

TOYOTA RAV4 EV

VEHICLE SPECIFICATIONS

CONVERTED VEHICLE
Base Vehicle: 1996 Toyota RAV4
VIN: JTEFZ322000000000
Seatbelt Positions: Four
Standard Features:
- Air Conditioning (Heat Pump)
- Heating (Heat Pump)
- Front Wheel Drive
- Power Steering
- Power Brakes
- Front Disk Brakes
- Regenerative Braking
- Drivers Side Air Bag
- AM/FM Stereo Radio

BATTERY
Manufacturer: Matsushita Battery
Type: Valve Regulated Lead Acid
Number of Modules: 24
Weight of Module: 21 kg
Weight of Pack(s): 550 kg
Pack Locations: Underbody
Nominal Module Voltage: 12 V
Nominal System Voltage: 288 V
Nominal Capacity (1C): 55 A/H

WEIGHTS
Design Curb Weight: 3329 lbs
Delivered Curb Weight: 3364 lbs
Payload: 626 lbs
Performance Goal: 600 lbs

DIMENSIONS
Wheelbase: 86.4 inches
Track F/R: 57.6/56.7 inches
Length: 146.6 inches
Width: 67.2 inches
Height: 62.5 inches
Ground Clearance: 4.1 inches at GVWR
Performance Goal: 5.0 inches at GVWR

TIRES
Tire Mfg: Yokohama
Tire Model: AVS E100 Radial
Tire Size: 195/80R16
Tire Pressure F/R: 44/44 psi
Spares Installed: Yes

TEST NOTES:
1. The Battery Leakage Current measured during the 8 inch standing water test exceeded the Maximum Allowable under EV America Technical Specifications (1.24 mA vs. 1.0 mA required).
2. Contrary to the requirements of EV America Technical Specification 8.1, the charger does not cycle to maintain the battery in a fully charged condition.
3. Contrary to the requirements of EV America Technical Specification 8.1, the battery charger will not initiate a full algorithm charge unless the battery SOC is ≤ 90 %.
4. The vehicle provided to EV america was a Prototype. Some information was not provided and/or not available from Toyota. The specifics are noted in the Manufacturer's Proposal Review Checklist in the Test Report.
5. Specific Energy calculations were completed using the aggregate weight of the battery modules only.
6. The auxiliary battery was replaced due to an apparent internal fault.
7. This vehicle did not have FMVSS Certification at the time of testing.

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

PERFORMANCE STATISTICS

ACCELERATION 0-50 mph
At 100% SOC: 13.15 sec
At 50% SOC: 13.3 sec
Max. Power: 58.6 kW
Performance Goal: 13.5 sec at 50% SOC

MAXIMUM SPEED @ 50% SOC
At 1/4 Mile: 64.6 mph
At 1 Mile: 77.9 mph
Performance Goal: 70 mph in one mile

CONSTANT SPEED RANGE @ 45 mph
Range: 31.7 miles
Energy Used: 16.21 kWh
Average Power: 9.01 kW
Efficiency: 289 Wh/mile
Specific Energy: 31.4 Wh/kg

CONSTANT SPEED RANGE @ 60 mph
Range: 34.7 miles
Energy Used: 16.82 kWh
Average Power: 17.16 kW
Efficiency: 235 Wh/mile
Specific Energy: 31.8 Wh/kg

DRIVING CYCLE RANGE
Range per SAE J1634: 68.2 miles
Energy Used: 16.85 kWh
Average Power: 6.44 kW
Efficiency: 256 Wh/mile
Specific Energy: 31.7 Wh/kg

BRAKING FROM 60 mph
Controlled Dry: 140.1 feet
Controlled Wet: 196.3 feet
Panic Wet: 260.1 feet
Course Deviation: 3 feet

HANDLING
Avg Time @ 90% SOC: 56.67 sec
Avg Time @ 50% SOC: 55.68 sec
Avg Time @ 20% SOC: 55.08 sec
Avg Dodge Neon Time: 54.62 sec

GRADEABILITY (Calculated)
Maximum Speed @ 3%: 75.6 mph
Maximum Speed @ 6%: 69.3 mph
Maximum Grade: 29.1%
Time on 3% Grade: 28 min 24 sec
Performance Goal: 15 Min

CHARGING EFFICIENCY
Efficiency: 412 Wh-AC/mile
Energy Cost @ 10¢/kWh: 4.12¢/mile

CHARGER
Max Charger Ground Current: ≤ 0.01 mA
Max Battery Leakage Current: ≤ 0.24 mA
Max DC Charge Current: 13.48 Amps
Max AC Charge Current: 24.01 Amps
Pwr Factor @ Max Current: 1.00
THDV(I) @ Max Current: 4.51/4.73%
Peak Demand: 4.15 kW
Time to Recharge: 8 hrs 29 min
Performance Goal: 8 hours

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