

Table 1A of AIS-007 (Revision 5)

DETAILED TECHNICAL SPECIFICATIONS

INFORMATION RELATING JOINTLY TO L1, L2, L5 and L7 CATEGORY BATTERY OPERATED VEHICLES (2 AND 3 WHEELERS including Quadricycle)		
0.0	General	
0.1	Make	Hero Electric vehicle Pvt Ltd
0.2	Vehicle model and its variant(s)	Optima CX 5.0
0.3	Means of type identification if stated on vehicle	Punch
0.4	Location of that means of identification	Chassis main Pipe
0.5	Vehicle category (IS 14272)	L1
0.6	Name and address of manufacturer with contact persons' name, designation, e-mail, phone nos. etc. Provide details of importer, if applicable.	Hero Electric Vehicles Pvt. Ltd. Plot No- 57, Udyog Vihar Phase- IV Sector 18, Gurugram, Haryana 122015
0.7	Name(s) and address (es) of assembly plants	1. Hero Electric Vehicles Pvt. Ltd Phase- VIII, Focal Point, Chandigarh Road , Ludhiana, Punjab 141010 2. Mahindra Two Wheelers Ltd Plot No-02, Industrial Area No-01 PithamPur ,Dhar,MP 454775
0.8	Name and address of the vehicle importer	NA
0.9	Name and address of manufacturer's authorized representative. if any	Mr. Akshay Tarte Hero Electric Vehicles Pvt. Ltd. Plot No- 57, Udyog Vihar Phase- IV Sector18,Gurugram, Haryana 122015
0.10	Method of inscription of VIN on the chassis	Punched on Chassis
0.11	The serial numbering (of production vehicles) of the type begins with No	MEPHEHPBL10A00001 MEPHEHPBP10A00001
0.12	Position and method of affixing the component type-approval mark for components and separate technical units	Engraved &Punched
1.0	General arrangement of the vehicle	
1.1	Photos and/or drawings of a typical vehicle	Refer Drawing No-HEOPT001
1.2	Drawing of the complete vehicle indicating overall length, width, track and height.	Refer Drawing No-HEOPT002


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1.3	Wheelbase	1284 mm
1.4	Number of axles and wheels (where appropriate. number of crawler tracks or belts):	2 Axles 2 Wheels
1.5	Position and arrangement of engine	NA
1.6	Number of seating positions	TWO
1.7	Type of Fuel	Battery Operated Vehicle
1.8	Weights (in kg)	
1.9	Vehicle kerb weight ⁽⁹⁾	102 Kg
1.10	Distribution of that weight between the axles	Faw- 38 Kg Raw- 64 Kg
1.11	Reference weight (Kerb Weight With Rider)	177 Kg
1.12	Gross Vehicle Weight	252 Kg
1.13	Division of that weight between the axles	Faw- 75 Kg Raw- 177 Kg
1.14	Maximum technically permissible weight (maximum permissible axle weight) on each of the axles	
1.15	Front Axle	80 Kg
1.16	Rear Axle	177 Kg
1.17	Maximum hill-starting ability (Gradeability) at the maximum technically permissible mass declared by the manufacturer	7 Degree With GVW
2.0	Type (state any possible variants and versions: each variant and each version must be identified by a code consisting of numbers or a combination of letters and numbers)	
2.1	Commercial name (s)	Optima CX 5.0
3.0	Transmission⁽⁸⁾	
3.1.	Diagram of transmission system	NA
3.2.	Type (mechanical, hydraulic, electrical, etc.) ⁽¹⁾ :	NA
3.3.	Clutch (type)	NA
3.4.	Gearbox	NA
3.4.1.	Type: automatic/manual ⁽¹⁾	NA


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3.4.2.	Method of selection: by hand/foot ⁽¹⁾	NA
3.4.2.1	Gear shifting pattern	NA
3.4.3.	Gear ratios	NA
3.4.3.1	Primary ratio	NA
3.4.3.2	Secondary ratio	NA
3.4.3.3	Individual and Overall ratios	NA
3.4.3.3.1	First gear	NA
3.4.3.3.2	Second gear	NA
3.4.3.3.3	Third gear	NA
3.4.3.3.4	Fourth gear	NA
3.4.3.3.5	Fifth gear	NA
3.4.3.3.6	Sixth gear	NA
3.4.3.4	Minimum continuously Variable transmission	NA
3.4.3.5	Maximum continuously Variable transmission	NA
3.4.3.6	Reverse Gear	NA
3.5.	Brief description of the ECUs used in the transmission	NA
3.6.	Maximum speed of vehicle and gear in which it is reached (in km/h) ⁽⁹⁾	56 Kmph in Power Mode
3.7.	Speedometer	
3.7.1	Make(s)	Suprajit Engineering Ltd
3.7.2.	Type(s)	Digital
3.7.3.	Photographs and/or drawings of the complete system	Refer Drawing No-HEOPT003
3.7.4.	Speed range displayed	0-99 Km/h
3.7.4.1.	Major marking	NA
3.7.4.2.	Minor marking	NA
3.7.5.	Tolerance of the measuring mechanism of the speedometer	Within requirement of IS 11827-2008
3.7.6.	Technical constant of the speedometer (speedometer ratio)	


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3.7.7.	Method of operation and description of the drive mechanism				BLDC Motor Controller give pulses to cluster according to RPM through CAN Communication	
3.7.8.	Overall transmission ratio of the drive mechanism or pulse / wheel revolution (in case of digital speedometer)				Through CAN Communication	
4.0	Suspension					
4.1	Drawing of suspension arrangement				Refer Drawing No-HEOPT004	
4.1.1.	Brief description of the ECUs used in the suspension				NA	
4.1.2	Springs front and rear				Front Coil Spring Rear Coil Spring	
4.1.3	Anti-roll bar				NA	
4.1.4	Shock Absorbers front and rear				Front Shock absorber- Telescopic Rear Shock absorber- Hydraulic	
4.2.	Tyres (standard type): (Enclose annexure, if required)					
Tyre	Variant / version	Type	Size designation with speed category symbol and load capacity index	Make (s)	Type Approval Number or BIS license number or identification	Dynamic Rolling Radius In Meter
Front	NA	Tubeless	90/90-12, Max Speed 100 Km/h Load Index 54J	Ceat Metro	CML 740007708 CML9512344220	0.222 m 0.222 m
Rear	NA	Tubeless	90/90-12, Max Speed 100 Km/h Load Index 54J	Ceat Metro	CML 740007708 CML9512344220	0.222 m 0.222 m
Any other	NA					
4.2.1	Tyre pressures recommended by the manufacturer:					
4.2.1.1	Laden (kg/cm2 / kPa / psi)				Front 166 Kpa Rear 248 Kpa	


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4.2.1.2	Unladen (with driver) (kg/cm2 / kPa / psi)	Front 166 Kpa Rear 220 Kpa
4.2.2	Tyre/wheel (rim) combinations	Front MT 1.85X12 Rear MT 2.15X12
4.2.3	Minimum-speed category symbol compatible with the theoretical maximum design speed of the Vehicle	J
4.2.4	Minimum load-capacity index with the maximum load on each tyre:	54
4.2.5	Categories of use compatible for the vehicle	L1
4.3	Front wheel Rim	
4.3.1	Make	Endurance Technologies Ltd Motocast Power Alloys Pvt Ltd
4.3.2	BIS license number Report Number	CM/L7500224210 CD0CR2296
4.3.2	Part Number of of wheel rim supplier	41100-A000-0200
4.3.3	Size	MT 1.85X12
4.3.4	Type (Alloy / Sheet metal / spoke)	Alloy
4.4	Rear wheel Rim	
4.4.1	Make	Nidec India Pvt Ltd
4.4.2	BIS license number /Report number	CT0CR2314
4.4.3	Part Number of wheel rim supplier	P5A620T020
4.4.4	Size	MT 2.15X12
4.4.5	Type (Alloy / Sheet metal / spoke)	Sheet metal
5.0	Steering	
5.1	Steering gear and control	
5.1.1	Type of steering control(handle bar/wheel)	Handle bar
5.1.2	Location of Steering Wheel (centre / offset)	NA


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5.1.3	Type of steering gear (Re-circulating ball /Worm & Roller / Rack & Pinion / others)	NA
5.1.3.1	Make	NA
5.1.3.2	Steering gear ratio	NA
5.1.3.3	Maximum No. of rotation of steering wheel from lock to lock	NA
5.1.4	Brief description of the ECUs used in the steering system	NA
6.0	Braking	
6.1	Diagram of braking devices (Schematic Layout of Brake system)	Refer Drawing No-HEOPT005
6.1.1	Make of Brake system	Advik Hi-tech Private Ltd
6.1.2	Type of Brake system (CBS/SSBS/Independent)	CBS Combined Brake System
6.2	Front and rear brakes, disc and/or drum ⁽¹⁾ and their numbers	Front Shoe Rear Shoe 1 Nos
6.2.1.	Make(s)	Advik Hi-tech Private Ltd
6.2.2.	Type(s) (Hydraulic / Mechanical / Other)	Mechanical
6.3	Parts of the brake system	
6.3.1	Shoes and/or pads ⁽¹⁾	Front Shoe, Rear Shoe
6.3.2	Linings and/or pads (Indicate make, grade of material or identification mark) ⁽¹⁾	Front Linings- Advik(makino) Grade of material- NABLKVT B49807 Rear Linings- Advik(makino) Grade of material- NABLKVT B49807
6.3.3	Brake levers and/or pedals ⁽¹⁾	Brake Levers Front & Rear
6.3.4	Hydraulic reservoirs (where applicable)	NA
6.3.5	Front and rear pad/liner dimensions	Front Liner- 128X25X3.45 mm Rear Liner- 128X25X3.45 mm
6.3.6	Front and rear braking area	Front – 70 cm ² Rear – 70 cm ²
6.3.7	Diameter of front and rear disc or drum	Front- OD 130 mm Rear- OD 130 mm


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6.3.8	ABS (Yes/No)	NO
6.3.8.1	Directly controlled wheels (Front or rear)	NA
6.3.8.2	Sensors (Make)(front /Rear)	NA
6.3.8.2.1	Identification number(ID) / Part No./Drawing No.	NA
6.3.8.3	Make of modulator(front /rear)	NA
6.3.8.3.1	Identification number(ID) / Part No./Drawing No.	NA
6.3.8.4	Make of ABS ECU	NA
6.3.8.4.1	Make of controller	NA
6.3.8.5	Identification number(ID) / Part No./Drawing No.	NA
6.4	Other devices (parking brake, etc.) (where applicable): drawing and description	NA
6.5	Brief description of the ECUs used in the braking system	NA
6.6	Brake hose – make(s)	NA
6.6.1	TAC No / Part No of brake hose assembly	NA
6.7	Brake Fluid	NA
6.7.1	make(s)	NA
6.7.2	Type of brake fluid as per IS / FMVSS	NA
6.8	Control cables (in case of 2 wheelers below 50cc)	NA
6.8.1	Make	NA
6.8.2	Cable Diameter	NA
6.9	Type (drum/disc/leading/trailing)	
6.9.1	Front	Drum
6.9.2	Rear	Drum
6.9.3	Other	NA
6.10	Service Control System (Operated by Hand/Foot)	
6.10.1	Front	By Hand
6.10.2	Rear	By Hand
6.10.3	Combined	By Hand
6.10.4	Free play of control, mm	NA


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6.10.4.1	Front	NA
6.10.4.2	Rear	NA
6.10.4.3	Combined	NA
6.11	Brake Pedal ratio	NA
6.12	Hand Lever Ratio	RH 3.58 , LH 5.125
6.13	Nominal Size of master cylinder (Dia. & stroke), mm	NA
6.14	Nominal size of Wheel cylinder (Dia.), mm	NA
6.14.1	Front	NA
6.14.2	Rear	NA
6.14.3	Make of wheel cylinders	NA
6.15	Parking Brake	YES
6.15.1	Braking Wheel	Front
6.15.2	Type	Mechanical
6.15.3	Control (operated by hand/foot)	Hand
6.15.4	Locking device	NA
6.16	In case of vehicles fitted with electrical regenerative braking system	
6.16.1	Type (Type A / Type B)	Type B
6.16.2	If, Type A, is there a separate control for activating regenerative braking	NA
7.0	Lighting and light-signaling devices	
7.1	List of all devices (Enclose annexure, if required)	
7.1	List of all devices (Enclose annexure, if required)	
7.1.1	Head lamp	
7.1.1.1	Main beam	
7.1.1.1.1	Make	Deep Drawn Technologies Village –Rampur Kala Amp Trilkipur Road HP
7.1.1.1.2	Type of lens (Glass / Plastic)	Plastic
7.1.1.1.3	Identification: TAC No. / BIS License No. / E-Marking	RM 2455


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7.1.1.1.4	Number and Colour of light	1 Nos , Transparent
7.1.1.2	Dipped beam	
7.1.1.2.1	Make	Deep Drawn Technologies Village –Rampur Kala Amp Trilkipur Road HP
7.1.1.2.2	Type of lens (Glass / Plastic)	Plastic
7.1.1.2.3	Identification: TAC No. / BIS License No. / E-Marking	RM 2455
7.1.1.2.4	Number and Colour of light	1 Nos , Transparent
7.1.2	Position lamp / Parking Lamp – Front	
7.1.2.1	Front Position Lamp	NA
7.1.2.1.1	Make	NA
7.1.2.1.2	Identification: TAC No. / BIS License No. / E-Marking	NA
7.1.2.1.3	Number and Colour of light	NA
7.1.2.2	Front Parking Lamp	NA
7.1.2.2.1	Make	NA
7.1.2.2.2	Identification: TAC No. / BIS License No. / E-Marking	NA
7.1.2.2.3	Number and Colour of light	NA
7.1.3	Stop lamp (S1 / S2)	
7.1.3.1	Make	Deep Drawn Technologies Village –Rampur Kala Amp Trilkipur Road HP
7.1.3.2	Identification: TAC No. / BIS License No. / E-Marking	RM 2453
7.1.3.3	Number and Colour of light	1 Nos, Red
7.1.4	Registration Plate lamp	
7.1.4.1	Make	Hilux Auto Electric Auto Pvt
7.1.4.2	Identification: TAC No. / BIS License No. / E-Marking	CM 6686
7.1.4.3	Number and Colour of light	1 Nos, White


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7.1.5	Direction indicator Lamp	
7.1.5.1	Front	
7.1.5.1.1	Make	Deep Drawn Technologies Village –Rampur Kala Amp Trilpur Road HP
7.1.5.1.2	Identification: TAC No. / BIS License No. / E-Marking	RM 2449
7.1.5.1.3	Number and Colour of light	2 Nos, Amber
7.1.5.2	Rear	
7.1.5.2.1	Make	Deep Drawn Technologies Village –Rampur Kala Amp Trilpur Road HP
7.1.5.2.2	Identification: TAC No. / BIS License No. / E-Marking	RM 2453
7.1.5.2.3	Number and Colour of light	2 Nos, Amber
7.1.5.3	Side	NA
7.1.5.3.1	Make	NA
7.1.5.3.2	Identification: TAC No. / BIS License No. / E-Marking	NA
7.1.5.3.3	Number and Colour of light	Amber
7.1.5.3.4	Flasher for Direction Indicators	Provided
7.1.5.3.5	Flashing Frequency of direction indicator (No of flashes / minute)	80 Flash Per Minute
7.1.6	Reversing lamp	NA
7.1.6.1	Make	NA
7.1.6.2	Identification: TAC No./BIS License No./E- Marking	NA
7.1.6.3	Number and Colour of light	NA
7.1.7	Reflector	
7.1.7.1	Front	NA
7.1.7.1.1	Make	NA
7.1.7.1.2	Type	NA
7.1.7.1.3	Identification: TAC No./BIS License No/E- Marking	NA


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7.1.7.1.4	Number and Colour of light	NA
7.1.7.1.5	Reflective surface Area	NA
7.1.7.1.6	Shape (Square / rectangular / circular /elliptical/other)	NA
7.1.7.2	Rear	
7.1.7.2.1	Make	Hilux Klite Av Light
7.1.7.2.2	Type	Class 1A
7.1.7.2.3	Identification: TAC No./BIS License No./E- Marking	AG0039 CT0LR 6228
7.1.7.2.4	Number and Colour of light	1 Nos, Red
7.1.7.2.5	Reflective surface Area	23 Cm2
7.1.7.2.6	Shape (Square / rectangular /circular /elliptical /other)	Rectangular
7.1.7.3	Side (If fitted)	
7.1.7.3.1	Make	Hilux Klite Av Light
7.1.7.3.2	Type	Class 1A
7.1.7.3.3	Identification: TAC No./ BIS License No./E Marking	AG0037 CT0LR 6228
7.1.7.3.4	Number and Colour of light	2 Nos, Amber
7.1.7.3.5	Reflective surface Area	20 Cm2
7.1.7.3.6	Shape (Square / rectangular /circular /elliptical /other)	Circular
7.1.8	Hazard warning signal	NA
7.1.8.1	Front	NA
7.1.8.1.1	Make	NA
7.1.8.1.2	Identification: TAC No. / BIS License No. / E-Marking	NA
7.1.8.1.3	Number and Colour of light	NA
7.1.8.2	Rear	NA
7.1.8.2.1	Make	NA
7.1.8.2.2	Identification: TAC No/BIS License No./E- Marking	NA
7.1.8.2.3	Number and Colour of light	NA


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7.1.8.3	Side	NA
7.1.8.3.1	Make	NA
7.1.8.3.2	Identification: TAC No./BIS License No./E- Marking	NA
7.1.8.3.3	Number and Colour of light	NA
7.1.9	Maximum intensity of Head lamp	28219 Cd
7.2	Diagram showing the location of the lighting and light-signaling devices on vehicle with relevant dimensions (see AIS-009)	Refer Drawing No-HEOPT006
7.3	Additional requirements relating to special vehicles	NA
7.4	Brief description of the ECUs used in the lighting system and in the light-signaling system	NA
7.5	List of all bulbs (Enclose annexure, if required.)	
7.5	List of all bulbs (Enclose annexure, if required.)	
7.5.1	Head lamp bulb (main beam)	
7.5.1.1	Make	JB Industries
7.5.1.2	Category as per AIS-034	S2
7.5.1.3	Identification: TAC No. /BIS License No./E-Marking	R9 1707
7.5.2	Head lamp bulb (Dipped beam)	
7.5.2.1	Make	JB Industries
7.5.2.2	Category as per AIS-034	S2
7.5.2.3	Identification: TAC No./BIS License No./E- Marking	R9 1707
7.5.3	Front Position Lamp bulb	
7.5.3.1	Make	NA
7.5.3.2	Category as per AIS-034	NA
7.5.3.3	Identification: TAC No./BIS License No./E- Marking	NA
7.5.4	Stop lamp bulb	
7.5.4.1	Make	JB Industries
7.5.4.2	Category as per AIS-034	P21/5W
7.5.4.3	Identification: TAC No. / BIS License No. / E-Marking	R9 1697


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7.5.5	Number plate lamp bulb	
7.5.5.1	Make	Hilux Auto
7.5.5.2	Category as per AIS-034	Led
7.5.5.3	Identification: TAC No./BIS License No./E- Marking	CM6685
7.5.6	Direction indicator lamp bulb - front	
7.5.6.1	Make	JB Industries
7.5.6.2	Category as per AIS-034	RY10W
7.5.6.3	Identification: TAC No./BIS License No./E- Marking	RM 2468
7.5.7	Direction indicator lamp bulb - rear	
7.5.7.1	Make	JB Industries
7.5.7.2	Category as per AIS-034	RY10W
7.5.7.3	Identification: TAC No./BIS License No./E- Marking	RM 2469
7.5.7.4	Flasher for Direction Indicators	Yes
7.5.7.5	Flashing Frequency of direction indicator (No of flashes / minute)	80 Flash Per Minutes
7.5.8	Parking Lamp bulb – Front	
7.5.8.1	Make	NA
7.5.8.2	Category as per AIS-034	NA
7.5.8.3	Identification: TAC No./BIS License No./E- Marking	NA
7.5.9	Parking Lamp bulb – Rear	
7.5.9.1	Make	NA
7.5.9.2	Category as per AIS-034	NA
7.5.9.3	Identification: TAC No/ BIS License No./E- Marking	NA
7.5.10	Reversing lamp bulb	
7.5.10.1	Make	NA
7.5.10.2	Category as per AIS-034	NA
7.5.10.3	Identification: TAC No./BIS License No./E- Marking	NA
7.5.11	Hazard warning lamp	
7.5.11.1	Make	NA


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7.5.11.2	Category as per AIS-034	NA
7.5.11.3	Identification: TAC No./BIS License No./E- Marking	NA
8.0	Equipment	
8.1	Coupling devices (where applicable)	NA
8.1.1	Type: hook/ring/other ⁽¹⁾	NA
8.1.2	Photograph and/or drawings showing the position and the construction of the coupling devices	NA
8.2	Control Locations and Identification (Please specify location, operation and symbol if provided, as applicable)	
8.2.1	Supplemental engine stop	NA
8.2.2	Ignition Switch	Refer Drawing No-HEOPT003
8.2.3	Electric Starter	NA
8.2.4	Manual Choke	NA
8.2.5	Fuel Tank Shutoff Valve	NA
8.2.6	Audible warning device	Refer Drawing No-HEOPT011
8.2.7	Head lamp Driving / Passing beam	Refer Drawing No-HEOPT003
8.2.8	Optical warning device	NA
8.2.9	Fog Lamps – Front	NA
8.2.10	Fog Lamps – Rear	NA
8.2.11	Direction indicators	Refer Drawing No-HEOPT003
8.2.12	Hazard warning signal	Refer Drawing No-HEOPT003
8.2.13	Position Lamp	NA
8.2.14	Master lamp	NA
8.2.15	Parking Lamp	NA
8.2.16	Engine speed control	NA
8.2.17	Front wheel brake	NA
8.2.18	Foot rear wheel brakes control	NA
8.2.19	Hand rear wheel brake control	Refer Drawing No-HEOPT005
8.2.20	Parking brake	Refer Drawing No-HEOPT005


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8.2.21	Clutch	NA
8.2.22	Foot selector Manual gear shift Control	NA
8.2.23	Hand Selector Manual gear shift Control	Refer Drawing No-HEOPT003
8.2.24	Any other control	NA
8.2.25	Tell-tales	
8.2.25.1	Manual Choke	NA
8.2.25.2	Neutral – (Gearbox Selection)	Refer Drawing No-HEOPT003
8.2.25.3	Head lamp Driving beam	Refer Drawing No-HEOPT003
8.2.25.4	Head lamp Passing beam	Refer Drawing No-HEOPT003
8.2.25.5	Fog Lamps – Front	NA
8.2.25.6	Fog Lamps – Rear	NA
8.2.25.7	Direction indicators	Refer Drawing No-HEOPT003
8.2.25.8	Hazard warning signal	Refer Drawing No-HEOPT003
8.2.25.9	Position Lamp	NA
8.2.25.10	Master lamp	NA
8.2.25.11	Parking Lamp	NA
8.2.25.12	Fuel indicator	NA
8.2.25.13	Engine coolant temperature	NA
8.2.25.14	Electrical Charging	Refer Drawing No-HEOPT003
8.2.25.15	Engine Oil	NA
8.2.25.16	Anti-lock Brake System Malfunction	NA
8.2.25.17	Malfunction Indicator Lamp	NA
8.2.25.18	Any other tell-tale	Refer Drawing No-HEOPT003
8.2.26	Indicators	Refer Drawing No-HEOPT003
8.2.26.1	Speedometer	Refer Drawing No-HEOPT003
8.2.26.2	Fuel Indicator	NA
8.2.26.3	Engine coolant temperature	NA
8.2.26.4	Electrical Charging	Refer Drawing No-HEOPT003
8.2.26.5	Engine Oil	NA


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8.2.26.6	Any other Indicator	NA
8.3	Statutory inscriptions	NA
8.3.1	Photographs and/or drawings showing the location of VIN.	Refer Drawing No-HEOPT017
8.3.2	Height of VIN characters.	6 mm
8.4	Device(s) to protect against unauthorized use	Steering lock
8.4.1	Type of device(s) as per AIS-074	Type 2
8.4.1.1	Make(s)	Noble Lock
8.5	Audible warning device(s)	
8.5.1	Make(s)	Addon Engineering Pvt Ltd
8.5.2	Type(s)	Type 2A
8.5.2.1	Operating voltage	13.5 V
8.5.2.2	Nos of audible warning devices installed	1 Nos
8.5.3	TAC No. / BIS license number/ "E" marking	CC0GQ 9131
8.5.4	Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle	Refer Drawing No-HEOPT011
8.5.5	Dimensional & material Details of the part in front of the Horn(s) which may obstruct audibility	Refer Drawing No-HEOPT012
9.0	Rear-view mirrors (please provide the following information for each rear-view mirror)	
9.1	Make (s)	Fiem Industries Ltd
9.1.1	Type Approval Number / E-marking/BIS License No.	CC0CR1734
9.2	Class of the Mirror as per AIS-002	L
9.3	Drawing(s) showing the location & Installation Dimension Details of the rear-view mirror(s) in relation to the structure of the vehicle	Refer Drawing No-HEOPT013
9.4	Precise information concerning the type of attachment, including that part of the vehicle structure to which the rear-view mirror is attached	Type of Attachment – Mounted Attachment Location – Handle Bar
10.0	Provision for Devices for pillion rider and/or passenger(s)	


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10.1	Nos of Handholds for pillion Rider in case of 2 Wheeler	1 Nos
10.1.1	Type: strap and/or handle ⁽¹⁾	Handle
10.1.2	Drawings showing dimensional and material details of strap / handhold(s) and its fixing / bolting details	Refer Drawing No-HEOPT014
10.1.3	Nos. of Handholds for passenger(s) in case of 3 Wheeler	NA
10.2	Foot rest for rider and pillion	YES
10.3	Protective device covering half of the rear wheel.(as applicable) along with Schematic drawing.	Vehicle Having Scooter Type Body
11.0	Spray suppression device (as applicable)	
11.1	Diagram showing general arrangement of spray suppression system, Angle θ and relevant dimensions as specified in AIS-103 :2009	Refer Drawing No-HEOPT015
11.2	Tyre Overall Width (Maximum of variants and tyre makes)	90 Mm
12.0	List of Electrical/Electronic Systems which are not previously listed	
12.1	List of all subassemblies, which includes an electronic oscillator or switching frequency greater than 9kHz (like ECU, instrument Cluster, Body Control Module etc.)	Speedometer Motor Motor Controller Dc to Dc Convertor
12.1.1	Device Name	NA
12.1.2	Make	NA
12.1.3	Identification number(ID) / Part No./Drawing No.	Refer Drawing No-HEOPT034
12.2	List of all Electrical components, which include Broadband EMI sources (like HAVC Motor, Wiper Motor and Horn etc.)	Speedometer Motor Motor Controller Dc to Dc Convertor
12.2.1	Device Name	NA
12.2.2	Make	NA
12.2.3	Identification number(ID) / Part No./Drawing No.	Refer Drawing No-HEOPT034
13.0	Type of stand (Centre/Prop/both)	
13.1	Number of Stands	TWO


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		Probe Stand	Main Stand
13.2	Retention Mechanism (one spring/two spring/ one spring with separate retention system)	One Spring	One Spring
13.3	In the case of spring used in 5.2.5.2.2 of AIS-146	NA	
13.3.1	Wire Diameter (mm)	2.4 mm mm	3.0
13.3.2	Free length of the spring (mm)	99 mm	107 mm
13.3.3	Outer Coil diameter (mm)	15 mm mm	15.5
13.3.4	Assembled length in “in-use position” (mm)	140 mm	134 mm
13.3.5	Assembled length in “not-in-use position” (mm)	121 mm mm	114
13.3.6	Spring Material	Spring steel Wire grade II, as per IS 4454 Part-1	
13.4	Drawing related to the stand installation showing minimum details given below, - Distance of median lateral plane from Front axle - Location of installation of Prop stand (side stand) and Center stand from front axle - Angle between vehicle longitudinal median plane and prop stand in-use position	Refer Drawing No-HEOPT024	
15.2	Details of compliance as per AIS-120 mentioned in Clause 5.1.1 of AIS-147.	NA	
15.3	Details of Guard as specified in clause 3.8 of AIS-147	NA	
15.3.1	Material used	NA	
15.3.2	Width of the Guard (from body frame to extreme end laterally)	NA	
16.0	Information of Foot rests as per AIS-148 (Only for L1 & L2) Type of Footrest (Footrest / Floor / Floorboards)	Floorboards & Footrest Both	
17.0	Photographs or drawings showing the location and the construction of Foot rests	Refer Drawing No-HEOPT002	
18.0	Firefighting System (if fitted)		
18.1	Make	NA	



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18.2	Weight	NA
18.3	Schematic representation indicating the arrangement and position	NA
18.4	Details of the alterations done on original vehicle (separate Annexure can be enclosed)	NA
18.5	Photograph of vehicle with firefighting system	NA
19.0	Any other feature manufacturer desires to declare	USB Charger Make- Chedda Electrical And Electronics Make- Star Engineering Pvt Ltd.

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