

ANCAP Safety Rating

MERCEDES-BENZ E-CLASS

(July 2016 - onwards)



Mercedes-Benz E-Class

This ANCAP safety rating applies to:

Make / Model	Mercedes-Benz E-Class
Year Range	July 2016 - onwards
Variant(s)*	All variants
Vehicle Type	Large Car

The tested model of Mercedes-Benz E-Class was introduced in Australia and New Zealand in July 2016. This ANCAP safety rating applies to all W213 E-Class variants built from December 2015.

Dual frontal, side chest and side head airbags (curtains) and a driver knee airbag are standard. Autonomous emergency braking (City, Interurban & Vulnerable Road User); lane support systems (LSS) and pre-crash systems are standard. A full list of safety features and technologies can be viewed within the *Safety Features & Technologies* table on page 2 of this report.

Injury Outcomes.

Full Width Frontal

Driver Rear Passenger Frontal Offset Front Passenger



Side Impact

Driver

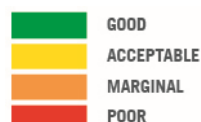
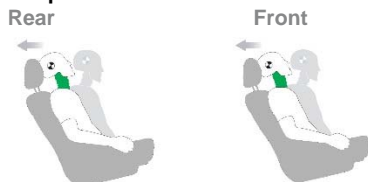


Pole

Driver



Whiplash Protection



Test Results Summary.

Airbags	Dual Frontal, Side, Head, Knee
Adult Occupant Protection	95% (36.29 out of 38)
- Full Width Frontal Test [#]	7.52 (out of 8)
- Frontal Offset Test [#]	7.31 (out of 8)
- Side Impact Test [#]	8.00 (out of 8)
- Pole Test [#]	7.92 (out of 8)
- Whiplash Protection Test	2.54 (out of 3)
- AEB (City)	3.00 (out of 3)
Child Occupant Protection	90% (44.57 out of 49)
Safety Assist	62% (7.45 out of 12)
- Speed Assistance System	1.50 (out of 3)
- Seat Belt Reminders	3.00 (out of 3)
- Lane Support System	0.00 (out of 3)
- AEB (Interurban)	2.95 (out of 3)
Pedestrian Protection	77% (32.50 out of 42)
ANCAP Safety Rating	★★★★★
Rating Year[^]	2016

[#] Scaled scores. Total test score out of 16.00 points.

Adult Occupant Protection.

Full Width Frontal Test

Each body region is scored out of 4 points

Driver	Rear Passenger
Head: 4.00 points	Head: 4.00 points
Neck: 4.00 points	Neck: 4.00 points
Chest: 3.65 points	Chest: 2.44 points
Upper legs: 4.00 points	Upper legs: 4.00 points

Rear occupant chest protection was marginal in this test.

Frontal Offset Test

Each body region is scored out of 4 points

Driver / Front Passenger (lesser of each)
Head / neck: 4.00 points
Chest: 3.28 points
Upper legs: 4.00 points
Lower legs: 3.33 points

The passenger compartment held its shape well in the frontal offset test. Pedal and steering wheel displacements were well controlled. Driver and passenger contact with the airbags was stable. All doors remained closed during the crash.

Side Impact Test

Each body region is scored out of 4 points

Side Impact Test	Pole Test
Head: 4.00 points	Head: 4.00 points
Chest: 4.00 points	Chest: 3.84 points
Abdomen: 4.00 points	Abdomen: 4.00 points
Pelvis: 4.00 points	Pelvis: 4.00 points

Good protection was provided for the driver in the side impact test. Chest protection was acceptable in the side pole test.

Whiplash Protection

Front / Rear:	1.66 points
Rear:	0.88 points
AEB (City):	3.00 points

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Child Occupant Protection.

Crash Test Performance

6 year old child: 11.85 points
10 year old child: 11.72 points

Child Safety Features & Child Seat Installation

Safety features: 9.00 points
Installation check: 12.00 points

NOTE: The child restraints 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. For more detailed information about Australian child restraints visit childcarseats.com.au.

Pedestrian Protection.

Pedestrian Test

Scored out of 42 points

Adult & child head impacts: 22.18 points
Upper leg impacts: 0.10 points
Lower leg impacts: 6.00 points
AEB VRU: 4.20 points

This vehicle scored 32.50 out of 42 points (Good). The E-Class has an active bonnet. The system was tested in the deployed (raised) position. Good results were recorded over almost the entire bonnet surface. The bumper also offered good protection to pedestrians' legs. However, protection of the pelvis was poor in all tested areas. The standard-fit autonomous emergency braking system is capable of detecting pedestrians and showed good results in Euro NCAP's tests of this functionality. This system earned the vehicle 4.20 points. (Tested by Euro NCAP v8.2)



Score Deductions.

Deductions from full width frontal test scores

Neck: No deductions
Head: No deductions
Chest: No deductions
Upper legs: No deductions

Deductions from frontal offset test scores

Head / neck: No deductions
Chest: No deductions
Upper legs: No deductions
Lower legs: No deductions

Deductions from side impact test score

Chest: No deductions

Deductions from pole test score

Head: No deductions

Safety Features & Technologies.

Descriptions of each of these safety features and safety assist technologies (SAT) and detail on fitting requirements for each star rating level can be found at ancap.com.au.

Safety Feature / Safety Assist Technology	Availability
Lap/sash seat belts for all forward-facing seats	S
Seat belt pretensioners (front)	S
Seat belt pretensioners (rear outboard)	S
Intelligent seat belt reminder (driver)	S
Intelligent seat belt reminder (front passenger)	S
Intelligent seat belt reminder (2 nd row seats)	S
Airbag - Frontal (driver)	S
Airbag - Frontal (passenger)	S
Airbag - Side, chest & pelvis protection (front seats)	S
Airbag - Side, chest protection (2 nd row seats)	S
Airbag - Side, head protection (front seats)	S
Airbag - Side, head protection (2 nd row seats)	S
Airbag - Knee (driver)	S
Airbag - Knee (front passenger)	X
Head restraints for all seats	S
Active bonnet	S
Adaptive cruise control (ACC)	S
Adaptive front lighting systems	S
Antilock braking system (ABS)	S
Attention assist / fatigue detection	S
Autonomous emergency braking (AEB)	
- City	S
- Interurban	S
- Vulnerable road user	S
Automatic headlights	S
Automatic high beam	V
Blind spot monitoring (BSM)	S
Daytime running lights (DRL)	S
Electronic brakeforce distribution (EBD)	S
Electronic stability control (ESC)	S
Emergency brake assist (EBA)	S
Emergency stop signal (ESS)	S
Following distance warning	S
Hill launch assist	S
Intersection collision warning	S
Lane support systems (LSS)	S
Pre-crash systems	S
Rain-sensing windscreen wipers	S
Reversing collision avoidance	S
Rollover occupant protection system	S
Secondary collision brake assist	S
Speed assistance - automatic / intelligent speed limiting (ISA)	X
Speed assistance - manual speed limiting	S
Speed assistance - speed limit mapping	S
Tyre pressure monitoring system (TPMS)	S

S = Standard on all variants.
O = Optional on base variant. May be standard on higher variants.
V = Not available on base variant but standard or optional on higher variants.
X = Not available on any variant.
E = Available in Europe / USA but not available on any Australasian variant.

These specifications are subject to change. Please check with the manufacturer for the latest specifications.

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Safety Assist.

Speed Assistance System (SAS)

Scored 1.5 out of 3 points

Speed information:	Not assessed
Speed assistance (manual):	1.50
Speed assistance (automatic / intelligent):	Not available

AEB (Interurban)

Scored 2.95 out of 3 points

Autonomous emergency braking (AEB):	1.46 out of 1.5
Forward collision warning (FCW):	0.98 out of 1.0
Human machine interface (HMI):	0.50 out of 0.5

Seat Belt Reminder (SBR)

Scored 3.0 out of 3 points

Driver and passenger:	Pass
Rear:	Pass

Lane Support Systems (LSS)

Scored 0.0 out of 3 points

Not assessed.

The autonomous emergency braking system (AEB) demonstrated good results in tests of its performance at highway speeds. Australasian models have a map-based speed limit information function (SLIF) and lane support systems (LSS) as standard. These are not standard in Europe and so were not assessed by Euro NCAP.

Approaching a stationary vehicle:

17.06 out of 18.00 points for Forward Collision Warning (FCW)



Approaching a slow moving vehicle:

11.00 out of 11.00 points for Autonomous Emergency Braking (AEB)



Approaching a braking vehicle with short headway:

1.81 out of 2.00 points for AEB, 2.00 out of 2.00 points for FCW



Approaching a braking vehicle with long headway:

2.00 out of 2.00 points for AEB, 2.00 out of 2.00 points for FCW



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Injury Values & Measurements.

Body Region	Frontal offset test at 64km/h (v7)		Full width frontal test at 50km/h (v1)		Side impact test at 50km/h (v7)	Oblique pole test at 32km/h (v7)
	Driver	Front Passenger	Driver	Rear Passenger	Driver	Driver
Head						
HIC	134.00	249.00	237.00	265.00	88.00	297.89
Acceleration (g for 3ms)	39.00	51.30	51.30	51.70	34.60	54.17
Neck						
Shear (kN)	0.82	0.91	0.61	0.79	-	-
Tension (kN)	1.23	0.40	0.90	1.64	-	-
Extension (Nm)	5.30	18.50	9.80	14.40	-	-
Chest						
Acceleration (g for 3ms)	-	-	-	-	-	-
Compression (mm)	25.60	23.91	20.09	27.34	12.02	28.88
Viscous criterion (m/s)	0.10	0.10	0.10	0.13	0.04	0.23
Abdomen						
Compression (mm)	-	-	-	-	10.91	29.28
Pelvis						
Force (kN)	-	-	-	-	0.32	-
Upper legs						
Femur force left (kN)	1.20	0.89	0.82	0.13	-	-
Femur force right (kN)	0.86	0.32	1.57	0.15	-	-
Knee displacement left (mm)	2.82	2.12	3.21	0.75	-	-
Knee displacement right (mm)	0.75	0.00	1.72	1.44	-	-
Lower legs						
Force left (kN)	2.28	2.27	-	-	-	-
Force right (kN)	2.23	2.00	-	-	-	-
Index (upper / lower) left	0.30 / 0.31	0.37 / 0.47	-	-	-	-
Index (upper / lower) right	0.36 / 0.32	0.55 / 0.31	-	-	-	-
Intrusion Measurements						
Steering column						
Forward (mm)	52	-	-	-	-	-
Downward (mm)	5	-	-	-	-	-
Sideways (mm)	0	-	-	-	-	-
Pedals						
Brake - rearward (mm)	7	-	-	-	-	-
Brake - downward (mm)	1	-	-	-	-	-
A-Pillar						
Rearward (mm)	1	-	-	-	-	-

* **Model Variants:** ANCAP safety ratings do not automatically extend to variants that have different body styles, engine configurations, driven wheels or occupant restraint systems (e.g. fewer airbags). In these cases, ANCAP considers technical evidence submitted by manufacturers before deciding on extending a rating to additional variants of a model. For further information about the application of ANCAP safety ratings to model variants, see the ANCAP Variant Policy.

^ **Rating Year:** The Rating Year denotes the year requirements against which a vehicle has been assessed. The Rating Year is determined by ANCAP and may be based on the year in which a new vehicle model is first launched into the Australian and/or New Zealand markets; the year in which the vehicle was tested (if tested by Euro NCAP); or, for vehicles which hold an existing ANCAP safety rating, the year in which the rating was updated (or earlier applicable year).

Assessment Details.

Tested Make / Model	Mercedes-Benz E-Class 220d Avantgarde LHD
Tested Vehicle(s) Built	2016
Tested Body Type	Sedan
Tested Vehicle Kerb Weight	1680 kg
Tested Vehicle Engine	2 litre diesel
Tested By	Euro NCAP
Assessed By	Euro NCAP
Document Reference	e-class16
Document Created / Revised	7 December 2016
Rating Published	December 2016
Rating Updated	n/a



Frontal offset test at 64km/h