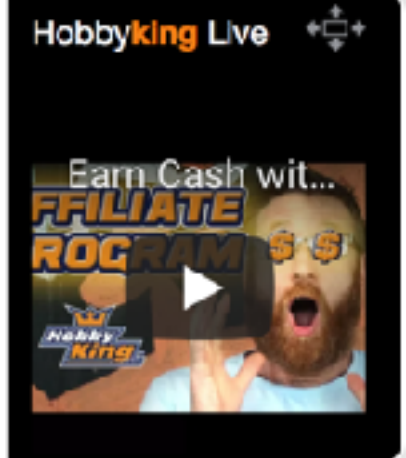


Multistar LiHV High Capacity 3000mAh 3S 10C Multi-Rotor Lipo Pack

SKU: 9067000075-0 | Weight: 255g | ★★★★★

QTY: - 1 +

\$22.48



Product Finder



LiPo



Motor



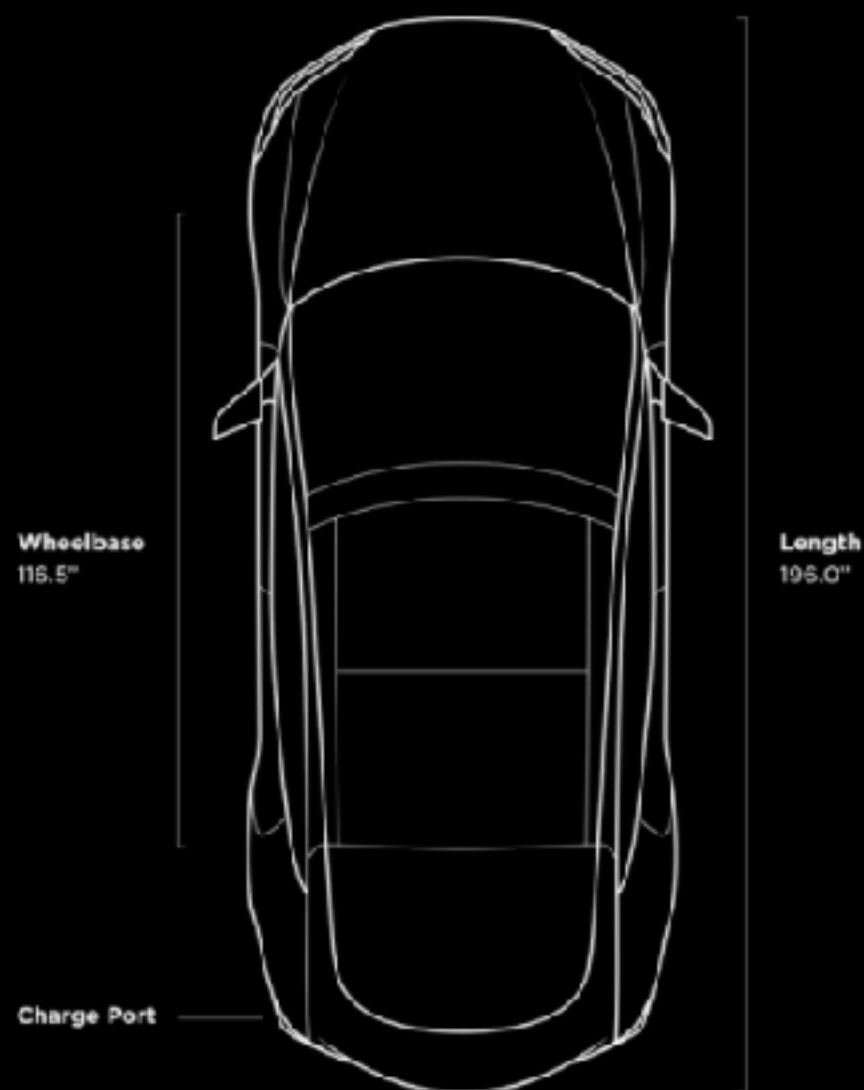
Servo



Propeller

WE SHIP WORLDWIDE





Model S Specs

P100D

100D

75D

Battery

100 kWh

Acceleration

2.5s 0-60 mph

Range

315 miles

Drive

All-Wheel Drive

Seating

5 Adults + 2 Children

Wheels

19" or 21"

Weight

4,941 lbs

Cargo

30 cu ft

Displays

Driver Display + 17" Touchscreen

Supercharging

Free, Unlimited (with referral)

Delivery Timing

1-8 weeks

Warranty

4 years, basic vehicle

8 years, battery & powertrain

