



INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

(A division of National Automotive Board (NAB) - MHI, Govt. of India)

Ready Reckoner - M1 Category CMVR TYPE APPROVAL

Definition	Category M1 means a motor vehicle used for carriage of passengers, comprising not more than eight seats in addition to the driver's seat		Dimensions	Length (meters)	Width (meters)	Height (meters)
				12.00	2.60	4.00
Fuel	Petrol/CNG/Diesel/Electric/Hybrid		Weight	GVW < 3.5T		
AIS 007 Tables	Brief Tech Specs	T7 & T11 - Petrol/CNG/Diesel/Electric/Hybrid	Detail Tech Specs	T2, T3, T4E, T5, T6, T8 - Petrol/CNG/Diesel/Hybrid		
		T13 - Electric, T20 - CNG, T23 -Hybrid		T2, T3, T5, T6, T8 - Electric		
Sr. no.	Title of Test		CMV Rule No.	Reference Standard	Remarks	Lab
Vehicle Level Tests						
1	Definitions (Classification of the Vehicle) –M1		2 (1)	IS-14272:2011	-	CBU
2	Overall Dimensions		93 (1)(A), (1)(B), (2) & (3)	-	-	VEL
3	Condition of Tyres		94 (1), (2) & (3)	-	-	VEL
4	Selection and Fitment of Tyre		95 (1),(2), (3), (4), (5) & (6)	AIS-051:2004	-	VEL
5	Temporary use spare wheel or tyre / Run flat tyre		95 (7)	AIS-110:2009	If fitted	VEL
6	Tyre pressure monitoring system		95 (8)	AIS-154:2018	If fitted	VEL
7	Brake		96 (1), (2), (3), (4(ii)), (7)(a) & (8)	IS-15986:2015	-	VEL
8	Anti-lock braking system (ABS)		96 (4B)	IS-15986:2015	-	VEL
9	Electronic stability control (ESC) systems		96 (10)	AIS-133:2016	If fitted	VEL
10	Brake assist system (BAS)		96 (11)	AIS-152:2018	If fitted	VEL
11	High speed braking requirements		96B (a) & (b)	IS-15986:2015	-	VEL
12	Turning Circle Diameter		98 (1) & (2)	IS-12222:2011	-	VEL
13	Steering effort		98 (3)	IS-11948:2010	-	VEL
14	Forward & Backward Motion		99	-	-	VEL
15	Windscreen Wiper		101 (1) & (2)(i)	IS-15804:2008	-	PSL
16	Signaling Device, Direction indicators and Stop Light		102 (1) & (2)	-	-	VEL
17	Position of Indicator		103 (1) & (2)	-	-	VEL
18	Fitment of Reflectors		104(1) & (4)	AIS-057 (Rev.1): 2010	-	VEL
19	Lamps		105 (1)(a), (2), (3), (4), (5) & (7)	-	-	VEL
20	Deflection of Light		106 (1)	-	-	VEL

21	Use of Red & White Light	108 (1)	-	-	VEL
22	Parking Lights	109	-	-	VEL
23	Prohibition of spotlights etc.	111	-	-	VEL
24	Exhaust Gases and Exhaust Pipes	114 (1) & (2)	-	-	VEL
25	Mass emission (Type I, II & III) (w/o PN)	115 (1), (2)(i) & (18)(i)	AIS-137(P3):2019	for Petrol/CNG/LPG only	VTL
26	Mass emission (Type I, II & III) (with PN)	115 (1), (2)(ii) & (18)(i)	AIS-137(P3):2019	-	VTL
27	Evaporative emission (Type IV)	115 (18)(i)	AIS-137(P3):2019	For Petrol only	VTL
28	OBD - II	115 (18)(i)	AIS-137(P3):2019	-	VTL
29	Real drive emission (RDE)	115 (18)(i)	AIS-137(P3):2019	-	VTL
30	Full throttle performance (FTP)	115 (18)(i)	AIS-137(P5):2019	-	ETL
31	Fuel consumption standard	115G (1) & (2)	AIS-137(P3):2019	-	VTL
32	Coast Down	115 (18)(i)	AIS-137(P3):2019	-	VEL
33	Speedometer calibration	117 (1) & (2)	IS-11827:2008	-	VEL
34	Speed limiting device (SLD) / speed limiting function (SLF)	118 (1)	AIS-018:2001	for Transport only	VEL
35	Horn installation	119 (1) & (2)	IS-15796:2008	-	VEL
36	Pass by noise measurement	120 (1) & (2)	IS-3028:1998	-	VEL
37	VIN verification	122 (1) & (2)	AIS-065:2005	-	VEL
38	Requirements for behaviour of steering mechanism of a vehicle in a head-on collision	124 (1)(5)(b)	AIS-096:2008	(if exempted from AIS098)	PSL
39	Protection of occupants in the event of an offset frontal collision	124 (1)(5)(c)	AIS-098:2008	-	PSL
40	Protection of occupants in the event of lateral collision	124 (1)(6)(b)	AIS-099:2008	-	PSL
41	Protection of pedestrian & other vulnerable road users in the event of a collision with a motor vehicle	124 (1)(6)(c)	AIS-100:2010	-	PSL
42	External projection	124 (1)(11)	AIS-120:2014	-	VEL
43	Wheel Guard	123 (1)(13)	IS-13943:1994	-	VEL
44	Wheel nuts, wheel disc & hub caps	124 (1)(14)	IS-13941:1994	-	VEL
45	Accelerator control system	124 (1)(15)	IS-14283:1995	-	EEL

46	Hood latch system	124 (1)(17)	IS-14226:1995	-	VEL
47	Tell tale symbols	124 (1)(18)	AIS-071-2009 (P1 & P2)	-	VEL
48	Installation requirements for lighting & signaling devices	124 (1)(20)	AIS-008:2010 (rev 1)	-	VEL
49	Vertical orientation of dipped beam Headlamp (HLLD)	124 (1)(20)	AIS-008:2010 (rev 1)	-	PHL
50	Electromagnetic compatibility (EMC)	124 (1)(21)(ii)	AIS-004:2009 (Part 3)	-	EMC
51	Gradeability	124 (1)(23)	AIS-003:1999	-	VEL
52	Fuel Consumption (On Driving Cycle)	124(1)(31)	Carbon Balance Method	-	VTL
53	Driver's field of vision	124 (1)(34)	AIS-021:2004	-	PSL
54	Interior fittings-Head Impact	124 (1)(38)	IS-15223:2002 AnnB	-	CTL
55	Interior fittings-SLED	124 (1)(38)	IS-15223:2002 AnnE	-	PSL
56	Fitment of bumpers	124 (1)(41)	IS-15901:2010	-	PSL
57	Arrangement of mode of foot control	124 (1)(45)	AIS-035:2006	-	VEL
58	Requirements of demisting system	124 (1)(46)(a)	AIS-084 (P1):2008	-	PSL
59	Requirements of defrosting system	124 (1)(46)(b)	AIS-084 (P2):2008	If fitted	PSL
60	Measurement of minimum ground clearance	124 (1)(50)	IS-9435:2004	-	VEL
61	Protective devices against unauthorized use	124 (1)(51)	AIS-075:2006	-	CTL
62	Vehicle alarm systems and immobilizers	124 (1)(52)	AIS-076:2007	If fitted	EEL
63	Seat Belt Anchorage test	125 (1)(1A)	IS-15139:2002	-	CTL
64	Seat SLED test	125 (5)	IS-15546:2005	-	PSL
65	Installation of safety belt, restrain system & safety belt reminder	125 (1A)	IS-16694:2018	-	EEL
66	Rear view mirror installation or Device for indirect vision	125 (2)(c-1)	AIS-002 (P1) (Rev. 2): 2023	-	VEL
67	Child restraint system	125 (8)	AIS-072:2009	-	PSL
68	Additional safety features for M1 category vehicles	125 (9) & (9A)	AIS-145:2018	-	EEL
69	Photographs	-	ICAT PROCEDURE	-	VEL
70	Vehicle Weighment	-	IS : 11825 1986	-	VEL
71	Documentation charge- VEL	-	ICAT PROCEDURE	-	VEL

72	TEST TRACK HIRING CHARGES - HILL TRACK, NOISE, OVAL, STEERING PAD	-	ICAT PROCEDURE	-	VEL
73	Lab Part Clearance	-	ICAT PROCEDURE	-	VEL/ VTL
74	Component Part Clearance	-	ICAT PROCEDURE	-	CBU
75	Component Full Clearance	-	ICAT PROCEDURE	-	CBU
76	CERTIFICATION CHARGES PER BASE MODEL OR VARIANT	-	ICAT PROCEDURE	-	CBU
77	DOCUMENTATION CHARGES	-	ICAT PROCEDURE	-	CBU
78	Engineer per day charge	-	ICAT PROCEDURE	-	CBU
Additional test for EV/HYBRID					
1	Functional and Safety tests (Electric Vehicles)	124(1)26 (b)	AIS:038(P2)(Rev 2)-2020	-	EEL
2	Measurement of electrical energy consumption	124 (1)(27)	AIS-039 (Rev. 1)-2015	-	VTL
3	Method of measuring the range	124 (1)(28)	AIS-040 (Rev. 1)-2015	-	VTL
4	Measurement of net power and maximum 30 minute power	124 (1)(29)	AIS-041 (Rev. 1)-2015	-	ETL
5	Type Approval of electric powertrain vehicles	124 (1)(30)	AIS-049 (Rev. 1)-2016	-	CBU
6	Electromagnetic compatibility (EMC)	124 (1)(21)(ii)	AIS-004:2009 (Part 3)	-	EMC
Additional test for CNG					
1	Safety Checks for CNG Kit Components and their installation	115B-E	AIS-028 Rev 1	-	VEL
Component Level Tests					
1	Tyres	95 (1)	IS:15633-2005 & IS: 15636-2012	-	TTL
2	Wet Grip, Rolling Sound Emission & Rolling Resistance	95 (1A)	AIS-142:2019	-	TTL
3	Safety glass	100 (1)	IS:2553 (Part 2)(Rev. 1)-2019	-	CTL
4	Wiper blade	101 (1)	IS:15804-2008	-	CTL
5	Washer Tank	101 (1)	IS:15804-2008	-	CTL
6	Reflex reflector	104 (4)	AIS-057 (Rev. 1)-2010	-	PHL
7	Horn	119 (1)	IS:1884-1993	-	EEL
8	Automobile lamps (bulbs)	124 (1)(1)(a)	AIS-034 (Part 1) (Rev. 1)-2010	-	PHL
9	Brake hose	124 (1)(2)	IS:7079-2008	-	CTL

10	Brake fluid	124 (1)(3)	IS:8654-1986		CTL
11	Fuel tank (Metallic / Plastic)	124 (1)(7)(a/b)	AIS-095-2007 / IS:15547-2005	If Non EV	CTL
12	Wheel rims	124 (1)(8)(b)	IS:9438-2018 / IS:9436-2018	-	CTL
13	Door locks and door retention components	124 (1)(16)	IS:14225-1995	-	CTL
14	Lighting & light signalling devices (Main beam & dipped beam)	124 (1)(20)(i)(a)	AIS-010 (Part 1)(Rev. 1)- 2010 / AIS-010 (Part 2)(Rev. 1)-2010 / AIS-010 (Part 4)(Rev. 1)-2010	-	PHL
15	Lighting & light signalling devices (Front fog lamps)	124 (1)(20)(i)(b)	AIS-012 (Part 1)(Rev. 1)- 2011	-	PHL
16	Lighting & light signalling devices (Rear fog lamps)	124 (1)(20)(i)(c)	AIS-012 (Part 2)(Rev. 1)- 2011	-	PHL
17	Lighting & light signalling devices (Cornering lamps)	124 (1)(20)(i)(d)	AIS-012 (Part 3)(Rev. 1)- 2011	-	PHL
18	Lighting & light signalling devices (Rear registration plates illuminating lamps)	124 (1)(20)(i)(e)	AIS-012 (Part 4)(Rev. 1)- 2011	-	PHL
19	Lighting & light signalling devices (Direction indicators)	124 (1)(20)(i)(e)	AIS-012 (Part 5)(Rev. 1)- 2011	-	PHL
20	Lighting & light signalling devices (Front & rear position (side) lamps, stop lamps and end outline marker lamps)	124 (1)(32)(i)(f)	AIS-012 (Part 6)(Rev. 1)- 2011	-	PHL
21	Lighting & light signalling devices (Reversing lamps)	124 (1)(20)(i)(g)	AIS-012 (Part 7)(Rev. 1)- 2011	-	PHL
22	Lighting & light signalling devices (Parking lamps)	124 (1)(32)(i)(h)	AIS-012 (Part 8)(Rev. 1)- 2011	-	PHL
23	Lighting & light signalling devices (Side marker lamps)	124 (1)(32)(i)(i)	AIS-012 (Part 9)(Rev. 1)- 2011	-	PHL
24	Lighting & light signalling devices (Daytime running lamps)	124 (1)(32)(i)(j)	AIS-012 (Part 10)(Rev. 1)- 2011	-	PHL
25	Safety belt, their assemblies and their anchorages	125 (1) & (1A)	IS:15140-2003 & IS:15139-2002	-	CTL
26	Seats, their anchorages and head restraints	125 (5)	IS:15546-2005	-	CTL
27	Rear view mirror	125 (2)(c)	AIS-001 (Part 1) (Rev. 1)- 2011	-	CTL