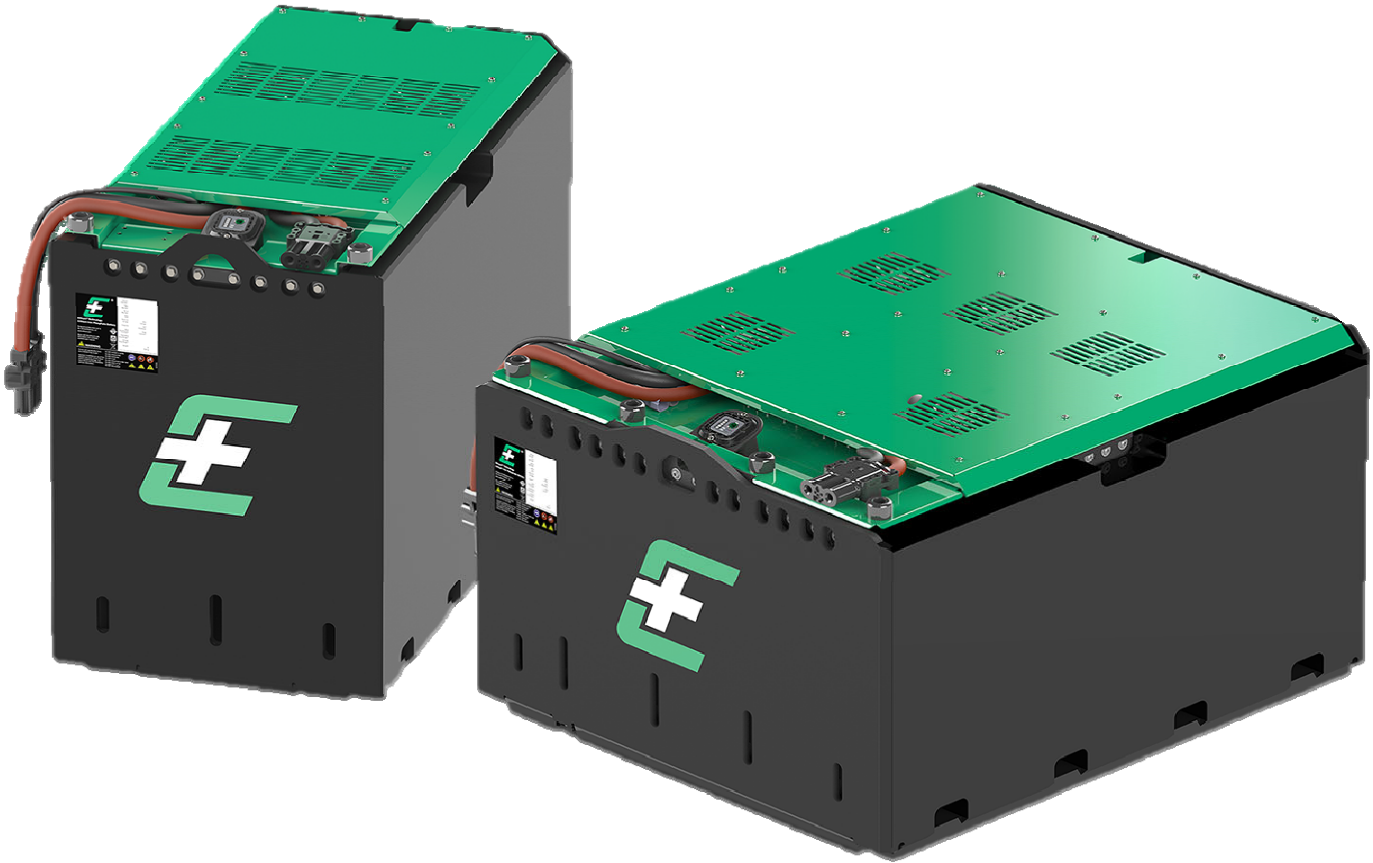


# BBR SERIES

LITHIUM-ION BATTERIES

PRODUCT DETAILS



ETHIUM BBR SERIES LITHIUM-ION BATTERIES  
ARE ENGINEERED SPECIFICALLY FOR SAFETY  
AND TO PROVIDE CONSISTENT AND RELIABLE  
POWER TO MATERIAL HANDLING EQUIPMENT FOR  
LONG-TERM USE IN ALL WORK ENVIRONMENTS.

# BBR PRODUCT DETAILS

VOLTAGE CLASS	LEAD ACID EQUIVALENT	SERIES NUMBER	ENERGY	CAPACITY <sup>♦</sup>	DIMENSIONS L x W x H in. (mm)	WEIGHT lbs. (kg.)
24 VOLTS	12-125-17	ET24-2410-18	17.9 kWh	746 Ah	38.25 x 13.5 x 30.5 (972 x 343 x 775)	1650 (748)
		ET24-2410-13	13.4 kWh	559 Ah		
	12-125-17	ET24-2440-27	26.8 kWh	1119 Ah	38.25 x 15.125 x 30.5 (972 x 384 x 775)	2000 (907)
		ET24-2440-22	22.4 kWh	932 Ah		
	12-125-15	ET24-2840-13	13.4 kWh	559 Ah	36 x 14 x 30.5 (914 x 356 x 775)	1650 (748)
		ET24-2840-9	8.9 kWh	373 Ah		
	12-125-15	ET24-2420-13	13.4 kWh	559 Ah	36 x 14 x 30.5 (914 x 356 x 775)	790 (358)
		ET24-2420-9	8.9 kWh	373 Ah		
12-125-13	ET24-2450-13	13.4 kWh	559 Ah	30.5 x 12.75 x 31 (775 x 324 x 787)	965 (438)	
	ET24-2450-9	8.9 kWh	373 Ah			
36 VOLTS	18-125-11	ET36-2410-18	18.1 kWh	503 Ah	38.25 x 13.5 x 30.5 (972 x 343 x 775)	1650 (748)
		ET36-2410-13	13.6 kWh	377 Ah		
	18-125-13	ET36-2440-27	27.1 kWh	754 Ah	38.25 x 15.125 x 30.5 (972 x 384 x 775)	2000 (907)
		ET36-2440-22	22.6 kWh	628 Ah		
		ET36-2440-18	18.1 kWh	503 Ah		
	18-125-15	ET36-2460-27	27.1 kWh	754 Ah	38.25 x 17.5 x 30.5 (972 x 445 x 775)	2500 (1134)
		ET36-2460-22	22.6 kWh	628 Ah		
	18-125-17	ET36-2480-36	36.2 kWh	1005 Ah	38.25 x 20.1 x 30.5 (972 x 511 x 775)	2600 (1179)
		ET36-2480-31	31.7 kWh	880 Ah		
		ET36-2480-27	27.1 kWh	754 Ah		
	18-125-19	ET36-2490-36	36.2 kWh	1005 Ah	38.25 x 23 x 30.5 (972 x 584 x 775)	3100 (1406)
		ET36-2490-31	31.7 kWh	880 Ah		
		ET36-2490-27	27.1 kWh	754 Ah		
	18-85-15	ET36-2830-23	23.3 kWh	649 Ah	38.25 x 17.3 x 22.65 (972 x 439 x 575)	1475 (669)
		ET36-2830-17	17.5 kWh	486 Ah		
	18-85-17	ET36-2510-23	23.3 kWh	649 Ah	38.25 x 20 x 22.65 (972 x 508 x 575)	2000 (907)
		ET36-2510-17	17.5 kWh	486 Ah		
	18-85-21	ET36-2520-29	29.2 kWh	811 Ah	38.25 x 23.5 x 22.65 (972 x 597 x 575)	2200 (998)
		ET36-2520-23	23.3 kWh	649 Ah		
	18-85-23	ET36-2540-35	35 kWh	973 Ah	38.25 x 26.75 x 22.65 (972 x 679 x 575)	2400 (1089)
		ET36-2540-29	29.2 kWh	811 Ah		
	18-85-25	ET36-2570-35	35 kWh	973 Ah	38.25 x 28.75 x 22.65 (972 x 730 x 575)	2800 (1270)
		ET36-2570-29	29.2 kWh	811 Ah		
		ET36-2570-23	23.3 kWh	649 Ah		
	18-85-27	ET36-2580-41	40.9 kWh	1135 Ah	38.25 x 31.5 x 22.65 (972 x 800 x 575)	2900 (1315)
		ET36-2580-35	35 kWh	973 Ah		
	18-85-29	ET36-2590-41	40.9 kWh	1135 Ah	38.25 x 33.5 x 22.65 (972 x 851 x 575)	3200 (1451)
		ET36-2590-35	35 kWh	973 Ah		
18-100-21	ET36-2530-29	29.2 kWh	811 Ah	38.25 x 24.75 x 22.65 (972 x 629 x 575)	2500 (1134)	
	ET36-2530-23	23.3 kWh	649 Ah			

♦ Calculation based on Voltage Class

SMART LITHIUM-ION TECHNOLOGY AT WORK

# BBR PRODUCT DETAILS

VOLTAGE CLASS	LEAD ACID EQUIVALENT	SERIES NUMBER	ENERGY	CAPACITY †	DIMENSIONS L x W x H in. (mm)	WEIGHT lbs. (kg.)
48 VOLTS	24-85-13	ET48-2510-23	23.3 kWh	486 Ah	38.25 x 20 x 22.65 (972 x 508 x 575)	2000 (907)
		ET48-2510-17	17.5 kWh	365 Ah		
	24-85-15	ET48-2520-29	29.2 kWh	608 Ah	38.25 x 23.5 x 22.65 (972 x 597 x 575)	2200 (998)
		ET48-2520-23	23.3 kWh	486 Ah		
	24-85-17	ET48-2540-35	35 kWh	730 Ah	38.25 x 26.75 x 22.65 (972 x 679 x 575)	2400 (1089)
		ET48-2540-29	29.2 kWh	608 Ah		
	24-85-19	ET48-2550-35	35 kWh	730 Ah	38.25 x 29.75 x 22.65 (972 x 756 x 575)	3000 (1361)
		ET48-2550-29	29.2 kWh	608 Ah		
	24-85-21	ET48-2560-41	40.9 kWh	851 Ah	38.25 x 32.5 x 22.65 (972 x 826 x 575)	3100 (1406)
		ET48-2560-35	35 kWh	730 Ah		
		ET48-2560-29	29.2 kWh	608 Ah		
	24-125-13	ET48-2810-36	35.8 kWh	746 Ah	43.5 x 20 x 30.5 (1105 x 508 x 775)	3000 (1361)
		ET48-2810-31	31.3 kWh	653 Ah		
	24-125-15	ET48-2820-44	44.7 kWh	932 Ah	43.5 x 23.5 x 30.5 (1105 x 597 x 775)	3000 (1361)
ET48-2820-40		40.3 kWh	839 Ah			
80 VOLTS	40-125-07	ET72-3310-36	36.2 kWh	503 Ah	38.25 x 20.1 x 30.5 (972 x 511 x 775)	2600 (1179)
		ET72-3310-27	27.1 kWh	377 Ah		
		ET72-3320-36	36.2 kWh	503 Ah	38.25 x 23 x 30.5 (972 x 584 x 775)	3100 (1406)
		ET72-3320-27	27.1 kWh	377 Ah		
	40-125-09	ET72-3330-54	54.3 kWh	754 Ah	38.25 x 27 x 30.5 (972 x 686 x 775)	3500 (1588)
		ET72-3330-45	45.2 kWh	628 Ah		
	40-125-11	ET72-3340-63	63.3 kWh	880 Ah	38.25 x 33 x 30.5 (972 x 838 x 775)	4000 (1814)
		ET72-3340-54	54.3 kWh	754 Ah		
	40-125-13	ET72-3350-63	63.3 kWh	880 Ah	38.25 x 38.75 x 30.5 (972 x 984 x 775)	4800 (2177)
		ET72-3350-54	54.3 kWh	754 Ah		
	40-85-09	ET72-3410-35	35 kWh	486 Ah	38.25 x 25.5 x 22.65 (972 x 648 x 575)	3000 (2177)
	40-85-11	ET72-3420-35	35 kWh	486 Ah	38.25 x 31.5 x 22.65 (972 x 800 x 575)	3000 (2177)
	40-85-13	ET72-3430-35	35 kWh	486 Ah	38.25 x 33.5 x 22.65 (972 x 851 x 575)	3200 (2177)
	40-85-15	ET72-3440-46	46.7 kWh	649 Ah	38.25 x 38.5 x 22.65 (972 x 978 x 575)	3400 (1542)
		ET72-3440-35	35 kWh	486 Ah		
	40-85-17	ET72-3450-58	58.4 kWh	811 Ah	38.25 x 45 x 22.65 (972 x 1143 x 575)	4000 (1814)
ET72-3450-46		46.7 kWh	649 Ah			

† Calculation based on Voltage Class



VOLTAGE CLASS	NOMINAL VOLTAGE	RECOMMENDED CHARGE VOLTAGE	MAXIMUM CHARGE VOLTAGE
24 V	25.6 V	28.8 V	29.6 V
36 V	38.4 V	43.2 V	44.4 V
48 V	51.2 V	57.6 V	59.2 V
80 V	76.8 V	86.4 V	88.8 V

\* All data subject to change without notice.

## BBR PRODUCT CHARACTERISTICS

CHARACTERISTICS	VALUE
Type	Advanced lithium-ion technology with modular scalability
Chemistry	Lithium iron phosphate [LiFePO <sub>4</sub> ]
Battery Management System BMS	Active cell balancing with electronic fusing
Complete Thermal Management	Active forced air cooling and heating elements standard on all batteries
Charger	Compatible with CAN based chargers
Short Circuit Protection	Included
Certification	UL 2580 Listed and compliant with UN/DOT 38.3
Communication	CAN Protocols, proprietary messages can be added to interface with vehicle, EControls displays and wireless devices
Protection	Internal battery components IP67 rated
Discharge Temperature Range*	-40° to 131°F
Charge Temperature Range*	-40° to 113°F
Storage Temperature Range	-20° to 50°C (-4° to 122°F), long-term storage see operating manual
Self Discharge Rate	< 2% / month
Warranty Cycle Life**	4,000 cycles
Full Charge Time***	1 hour @ 1.0 C

\* Model dependent, actively controlled.

\*\* See User's Manual for complete details.

\*\*\* Configuration-dependent: contact EControls for model-specific characteristics.

### NEED MORE INFORMATION? CONTACT OUR SALES TEAM

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