

2010 DECEMBER
MIRAGE 34

ELECTRIC VEHICLE CALCULATIONS
PREPARED BY
ELECTRIC VEHICLES OF AMERICA, INC
(603) 569-2100

BOAT CHARACTERISTICS

DISPLACEMENT (LBS)	4500	SPEED/LENGTH RATIO (1-2)	1.34
PASSENGERS, GEAR (LBS)	1500	LENGTH -FT (OVERALL)	34
TOTAL DISPLACEMENT (LBS)	6000	LENGTH- FT (WATERLINE)	31

SYSTEM DESIGN

1. MOTOR	A00-4009	3. VOLTAGE	48
NO. OF MOTORS	1	BATTERY PACKS	1
2. BATTERY	8GGC@	4. MOTOR EFF	0.8
20 HR RATE	180	5. DRIVE EFF	0.95
75 AMP RATE	92	6. CONTROLLER-AMP LIMIT	300
C FACTOR	0.95	CONTROLLER-AMP 1 HR	125

CALCULATION SUMMARY

					HULL SPEED
SPEED (KNOTS)	3	4	5	6	7.5
SPEED (MPH)	3.5	4.6	5.8	6.9	8.6
MOTOR HP - TOTAL	0.8	1.9	3.8	6.5	12.5
TOTAL CURRENT (AMPS)	15.8	37.5	73.3	126.6	243.4
TIME (HOURS) PER PACK	7.7	3.2	1.6	0.9	0.4
RANGE (MILES)	26.7	14.7	9.1	6.0	3.4
