

Electric 4W Powertrain Offerings



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.

eLCV & Van – System Solution



System Solution
in 350 V



System Solution
in 96 Vdc



Enhanced system
Integration



Ready for
Commercialization

eLCV & Van – Battery Pack Solutions



Pack Solutions		307 V	310 V	307 V	320 V
PACK	Nominal Energy	16.28 kWh	22.1 kWh	32 kWh	68 kWh
	Product Name	1P96S	1P99S	1P96S	1P100S
	Nominal Capacity	54 Ah	70 Ah	105 Ah	210 Ah
	Voltage Range	240 - 350 V	247 - 361 V	240 - 350 V	250 - 365 V
	Class of Protection	IP67			
	Thermal Management	Liquid cooling			
	Size Specification (mm)	815*787*292	1200*790*160	1200*640*240	1300*1700*160

eLCV & Van – Powertrain Solutions



Application GVW	1.2t+	1.5 to 2t	2.5 to 3t	3 to 3.5t	3.5t+
Motor Type	PMSM	IM, PMSM	PMSM	PMSM	PMSM
Nominal Voltage	96/114 V	IM: 96 V PMSM: 96 V & 320 V	320 V	320 V	374 V
Related Power	10/15 kW	15 kW	30 kW	40 kW	68 kW
Max Power	20/30 kW	30 kW	60 kW	80 kW	145 kW
Rated Torque	28/30 Nm	40 Nm	90 Nm	100 Nm	144 Nm
Max Torque	85-110 Nm	105-130 Nm	220 Nm	260 Nm	310 Nm
Max Speed	7500/8200 rpm	8000 rpm	9000 rpm	10000 rpm	12000 rpm
Ingress Protection	IP67	IP67	IP67	IP67	IP67

Supporting Full
EV Programs

Flexible
Engagements

Robust
Performance

Strong Supply
Chain

Unique Manufacturing
Advantages

Application cases	300 V - 2T eLCV	300 V - 3.5T eLCV
Battery Pack	16 - 32 kWh options	
System Voltage	320 Vdc	350 Vdc
Power	15/30 kW	40/90 kW
Torque	130 Nm	310 Nm
Charging	Fast Charging 1h, Slow Charging 5h - CCS2	
Gearbox	Powertrain suitable for e-axle/or existing propellor shaft	
Vehicle Control	VCU with integrated with CCS2 (optional)	

Passenger Vehicles



	Small Car	Hatchback	Sedan	SUV	Large SUV
System Voltage	96/114 V	320 Vdc	336 Vdc	360 Vdc	374 Vdc
Type	PMSM Powertrain				
E-Drive Rated Power	10 kW	20 kW	30 kW	60 kW	68 kW
E-Drive Peak Power	15 kW	45 kW	70 kW	120 kW	150 kW
Max Torque	110 Nm	120 Nm	165 Nm	260 Nm	310 Nm
Max Speed	8200 rpm	12000 rpm	12000 rpm	14000 rpm	12000 rpm
Gear Ratio	-	10.31	10.5	9.96	-
Battery Energy	12-25kWh	16-40 kWh	25-50 kWh	28-60 kWh	28-80 kWh

Micro Car



Microcar & Quadracycle (48 V & 72 V)		
Vehicle Category	LSV & L6	L7
Markets	EU, USA, India	EU, USA, India
GVW (kg)	500-600	600-700
Max Speed (kmph)	45	70
Electra's standard ready solutions		
Battery Pack	5.38, 10.7 (kWh) LFP-Prismatic cells Certification: AIS 156, UN38.3, ECE R100 as per EU & USA Norms	
Traction Motor + Gear Box	Rated Power – 5.0, 6.0 & 8.5 kW & Peak Power – 10 & 15 kW Peak Torque from 65 Nm to 85 Nm Gear Ratios 8.34 to 12	
Motor Controller	PMSM, 350 to 450 Amp	



Battery Packs



EDU



PMSM Controller



VCU



Charger with Gun & DC-DC Converter

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™

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