

Commission Regulation (EU) No 672/2010 of 27 July 2010 concerning type-approval requirements for windscreen defrosting and demisting systems of certain motor vehicles and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor

Article 1	Scope
Article 2	Definitions
Article 3	Provisions for EC type-approval of a vehicle with regard to windscreen defrosting and demisting systems
Article 4	Validity and extension of approvals granted under Directive 78/317/EEC
Article 5	Entry into force Signature

ANNEX I

Administrative documents for EC type-approval of motor vehicles with regard to windscreen defrosting and demisting systems

PART 1

Information document

MODEL

0. GENERAL
 - 0.1. Make (trade name of manufacturer): ...
 - 0.2. Type: ...
 - 0.2.1. Commercial name(s) (if available): ...
 - 0.3. Means of identification of type, if marked on the vehicle: ...
 - 0.3.1. Location of that marking: ...
 - 0.4. Category of vehicle: ...
 - 0.5. Name and address of manufacturer: ...
 - 0.8. Name(s) and address(es) of assembly plant(s): ...
 - 0.9. Name and address of the manufacturer's representative (if any):
1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE
 - 1.1. Photographs and/or drawings of a representative vehicle: ...
 - 1.6. Position and arrangement of the engine: ...
 - 1.8. Hand of drive: left/right.
3. POWER PLANT
 - 3.1. Manufacturer of the engine: ...
 - 3.1.1. Manufacturer's engine code (as marked on the engine or other...)
 - 3.2. Internal combustion engine
 - 3.2.1. Specific engine information

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 672/2010. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes

- 3.2.1.1. Working principle: positive ignition/compression
ignition Cycle: four stroke/two stroke/rotary
- 3.2.1.2. Number and arrangement of cylinders: ...
- 3.2.1.3. Engine capacity: ...cm³
- 3.2.1.6. Normal engine idling speed: ... min⁻¹
- 3.2.1.8. Maximum net power: ...kW at ... min⁻¹
(manufacturer's declared value)...
- 3.2.2. Fuel
 - 3.2.2.1. Light-duty vehicles: Diesel/Petrol/LPG/NG or
Biomethane/Ethanol (E85)/Biodiesel/Hydrogen
- 3.2.5. Electrical system
 - 3.2.5.1. Rated voltage: ... V, positive/negative ground
 - 3.2.5.2. Generator
 - 3.2.5.2.1Type: ...
 - 3.2.5.2.2Nominal output: ...VA
- 3.2.7. Cooling system: liquid/air
 - 3.2.7.1. Nominal setting of the engine temperature control
mechanism: ...
 - 3.2.7.2. Liquid
 - 3.2.7.2.1Nature of liquid: ...
 - 3.2.7.2.2Circulating pump(s): yes/no
 - 3.2.7.2.3Characteristics: ... or
 - 3.2.7.2.3.1Make(s): ...
 - 3.2.7.2.3.2Type(s): ...
 - 3.2.7.2.4Drive ratio(s): ...
 - 3.2.7.2.5Description of the fan and its drive
mechanism: ...
 - 3.2.7.3. Air
 - 3.2.7.3.1Fan: yes/no
 - 3.2.7.3.2Characteristics: ... or
 - 3.2.7.3.2.1Make(s): ...
 - 3.2.7.3.2.2Type(s): ...
- 3.3. Electric motor
 - 3.3.1. Type (winding, excitation) ...
 - 3.3.1.1. Maximum hourly output: ... kW
 - 3.3.1.2. Operating voltage: ... V
 - 3.3.2. Battery
 - 3.3.2.1. Number of cells: ...
 - 3.3.2.2. Mass: ... kg
 - 3.3.2.3. Capacity: ... Ah (Amp-hours)
 - 3.3.2.4. Position: ...
- 3.4. Engine or motor combination
 - 3.4.1. Hybrid electric vehicle: yes/no
 - 3.4.2. Category of hybrid electric vehicle: off-vehicle charging/not
off-vehicle charging:
 - 3.4.3. Operating mode switch: with/without
 - 3.4.3.1. Selectable modes
 - 3.4.3.1.1Pure electric: yes/no
 - 3.4.3.1.2Pure fuel consuming: yes/no
 - 3.4.3.1.3Hybrid modes: yes/no (if yes, short
description): ...
 - 3.4.4. Description of the energy storage device: (battery, capacitor,
flywheel/generator)

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 672/2010. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes

- 3.4.4.1. Make(s): ...
- 3.4.4.2. Type(s): ...
- 3.4.4.3. Identification number: ...
- 3.4.4.4. Kind of electrochemical couple: ...
- 3.4.4.5. Energy: ... (for battery: voltage and capacity Ah in 2 h,...
- 3.4.4.6. Charger: on board/external/without
- 3.6. Temperatures permitted by the manufacturer
 - 3.6.1. Cooling system
 - 3.6.1.1. Liquid cooling, maximum temperature at outlet: ... K
 - 3.6.1.2. Aircooling
 - 3.6.1.2.1. Reference point: ...
 - 3.6.1.2.2. Maximum temperature at reference point: ... K
 - 3.6.2. Maximum outlet temperature of the inlet intercooler: ... K
 - 3.6.3. Maximum exhaust temperature at the point in the exhaust pipe(s)...
- 9. BODYWORK
 - 9.1. Type of bodywork using the codes defined in Part C...
 - 9.2. Materials used and methods of construction: ...
 - 9.3. Occupant doors, latches and hinges
 - 9.3.1. Door configuration and number of doors: ...
 - 9.4. Field of vision
 - 9.4.1. Particulars of the primary reference marks in sufficient detail to...
 - 9.4.2. Drawing(s) or photograph(s) showing the location of component parts within...
 - 9.5. Windscreen and other windows
 - 9.5.1. Windscreen
 - 9.5.1.1. Materials used: ...
 - 9.5.1.2. Method of mounting: ...
 - 9.5.1.3. Angle of inclination: ...
 - 9.5.1.4. Type-approval number(s): ...
 - 9.5.1.5. Windscreen accessories and the position in which they are fitted...
 - 9.6. Windscreen wiper(s)
 - 9.6.1. Detailed technical description (including photographs or drawings): ...
 - 9.7. Windscreen washer
 - 9.7.1. Detailed technical description (including photographs or drawings) or, if approved...
 - 9.8. Defrosting and demisting
 - 9.8.1. Detailed technical description (including photographs or drawings): ...
 - 9.8.2. Maximum electrical consumption: ...kW
 - 9.10. Interior arrangement
 - 9.10.1. Interior protection for occupants
 - 9.10.1.1. Layout drawing or photographs showing the position of the attached...
 - 9.10.1.3. Photographs, drawings and/or an exploded view of the interior fittings,...
 - 9.10.3. Seats
 - 9.10.3.1. Number of seating positions: ...

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 672/2010. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes

- 9.10.3.1 Location and arrangement: ...
- 9.10.3.5 Coordinates or drawing of the R-point
- 9.10.3.5 Driver's seat: ...
- 9.10.3.6 Design torso angle
- 9.10.3.6 Driver's seat: ...

PART 2

EC type-approval certificate

MODEL Format: A4 (210 × 297 mm) EC TYPE-APPROVAL CERTIFICATE Stamp of type-approval authority...EC TYPE-APPROVAL CERTIFICATE Stamp of type-approval authority Communication concerning: Delete...

SECTION I

0.1. Make (trade name of manufacturer): ...

- 0.1. Make (trade name of manufacturer): ...
- 0.2. Type: ...
 - 0.2.1. Commercial name(s) (if available): ...
- 0.3. Means of identification of type, if marked on the vehicle:...
 - 0.3.1. Location of that marking: ...
- 0.4. Category of vehicle: ...
- 0.5. Name and address of manufacturer: ...
- 0.8. Name(s) and address(es) of assembly plant(s): ...
- 0.9. Name and address of the manufacturer's representative (if any):

SECTION II

1. Additional information: see Addendum.

- 1. Additional information: see Addendum.
- 2. Technical service responsible for carrying out the tests: ...
- 3. Date of test report: ...
- 4. Number of test report: ...
- 5. Remarks (if any): see Addendum.
- 6. Place: ...
- 7. Date: ...
- 8. Signature: ...

Addendum

to EC type-approval certificate No ...

- 1. Additional information:
- 2. Hand of drive: left/right
- 3. Power plant: positive ignition/compression ignition/electric/hybrid electric/ ...
- 4. Defrost test temperature: – 8 °C/– 18 °C

5. Remarks: ...

ANNEX II

Requirements for windscreen defrosting and demisting systems

1. SPECIFIC REQUIREMENTS

1.1. Windscreen defrosting

- 1.1.1. Every vehicle shall be equipped with a system for removing...
- 1.1.2. The efficiency of the system shall be verified by determining...
- 1.1.3. The requirements of paragraphs 1.1.1 and 1.1.2 shall be checked...
- 1.1.4. The following requirements shall be satisfied:
 - 1.1.4.1. 20 minutes after the start of the test period, vision...
 - 1.1.4.2. 25 minutes after the start of the test period, the...
 - 1.1.4.3. 40 minutes after the start of the test period, vision...

1.2. Windscreen demisting

- 1.2.1. Every vehicle shall be equipped with a system for removing...
- 1.2.2. The demisting system shall be effective enough to restore visibility...
- 1.2.3. The following requirements shall be satisfied:
 - 1.2.3.1. Vision area A, as determined in accordance with Appendix 3...
 - 1.2.3.2. Vision area B, as determined in accordance with Appendix 3...

2. TEST PROCEDURE

2.1. Windscreen defrosting

- 2.1.1. The test shall be carried out at a temperature of...
- 2.1.2. The test shall be carried out in a cold chamber...
- 2.1.3. Before the test, the inner and outer surfaces of the...
- 2.1.4. The vehicle shall be switched off and shall be kept...
 - 2.1.4.1. If it is possible to check whether the vehicle's engine...
- 2.1.5. Following the exposure period prescribed in paragraph 2.1.4, an even...
 - 2.1.5.1. The spray nozzle, adjusted to full fan pattern and maximum...
 - 2.1.5.1.1A spray gun having a nozzle of 1,7 mm diameter and...
- 2.1.6. After the ice has been formed on the windscreen, the...
- 2.1.7. After the period prescribed in paragraph 2.1.6 has elapsed, one...
 - 2.1.7.1. If the vehicle is fitted with an engine, the engine...
 - 2.1.7.2. During the final 35 minutes of the test period (or...
 - 2.1.7.2.1 The engine, if fitted, shall run at a speed not...
 - 2.1.7.3. All batteries shall be fully charged at the start of...
 - 2.1.7.4. During the test, the voltage at the terminals of the...
 - 2.1.7.5. The temperature in the test chamber shall be measured at...
 - 2.1.7.6. The horizontal component of the speed of the air cooling...
 - 2.1.7.7. If fitted, the engine bonnet, roof, all doors, windows and...
 - 2.1.7.8. The vehicle's defrosting system controls shall be set as recommended...
 - 2.1.7.9. The windscreen wipers may be used during the test, but...
- 2.1.8. The observer(s) shall outline the defrosted area on the inside...
- 2.1.9. On completion of the test, the pattern of the defrosted...

2.2. Windscreen demisting

- 2.2.1. Before the test, the inside surface of the windscreen shall...
- 2.2.2. The test shall be carried out in an environmental chamber...
 - 2.2.2.1. The temperature in the test chamber shall be measured at...
 - 2.2.2.2. The horizontal component of the speed of the air cooling...

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 672/2010. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) [View outstanding changes](#)

- 2.2.2.3. If fitted, the engine bonnet, roof, all doors, windows and...
- 2.2.3. The mist shall be produced by means of the steam...
- 2.2.4. The inside surface of the windscreen shall be cleaned as...
- 2.2.5. The steam generator shall be placed with its outlets in...
- 2.2.6. After the generator has been operating for five minutes inside...
- 2.2.7. One minute after the observer(s) have entered the vehicle, the...
 - 2.2.7.1. If the vehicle is fitted with an engine, it shall...
 - 2.2.7.2. The vehicle's demisting system controls shall be set as recommended...
 - 2.2.7.3. All batteries shall be fully charged at the start of...
 - 2.2.7.4. The voltage at the terminals of the demisting device may...
- 2.2.8. At the end of the test, the demist pattern shall...

Appendix 1

Procedure for verification of the R-point or seating reference point

The R-point or seating reference point is established in accordance...

Appendix 2

Procedure for determining primary reference marks in the three-dimensional reference system

The dimensional relationships between primary reference marks on drawings and...

Appendix 3

Procedure for determining vision areas on windscreens of vehicles

The vision areas A and B are established in accordance...

Appendix 4

Requirements for the steam generator

1. CHARACTERISTICS
 - 1.1. The steam generator used for the test shall have the...
 - 1.1.1. The water container shall have a capacity of at least...
 - 1.1.2. The heat loss at boiling point shall not exceed 75 W...
 - 1.1.3. The fan shall have a capacity of 0,07 to 0,10 m³/min...
 - 1.1.4. Six steam outlet holes shall be positioned at the top...
 - 1.1.5. The generator shall be calibrated at -3 ± 1 °C to give reading...
 - 1.2. The specified parts shall have the following dimensional and material...
 - 1.2.1. Nozzle
 - 1.2.1.1. Dimensions:
 - 1.2.1.1.1. Length 100 mm.
 - 1.2.1.1.2. Inside diameter 15 mm.
 - 1.2.1.2. Material:
 - 1.2.1.2.1. Brass.

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 672/2010. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) [View outstanding changes](#)

1.2.2. Dispersion chamber

1.2.2.1. Dimensions:

1.2.2.1.1. Pipe outside diameter 75 mm.

1.2.2.1.2. Wall thickness 0,38 mm.

1.2.2.1.3. Length 115 mm.

1.2.2.1.4. Six evenly spaced holes of 6,3 mm in diameter, 25 mm above...

1.2.2.2. Material:

1.2.2.2.1. Brass.

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 672/2010. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) [View outstanding changes](#)

- (1) [OJ L 200, 31.7.2009, p. 1.](#)
- (2) [OJ L 263, 9.10.2007, p. 1.](#)
- (3) [OJ L 81, 28.3.1978, p. 27.](#)

Changes to legislation:

There are outstanding changes not yet made to Commission Regulation (EU) No 672/2010. Any changes that have already been made to the legislation appear in the content and are referenced with annotations.

[View outstanding changes](#)

Changes and effects yet to be applied to :

- Annex 1 words substituted by [S.I. 2022/1273 reg. 57\(6\)\(a\)](#)
- Annex 1 point 9.1 words substituted by [S.I. 2022/1273 reg. 57\(6\)\(b\)](#)
- Annex 1 Pt. 1 notes words substituted by [S.I. 2022/1273 reg. 57\(6\)\(c\)\(i\)](#)
- Annex 1 Pt. 1 notes words substituted by [S.I. 2022/1273 reg. 57\(6\)\(c\)\(ii\)](#)
- Annex 1 Pt. 2 words substituted by [S.I. 2022/1273 reg. 57\(6\)\(d\)\(i\)](#)
- Art. 1 words substituted by [S.I. 2022/1273 reg. 57\(2\)](#)
- Art. 3 heading words substituted by [S.I. 2022/1273 reg. 57\(3\)\(a\)](#)
- Art. 3(1) words substituted by [S.I. 2022/1273 reg. 57\(3\)\(a\)](#)
- Art. 3(3) words substituted by [S.I. 2022/1273 reg. 57\(3\)\(b\)](#)
- Art. 3(3) words substituted by [S.I. 2022/1273 reg. 57\(3\)\(c\)\(i\)](#)
- Art. 3(3) words substituted by [S.I. 2022/1273 reg. 57\(3\)\(c\)\(ii\)](#)
- Art. 3(4) words substituted by [S.I. 2022/1273 reg. 57\(3\)\(b\)](#)
- Art. 4 words omitted by [S.I. 2022/1273 reg. 57\(4\)\(a\)](#)
- Art. 4 words substituted by [S.I. 2022/1273 reg. 57\(4\)\(b\)](#)

Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by [S.I. 2022/1273 reg. 57\(5\)](#)
- Annex 1 Pt. 2 s. 2 notes words substituted by [S.I. 2022/1273 reg. 57\(6\)\(d\)\(ii\)](#)