ECE TYPE-APPROVAL CERTIFICATE

E24

Concerning:[2] Approval granted
~~Approval extended~~
~~Approval refused~~
~~Approval withdrawn~~
~~Production definitively discontinued~~

Of a type of ~~vehicle~~/component/~~separate technical unit~~[2] with regard to Regulation No. 10.
Of a type of electrical/electronic sub-assembly[2] with regard to Regulation No.10.

Approval No: ***E24*10R06/03*6390*00***

Reason for extension: ***-N/A***

1.	Make (trade name of manufacturer):	
2.	Type and general commercial description:	***CR90*** *Car refrigerator*
3.	Means of identification of type, if marked on the ~~vehicle~~/ component/~~separate technical unit~~[2]:	***Variants designation***
3.1	Location of that marking:	***Printed on the back of the product***
4.	Category of vehicle:	***N/A***
5.	Name and address of manufacturer:	***PLANAR INTERNATIONAL LTD*** ***Unit 11b,Home Farm,Wrexham Road,*** ***Wrexham LL13 OHG***
6.	In the case of components and separate technical units, location and method of affixing of the approval mark:	***Printed on the back of the product***
7.	Address(es) of assembly plant(s):	***Foshan Alpicool Holding Group Co., Ltd.*** ***No.3, ZhenZhu Road, Yang'e, Lunjiao Street, Shunde District, Foshan City, Guangdong Province***

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Approval No: ***E24*10R06/03*6390*00***

8.	Additional information (where applicable):	***See appendix below***
9.	Technical service responsible for carrying out the tests:	***SGS-TÜV Saar GmbH, Am TÜV 1, D-66280 Sulzbach***
10.	Date of test report:	***18.11.2024***
11.	Number of test report:	***HOM ECN T24/250-00***
12.	Remarks (if any):	***See Appendix below***
13.	Place:	***Dublin***
14.	Date:	***26th February, 2025***
15.	Signature:	

NATIONAL STANDARDS AUTHORITY OF IRELAND
NSAI Certification
TRANSPORT DEPARTMENT

16. The index to the information package lodged with the approval authority, which may be obtained on Request, is attached.

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1. Distinguishing number of the country which issued/extended/refused or withdrawn approval. (see Regulation, provisions on approval).
2. Strike out what does not apply.

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Approval No: ***E24*10R06/03*6390*00***

Appendix

To type-approval communication concerning the type approval
of an electrical/electronic sub-assembly under Regulation No.10.

1.	Additional information	
1.1.	Electrical system rated voltage:	***DC 12V~24V, negative ground***
1.2.	This ESA can be used on any vehicle type with the following restrictions:	***See manufacturer's specifications.***
1.2.1	Installation conditions, if any:	***See manufacturer's specifications.***
1.3.	This ESA can only be used on the following vehicle types:	***N/A***
1.3.1	Installation conditions, if any:	***N/A***
1.4.	The specific test method(s) used and the frequency ranges covered to determine immunity were:	***N/A***
1.5.	Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests:	***SGS-TÜV Saar GmbH***
2.	Remarks:	***N/A***

Appendix to type-approval communication concerning the
type approval of a vehicle under Regulation No.10.

1.	Additional information	
2.	Electrical system rated voltage:	***N/A***
3.	Type of bodywork:	***N/A***
4.	List of electronic systems installed in the tested vehicle(s) not limited to the items in the information document:	***N/A***
4.1.	Vehicle equipped with 24 GHz short-range radar equipment (yes/no/optional)[2]:	***N/A***
5.	Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests:	***N/A***
6.	Remarks:	***N/A***

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Approval No: ***E24*10R06/03*6390*00***

Index to the Information Package

Date of issue:	***26th February, 2025***
Date of latest amendment:	***N/A***
Reason for extension/revision:	***N/A***

1. Additional conditions, and advisory notes on legal alternatives.

2. Test report(s)

- numbers(s):	***HOM ECN T24/250-00***
- date of issue:	***18.11.2024***
- date of latest amendment:	***N/A***

3. Information document

- number(s):	***IF_CR90_R10.06_00***
- date of issue:	***23.10.2024***
- date of latest amendment:	***N/A***
Documentation:	***171 pages***

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Approval No: ***E24*10R06/03*6390*00***

Appendix: **Additional conditions, and advisory notes on legal alternatives**

A: Additional conditions:

1. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
2. Each device from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
3. Changes in the type are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
4. At regular intervals, any tests or associated checks prescribed by the applicable legislation to verify continued conformity with the approved type shall be carried out. The manufacturer shall demonstrate compliance with this by submitting to NSAI evidence of adequate arrangements and documented control plans for each type approved.
5. Any set of samples or test pieces showing evidence of non-conformity shall give rise to further sampling and testing and all steps shall be taken to restore conformity of production.
6. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
7. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to NSAI.
8. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
9. When the manufacture or sale of the system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

B: Legal Options:

Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Technical Report

V00

Test standard:

ECE R10

Level of amendment:

06 Series of amendments, 03 supplement

Title:

Electromagnetic compatibility

Manufacturer:

PLANAR INTERNATIONAL LTD

Type:

CR90

Subject of testing:

Component

0	**General:**	
0.1	Make (trade name of manufacturer):	boo By boofridge.com
0.2	Type:	CR90
0.2.1	Commercial description(s):	Car refrigerator
0.2.2	Variant:	CR90, CR65, CR50X, R90M, R90, R85, CR90X, CR85X, CR65X, CR50, R50, R50M, CR40, CR40X, R40M, R40
0.3	Means of identification of type, if marked on the vehicle / component / technical unit:	refer to information document
0.3.1	Location of that markings:	refer to information document
0.4	Category of vehicle:	n.a.
0.5	Manufacturer's name and address:	PLANAR INTERNATIONAL LTD Unit 11b,Home Farm,Wrexham Road, Wrexham LL13 OHG
0.8	Name(s) and address(es) of assembly plant(s):	refer to information document
0.9	Name and address of representative:	n.a.
	Location of the approval mark:	refer to information document

1 Appendices

1.1	Test Record	See appendix A
1.2	List of modifications	See appendix B

2 Attachments:

2.1	Information folder:	No.: IF_CR90_R10.06_00
		Date of issue: 23.10.2024
2.2	Test Report:	No.: SZEM240800696001
		Date of issue: 21.10.2024

3 Statement of conformity:

The information folder as mentioned under no. 2.1 and the type described therein are in compliance with the test standard mentioned above. With regard to the required level of performance to be achieved, the test specimen were representative for the type to be approved.

The tests were carried out in accordance to the relevant requirements of the

☐ EN ISO/IEC 17025 ☒ EN ISO/IEC 17020

Test Laboratory

SGS-TÜV Saar GmbH

notified by

KBA Kraftfahrt-Bundesamt, Germany	NSAI National Standards Authority of Ireland	RDW Rijksdienst voor het Wegverkeer, The Netherlands	TRANSPORT STYRELSEN, Sweden
No. KBA-P 00084-10	**No. 101**	**No. 99050064 00**	**No. TT 0015**

Formal review (Conformity Check) by:

Maggie Mao

Maggie Mao

Authorized by expert:

TEST LABORATORY SGS TÜV SAAR ISO 17020/17025

Gangling Zhang

Shanghai, 18.11.2024

To assess the conformity, the laboratory refers to the "scope classification" of the Kraftfahrt-Bundesamt (KBA) – Federal Motor Transport Authority (in its valid version at the time of testing) and the specified consideration of the measurement uncertainty for the related test procedure.
In case the measurement uncertainty does not need to be considered according to the scope classification, the laboratory considers the result conform if its measured value is within the specification.
In case the measurement uncertainty does need to be considered according to the scope classification, the laboratory considers the result conform if its value incl. its measurement uncertainty is within the specification.

	Test record	UN-R10.06, supplement 3, ESA
1	**Test conditions**	
1.1	Test component	
1.1.1	Function description	Car refrigerator
1.1.2	Type	CR90
1.1.3	ESA(s) / Variant(s)	CR90, CR65, CR50X
	Software version and checksum (if applicable)	JR-CR65PWR-A16
		JR-CR65DISP-A10
	Hardware	JR-AKCR65P NO:05
		JR-AKCR65D1 NO:01
1.1.4	Tested operating mode(s)	See test report of the enclosure.
1.1.5	Tested rated voltage(s)	☐ 12V ☐ 24V ☒ 12V/24V ☐ other:
1.1.6	The approval object is …	
	an ESA that is not related to a connection system for charging a REESS	[X] yes [ ] no
	Have the HV voltages and HV currents been taken into account in the tests and measurements?	[ ] yes [ ] no [X] n.a.
	a complete connection system for charging a REESS	[ ] yes [X] no
	Have the HV voltages and HV currents been taken into account in the tests and measurements?	[ ] yes [ ] no [X] n.a.
	a component of a connection system for charging a REESS	[ ] yes [X] no
	Have the HV voltages and HV currents been taken into account in the tests and measurements?	[ ] yes [ ] no [X] n.a.
	a light source or a part of a light source acc. to item 3.2.10 of the Regulation?	[ ] yes [X] no

	Approval number or number of test report	[X] n.a.
1.1.7	Do the devices of the type have immunity related functions?	[ ] yes [X] no
	Reason if necessary:	ESA not safety-related according to item 2.12 of the Regulation.
1.1.8	Do the devices of the type have to be in operation during the engine start phase?	[ ] yes [X] no
1.1.9	Photo documentation of the examinee including existing labels	See test report of the enclosure.
1.1.10	Remarks:	[X] All the test modes and voltage were pre-scanned to determine the worst case and recorded in the test report.
1.2	Test equipment	
	Parameter of the test area:	The equipment, on which the tests were carried out, fulfilled the requirements of the Regulation.

2 Test Results

2.1	Test results in configurations other than „REESS charging mode coupled of the power grid	[X] fulfilled [ ] not fulfilled [ ] n.a.
	Remarks:	[X] n.a.
2.1.1	Measurement of radiated broadband electro-magnetic emissions from electrical/ electronic subassemblies according to item 6.5 of the Regulation:	[X] fulfilled [ ] not fulfilled [ ] n.a.
2.1.1.1	Measurement procedure:	Quasi-peak-detector
2.1.1.2	Measurement setup:	Anechoic chamber
2.1.1.3	Measurement results:	The measured values, expressed in dB µV/m, are below the reference limits. See test report of the enclosure
2.1.1.4	Photo documentation of the measurement setup (if applicable):	See test report of the enclosure.
2.1.1.5	Remarks:	[X] n.a.
2.1.2	Measurement of radiated narrowband electro-magnetic emissions from electrical/ electronic subassemblies according to item 6.6 of the Regulation:	[X] fulfilled [ ] not fulfilled [ ] n.a.
2.1.2.1	Measurement procedure:	Average-detector
2.1.2.2	Measurement setup:	Anechoic chamber
2.1.2.3	Measurement results:	The measured values, expressed in dB µV/m, are below the reference limits. See test report of the enclosure.
2.1.2.4	Photo documentation of the measurement setup (if applicable):	See test report of the enclosure.
2.1.2.5	Remarks:	[X] n.a.

2.1.3	Testing for emission of transient conducted disturbances of electrical/electronic subassemblies on 12/24 V supply lines according to item 6.7 of the Regulation:	[X] fulfilled [ ] not fulfilled [ ] n.a.
2.1.3.1	Test results:	The limits are kept. See test report of the enclosure.
2.1.3.2	Photo documentation of the measurement setup (if applicable):	See test report of the enclosure.
2.1.3.3	Remarks:	[X] n.a.
2.1.4	Testing for radiated immunity of electrical/ electronic subassemblies to electromagnetic radiation according to item 6.8 of the Regulation:	[ ] fulfilled [ ] not fulfilled [X] n.a.
2.1.4.1	Test procedure:	n.a.
2.1.4.2	Test setup:	n.a.
2.1.4.3	Test results:	n.a.
2.1.4.4	Photo documentation of the measurement setup (if applicable):	n.a.
2.1.4.5	Remarks:	[ ] n.a. ESA not safety-related according to item 2.12 of the Regulation.
2.1.5	Testing for immunity to transient disturbances conducted along on 12/24 V supply lines of electrical/electronic subassemblies according to item 6.9 of the Regulation:	[X] fulfilled [ ] not fulfilled [ ] n.a.
2.1.5.1	Test results:	During the test was no unacceptable degradation. See test report of the enclosure.
2.1.5.2	Photo documentation of the measurement setup (if applicable):	See test report of the enclosure.
2.1.5.3	Remarks:	[X] n.a.

2.2	Test results in configurations „REESS charging mode coupled of the power grid	☐ fulfilled ☐ not fulfilled ☒ n.a.
	Remarks:	☐ n.a. Test component not related to REESS

3 Other Information

3.1	Date of test:	2024-09-12 to 2024-10-12
3.2	Place of test:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch Room 105, Building A, Xinlong Technology Industrial Park, No. 50 Fengtang Road, Xintian Community, Fuyong Street, Bao'an District, Shenzhen, China

4 Remarks: ☒ n.a.

List of modifications:

1	Correction of:	n.a.
2	Modification of:	n.a.
3	Addition of:	n.a.
4	Deletion of:	n.a.

- End of Technical Report -