

Comparison of Lithium Batteries for Polaris Ranger EV 2010 to 2022

Opinions of RP, based on website data Feb '24

Make	Atlas ESS	Atlas ESS	Atlas ESS	Atlas ESS	Atlas ESS	Big Battery	Eco	Summitt	Summitt	Voltronics	Allied	EPOCH	Relion
Model	7.7	8.3	15.4	16.6	31	48v Huskyx2	160AH	160AH	210AH	11.8kWh	48v 150ah	48v 150ah	48v 120ah
Capacity	7.7kWh	8.3kWh	15.4kWh	16.6kWh	31kWh	10.2kWh	8.2kWh	8.2kWh	10.8kWh	11.8kWh	7.7kWh	7.7kWh	7.7kWh
Cost	\$2,995	\$3,750	\$4,500	\$7,000	\$9,000	\$4,290	\$3,747	\$3,981	\$4,971	\$7,500	\$3,350	\$3,899	\$4,833
Cost per kWh	\$389	\$452	\$300	\$422	\$290	\$419	\$457	\$485	\$460	\$636	\$435	\$506	\$628
Range per charge, miles	31	33	62	66	124	41	33	33	43	47	31	31	31
Designed for	Ranger EV	Ranger EV	Ranger EV	Ranger EV	Ranger EV	Golf Cart	Golf Cart	Golf Cart	Golf Cart	Ranger EV	Golf Cart	Golf Cart	Golf Cart
Installed Battery ah rating	150	163	300	326	600	200	160	160ah	210	230	150	150	120
Cell/battery ah rating	150	163	150	163	150	100	160	160	105	230	150	30	30
Cell Make Model	REPT 150ah	CALB 163ah	REPT 150ah	CALB 163ah	REPT 150ah	?	?	?	?	?	?	?	?
Continuous Discharge Current spec of battery	150A	163A	300A	326A	600A	100A	160A	160A	210A	230A	150A	300A	100A
Max Discharge Current spec of battery	450A 60sec	245A 30sec	900A 60sec	490A 30sec	1800A 60sec	?	?	?	?	?	?	500A 10sec	200A 15sec?
Continuous Discharge Current spec of BMS Switch	400A	400A	400A	400A	400A	200A	175A	200A	200A	400A	180A	300A	100A
Max Current spec of BMS Switch	800A	800A	800A	800A	800A	300A 5sec	300A 30sec	600A 7.5sec	600A 7.5sec	?	500A 10sec	500A 10sec	200A 15sec?
BMS Switch Type	Contacto	Contacto	Contacto	Contacto	Contacto	MOSFET	MOSFET	MOSFET	MOSFET	Contacto	MOSFET	MOSFET	MOSFET
Voltage on terminals when battery switched off?	No	No	No	No	No	?	?	Yes	Yes	No	?	?	?
Continuous Charge Current	150A	163A	300A	326A	900A	?	<80A	10A to 30A	10A to 100A	?	15A to 50A	30A	60A
Max Charge Current	300A	212A	600A	424A	1800A	?	160A	100A	100A	?	?	30A	60A
Fast Charge Capable?	Yes	Yes	Yes	Yes	Yes	No	No	No	No	?	No	No	No
Battery Safety Certifications?	No	No	No	No	No	No	No	No	No	No	No	No	Yes
Component Safety Certs?	Yes	Yes	Yes	Yes	Yes	?	?	?	?	?	?	?	?
Cell Safety Certs?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Waterproof?	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes
Splashproof?	Yes	Yes	Yes	Yes	Yes	Yes	?	?	?	?	?	Yes	Yes
Heater available?	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No
Repair on site?	Yes	Yes	Yes	Yes	Yes	?	No	No	No	No	No	No	No
Battery Assembled Where?	USA	USA	USA	USA	USA	China	China	China	China	USA	China	China	China
Warranty Length Years	10	10	10	10	10	5	8	8	8	?	8	11	10
Warranty value?	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Poor	Poor	Poor	Good	Bad	Poor	Good
Transferrable Warranty?	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No
Safe?	Yes	Yes	Yes	Yes	Yes	?	?	?	?	?	?	?	?

Range based on 250watt/hrmile