



BYD Atto 3
Standard Safety Equipment

2022



Adult Occupant



91%

Child Occupant



89%

Vulnerable Road Users



69%

Safety Assist



74%

SPECIFICATION

Tested Model	BYD Atto 3, LHD
Body Type	- 5 door SUV
Year Of Publication	2022
Kerb Weight	1750kg
VIN From Which Rating Applies	- all Atto 3's
Class	Small Off-Road

SAFETY EQUIPMENT

	Driver	Passenger	Rear
FRONTAL CRASH PROTECTION			
Frontal airbag	●	●	—
Belt pretensioner	●	●	●
Belt loadlimiter	●	●	●
Knee airbag	✘	✘	—
LATERAL CRASH PROTECTION			
Side head airbag	●	●	●
Side chest airbag	●	●	✘
Side pelvis airbag	●	●	✘
Centre Airbag	●	●	—

Version 280922

SAFETY EQUIPMENT (NEXT)

	Driver	Passenger	Rear
CHILD PROTECTION			
Isifix/i-Size	—	●	●
Integrated CRS	—	✘	✘
Airbag cut-off switch	—	●	—
SAFETY ASSIST			
Seat Belt Reminder	●	●	●

OTHER SYSTEMS	
Active Bonnet	✘
AEB Vulnerable Road Users	●
AEB Pedestrian - Reverse	●
AEB Car-to-Car	●
Speed Assistance	●
Lane Assist System	●

Note: Other equipment may be available on the vehicle but was not considered in the test year.

- Fitted to the vehicle as standard
 ○ Fitted to the vehicle as part of the safety pack
○ Not fitted to the test vehicle but available as option or as part of the safety pack
 ✘ Not available
 — Not applicable

ADULT OCCUPANT

Total 34.7 Pts / 91%

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR

Frontal Impact 13.9 / 16 Pts

Mobile Progressive Deformable Barrier Full Width Rigid Barrier

Lateral Impact 14.8 / 16 Pts

Side Mobile Barrier Side Pole Far-Side Excursion Occupant Interaction


Rear Impact 3.9 / 4 Pts

Rear Seat Front Seat


 ADULT OCCUPANT

Total 34.7 Pts / 91%

GOOD ADEQUATE MARGINAL WEAK POOR

Rescue and Extrication		2.0 / 2 Pts
Rescue Sheet	Available, ISO compliant	
Advanced eCall	Available	
Multi Collision Brake	Available	

Comments

The passenger compartment of the Atto 3 remained stable in the frontal offset test. Dummy numbers demonstrated good protection of the knees and femurs of both the driver and passenger. BYD showed that a similar level of protection would be provided to occupants of different sizes and to those sitting in different positions. Analysis of the deceleration of the impact trolley during the test, and analysis of the deformable barrier after the test, revealed that the Atto 3 would be a moderately benign impact partner in a frontal collision. In the full-width rigid barrier test, protection of all critical body areas was good or adequate, for the dummies in the driver and rear passenger seats. In the side barrier test, protection of all critical body areas was good and the car scored maximum points. However, in the more severe side pole impact, protection of the chest was rated as weak, based measured values of rib compression. Control of excursion (the extent to which a body is thrown to the other side of the vehicle when it is hit from the far side) was found to be adequate. The Atto 3 has a counter-measure to mitigate against occupant to occupant injuries in such impacts. The system performed well in Euro NCAP's test, with good protection of occupants' heads. Tests on the front seats and head restraints demonstrated good protection against whiplash injuries in the event of a rear-end collision. A geometric analysis of the rear seats also indicated good whiplash protection. The Atto 3 has an advanced eCall system which alerts the emergency services in the event of a crash. The car also has a system which applies the brakes after an impact to avoid secondary collisions.

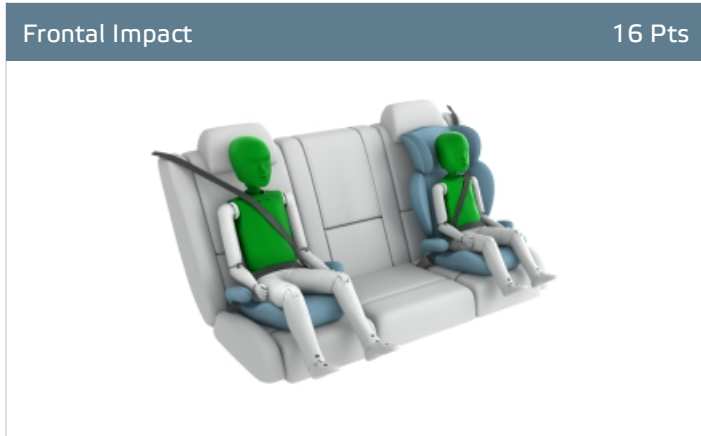
CHILD OCCUPANT

Total 44 Pts / 89%

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR

Crash Test Performance based on 6 & 10 year old children

24.0 / 24 Pts



Restraint for 6 year old child: *Britax Römer Kidfix2 S*
 Restraint for 10 year old child: *Britax Römer Kidfix2 S*

Safety Features

8.0 / 13 Pts

	Front Passenger	2nd row outboard	2nd row center
Isofix	●	●	✘
i-Size	●	●	✘
Integrated CRS	✘	✘	✘

● Fitted to test car as standard
 ○ Not on test car but available as option
 ✘ Not available

CRS Installation Check

12.0 / 12 Pts

- Install without problem
- Install with care
- Safety critical problem
- ✗ Installation not allowed

■ i-Size CRS

Maxi Cosi 2way Pearl & 2wayFix (i-Size)



Maxi Cosi 2way Pearl & 2wayFix (i-Size)



BeSafe iZi Kid X2 i-Size (i-Size)



Britax Römer TriFix2 i-Size (i-Size)



BeSafe iZi Flex FIX i-Size (i-Size)



■ ISOFIX CRS

BeSafe iZi Combi X4 ISOfix (ISOFIX)



Cybex Solution Z i-Fix (ISOFIX)



 CHILD OCCUPANT

Total 44 Pts / 89%

■ Universal Belted CRS

Maxi Cosi Cabriofix (Belt)



Maxi Cosi Cabriofix & EasyFix (Belt)



Britax Römer King II LS (Belt)



Cybex Solution Z i-Fix (Belt)



CHILD OCCUPANT

Total 44 Pts / 89%

	Seat Position			
	Front	2nd row		
	PASSENGER	LEFT	CENTER	RIGHT
Maxi Cosi 2way Pearl & 2wayFix (i-Size)	●	●	—	●
Maxi Cosi 2way Pearl & 2wayFix (i-Size)	●	●	—	●
BeSafe iZi Kid X2 i-Size (i-Size)	●	●	—	●
Britax Römer TriFix2 i-Size (i-Size)	●	●	—	●
BeSafe iZi Flex FIX i-Size (i-Size)	●	●	—	●
BeSafe iZi Combi X4 ISOfix (ISOFIX)	●	●	—	●
Cybex Solution Z i-Fix (ISOFIX)	●	●	—	●
Maxi Cosi Cabriofix (Belt)	●	●	●	●
Maxi Cosi Cabriofix & EasyFix (Belt)	●	●	●	●
Britax Römer King II LS (Belt)	●	●	●	●
Cybex Solution Z i-Fix (Belt)	●	●	●	●

● Install without problem
 ● Install with care
 ● Safety critical problem
 ✘ Installation not allowed
 — Not available

Comments

In both the frontal offset test and the side barrier impact, protection of all critical body areas was good for both child dummies, and the Atto 3 scored maximum points in this part of the assessment. The front passenger airbag can be disabled to allow a rearward-facing child restraint to be used in that seating position. Clear information is provided to the driver regarding the status of the airbag and the system was rewarded. All of the restraint types for which the Atto 3 is designed could be properly installed and accommodated.

VULNERABLE ROAD USERS

Total 37.5 Pts / 69%

GOOD
 ADEQUATE
 MARGINAL
 WEAK
 POOR

Pedestrian

21.8 / 36 Pts



Head Impact	15.0 Pts
Pelvis Impact	0.8 Pts
Leg Impact	6.0 Pts

Vulnerable Road Users


15.7 / 18 Pts

System Name	Autonomous Emergency Brake
Type	Auto-Brake with Forward Collision Warning
Operational From	4 km/h

 VULNERABLE ROAD USERS

Total 37.5 Pts / 69%

AEB Pedestrian

 7.5 / 9 Pts

■ Day time

Vehicle reversing into standing pedestrian



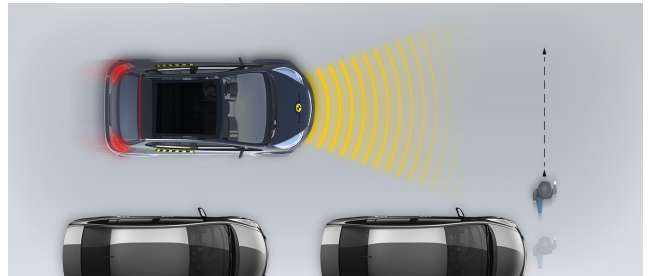
Pedestrian crossing a road into which a car is turning



Adult crossing the road



Child running from behind parked vehicles



Adult along the roadside

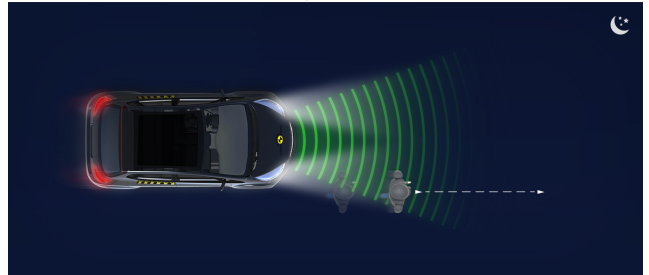


■ Night time

Adult crossing the road



Adult along the roadside

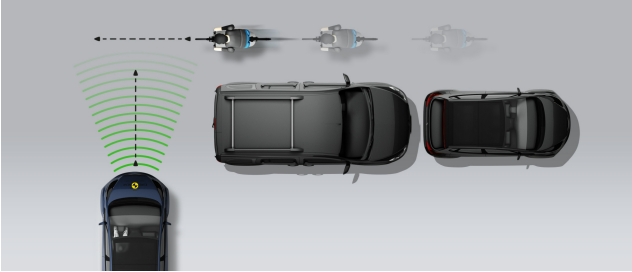


VULNERABLE ROAD USERS

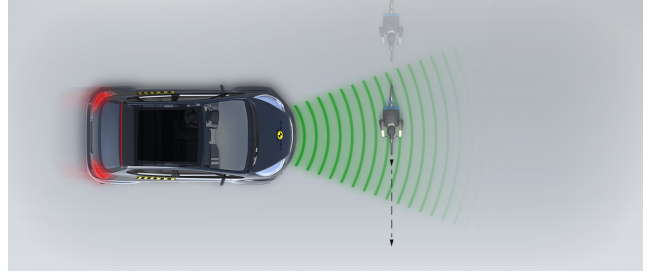
Total 37.5 Pts / 69%

AEB Cyclist
8.2 / 9 Pts

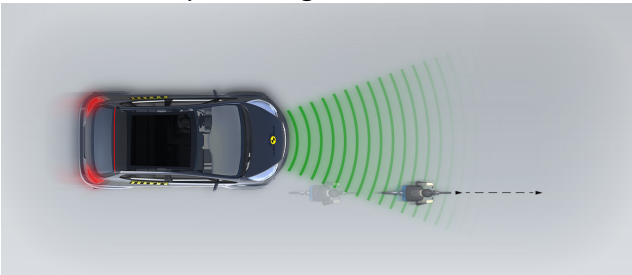
Cyclist from nearside, obstructed view



Cyclist crossing



Cyclist along the roadside

**Comments**

The protection provided by the bonnet to pedestrians' heads was predominantly good or adequate, with some poor areas on the stiff windscreen pillars. The bumper offered good protection to pedestrians' legs but protection of the pelvis region was almost entirely poor. The autonomous emergency braking (AEB) system of the Atto 3 can respond to vulnerable road users, as well as to other vehicles. The system performed well in tests of its response to pedestrians and cyclists, with collisions avoided in most scenarios.

SAFETY ASSIST

Total 12.0 Pts / 74%

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR

Speed Assistance

■ 1.5 / 3 Pts

System Name	Speed Limiter
Speed Limit Information Function	Camera based
Speed Limitation Function	System advised (accurate to 5km/h)

Occupant Status Monitoring

■ 2.0 / 3 Pts

> Seatbelt Reminder

■ 2.0 / 2 Pts

Applies To	Front and rear seats		
	Driver Seat	Front Passenger(s)	Rear Passenger(s)
Warning			
Visual	●	●	●
Audible	●	●	●
Occupant Detection	—	●	●

● Pass
 ● Fail
 — Not available

> Driver Monitoring

0.0 / 0 Pts

SAFETY ASSIST

Total 12.0 Pts / 74%

Lane Support

3.0 / 4 Pts

System Name	Lane Support System	
Type	LKA and ELK	
Operational From	30 km/h	
PERFORMANCE		
Emergency Lane Keeping	ADEQUATE	
Lane Keep Assist	GOOD	
Human Machine Interface	GOOD	

AEB Car-to-Car

5.5 / 6 Pts

System Name	Autonomous Emergency Brake	
Type	Autonomous emergency braking and forward collision warning	
Operational From	4 km/h	
Sensor Used	camera and radar	

 SAFETY ASSIST

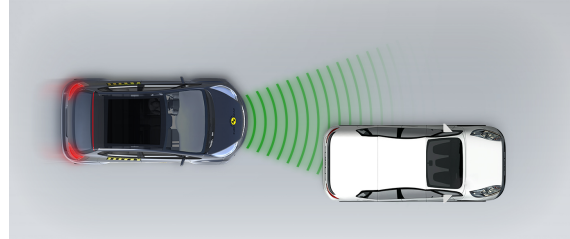
Total 12.0 Pts / 74%

■ Autobrake function only

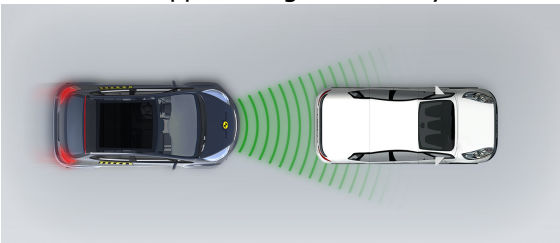
Test car turns across the path of an approaching car



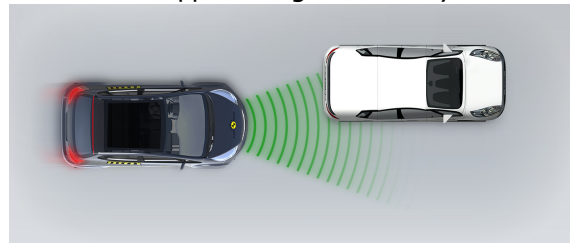
Approaching a stationary car



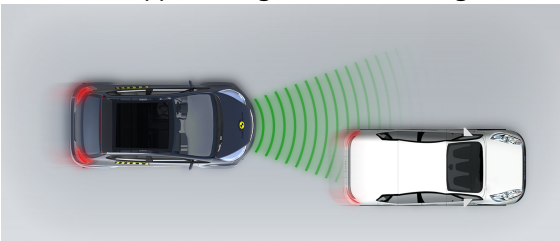
Approaching a stationary car



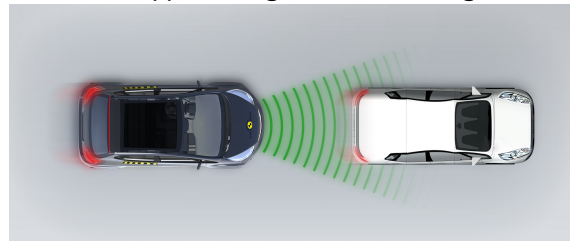
Approaching a stationary car



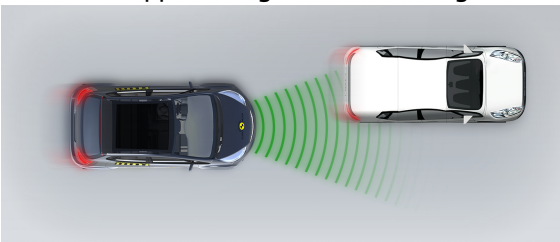
Approaching a slower moving car



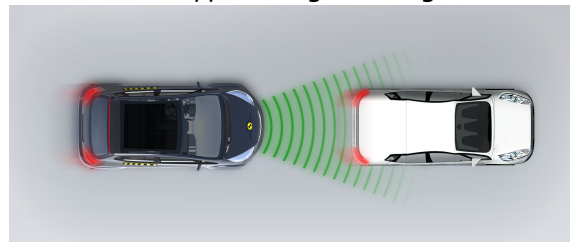
Approaching a slower moving car



Approaching a slower moving car



Approaching a braking car

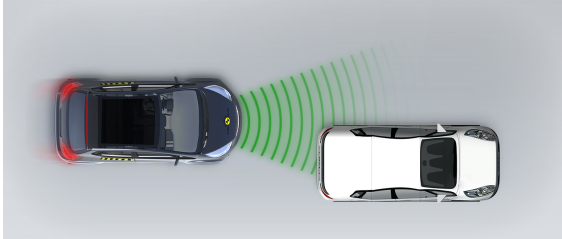


 SAFETY ASSIST

Total 12.0 Pts / 74%

■ Driver reacts to warning

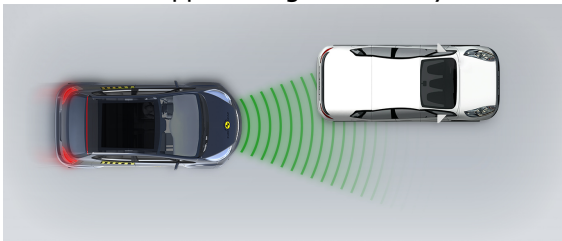
Approaching a stationary car



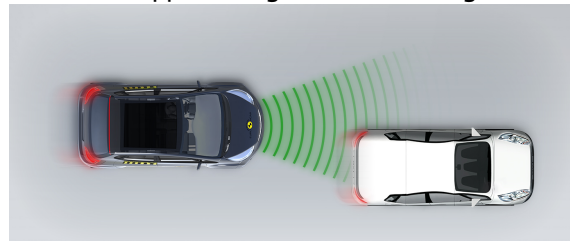
Approaching a stationary car



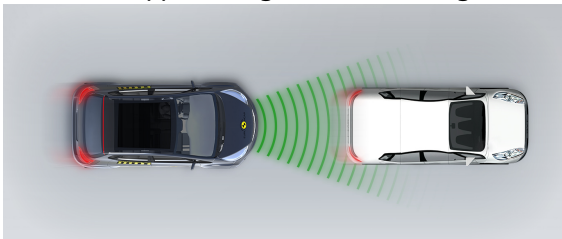
Approaching a stationary car



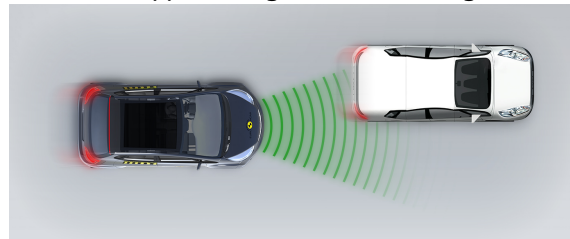
Approaching a slower moving car



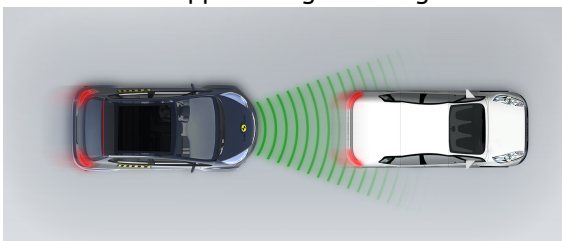
Approaching a slower moving car



Approaching a slower moving car



Approaching a braking car





SAFETY ASSIST

Total 12.0 Pts / 74%

Comments

The Atto 3's autonomous emergency braking (AEB) system performed well in tests of its reaction to other vehicles. A seatbelt reminder system is fitted as standard to the front and rear seats but the car has no system to detect driver fatigue. The lane support system gently corrects the vehicle's path if it is drifting out of lane, and also intervenes in some more critical situations. The speed assistance system detects the local speed limit and the driver can choose to allow the maximum speed of the car to be automatically set by the system.

RATING VALIDITY

Variants of Model Range

Body Type	Engine	Model Name/Code	Drivetrain	Rating Applies	
				LHD	RHD
5 door SUV	electric	Active*	4 x 2	✓	✓
5 door SUV	electric	Comfort	4 x 2	✓	✓
5 door SUV	electric	Design	4 x 2	✓	✓

*Tested variant

Annual Reviews and Facelifts

Date	Event	Outcome
October 2022	Rating Published	2022 ★★★★★ ✓