

## Battery Systems for Bus & Trucks



Electrodrive Powertrain Solutions Pvt. Ltd., or Electra EV, is India's leading electric vehicles powertrain solutions company, focused on accelerating the future of electric mobility in India. As India's first independent, pure-play EV powertrain company, we partner with select global OEMs in specific markets to provide high-value EV solutions with our products and services. We focus on shaping the future of electric mobility by innovating, developing, adapting, and integrating cutting-edge electric powertrain technologies for challenging applications with stringent product safety, regulatory compliances, and other market criteria.

## Standard and Customised Battery packs for Trucks and Busses

- Maximum Nominal Voltage of 656 Vdc and Energy of 624 kWh Using Series and Parallel Combinations
- Integrated Cooling System with Optional Heating
- Master- Slave BMS Architecture for Distributed Packs
- Customised Battery PDU Incorporating Vehicle Auxiliary Loads

### High Mechanical Safety

- High-strength box.
- Modular structure of commercial vehicles has high safety and standard Packs.
- The product indicators are higher than the safety requirements of the cell system IS 16893 -2 &3 and GB/T 31467.3-2015



### All-weather Thermal Management Technology

- The liquid cooling system of the integrated cell improves thermal management efficiency.
- The cell system is equipped with the heating film (Optional).
- The cell system has adopted the all-weather thermal management technology.

### High Safety & Reliability

- The thermal runaway and thermal diffusion meet the safety technical requirements of electric buses.
- Packs can meet the IP67 protection levels after the completion of vibration test, charge/discharge, moisture heat alternating test, and meet the IP protection within the full life cycle.



Designed by **CALB** and  
Manufactured in India by  
**ELECTRA EV**

### High Electrical Safety

- Cell monitoring function can realize all fault warning.
- The dielectric strength level achieves 2500V.
- It has a high electrical safety design, including EMC, isoelectric level and high voltage interlocking.

## Electric Truck and Bus Standard Packs

Cell Options	LFP- 163Ah		LFP- 163Ah - 2P		LFP-230Ah	
Pack Options	C	G	C	G	C	G
Dimension (mm)	1060*630*240	950*630*240	1060*630*240	950*630*240	1060*630*240	950*630*240v
Pack Nominal Voltage	231.84	193.2	115	96	153	125
Configuration	1P72S	1P60S	2P36S	2P30S	1P48S	1P39Sv
Energy (kWh)	37.79	31.49	37.79	31.49	35.55	28.88
Energy density (Wh/kg)	>155					
Charge rate	1C@0-80%SOC					
IP rate	IP67					
Thermal management	Liquid cooling/Film heating					
Homologation	AIS 038 Certified					

## Commercial Vehicle Application

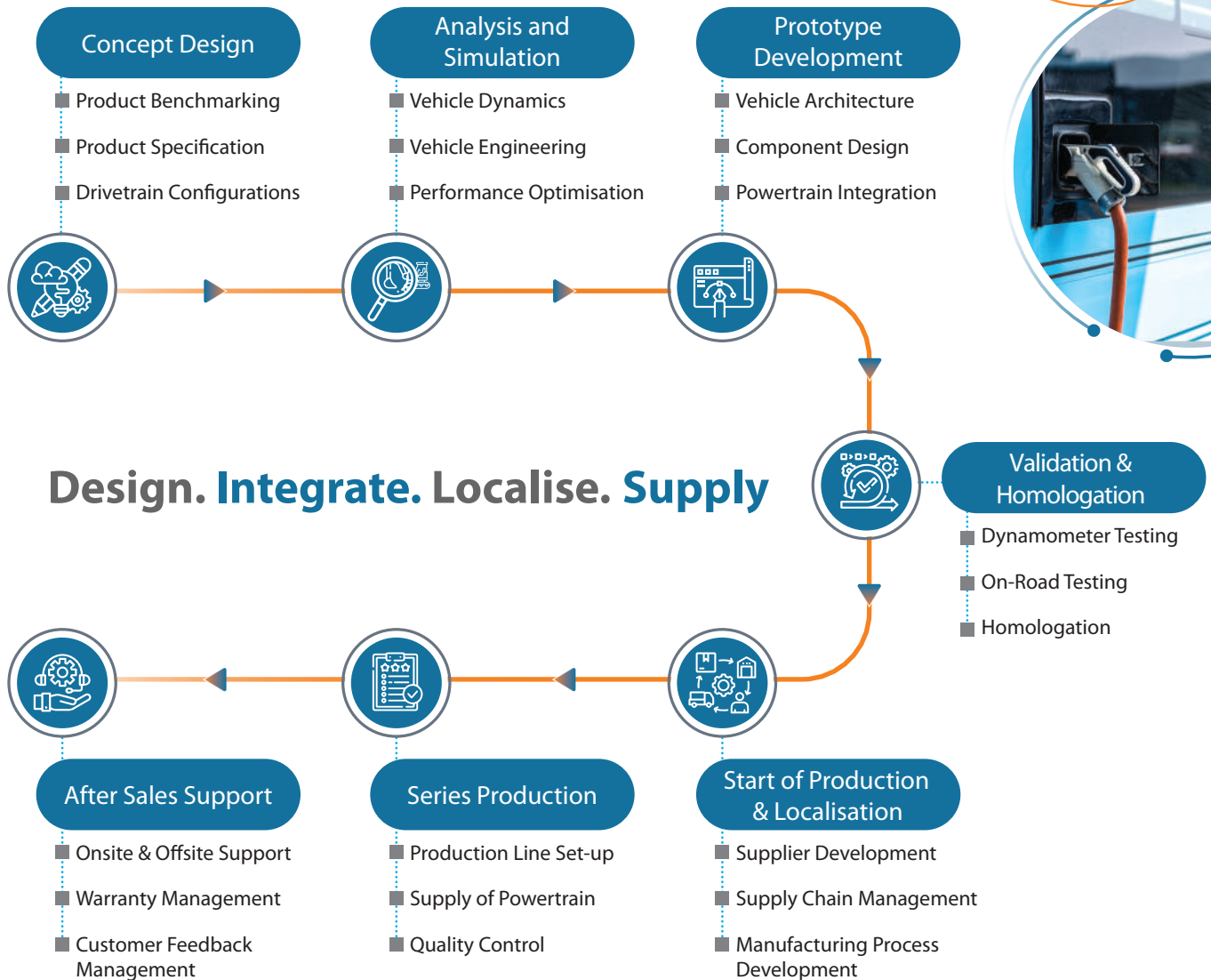
Cell	Single String Parameter			One String			Two Strings			Three Strings		
	Voltage(V)	No. of cells in Series	Group	Energy (kWh)	No. of Packs	No. of Cells	Energy (kWh)	No. of Packs	No. of Cells	Energy (kWh)	No. of Packs	No. of Cells
163 Ah	579.6	180	3G	94.47	3	180	188.95	6	360	283.42	9	540
	618.24	192	1C+2G	100.77	3	192	201.55	6	384	302.32	9	576
	656.88	204	2C+1G	107.07	3	204	214.14	6	408	321.21	9	612
230 Ah	502.32	156	4G	115.53	4	156	231.07	8	312	346.60	12	468
	531.3	165	1C+3G	122.20	4	165	244.40	8	330	366.60	12	495
	560.28	174	2C+2G	128.86	4	174	257.73	8	348	386.59	12	522
	589.26	183	3C+1G	135.53	4	183	271.06	8	366	406.59	12	549
	618.24	192	4C	142.20	4	192	284.39	8	384	426.59	12	576
	627.9	195	5G	144.42	5	195	288.83	10	390	433.25	15	585
163 Ah-2P	502.32	156	1C+4G	163.76	5	312	327.51	10	624	491.27	15	936
	521.64	162	2C+3G	170.05	5	324	340.11	10	648	510.16	15	972
	540.96	168	3C+2G	176.35	5	336	352.71	10	672	529.06	15	1008
	560.28	174	4C+1G	182.65	5	348	365.30	10	696	547.95	15	1044
	579.6	180	5C	188.95	5	360	377.90	10	720	566.85	15	1080
	598.92	186	1C+5G	195.25	6	372	390.50	12	744	585.74	18	1116
	618.24	192	2C+4G	201.55	6	384	403.09	12	768	604.64	18	1152
	637.56	198	3C+3G	207.84	6	396	415.69	12	792	623.53	18	1188



# Full Cycle Support to OEMs & T1 Suppliers



Brings Deep Ecosystem Understanding and Agility in Innovation



Successfully commercialised multiple powertrains across commercial vehicle and off-highway segments.

Testing services adhering to ARAI standards for AIS 048, AIS 004, AIS 037 and AIS 038  
100% FAME compliant localised solutions for the Indian market

**ELECTRA EV**™

[www.electraev.com](http://www.electraev.com)

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