

EV Quick Reference Card (nice to have in glove box)

<http://EVTripPlanner.com/>

INPUTS (yellow) *change to update tables*

Charger Max kW	20	<i>max of built-in dual charger (inverter/rectifier)</i>
Battery kWh	85	<i>max capacity</i>
EPA rated Wh/mi	308	<i>5 cycle test course</i>
Your typical Wh/mi	345	
Charge Efficiency	85%	see discussion

CHARGE RATES/TIMES

Amps (max)

Charge Volts	120	240	240	240	SUPER	
Circuit Rated Amps	15	40	50	100	CHARGE	
Charge kW	1.4	7.7	9.6	19	90	<i>80% circuit rating max</i>
Charge mph ("rated")	4.0	21	26	53	248	<i>at efficiency above, rated Wh/mi</i>
Charge mph (345 Wh/mi)	3.5	19	24	47	222	<i>at efficiency, Wh/mi above</i>
Full Charge Hrs (85kWh)	69	13	10.4	5.2	1.1	<i>to battery capacity entered above</i>

charge rate is not constant...slower as batt fills

Charge Hours per Driving Hour (72F, effic above)

Driving Speed (mph "airspeed" w/ wind)

		60	65	70	75	80	85	90	95
Charge kW	1.4	14	16	19	23	27	31	36	41
	7.7	2.6	3.1	3.6	4.3	5.0	5.8	6.7	7.7
	9.6	2.1	2.5	2.9	3.4	4.0	4.6	5.4	6.2
	19	1.0	1.2	1.5	1.7	2.0	2.3	2.7	3.1
	90	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7

Tesla P85 Est Range @ 72F, max charge

mph	60	65	70	75	80	85	90	95	100	
Wh/mi	280	310	339	370	406	444	485	530	578	
Batt kWh	40	136	123	112	103	94	86	78	72	66
	60	204	184	168	154	141	128	117	108	99
	85	288	261	239	218	199	182	166	152	140

derate 10-15% for hot/cold conditions

Plan on 15 miles/day of loss when unplugged w/o driving