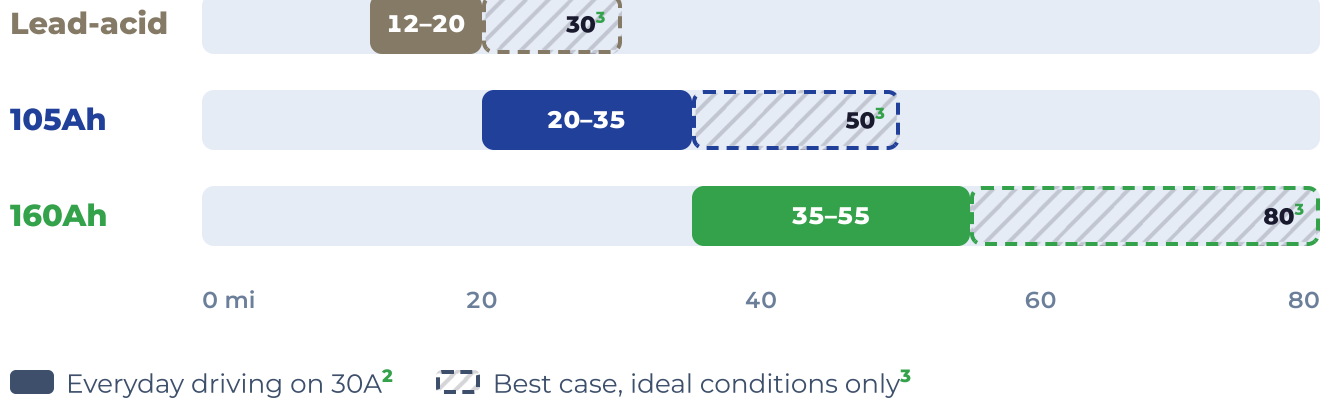


Lead-acid, 105Ah or 160Ah: how far will it go?

Lead-acid vs. lithium, side by side

	Lead-acid Most older carts	105Ah Lithium, standard	160Ah Lithium, extended range
Everyday range²	12 to 20 mi	20 to 35 mi	35 to 55 mi
Best-case range³	up to 25 to 30 mi	up to 40 to 50 mi	up to 65 to 80 mi
Stored energy^{1,5}	about 8.2 kWh	about 5.4 kWh	about 8.2 kWh
Usable energy^{1,5}	about 4 kWh (half)	nearly all of it	nearly all of it
Full charge⁴	about 8 to 10 hrs	about 4 to 6 hrs	about 6½ to 9 hrs
Battery weight⁶	about 350 to 380 lb	about 90 to 110 lb	about 130 to 150 lb

Miles per charge



Why switch to lithium

	LEAD-ACID	LITHIUM
Range	You can only use about half the stored energy before it shortens battery life	Nearly all the stored energy is usable, so even the 105Ah goes farther
Weight	Six batteries, about 350 to 380 lb	One pack, about 90 to 150 lb
Upkeep	Add distilled water monthly, clean corroded terminals	None. Sealed, no water, no corrosion
Charging	8 to 10 hours, and short top-ups wear it out	4 to 9 hours, and you can top up any time
On hills	Slows down as the charge drops	Holds its speed until it is nearly empty
Lifespan ⁷	About 500 to 1,200 cycles, often 4 to 6 years	About 3,000 to 5,000 cycles, often 10 years or more

105Ah vs. 160Ah

+15 to 20

MORE MILES, TYPICAL

Going from 105Ah to 160Ah adds 55 amp-hours, about 2.8 kWh of extra stored energy. In normal driving that works out to roughly 15 to 20 more miles a charge. In ideal conditions the gap can stretch to 25 miles or more.

For most owners the bigger benefit is margin. A full day of beach runs, dinner and a grocery stop is less likely to end below 20%.

What shortens range

Passengers and cargo

Six adults and a cooler can use a third more energy than a solo driver.

Stop-and-go

Every start from a stop sign or crosswalk pulls a burst of power.

Lift kits and big tires

Larger, heavier, knobbier tires add rolling resistance.

Cold weather

Lithium delivers less on cold mornings and charges slower near freezing.

Speed

Holding 25 mph the whole way uses noticeably more than cruising at 15.

Hills and bridges

Climbs cost more than descents give back.

Low tire pressure

An under-inflated tire drags. Check pressure monthly.

Battery age

Capacity drops slowly over thousands of charge cycles.

Which lithium size to choose

Choose 105Ah if you

- Make short trips around the neighborhood and to the beach
- Usually ride with two to four people
- Plug in every night
- Drive a stock cart with standard tires

Choose 160Ah if you

- Drive 30A end to end and back in one day
- Often carry a full six-passenger load
- Have a lifted cart or oversized tires
- Want to skip a night of charging now and then

THE FINE PRINT

1. Lithium stored energy assumes a 48-volt-class lithium (LiFePO₄) pack at 51.2 volts nominal: 105Ah × 51.2V ≈ 5.4 kWh and 160Ah × 51.2V ≈ 8.2 kWh. Actual usable capacity depends on the pack's battery management system.
2. Everyday range is an estimate for a street-legal cart in mixed local driving, using roughly 150 to 250 watt-hours per mile. Lithium figures assume a full charge run down to empty; lead-acid figures stop at 50% (see note 5). We recommend recharging before 20%, which leaves you about 80% of these figures to plan with.
3. Best-case figures are only possible under ideal conditions, all at once:
 - One driver, no passengers or cargo
 - Flat, smooth pavement with no hills, bridges or wind
 - Steady low to moderate speed with few stops
 - Stock tire size, inflated to the recommended pressure
 - Mild temperature, roughly 70 to 85°F
 - A new, fully charged, fully balanced battery driven until it cuts off
 - Minimal accessory use (lights, sound system)Most owners will never see these numbers in everyday use.
4. Lithium charge time from empty with an 18 to 25 amp onboard or plug-in charger. Topping up from partial charge is faster. Your charger's rating sets the real time.
5. Lead-acid figures assume six 8-volt flooded deep-cycle batteries (48 volts, about 170Ah each, like the Trojan T-875). They are rated to stay above about 50% charge, so only about half the stored energy is used in normal driving. Lead-acid also delivers less when power is drawn hard (climbing, full loads, top speed), and its range drops as the batteries age or if they are not watered. Lead-acid range figures assume a healthy set in good condition. The best-case figure still stops at 50%, because running lead-acid lower shortens its life.
6. Battery weights are typical for each type and vary by brand and model.
7. Lifespan in cycles is the manufacturers' rating; years assume regular use and proper care. Lead-acid life depends heavily on watering and never sitting discharged. Lithium life depends on the pack and its battery management system.
8. All figures are general estimates from published battery specs and industry consumption data, not a guarantee of range for any specific cart. Your motor, controller, gearing, tires, accessories and driving style all change the result. Ask us for an estimate on your cart.

GeauxTime

Questions about a battery upgrade? Call or text **(850) 354-4212**

2166 W County Hwy 30A, Suite E, Santa Rosa Beach