

EV America Fact Sheet



PERFORMANCE STATISTICS

ACCELERATION AT 90% SOC *

Zero to 30 mph: 7.1 sec
Zero to 40 mph: 11.5 sec
Zero to 50 mph: 17.0 sec
Zero to 60 mph: **23.8 sec**
Performance Goal: 13.5 seconds; 0 to 60 mph

ACCELERATION AT 50% SOC *

Zero to 30 mph: 6.6 sec
Zero to 40 mph: 10.9 sec
Zero to 50 mph: 16.5 sec
Zero to 60 mph: **23.0 sec**
Performance Goal: 13.5 seconds; 0 to 60 mph

MAXIMUM SPEED

At 50% SOC: 81 mph
Performance Goal: 70 mph

CONSTANT SPEED RANGE

45 mph Distance: 47.1 miles
45 mph Energy Used: 11.3 kWhr
45 mph Efficiency: 0.240 kWhr/mile
45 mph Specific Energy: 0.0132 kWhr/lb
60 mph Distance: 39.6 miles
60 mph Energy Used: 7.1 kWhr
60 mph Efficiency: 0.180 kWhr/mile
60 mph Specific Energy: 0.0083 kWhr/lb

DRIVING CYCLE RANGE

77°F Distance: **37.9 miles**
77°F Energy Used: 13.24 kWhr
77°F Efficiency: 0.349 kWhr/mile
77°F Specific Energy: 0.0154 kWhr/lb
19°F Distance: **27.6 miles**
19°F Energy Used: 10.13 kWhr
19°F Efficiency: 0.367 kWhr/mile
19°F Specific Energy: 0.0118 kWhr/lb
Performance Goal: 60 miles

GRADEABILITY*

Maximum Grade: 32%
Performance Goal: 25%
Speed At 3% Grade: >70 mph
Performance Goal: 55 mph
Speed At 6% Grade: 57 mph
Performance Goal: 45 mph

HANDLING COURSE

Avg Time @ 90% SOC: 60.3 sec
Avg Time @ 50% SOC: 59.5 sec
Avg Time @ 20% SOC: 58.4 sec
Avg Dodge Neon (ICE) Time: 54.62 sec
Average Chevrolet S-10 Time: 58.29 sec

BRAKING STABILITY

Controlability: No Stability Problems
Distance Dry/Wet: 208.8/323.6 feet

CHARGER

Ground Current During Charge: 8 mA
Battery Leakage Current: 0.01 mA
Charger Efficiency: N/A
Average Power Factor: N/A
Performance Goal: 0.95
Average THD: N/A
Performance Goal: 5%
Time From 80% DOD: N/A
Performance Goal: <8 hours

VEHICLE TYPE

Conversion Of: Geo Metro
VIN: 2C1MR24G5R6799793
Seating Capacity: **2 Adults**
Features: Heater, Front Wheel Drive
& Front Disk Brakes

DIMENSIONS

Wheelbase: 88.9 inches
Track F/R: 55/54 inches
Length: 147.5 inches
Width: 62.4 inches
Height: 52.4 inches
Ground Clearance: >50 mm
Cargo Space: **Battery Pack Displaces
Rear Seat and OEM Cargo Well.**

WEIGHT

Curb Weight: 2719 lbs
Test Weight: 2719 lbs
Distribution F/R: 43/57 %
Conversion GVWR: 3040 lbs
OEM GVWR: 2447 lbs
Payload: **321 lbs**

WHEELS & TIRES

Wheel Size: 13 inch
Tire Mfg: Goodyear Invicta
Tire Size: P175/70R13
Tire Pressure F/R: 44/44 psi
Spare Installed: No

DRIVE SYSTEM

Drive Type: Brush DC
Motor Mfg: Advanced DC
Controller Mfg: Curtis PMC
Transmission: **3 Speed Automatic**

BATTERY

Manufacturer: Optima
Type: **Prototype Deep Cycle**
Number of Modules: 22
Total Traction Voltage: 132 Volts
Battery Pack Weight: 858 lbs
Locations In Vehicle: Rear Seat & Trunk

CHARGER

Location: **Off-Board**
Input Voltage(s): N/A
Input Current(s): N/A

INTERLOCKS

Key Removable When Off Only: Yes
Key Off In Park Only: Yes
Start In Park Only: Yes
Start Blocked By Accelerator: **No**
Start Blocked On Charge: **No**

REQUIREMENTS

Manual Disconnect Present & Operational: **No**
Batteries Sealed or Valve Regulated: Yes
Charger Automatic Control: **No**
SOC Indicator: Yes
Battery Voltage Indicator: **No**
Battery Current Indicator: Yes
Regenerative Current Indicator: N/R
Transmission Single Speed: Yes
Transmission Parking Pawl: Yes
No Open Access to High Voltage: **No**
All High Voltage Clearly Marked: **No**
Control Efforts Similar To OEM: Yes

Test Date: October 1994

Notes:

Bold - Results did not meet EV America
Performance Goal * - Tested at gross vehicle weight
N/R - No regenerative braking

TEST EXCEPTIONS

Prototype batteries
Payload 379 lbs less than required
No onboard charger
Test weight greater than OEM GVWR
OEM GVWR re-rated (not certified) by converter
Required battery module replacement
Testing delayed by high battery temperature
Offboard charger fuse failure

EV AMERICA