



1999 EPIC w/ NiMH Batteries

VEHICLE SPECIFICATIONS

Base Vehicle: Dodge Caravan

VIN: 2B4G1587XR179939

Standard Features:

- AM/FM Stereo Radio w/ Cassette Tape
- Tilt Steering Wheel
- Air Conditioning
- Heater
- Front Wheel Drive
- Driver & Front Passenger Air Bags
- Power Steering
- Power Brakes
- Front Wheel Disc Brakes
- Anti-Lock Brakes
- Regenerative Braking
- Power Door Locks
- Low Rolling Resistance Tires

BATTERY

- Manufacturer: SAFT
- Type: Nickel Metal Hydride
- Number of Modules: 14
- Module Weight: 38 kg (w/coolant)
- Pack Weight: 532 kg (w/coolant)
- Pack(s) Location: Underbody
- Nominal Module Voltage: 24 V
- Nominal System Voltage: 336 V
- Nominal Capacity (C/3): 82 A/H

WEIGHTS

- Design Curb Weight: 4,835 lbs
- Delivered Curb Weight: 4,878 lbs
- Distribution F/R: 52/48 %
- GVWR: 5,800 lbs
- GAWR F/R: 2,850/3,100 lbs
- Payload: 945 lbs ¹
- Performance Goal: 600 lbs

DIMENSIONS

- Wheelbase: 113.9 inches
- Track F/R: 62.9/64.2 inches
- Length: 185.8 inches
- Width: 75.8 inches
- Height: 70.3 inches
- Ground Clearance: 5.2 inches @ GVWR
- Performance Goal: 5.0 inches @ GVWR

CHARGER

- Location: Off-board
- Type: Lockheed-Martin Conductive
- Input Voltages: See Test Note 2

TIRES

- Tire Mfg: Goodyear
- Tire Model: Momentum
- Tire Size: P205/75R15 XL
- Tire Pressure F/R: 50/50 psi
- Spare Installed: Yes (space-saver)

ACCELERATION 0-50 mph

- At 100% SOC: 12.3 sec
- At 50% SOC: 12.9 sec
- Max Power: 91.3 kW
- Performance Goal: 13.5 sec

MAXIMUM SPEED @ 50% SOC

- At 1/4 Mile: 61.7 mph
- In 1 Mile: 78.0 mph
- Performance Goal: 70 mph in One Mile

CONSTANT SPEED RANGE @ 45 mph ^{3,4}

- Range: 116.1 miles
- Energy Used: 28.48 kWh
- Average Power: 11.09 kW
- Efficiency: 245 Wh/mile
- Specific Energy: 55.1 Wh/kg

CONSTANT SPEED RANGE @ 60 mph ³

- Range: 81.2 miles
- Energy Used: 27.61 kWh
- Average Power: 20.18 kW
- Efficiency: 340 Wh/mile
- Specific Energy: 51.9 Wh/kg

DRIVING CYCLE RANGE ³

- Range per SAE J1634: 79.1 miles
- Energy Used: 29.42 kWh
- Average Power: 9.91 kW
- Efficiency: 372 Wh/mile
- Specific Energy: 55.3 Wh/kg
- Performance Goal: 60 miles

BRAKING FROM 60 mph

- Controlled Dry: 179.0 feet
- Controlled Wet: 238.0 feet
- Panic Wet: 197.0 feet
- Course Deviation: 0.0 feet

HANDLING

- Avg Time @ 90% SOC: 58.4 sec
- Avg Time @ 50% SOC: 57.1 sec
- Avg Time @ 20% SOC: 57.7 sec
- Avg S-10 (ICE) Time: 58.3 sec

GRADEABILITY (Calculated)

- Maximum Speed @ 3%: 67.2 mph
- Maximum Speed @ 6%: 56.8 mph
- Maximum Grade: 31.6%
- Time on 3% Grade: 18 min 55 sec
- Performance Goal: 15 min

CHARGING EFFICIENCY

- Efficiency: 784 Wh-AC/mile
- Energy Cost: @ 10¢/kWh: 7.84¢/mile

CHARGER

- Max Charger Ground Current: 0.243 mA
- Max Battery Leakage Current: 0.463 MIU
- Max DC Charge Current: 17.30 Amps
- Max AC Charge Current: 35.40 Amps
- Pwr Factor @ Max Current: 0.998
- THD(I) @ Max Current: 8.63%
- Peak Demand: 7.05 kW
- Time to Recharge: **8 hrs 45 min** ^{5,6,7}
- Performance Goal: 8 hours

TEST NOTES:

1. Design Payload Value. Value as tested was 922 lbs.
2. Charger can be powered from 208V or 240V single phase or 208V three phase AC.
3. Test was terminated upon illumination of the Power Limit telltale.
4. At test termination, vehicle was still able to maintain the required drive schedule speed.
5. Charge was accomplished using 40A 208V single-phase power.
6. Time to recharge on 60A 208V three-phase power was 4 hours 12 minutes.
7. Time to recharge on 60A 240V single-phase was 6 hours 0 minutes.
8. Vehicle was removed from the Test Program for two 24-hour repair periods to replace a failed O-ring in the air conditioning system (NCR 99-001-79939) and one 24-hour repair period to replace the battery pack (NCR 99-002-79939).

This vehicle meets all EV America Minimum Requirements listed on back.

Values in red indicate the Performance Goal was not met. • All Power and Energy values are DC unless otherwise specified.