

VOLVO EX90



APPLIES TO All variants	BUILT FROM December 2024	RATING CRITERIA 2023-2025	
VEHICLE TYPE Large SUV	ON SALE FROM March 2025	RATING EXPIRES December 2031	
ENGINE / MOTOR TYPES Battery Electric	MODEL SERIES n/a	AIRBAGS Dual frontal, side chest, side head, centre, driver knee	

TESTED 2025 ★ ★ ★ ★ ★

The Volvo EX90 was introduced in Australia in March 2025. This ANCAP safety rating applies to all variants.

Dual frontal, side chest-protecting, and side head-protecting airbags, and a driver knee airbag, are standard. A centre airbag which provides added protection to front seat occupants in side impact crashes is also standard.

Autonomous emergency braking (Car-to-Car, Vulnerable Road User, Junction & Crossing, Backover and Head-On) as well as a lane support system with lane keep assist (LKA), lane departure warning (LDW) and emergency lane keeping (ELK), and a speed assist system (SAS) with a speed sign recognition system, are standard.

ASSESSMENT SCORES



RATING APPLICABILITY*

VARIANT	BODY TYPE	ENGINE / POWERTRAIN	DRIVETRAIN	AUS	NZ
Volvo EX90 Twin Plus	5 door SUV	Battery Electric Vehicle (BEV)	AWD	✓	-
Volvo EX90 High Performance Ultra	5 door SUV	Battery Electric Vehicle (BEV)	AWD	✓	-

* Correct at time of publication. Subject to change. Check with manufacturer.



Adult Occupant Protection

92%

36.94 out of 40

FRONTAL OFFSET (MPDB)*
5.29 points out of 8

OBLIQUE POLE*
6.00 points out of 6

RESCUE & EXTRICATION
4.00 points out of 4

FULL WIDTH FRONTAL*
7.95 points out of 8

WHIPLASH PROTECTION
3.70 points out of 4

SIDE IMPACT*
6.00 points out of 6

FAR SIDE IMPACT
4.00 points out of 4

* Scaled scores. Total test scored out of 16.00 points.

The passenger compartment of the Volvo EX90 remained stable in the **frontal offset (MPDB)** test. Protection was GOOD for all critical body regions of both the driver and front passenger, except for the lower legs of the driver where protection was ADEQUATE.

The front structure of the Volvo EX90 presented a moderate risk to occupants of an oncoming vehicle in the MPDB test (which evaluates vehicle-to-vehicle compatibility), and a 5.17 point penalty (out of 8.00 points) was applied.

In the **full width frontal** test, protection was ADEQUATE for the chest of the rear passenger. GOOD protection was offered to all other critical body regions for both the driver and rear passenger.

In the **side impact** and **oblique pole** tests, protection offered to all critical body regions was GOOD and the Volvo EX90 scored maximum points in these tests.

The Volvo EX90 is equipped with a centre airbag to protect against occupant-to-occupant interaction in side impacts and it provided GOOD protection for the head of both front seat occupants. Prevention of excursion (movement towards the other side of the vehicle) in the **far side impact** tests was assessed as GOOD for the vehicle-to-vehicle impact scenario, and ADEQUATE in the vehicle-to-pole scenario.

A Rescue Sheet, providing information for first responders in the event of a crash is available, and a multi-collision braking system is fitted. It was demonstrated that, if the car entered water, the doors and windows of the Volvo EX90 would remain functional for the minimum required time period.

FRONTAL OFFSET (MPDB) TEST - 50km/h



	DRIVER	FRONT PASSENGER
Head / Neck	4.00 pts	4.00 pts
Chest	4.00 pts	4.00 pts
Upper Legs	4.00 pts	4.00 pts
Lower Legs	3.75 pts	4.00 pts
Deductions	Nil	Nil



COMPATIBILITY

Deductions	-5.17 pts
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FULL WIDTH FRONTAL TEST - 50km/h



	DRIVER	REAR PASSENGER
Head	4.00 pts	4.00 pts
Neck	4.00 pts	4.00 pts
Chest	4.00 pts	3.81 pts
Upper Legs	4.00 pts	4.00 pts
Deductions	Nil	Nil

SIDE IMPACT TEST - 60km/h



	DRIVER
Head	4.00 pts
Chest	4.00 pts
Abdomen	4.00 pts
Pelvis	4.00 pts
Deductions	Nil

OBLIQUE POLE TEST - 32km/h



	DRIVER
Head	4.00 pts
Chest	4.00 pts
Abdomen	4.00 pts
Pelvis	4.00 pts
Deductions	Nil



Adult Occupant Protection

92%

36.94 out of 40

FAR SIDE IMPACT TESTS - 60km/h and 32km/h



SIDE IMPACT (60km/h)	DRIVER
Head	4.00 pts
Neck	4.00 pts
Chest & Abdomen	4.00 pts
Pelvis	No penalty



OBLIQUE POLE (32km/h)	DRIVER
Head	4.00 pts
Neck	4.00 pts
Chest & Abdomen	4.00 pts
Pelvis	No penalty



OCCUPANT-TO-OCCUPANT	
Head Contact	No penalty

WHIPLASH PROTECTION TESTS



	DRIVER / FRONT PASSENGER	REAR PASSENGER
Rear Impact	2.70 pts	1.00 pts

RESCUE & EXTRICATION



Rescue Sheet	●	No penalty
Door Opening / Extrication	●	No penalty
Multi-Collision Braking	●	1.00 pt
Advanced eCall	✘	2.00 pt default
Vehicle Submergence		
- Door opening	●	0.50 pt
- Window opening	●	0.50 pt

● FITTED TO TEST CAR AS STANDARD ● NOT FITTED TO TEST CAR BUT AVAILABLE AS AN OPTION ✘ NOT AVAILABLE - N/A



Child Occupant Protection

94%

46.54 out of 49

DYNAMIC TEST (FRONT)
16.00 points out of 16

RESTRAINT INSTALLATION
11.54 points out of 12

DYNAMIC TEST (SIDE)
8.00 points out of 8

ON-BOARD SAFETY FEATURES
11.00 points out of 13

In the **frontal offset** and **side impact** tests, protection of the 10 year and 6 year dummies was GOOD and the Volvo EX90 scored maximum points.

The Volvo EX90 is fitted with lower ISOFix anchorages on the rear outboard seats in the second row of seats, and top tether anchorages for all rear seating positions.

A direct child presence detection (CPD) system is fitted, covering all seating positions to all seats as standard. The system provides an alert and warning when a child is detected in the vehicle after stopping, and prevents locking of the vehicle.

Installation of typical child restraints available in Australia and New Zealand showed most child restraints could be accommodated in most rear seating positions. However, in the third row seating positions care is needed to install the Type A capsule, and one of the selected Type A convertible seats could not be correctly installed in rearward facing mode.

FRONTAL OFFSET (MPDB) TEST - 50km/h

SIDE IMPACT TEST - 60km/h



6 YEAR OLD

10 YEAR OLD

10 YEAR OLD

6 YEAR OLD

ON-BOARD SAFETY FEATURES	FRONT PASSENGER	2nd ROW OUTBOARD	2nd ROW CENTRE	3rd ROW OUTBOARD	3rd ROW CENTRE
ISOFIX Anchorages	✗	●	✗	✗	-
Top Tether Anchorage	✗	●	●	●	-
Airbag Disabling	✗	-	-	-	-
Child Presence Detection 4.00 pts (out of 4.00pts)	●	●	●	●	-

● FITTED AS STANDARD ✗ NOT AVAILABLE - N/A

CHILD RESTRAINT TYPE**	FRONT ROW PASSENGER	2nd ROW			3rd ROW		
		L	C	R	L	C	R
BELTED							
Rearward-facing capsule	✗	●	●	●	●	-	●
Rearward-facing with harness - convertible (Model A)	✗	●	●	●	●	-	●
Rearward-facing with harness - convertible (Model B)	✗	●	●	●	●	-	●
Forward-facing with harness - convertible (Model A)	✗	●	●	●	●	-	●
Forward-facing with harness - convertible (Model B)	✗	●	●	●	●	-	●
Booster - 4 to 8 years	✗	●	●	●	●	-	●
Booster - 4 to 10 years	✗	●	●	●	●	-	●
ISOFIX							
Rearward-facing capsule	✗	●	-	●	-	-	-
Rearward-facing with harness - convertible (Model A)	✗	●	-	●	-	-	-
Rearward-facing with harness - convertible (Model B)	✗	●	-	●	-	-	-
Forward-facing with harness - convertible (Model A)	✗	●	-	●	-	-	-
Forward-facing with harness - convertible (Model B)	✗	●	-	●	-	-	-

● INSTALL WITHOUT PROBLEM ● INSTALL WITH CARE ● CANNOT BE FITTED SAFELY ✗ INSTALLATION NOT ALLOWED - N/A

● GOOD ● ADEQUATE ● MARGINAL ● WEAK ● POOR ● NOT TESTED

NOTE: The child restraints fitted to vehicles tested by Euro NCAP are relevant to the European market. For Australasian consumers, this information should be used as a guide to vehicle features only. The Child Restraint Evaluation Program (CREP) provides an independent assessment on the safety of Australasian child restraints - see www.childrestraints.com.au. * Installation of each child restraint is assessed separately in each position. Installation of multiple restraints has not been assessed and may not be possible. ^ The list of child restraints has been selected to provide a general indication of the rated vehicle's ability to accommodate various CRS types. ANCAP does not endorse or recommend any one CRS brand or model, nor does it rate the safety of child restraints.



Vulnerable Road User Protection

82%

52.24 out of 63

HEAD PROTECTION (Adult, Child, Cyclist) 15.79 points out of 18	KNEE & TIBIA PROTECTION 5.01 points out of 9	AEB CYCLIST 8.70 points out of 9
PELVIS PROTECTION 0.51 points out of 4.5	AEB PEDESTRIAN (Forward) 6.94 points out of 7	AEB MOTORCYCLE 6.00 points out of 6
FEMUR PROTECTION 4.29 points out of 4.5	AEB PEDESTRIAN (Backover) 2.00 points out of 2	LSS MOTORCYCLE 3.00 points out of 3

The Volvo EX90 has an 'active' bonnet. Sensors detect when a pedestrian is struck and actuators lift the bonnet to provide greater clearance from stiff components in the engine bay. In **pedestrian impact** tests, the vehicle was tested with the bonnet in the raised position and GOOD results were recorded over most of the bonnet area with some MARGINAL to POOR results recorded on the windscreen pillars, the base of the windscreen, and front edge of the bonnet surface.

Protection of the pelvis was mostly POOR, while protection of the femurs and lower legs was mixed, varying from GOOD to POOR performance.

The autonomous emergency braking (AEB) system is capable of detecting and reacting to vulnerable road users such as pedestrians, cyclists and motorcyclists. Testing of this system showed GOOD performance in **AEB Pedestrian** test scenarios, with collisions avoided or mitigated in all tests, including in turning scenarios and in reverse (**AEB Backover**).

GOOD performance was seen in **AEB Cyclist** test scenarios with collisions avoided or mitigated at all test speeds, including turning scenarios. The vehicle provides information and warning to occupants when a bicycle is approaching from behind (**cyclist anti-dooring**).

GOOD performance was seen in the **AEB Motorcyclist** tests, including in turning and emergency lane keeping scenarios, earning full points.

PEDESTRIAN & CYCLIST IMPACT TESTS



AUTONOMOUS EMERGENCY BRAKING (Cyclist, Pedestrian & Motorcycle)

System Name	Forward & Rear Collision Warning and Mitigation / Exit Assist
Type	Autonomous emergency braking with forward collision warning
Operational From	1-180 km/h

	Cyclist traveling along road (25%)	Cyclist crossing from kerb (obstructed)	Cyclist traveling along road (50%)	Cyclist crossing (nearside)	Cyclist crossing (farside)	Cyclist crossing side road, car turning (nearside)	Cyclist crossing side road, car turning (farside)
	DAY	DAY	DAY	DAY	DAY	DAY	DAY
AEB CYCLIST TEST SCENARIOS (forward)							
PERFORMANCE	GOOD						

CYCLIST DOORING

Information (driver door)	●
Warning (driver door)	●
Retention (driver door)	✘
Warning or retention (all other doors)	●

● PASS ✘ FAIL - N/A

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR / NOT TESTED DUE TO NO PERFORMANCE PREDICTED
 ■ NOT TESTED



Vulnerable Road User Protection

82%

52.24 out of 63

AEB PEDESTRIAN TEST SCENARIOS (reverse)	Child / Adult standing behind reversing vehicle (25% offset)	Adult / Child standing behind reversing vehicle (50% offset)	Child / Adult standing behind reversing vehicle (75% offset)	Adult / Child walking behind reversing vehicle (50% offset)
	DAY	DAY	DAY	DAY
4km/h	GOOD	GOOD	GOOD	GOOD
8km/h	GOOD	GOOD	GOOD	GOOD
PERFORMANCE	GOOD			

AEB PEDESTRIAN TEST SCENARIOS (forward)	Adult walking along road		Adult crossing towards kerb (50%)		Adult crossing from kerb (25%)		Adult crossing from kerb (75%)		Child running (obstructed)		Adult crossing side road (farside), car turning		Adult crossing side road (nearside), car turning	
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
PERFORMANCE	GOOD													

AEB MOTORCYCLE TEST SCENARIOS (forward)	Driving towards a stationary motorcycle			Driving towards a braking motorcycle (25% offset)			Turning across the path of an oncoming motorcycle			
	100% OFFSET	12m HEADWAY	40m HEADWAY	100% OFFSET	12m HEADWAY	40m HEADWAY	TARGET MOTORCYCLE SPEED			
AEB (10-50km/h)	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	10km/h	GOOD	GOOD	GOOD
FCW (30-80km/h)	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	15km/h	GOOD	GOOD	GOOD
PERFORMANCE	GOOD						20km/h	GOOD	GOOD	GOOD
							PERFORMANCE			GOOD

LANE SUPPORT SYSTEMS (Car-to-Motorcycle)

System Name	Lane Departure Prevention
Operational From	40-180 km/h

EMERGENCY LANE KEEPING (ELK) TEST SCENARIOS Car-to-Motorcycle	Oncoming motorcycle	Overtaking motorcycle (EMT at 60km/h)		Overtaking motorcycle (EMT at 80km/h)	
		UNINTENTIONAL	INTENTIONAL	UNINTENTIONAL	INTENTIONAL
PERFORMANCE	GOOD	GOOD	GOOD	GOOD	GOOD
	GOOD				

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR / NOT TESTED DUE TO NO PERFORMANCE PREDICTED
 ■ NOT TESTED



Safety Assist

84%

15.25 out of 18

SEAT BELT REMINDERS
1.00 points out of 1

AEB / AES (Car-to-Car)
3.99 points out of 4

LANE SUPPORT SYSTEMS
3.00 points out of 3

DRIVER MONITORING
1.85 points out of 2

AEB / AES (Junction & Crossing)
2.74 points out of 4

SPEED ASSISTANCE SYSTEMS
1.66 points out of 3

AEB / AES (Head-On)
1.00 points out of 1

The Volvo EX90 is fitted with an autonomous emergency braking system capable of functioning at highway speeds, and a lane support system (LSS) with lane keep assist (LKA) and emergency lane keeping (ELK) functionality.

Tests of the **AEB (Car-to-Car)** system showed GOOD performance with collisions avoided or mitigated in all car-to-car rear and **AEB Junction** test scenarios, and many **AEB Crossing** scenarios, where the test vehicle can autonomously brake to avoid crashes when crossing the path of an oncoming vehicle. **AEB Head-On** system functionality showed GOOD performance.

Tests of **lane support system** functionality showed GOOD performance, including in the more critical emergency lane keeping test scenarios.

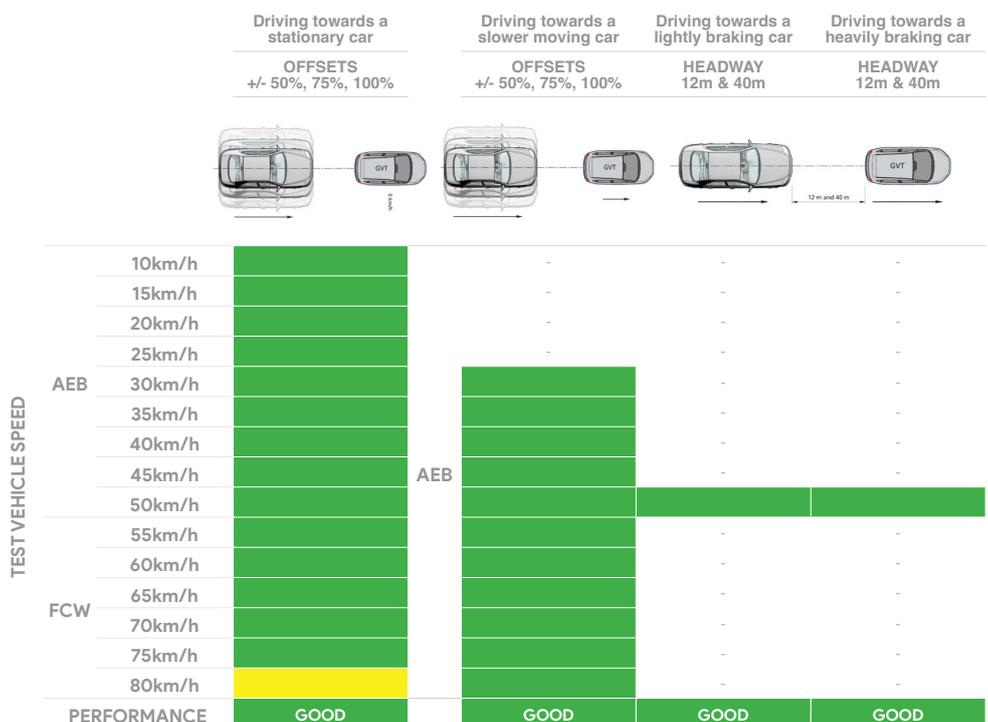
A speed assistance system (SAS) with speed limit information function (SLIF) is standard, informing the driver of the local speed limit and allowing the driver to manually set the speed accordingly.

A seatbelt reminder system with occupancy detection is fitted to all seating positions.

A direct driver monitoring system (DMS) that can detect driver drowsiness and distraction, as well as an unresponsive driver, is fitted as standard. The system provides a warning to the driver and can adjust driver assistance parameters.

AUTONOMOUS EMERGENCY BRAKING (Car-to-Car)

System Name	Forward Collision Avoidance
Type	Autonomous emergency braking with forward collision warning
Operational From	1-180 km/h



■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR / NOT TESTED DUE TO NO PERFORMANCE PREDICTED
 ■ NOT TESTED



Safety Assist

84%

15.25 out of 18

AUTONOMOUS EMERGENCY BRAKING (Car-to-Car Junction, Crossing and Head-On)

		JUNCTION ASSIST Turning across the path of an oncoming vehicle			CROSSING (T-BONE) Crossing the path of another vehicle				
TARGET VEHICLE SPEED		30km/h	45km/h	60km/h	20km/h	30km/h	40km/h	50km/h	60km/h
TEST VEHICLE SPEED	Start from stop	-	-	-	POOR	POOR	POOR	POOR	POOR
	10km/h	GOOD	GOOD	GOOD	-	-	-	-	-
	15km/h	GOOD	GOOD	GOOD	-	-	-	-	-
	20km/h	GOOD	GOOD	GOOD	POOR	POOR	POOR	POOR	POOR
	30km/h	-	-	-	POOR	POOR	POOR	POOR	POOR
	40km/h	-	-	-	POOR	GOOD	GOOD	GOOD	GOOD
	50km/h	-	-	-	POOR	GOOD	GOOD	GOOD	GOOD
	60km/h	-	-	-	POOR	GOOD	GOOD	GOOD	GOOD
PERFORMANCE		GOOD			ADEQUATE				

		TARGET VEHICLE SPEED		HEAD-ON In the path of oncoming vehicle	
		50km/h	70km/h	50km/h	70km/h
TEST VEHICLE SPEED	Travelling straight	50km/h		GOOD	-
		70km/h		-	GOOD
	Lane change	50km/h		GOOD	-
		70km/h		-	GOOD
PERFORMANCE		GOOD			

LANE SUPPORT SYSTEMS (Car-to-Car)

System Name Lane Departure Prevention
Operational From 40-180 km/h

		Dashed line		Solid line	
LANE KEEP ASSIST (LKA) TEST SCENARIOS Car-to-Car					
PERFORMANCE		GOOD			

		Overtaking vehicle (GVT at 72km/h)		Overtaking vehicle (GVT at 80km/h)		Road edge		Solid line	
		UNINTENTIONAL	INTENTIONAL	UNINTENTIONAL	INTENTIONAL				
EMERGENCY LANE KEEPING (ELK) TEST SCENARIOS Car-to-Car									
PERFORMANCE		GOOD							

GOOD ADEQUATE MARGINAL WEAK POOR / NOT TESTED DUE TO NO PERFORMANCE PREDICTED NOT TESTED



Safety Assist

84%

15.25 out of 18

OCCUPANT STATUS

WARNING TYPE	DRIVER	FRONT PASSENGER	REAR PASSENGERS
Occupant Detection	-	●	●
Seat Belt Reminder (Visual)	●	●	●
Seat Belt Reminder (Audible)	●	●	●

DRIVER MONITORING

	WARNING	INTERVENTION
Distraction	●	●
Fatigue	●	●
Unresponsive Driver	-	●

SPEED ASSISTANCE SYSTEMS (SAS)

FEATURE	
Speed Limit Information Function (SLIF)	Camera & map
Manual Speed Limiter	●
Intelligent Adaptive Cruise Control (iACC)	×
Intelligent Speed Limitation (ISL)	×

HUMAN MACHINE INTERFACE (HMI)

FEATURE	
AEB: Supplementary Warning	●
AEB: Restraint activation / dynamic retractors / emergency steering support	●
Lane Departure Warning (LDW)	●
Blind Spot Monitoring (BSM): Car-to-Car & Car-to-Motorcycle	×

SAFETY FEATURES & TECHNOLOGIES

SAFETY FEATURE / TECHNOLOGY*	AUS	NZ
Seat belt pre-tensioners (front seats)	●	-
Seat belt pre-tensioners (rear outboard seats) - 2nd row	●	-
Seat belt pre-tensioners (rear centre seat) - 2nd row	●	-
Seat belt pre-tensioners (rear outboard seats) - 3rd row	●	-
Seat belt pre-tensioners (rear centre seat) - 3rd row	-	-
Intelligent seat belt reminder (driver)	●	-
Intelligent seat belt reminder (front passenger)	●	-
Intelligent seat belt reminder (2nd row seats)	●	-
Intelligent seat belt reminder (3rd row seats)	●	-
Airbag - dual frontal (driver & front passenger)	●	-
Airbags - side, chest protection (front seats)	●	-
Airbags - side, chest protection (2nd row seats)	✗	-
Airbags - side, chest protection (3rd row seats)	✗	-
Airbags - side, head protection (front seats)	●	-
Airbags - side, head protection (2nd row seats)	●	-
Airbags - side, head protection (3rd row seats)	●	-
Airbag - centre	●	-
Airbag - knee (driver)	●	-
Airbag - knee (front passenger)	✗	-
Airbag - pedestrian (external)	✗	-
Airbag disabling switch - automatic (front passenger)	✗	-
Airbag disabling switch - manual (front passenger)	✗	-
Autonomous emergency braking (AEB) - Car-to-Car	●	-
Autonomous emergency braking (AEB) - Vulnerable Road User		
- AEB Pedestrian	●	-
- AEB Backover	●	-
- AEB Cyclist	●	-
- AEB Motorcycle	●	-
Autonomous emergency braking (AEB) - Junction		
- AEB Junction (Car)	●	-
- AEB Junction (Pedestrian)	●	-
- AEB Junction (Cyclist)	●	-
- AEB Junction (Motorcycle)	●	-
Autonomous emergency braking (AEB) - Crossing	●	-
Automatic emergency call (eCall)	●	-
Blind spot monitor (BSM)	●	-
Child presence detection / alert	●	-
Cyclist dooring detection / alert	●	-
Driver monitoring system - Indirect	●	-
Driver monitoring system - Direct	●	-
Forward collision warning (FCW)	●	-
Lane departure warning (LDW)	●	-
Lane keep assist (LKA)		
- LKA (Car-to-Car)	●	-
- LKA (Car-to-Motorcycle)	●	-
Secondary / multi-collision brake	●	-
Speed assistance - intelligent adaptive cruise control (iACC)	✗	-
Speed assistance - auto / intelligent speed limiter	✗	-
Speed assistance - manual speed limiter	●	-
Speed assistance - speed sign recognition & warning	●	-
Vehicle-to-infrastructure communication (V2I)	✗	-
Vehicle-to-vehicle communication (V2V)	✗	-

● STANDARD ● AVAILABLE ON HIGHER VARIANTS ○ OPTIONAL ✗ NOT AVAILABLE - NOT APPLICABLE

* Correct at time of publication. Subject to change. Check with manufacturer.

TESTED MAKE / MODEL
Volvo EX90 Plus LHD

TESTED VEHICLE ENGINE
Battery Electric (BEV)

RATING UPDATED
n/a

TESTED BODY TYPE
5 door SUV

RATING PUBLISHED
November 2025