Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 60335-2-40
Safety of household and similar electrical appliances
Part 2-40: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers

Report Number..... :	**50058633 002**
Date of issue ..... :	**2018.04.10**
Total number of pages ..... :	**76**
Name of Testing Laboratory preparing the Report ..... :	**TÜV Rheinland Thailand Ltd.**
Applicant's name..... :	**Toshiba Carrier (Thailand) Co., Ltd.**
Address ..... :	144/9 Moo 5, Bangkadi Industrial Park, Tivanon Road, Tambol Bangkadi, Amphur Muang, Pathumthani 12000, Thailand
Test specification:	
Standard ..... :	IEC 60335-2-40:2013/AMD1:2016 in conjunction with IEC 60335-1:2010/AMD1:2013
Test procedure..... :	CB Scheme
Non-standard test method..... :	N/A
Test Report Form No. ..... :	IEC60335_2_40L
Test Report Form(s) Originator.... :	VDE Prüf- und Zertifizierungsinstitut GmbH
Master TRF ..... :	Dated 2016-10

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description .....:	**Air Conditioner (Split-type)**
Trade Mark .....:	**TOSHIBA**
Manufacturer.....:	Same as Applicant
Model/Type reference .....:	1)RAV-SM564 series, RAV-SP404 series, RAV-SP454 series, RAV-SP564 series, RAV-SM804 series, RAV-SP804 series, RAV-SM1104 series, RAV-SM1404 series, RAV-SM1604 series, RAV-SM1603 series, RAV-SM406 series, RAV-SM456 series, RAV-SM566 series, RAV-SM806 series, RAV-SM1106 series, RAV-SM1406 series, RAV-SM1606 series, RAV-SM567 series, RAV-SM568 series, RAV-SM807 series, RAV-SM808 series, RAV-SM1107 series, RAV-SM1108 series, RAV-SM1407 series, RAV-SM1408 series, RAV-SM1607 series, RAV-SM1608 series **2)RAV-RM561 series, RAV-RM801 series, RAV-RM1101 series, RAV-RM1401 series, RAV-RM1601 series** (See difference between models on page 17-19)
Ratings .....:	AC 220-240V, 50Hz, AC220V, 60Hz IPX4 (outdoor unit); Class I; 1)Refrigerant: R410A; **2)Refrigerant: R410A or R32** (For details, see test report page 17-19)

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒ CB Testing Laboratory:	TÜV Rheinland Thailand Ltd.	
Testing location/ address ..... :	Global Technology Assessment Center (GTAC); 123/1, Floor 1-2, Soi Chalongkung 31, Ladkrabang Industrial Estate, Lamplatew, Ladkrabang, Bangkok 10520, THAILAND	
Tested by (name, function, signature)..... :	Montree Kumkratug	
Approved by (name, function, signature) .. :	Pasiwat Phonsawang	
☐ Testing procedure: CTF Stage 1:		
Testing location/ address ..... :		
Tested by (name, function, signature)..... :		
Approved by (name, function, signature) .. :		
☐ Testing procedure: CTF Stage 2:		
Testing location/ address ..... :		
Tested by (name + signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
☐ Testing procedure: CTF Stage 3:		
☐ Testing procedure: CTF Stage 4:		
Testing location/ address ..... :		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment):

- Attachment 1: EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (30 pages)

Summary of testing:

The product complies with the requirements of referred standard in this test report.
IEC 60335-2-40:2013 in conjunction with
IEC 60335-1:2010/AMD1:2013

Remark: Amendment 1:2016 of IEC 60335-2-40 was not applicable to this test report.

Tests performed (name of test and test clause):

Testing and consideration according to below clauses, annexes have been conducted:

-Clause 7: Marking and instructions
-Clause 21: Mechanical strength
-Clause 22: Construction
-Annex DD: Instruction manual for servicing refrigerant containing appliances
-Annex GG: Charge limits, ventilation requirements and requirements for secondary circuits

Testing location:

TÜV Rheinland Thailand Ltd.

Global Technology Assessment Center (GTAC);
123/1, Floor 1-2, Soi Chalongkung 31,
Ladkrabang Industrial Estate,
Lamplatew, Ladkrabang, Bangkok 10520,
THAILAND

Summary of compliance with National Differences:

List of countries addressed

EU Group Differences
EU Group Differences= European Group Differences

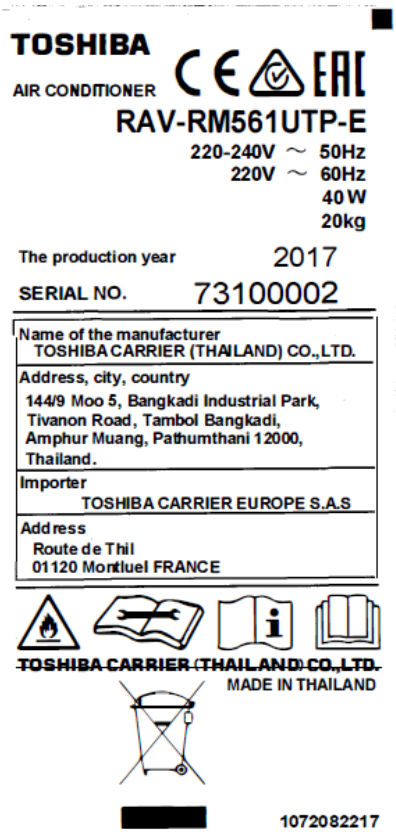
☒ **The product fulfils the requirements of**

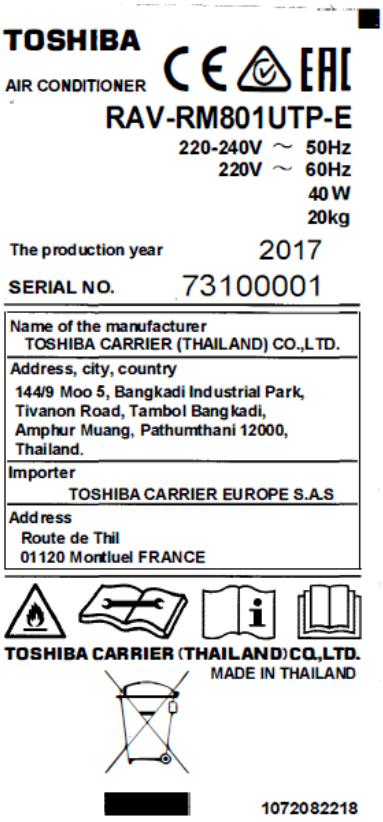
- EN 60335-2-40:2003 (incl. Corr.:2006) + A11:2004 + A12:2005 + A1:2006 + A2:2009 + A13:2012 (incl. Corr.:2013) EN 60335-1:2012 (incl. Corr.:2014)

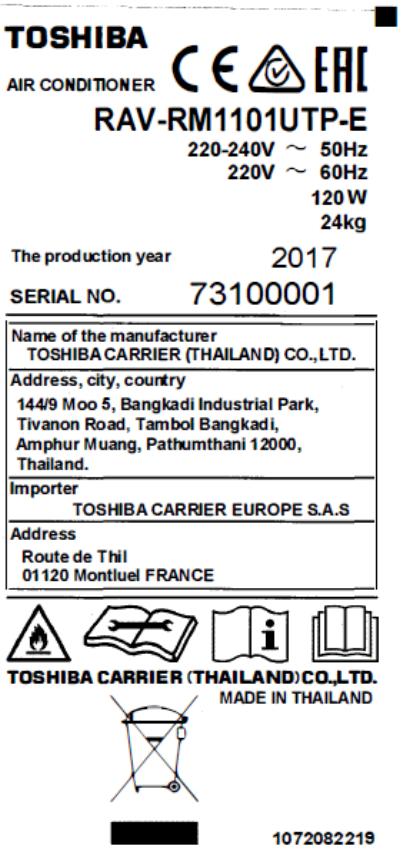
- EN 60335-1:2012 + AC:2014 + A11:2014 EN 62233:2008 IEC 62233:2005

Copy of marking plate:

Indoor unit: (4 way Cassette Type)

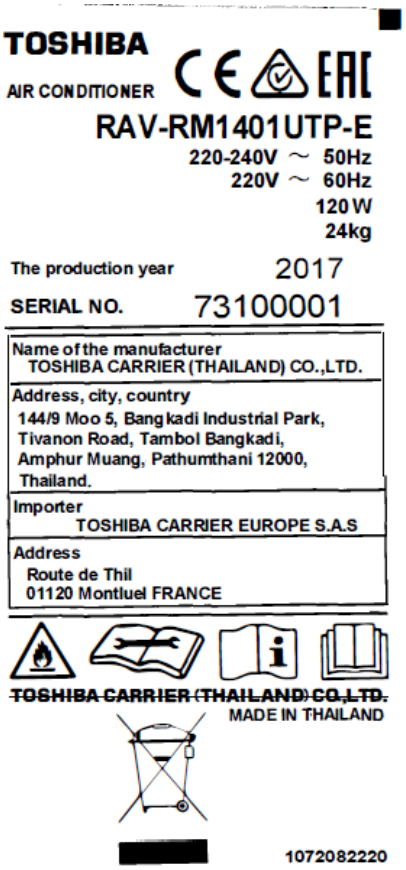


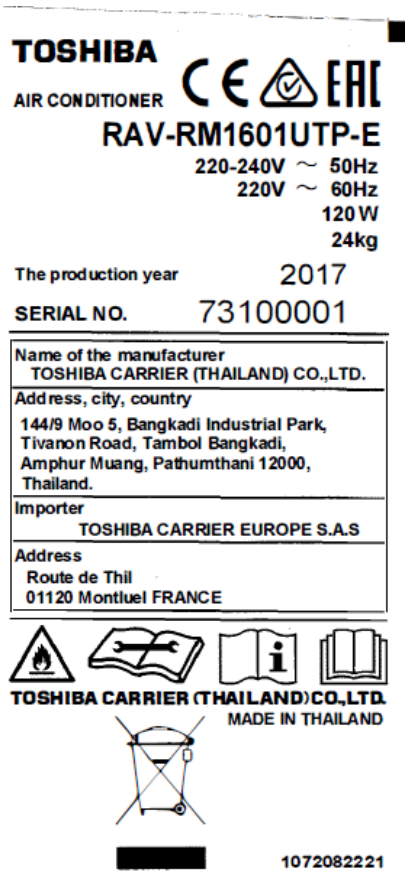




Copy of marking plate: (continued)

Indoor unit: (4 way Cassette Type)





Copy of marking plate: (continued)

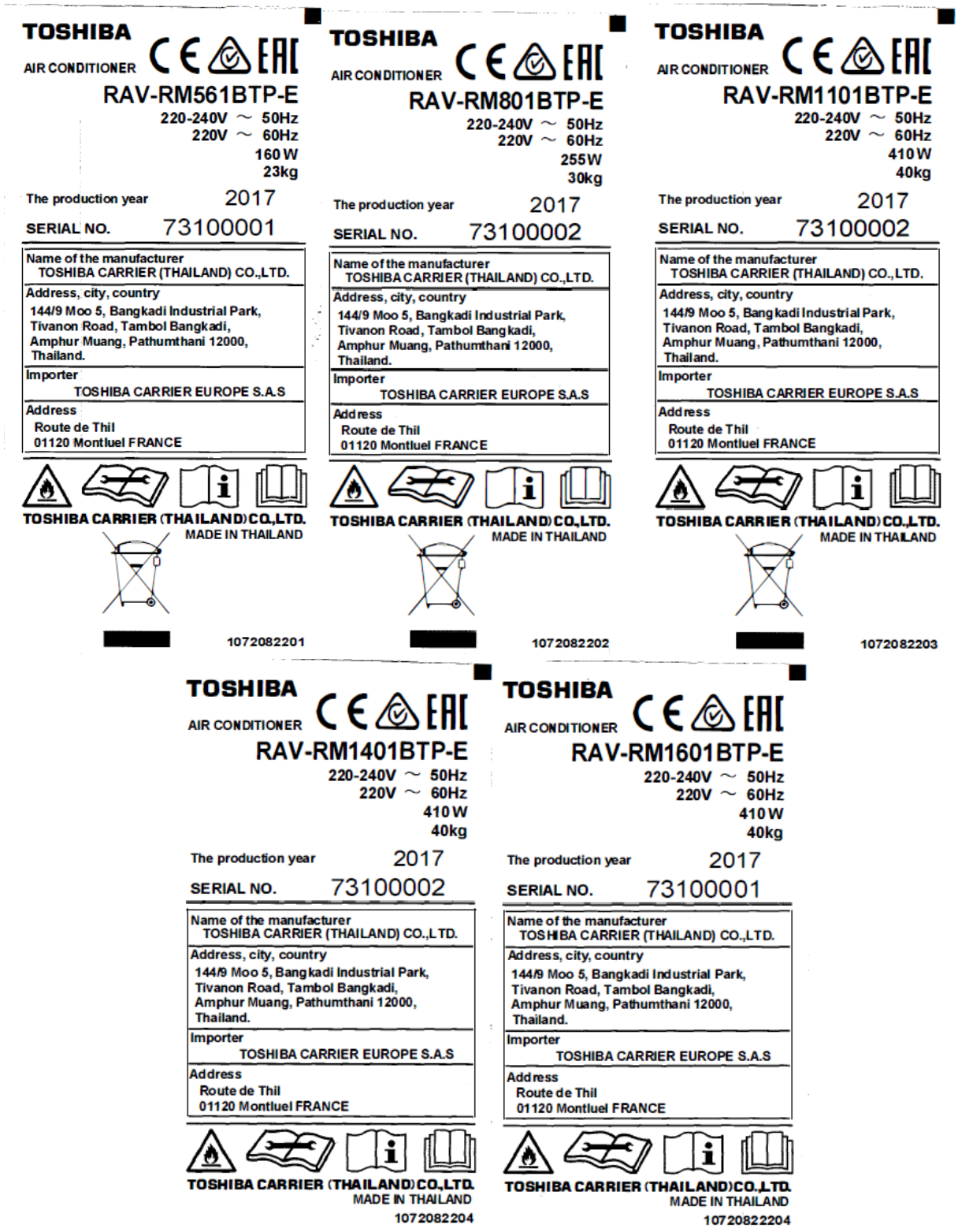
Indoor unit: (4 way Cassette Type)

Copy of marking plate: (continued)

Indoor unit: (4 way Cassette Type)

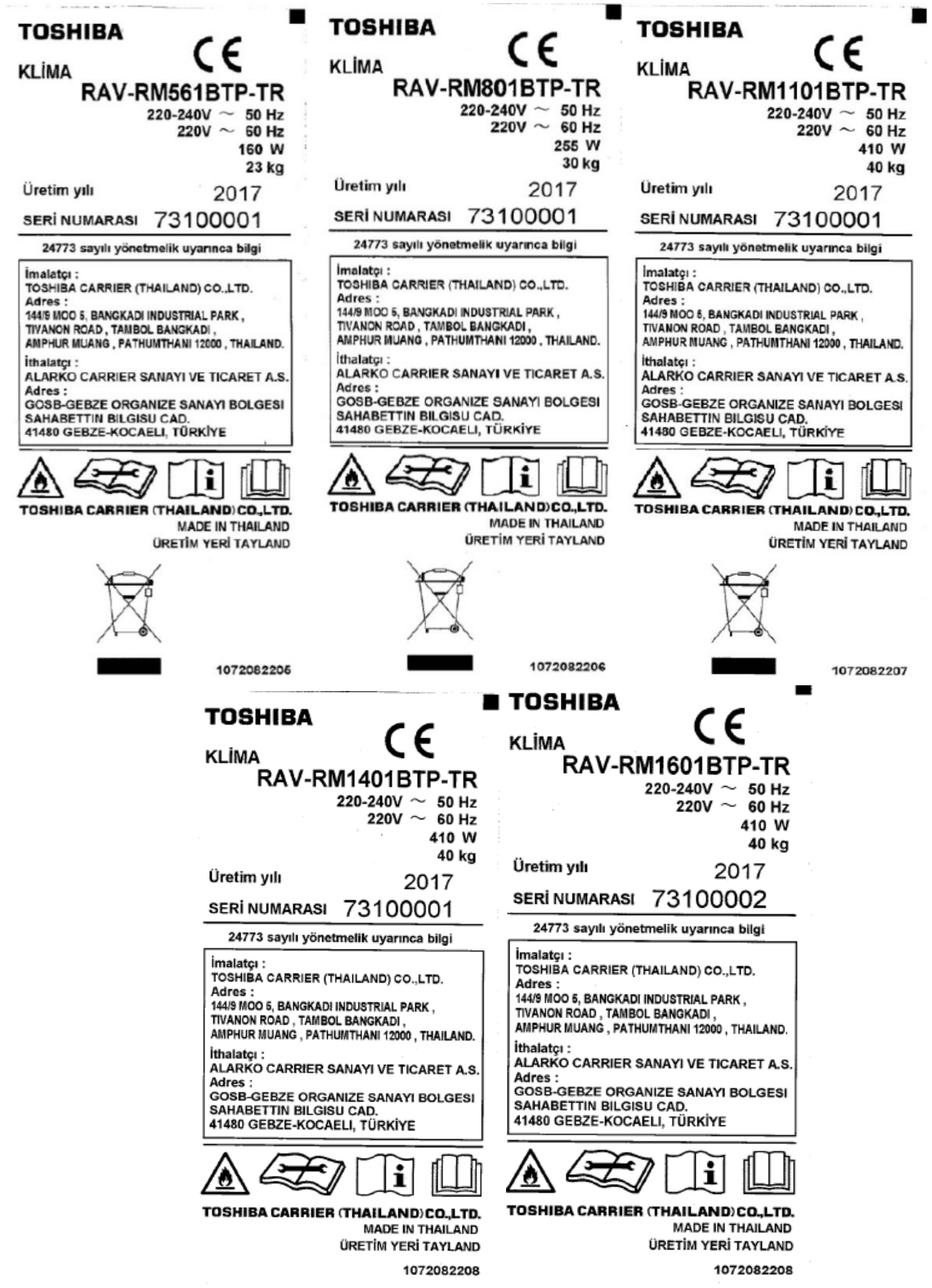
Copy of marking plate: (continued)

Indoor unit: (Duct Type)



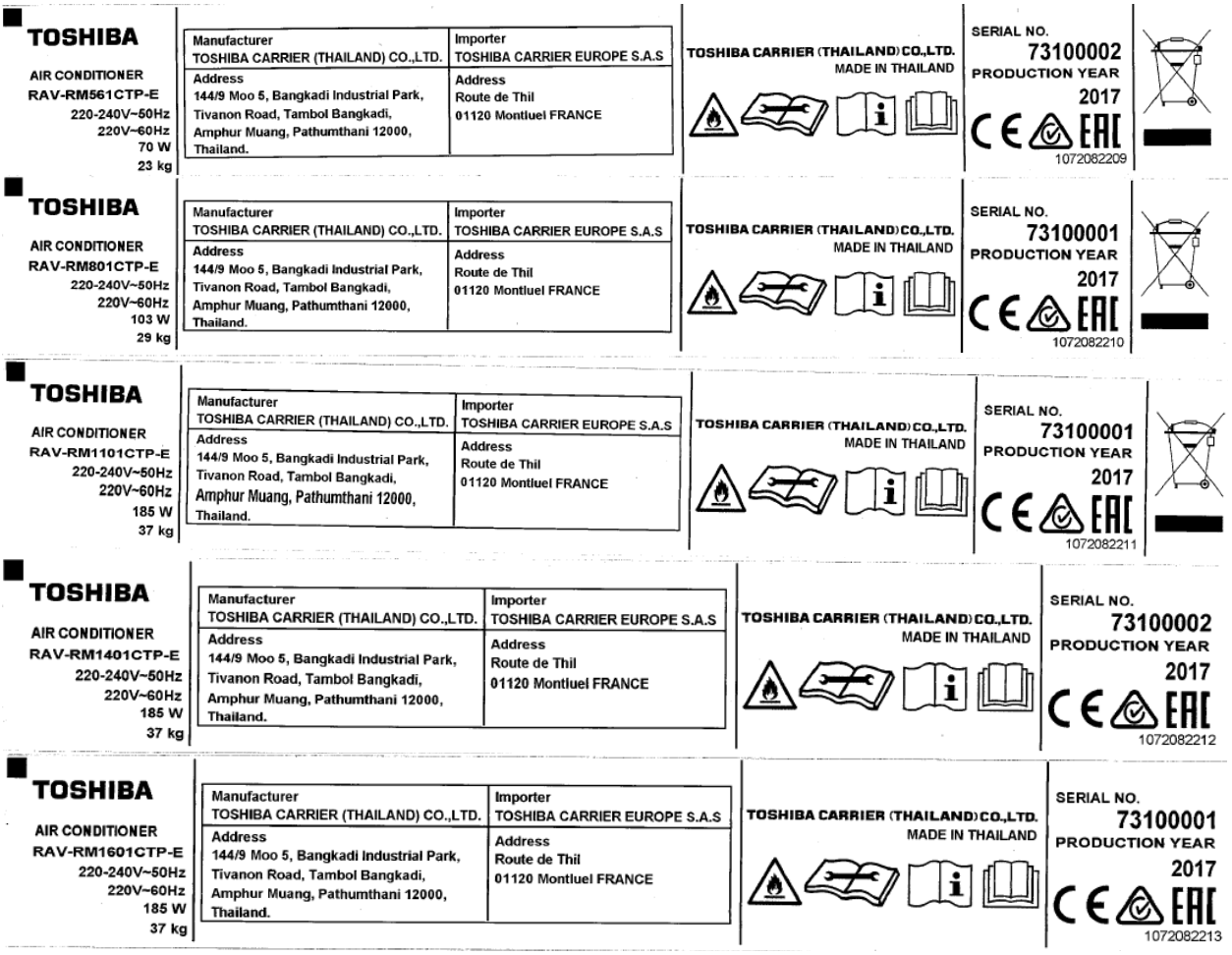
Copy of marking plate: (continued)

Indoor unit: (Duct Type)



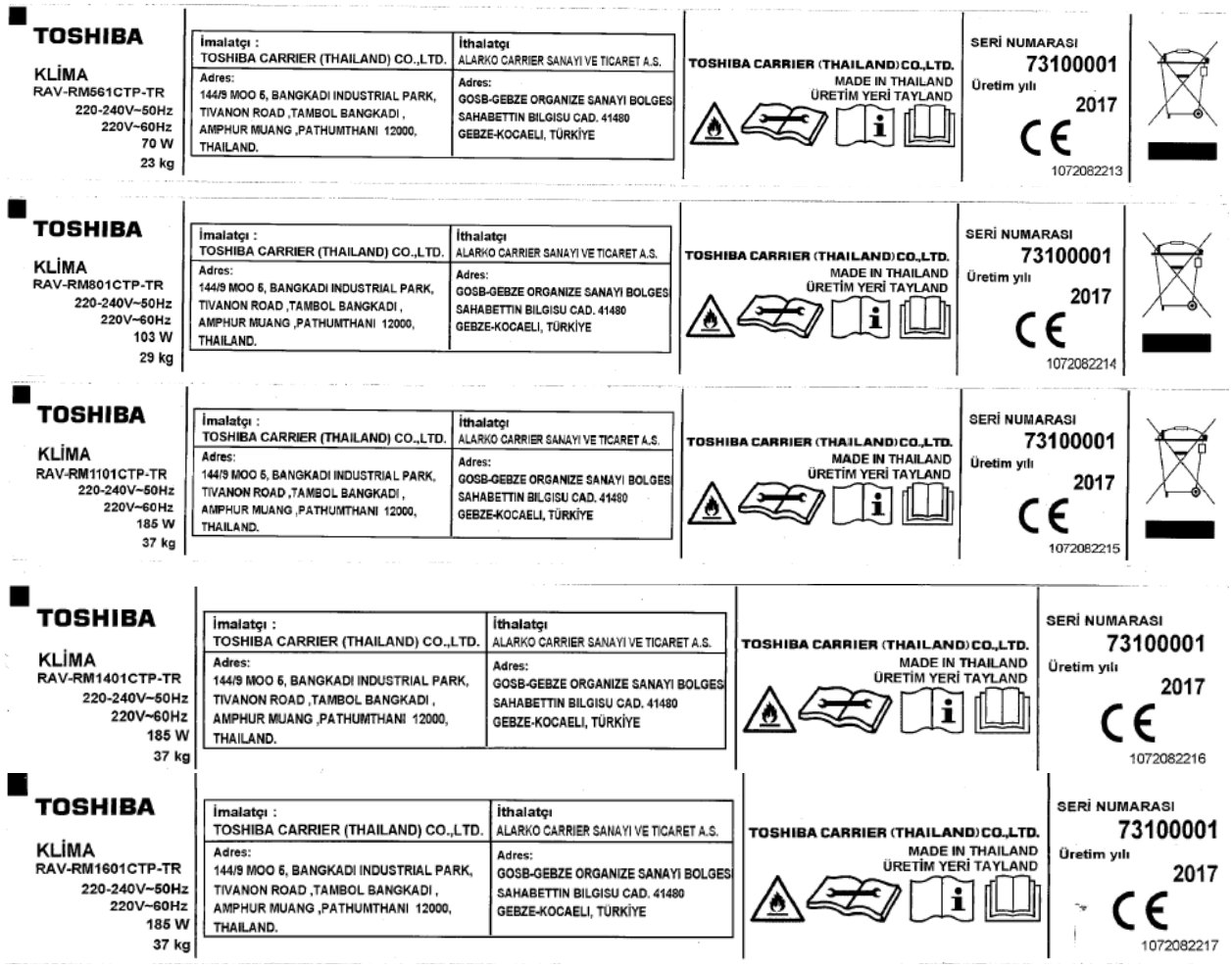
Copy of marking plate: (continued)

Indoor unit: (Ceiling type)



Copy of marking plate: (continued)

Indoor unit: (Ceiling type)



Test item particulars ..... :	
Classification of installation and use ..... :	Class I, Fixed appliance
Supply Connection ..... :	Fixed wiring connection
..... :	
Possible test case verdicts:	
- test case does not apply to the test object .....:	N/A
- test object does meet the requirement .....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
Testing .....:	
Date of receipt of test item .....:	N/A
Date (s) of performance of tests .....:	N/A

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... :	1)Toshiba Carrier (Thailand) Co., Ltd. 144/9 Moo 5, Bangkadi Industrial Park, Tivanon Road,Tambol Bangkadi, Amphur Muang, Pathumthani 12000, Thailand 2) Toshiba Carrier Corporation Fuji Factory & Engineering Center 336, Tadehara, Fuji-shi, Shizuoka 416-8521 Japan

General product information:

The equipment is a split type room air conditioner consisting of two units: Indoor and outdoor unit, which provide cooling and heating modes.

Cooling and heating modes are applied by reverse cycle method (no additional heating elements).
A defrost option is applied as well (heating mode only).

The main power is supplied through the outdoor unit by a single-phase power supply cable.
Outdoor and indoor unit are connected through an interconnection cable.
The interconnection cable and power supply cord are not supplied by the manufacturer, they will be provided during final installation.
The supply cord and the connecting cable between indoor and outdoor unit shall be an approved polychloropene sheathed 245 IEC 66 (H07RN-F) or heavier flexible cord.

Indoor units:
4 way cassette type:
Indoor unit RAV-SM564UTP-E/ RAV-SM564UT-E and RAV-SM804UTP-E/ RAV-SM804UT-E are identical to model RAV-SM564UTP-TR and RAV-SM804UTP-TR respectively, except model name for marketing purpose and software which is not affecting safety.

Indoor unit RAV-SM1104UTP-E/ RAV-SM1104UT-E, RAV-SM1404UTP-E/ RAV-SM1404UT-E and RAV-SM1604UTP-E are identical to model RAV-SM1104UTP-TR, RAV-SM1404UTP-TR and RAV-SM1604UTP-TR respectively, except model name for marketing purpose and software which is not affecting safety.

Compact 4 way cassette type:
Indoor unit RAV-SM564MUT-E is identical to model RAV-SM564MUT-TR, except model name for marketing purpose.

Duct type:
Indoor unit RAV-SM566BT-E, RAV-SM806BT-E, RAV-SM1106BT-E and RAV-SM1406BT-E are identical to model RAV-SM566BT-TR, RAV-SM806BT-TR, RAV-SM1106BT-TR and RAV-SM1406BT-TR respectively, except model name for marketing purpose.

Ceiling type:
Indoor unit RAV-SM567CTP-E is identical to model RAV-SM567CTP-TR, except model name for marketing purpose.

Indoor unit RAV-SM807CTP-E is identical to model RAV-SM807CTP-TR, except model name for marketing purpose.

Indoor unit RAV-SM1107CTP-E, RAV-SM1407CTP-E and RAV-SM1607CTP-E are identical to model RAV-SM1107CTP-TR, RAV-SM1407CTP-TR and RAV-SM1607CTP-TR respectively, except model name for marketing purpose.

High wall type:
Indoor unit RAV-SM566KRT-E and RAV-SM806KRT-E are identical to model RAV-SM566KRT-TR and RAV-SM806KRT-TR respectively, except model name for marketing purpose.

General product information: (continued)

Outdoor units:

Digital Inverter CDU:
Outdoor units RAV-SM564ATP-E, RAV-SM564ATJP-E, RAV-SM564ATP-TR are identical in construction except model name and type of anti-corrosion protection.

Outdoor units RAV-SM804ATP-E, RAV-SM804ATJP-E, RAV-SM804ATP-TR are identical in construction except model name and type of anti-corrosion protection.

Outdoor units RAV-SM1104ATP-E, RAV-SM1104ATJP-E, RAV-SM1104ATP-TR are identical in construction except model name and type of anti-corrosion protection.

Outdoor units RAV-SM1404ATP-E, RAV-SM1404ATJP-E, RAV-SM1404ATP-TR are identical in construction except model name and type of anti-corrosion protection.

Super Digital Inverter CDU:
Outdoor units RAV-SP404ATP-E, RAV-SP404ATP-TR, RAV-SP454ATP-E, RAV-SP454ATP-TR are identical in construction except for model name.

Outdoor units RAV-SP564ATP-E, RAV-SP564ATZP-E, RAV-SP564ATJP-E, RAV-SP564ATP-A, RAV-SP564ATP-TR are identical in construction except model name and type of anti-corrosion protection.

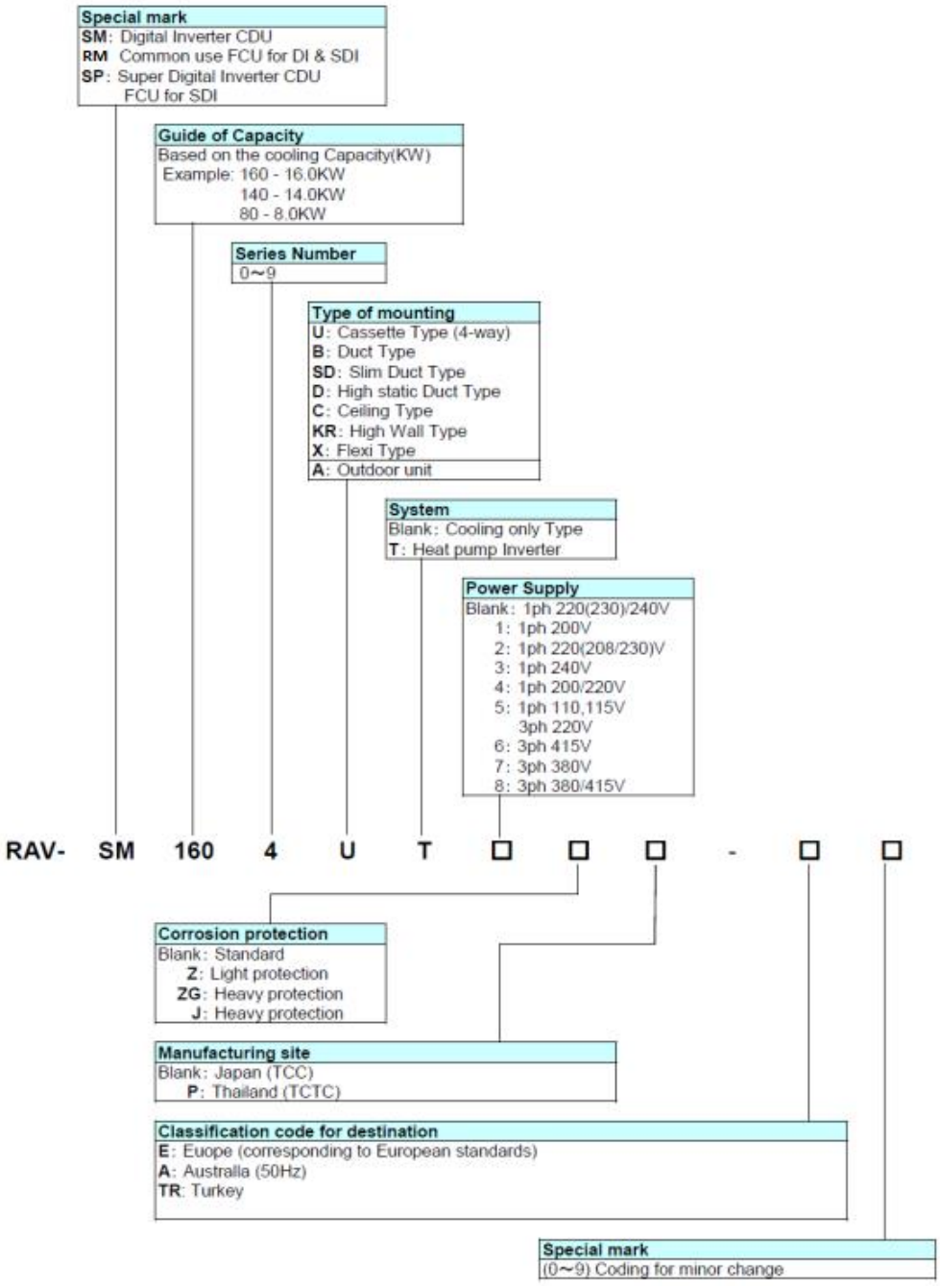
Outdoor units RAV-SP804ATP-E, RAV-SP804ATZP-E, RAV-SP804ATJP-E, RAV-SP804ATP-A, RAV-SP804ATP-TR are identical in construction except model name and the type of anti-corrosion protection.

Model RAV-SP404ATP-E, RAV-SP404ATP-TR, RAV-SP454ATP-E, RAV-SP454ATP-TR are identical in construction to model RAV-SP564ATP-E, RAV-SP564ATZP-E, RAV-SP564ATJP-E, RAV-SP564ATP-A, RAV-SP564ATP-TR except for turns of compressor windings (see table 24.1) and fan speed controlled by different IC.

General product information: (continued)

Model name nomenclature:

Model number standards for
the Digital inverter and Super digital inverter Air conditioner series



General product information: (continued)

Differences between models:

Indoor Unit Rating 220-240V, 50Hz/ 220V, 60Hz	Type	Power input	PCB	Outdoor Unit Rating 220-240V, 50Hz/ 220V, 60Hz	Power input	PCB	Compressor
RAV-SM564UTP-E **RAV-RM561UTP-E** **RAV-RM561UTP-TR** RAV-SM564UTP-TR RAV-SM564UT-E	4 Way cassette	40 W	MCC-1570	RAV-SM564ATP-E RAV-SM564ATJP-E RAV-SM564ATP-TR	3.00kW/ 2.75kW 3.00kW/ 2.75kW 3.00kW	MCC-1645	DA150A1T-20F
RAV-SM804UTP-E **RAV-RM801UTP-E** **RAV-RM801UTP-TR** RAV-SM804UTP-TR RAV-SM804UT-E				RAV-SM804ATP-E RAV-SM804ATJP-E RAV-SM804ATP-TR	3.61kW/3.31kW 3.61kW/3.31kW 3.61kW		
RAV-SM1104UTP-E **RAV-RM1101UTP-E** **RAV-RM1101UTP-TR** RAV-SM1104UTP-TR RAV-SM1104UT-E		120 W		RAV-SM1104ATP-E RAV-SM1104ATJP-E RAV-SM1104ATP-TR	5.14kW /4.72kW, 22.8A	MCC-1648	DA330A2T-20MD
RAV-SM1404UTP-E **RAV-RM1401UTP-E** **RAV-RM1401UTP-TR** RAV-SM1404UTP-TR RAV-SM1404UT-E				RAV-SM1404ATP-E RAV-SM1404ATJP-E RAV-SM1404ATP-TR			
RAV-SM1604UTP-E **RAV-RM1601UTP-E** **RAV-RM1601UTP-TR** RAV-SM1604UTP-TR				RAV-SM1603AT-E RAV-SM1603AT-E1	7.30kW/ 32.0A	MCC-1531	DA422A3F-25M
RAV-SM564MUT-E RAV-SM564MUT-TR	Compact 4 way cassette	60 W	MCC-1402	RAV-SM564ATP-E RAV-SM564ATJP-E RAV-SM564ATP-TR	3.00kW/ 2.75kW 3.00kW/ 2.75kW 3.00kW	MCC-1645	DA150A1T-20F
RAV-SM406BTP-E RAV-SM456BTP-E RAV-SM566BT-E RAV-SM566BTP-E **RAV-RM561BTP-E** **RAV-RM561BTP-TR** RAV-SM566BTP-E1 RAV-SM406BTP-TR RAV-SM456BTP-TR RAV-SM566BTP-TR RAV-SM566BT-TR	Duct	160 W	MCC-1631	RAV-SM564ATP-E RAV-SM564ATJP-E RAV-SM564ATP-TR	3.00kW/ 2.75kW 3.00kW/ 2.75kW 3.00kW		
RAV-SM806BT-E RAV-SM806BTP-E **RAV-RM801BTP-E** **RAV-RM801BTP-TR** RAV-SM806BTP-E1 RAV-SM806BT-TR RAV-SM806BTP-TR		255 W		RAV-SM804ATP-E RAV-SM804ATJP-E RAV-SM804ATP-TR	3.61kW/3.31kW 3.61kW/3.31kW 3.61kW		

General product information: (continued)

Differences between models:

Indoor Unit Rating 220-240V, 50Hz/ 220V, 60Hz	Type	Power input	PCB	Outdoor Unit Rating 220-240V, 50Hz/ 220V, 60Hz	Power input	PCB	Compressor
RAV-SM1106BT-E RAV-SM1106BTP-E **RAV-RM1101BTP-E** **RAV-RM1101BTP-TR** RAV-SM1406BTP-E1 RAV-SM1106BT-TR RAV-SM1106BTP-TR	Duct	410 W	MCC-1631	RAV-SM1104ATP-E RAV-SM1104ATJP-E RAV-SM1104ATP-TR	5.14kW /4.72kW, 22.8A	MCC-1648	DA330A2T-20MD
RAV-SM1406BT-E RAV-SM1406BTP-E **RAV-RM1401BTP-E** **RAV-RM1401BTP-TR** RAV-SM1406BT-TR RAV-SM1406BTP-TR				RAV-SM1404ATP-E RAV-SM1404ATJP-E RAV-SM1404ATP-TR			
RAV-SM1606BTP-E **RAV-RM1601BTP-E** **RAV-RM1601BTP-TR** RAV-SM1606BTP-TR				RAV-SM1603AT-E RAV-SM1603AT-E1	7.30kW/ 32.0A	MCC-1531	DA422A3F-25M
RAV-SM564SDT-E	Slim Duct	80 W	MCC-1570	RAV-SM564ATP-E RAV-SM564ATJP-E RAV-SM564ATP-TR	3.00kW/ 2.75kW 3.00kW/ 2.75kW 3.00kW	MCC-1645	DA150A1T-20F
RAV-SM567CTP-E RAV-SM568CTP-E **RAV-RM561CTP-E** **RAV-RM561CTP-TR** RAV-SM567CTP-TR RAV-SM568CTP-TR	Ceiling	70 W	MCC-1643	RAV-SM564ATP-E RAV-SM564ATJP-E RAV-SM564ATP-TR	3.00kW/ 2.75kW 3.00kW/ 2.75kW 3.00kW		
RAV-SM807CTP-E RAV-SM808CTP-E **RAV-RM801CTP-E** **RAV-RM801CTP-TR** RAV-SM807CTP-TR RAV-SM808CTP-TR		103 W		RAV-SM804ATP-E RAV-SM804ATJP-E RAV-SM804ATP-TR	3.61kW/3.31kW 3.61kW/3.31kW 3.61kW	MCC-1645	DA150A1T-20F

General product information: (continued)

Differences between models:

Indoor Unit Rating 220-240V, 50Hz/ 220V, 60Hz	Type	Power input	PCB	Outdoor Unit Rating 220-240V, 50Hz	Power input	PCB	Compressor
RAV-SM1107CTP-E RAV-SM1108CTP-E **RAV-RM1101CTP-E** **RAV-RM1101CTP-TR** RAV-SM1107CTP-TR RAV-SM1108CTP-TR	Ceiling	185 W	MCC-1643	RAV-SM1104ATP-E RAV-SM1104ATJP-E RAV-SM1104ATP-TR	5.14kW /4.72kW, 22.8A	MCC-1648	DA330A2T-20MD
RAV-SM1407CTP-E RAV-SM1408CTP-E **RAV-RM1401CTP-E** **RAV-RM1401CTP-TR** RAV-SM1407CTP-TR RAV-SM1408CTP-TR		185 W	MCC-1643	RAV-SM1404ATP-E RAV-SM1404ATJP-E RAV-SM1404ATP-TR	5.14kW /4.72kW, 22.8A	MCC-1648	DA330A2T-20MD
RAV-SM1607CTP-E **RAV-RM1601CTP-E** **RAV-RM1601CTP-TR** RAV-SM1608CTP-E RAV-SM1607CTP-TR RAV-SM1608CTP-TR				RAV-SM1603AT-E RAV-SM1603AT-E1	7.30kW/ 32.0A	MCC-1531	DA422A3F-25M
RAV-SM566KRT-E RAV-SM566KRT-TR	High Wall	55 W	MCC-1510	RAV-SM564ATP-E RAV-SM564ATJP-E RAV-SM564ATP-TR	3.00kW/ 2.75kW 3.00kW/ 2.75kW 3.00kW	MCC-1645	DA150A1T-20F
RAV-SM806KRT-E RAV-SM806KRT-TR				RAV-SM804ATP-E RAV-SM804ATJP-E RAV-SM804ATP-TR	3.61kW/3.31kW 3.61kW/3.31kW 3.61kW		
--	--	--	--	RAV-SP404ATP-E RAV-SP404ATP-TR	2.49kW	MCC-5009	DA150A1T-20F
--	--	--	--	RAV-SP454ATP-E RAV-SP454ATP-TR	2.49kW		
RAV-SM564UTP-E RAV-SM564UTP-TR	4 Way cassette	40 W	MCC-1570	RAV-SP564ATP-E RAV-SP564ATP-TR RAV-SP564ATP-A RAV-SP564ATZP-E RAV-SP564ATJP-E	3.19kW		DA150A1T-21F
RAV-SM804UTP-E RAV-SM804UTP-TR				RAV-SP804ATP-E RAV-SP804ATP-TR RAV-SP804ATP-A RAV-SP804ATZP-E RAV-SP804ATJP-E	4.84kW 20.8A	MCC-1571	DA220A2F-22L
RAV-SM567CTP-E RAV-SM568CTP-E RAV-SM567CTP-TR RAV-SM568CTP-TR	Ceiling	70 W	MCC-1643	RAV-SP564ATP-E RAV-SP564ATP-TR RAV-SP564ATP-A RAV-SP564ATZP-E RAV-SP564ATJP-E	3.19kW	MCC-5009	DA150A1T-21F
RAV-SM807CTP-E RAV-SM808CTP-E RAV-SM807CTP-TR RAV-SM808CTP-TR		103 W		RAV-SP804ATP-E RAV-SP804ATP-TR RAV-SP804ATP-A RAV-SP804ATZP-E RAV-SP804ATJP-E	4.84kW 20.8A	MCC-1571	DA220A2F-22L

General product information: (continued)

Representative models for testing:
4 Way cassette type with Digital Inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM1404UTP-E / RAV-SM1404ATP-E), (RAV-SM1604UTP-E with its pair dummy outdoor unit)
4 Way cassette type with Super Digital Inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM564UTP-E / RAV-SP564ATP-E), (RAV-SM804UTP-E / RAV-SP804ATP-E)

Compact 4 way cassette type with Digital inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM564MUT-E / RAV-SM564ATP-E)

Duct type with Digital Inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM806BT-E / RAV-SM804ATP-E), (RAV-SM1406BT-E / RAV-SM1404ATP-E)

Slim Duct type with Digital Inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM564SDT-E / RAV-SM564ATP-E)

Ceiling type with Digital Inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM1407CTP-E / RAV-SM1404ATP-E) and (RAV-SM1607CTP-E with its pair dummy outdoor unit)

Ceiling type with Super Digital Inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM567CTP-E / RAV-SP564ATP-E), (RAV-SM807CTP-E / RAV-SP804ATP-E)

High wall type with Digital Inverter CDU: (Indoor unit / Outdoor unit)
(RAV-SM806KRT-E / RAV-SM804ATP-E)

Model RAV-SP454ATP-E, RAV-SP404ATP-E (outdoor unit) are tested additionally for power input.
Power input of all models is tested to find the deviation from their marking.

PCBs for Indoor units:

MCC-1402, MCC-1510, MCC-1570, MCC-1631, MCC-1643 (pri.-sec separation)

PCBs for Outdoor units:

User accessable is the temperature sensor only, such temperature sensor is seperated from Primary by reinforced insulation.

MCC-5009, MCC-1571, MCC-1645, MCC-1648

The testing and construction checks were performed on all models.

If no other statement, the highest measurement value was filled in this report.

Test performed on production samples without serial number.

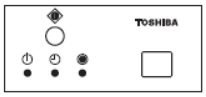
If not stated otherwise, the following ambient temperature conditions were kept during the test:

	Maximum Cooling	**Minimum Cooling**
	D.B./W.B.	D.B./W.B.
Indoor unit	32°C/23°C	18°C/13°C
Outdoor unit (Digital Inverter)	46°C/24°C	18°C/13°C
Outdoor unit (Super Digital Inverter)	43°C/26°C	18°C/13°C

	Maximum Heating	**Minimum Heating**
	D.B./W.B.	D.B./W.B.
Indoor unit	27°C/--	0°C/--
Outdoor unit (Digital Inverter)	24°C/18°C	-15°C/-15.5°C
Outdoor unit (Super Digital Inverter)	24°C/18°C	-15°C/-15.5°C

General product information: (continued)

Remote Controller: (Options)
Wireless Remote Controller

Model Name	Receiver	Wireless Remote Controller	Used with
TCB-AX32E2	SX-W4NE  Connection via Terminal A B	WH-L11SE 	Concealed duct Type 4-way cassette compact Type Slim duct Type High static duct Type
RBC-AX32U(W)-E RBC-AX32U(WS)-E	SX-W1NE  Connection via Terminal A B	WH-L11SE 	4-way cassette Type
RBC-AX32CE2	SX-W3NE  Connection via Terminal A B	WH-L11SE 	Ceiling Type 1-way cassette Type
RBC-AX33CE	SX-W6NE  Connection via Terminal A B	WH-L11SE 	Ceiling Type 1-way cassette Type

General product information: (continued)

Wired Remote Controller 1

< Connected through Indoor Unit Secondary circuit >

Controller	Model Name	Controller Name	Comment
Wired Remote Controller (Main) 	RBC-AMT32E	SX-A4EE	Connection via Terminal A B
Remote Controller with Weekly Timer 	RBC-AMS41E	SX-A5EE	Connection via Terminal A B
Schedule Timer 	TCB-EXS21TLE	EX-S1SE	Connection via connector of RBC-AMT32E (or TCB-SC642TLE2 or TCB-CC163TLE2), or, Connection via CN61 & Terminal U3 U4
Simple Remote Controller 	RBC-AS21E2	SX-A11JE2	Connection via Terminal A B
Simple Remote Controller 	RBC-AS41E	SX-U01EE	Connection via Terminal A B
Lite-Vision plus Remote Controller 	RBC-AMS51E-ES	SX-A1JE-ES	Connection via Terminal A B
	RBC-AMS51E-EN	SX-A1JE-EN	
Remote sensor 	TCB-TC21LE2	-	Connection via Terminal A B

General product information: (continued)

Wired Remote Controller 2
< With Primary - Secondary circuit >
With RBC-AMT32E and MCC-1440 (1:1 model Connection Interface: TCB-PCNT30TLE2)

Controller	Model Name	Controller Name	Comment
Central Controller 	TCB-SC642TLE2	-	Tested by CB test report 12024505 001 Connection via Terminal U3 U4
ON-Off Controller 	TCB-CC163TLE2	-	Tested by CB test report 12024505 001 Connection via Terminal U3 U4

Controls

Model Name	Reference	Used with
TCB-PCNT30TLE2	1:1 model Connection Interface (with MCC-1440)	All indoor units
TCB-PX30MUE	Terminal Box (for TCB-PCNT30TLE2)	4-way cassette compact Type
TCB-IFCB-4E2	Remote Location ON/OFF Control Box (with MCC-1528)	All indoor units (Excluding Flexi type)
TCB-PCOS1E2	Application Control Kit (with MCC-1522)	DI outdoor unit (Excluding SM160-SM280)
TCB-KBOS1E	Optional Connector Kit	SDI outdoor unit (Excluding SP40-SP56)
TCB-PCUC1E	Application Control Kit	Ceiling Type

Others

Model Name	Reference	Used with
RBC-U31PG(W)-E	Standard panel	4-way cassette Type
RBC-U31PGS(W)-E	Straight, white color panel	4-way cassette Type
RBC-U31PGS(WS)-E	Straight, grey panel	4-way cassette Type
RBC-UM11PG(W)E	Decoration panel	4-way cassette compact Type
TCB-DP32DE	Drain Pump Kit	High static duct Type
TCB-DP22CE2	Drain Pump Kit	Ceiling Type
TCB-DP31CE	Drain Pump Kit	Ceiling Type
TCB-KP13CE TCB-KP23CE	Elbow piping kit	Ceiling Type

General product information: (continued)

Description of change(s):

1. Add new indoor unit models; see details in difference between models as indicate in bold letter (page 17-19).The new models are identical current models.

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1.	• Cl.7.,21.,22.,DD.,GG	Additional testing is considered to be necessary due to add new indoor unit. The new indoor unit models are identical current models; see difference between the models for detail. See new nameplate on page 5-12.

History of amendments and modifications:

Ref. No. 50058633 001, dated 2016.12.28 (original test report)
Ref. No. 50058633 002, dated 2018.04.10 (1st modification)

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
7	**MARKING AND INSTRUCTIONS**		P
7.1	Rated voltage or voltage range (V) .....:	See page 2	P
	Symbol for nature of supply including number of phases, unless for single phase operation (IEC 60335-2-40 (ed.5)) .....:	~	P
	Rated frequency (Hz) .....:	See page 2	P
	Rated power input (W), or .....:	See page 17-19	P
	Rated current (A) .....:	See page 17-19	P
	Manufacturer's or responsible vendor's name, trademark or identification mark.....:	Trade mark of “TOSHIBA”	P
	Model or type reference .....:	See page 17-19	P
	Symbol IEC 60417-5172, for class II appliances	No such appliance	N/A
	IP number, other than IPX0.....:	Indoor unit	N/A
	Symbol IEC 60417-5180, for class III appliances, unless	No such appliance	N/A
	the appliance is operated by batteries only		N/A
	Symbol IEC 60417-5018, for class II and class III appliances incorporating a functional earth (IEC 60335-1:2010 (ed.5) ,am1)		N/A
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N/A
	Refrigerant charge (IEC 60335-1:2010 (ed.5) ,am1) .....:	Indoor unit	N/A
	Refrigerant as designated under ISO 817 or ANSI/ASHRAE 34 (IEC 60335-1:2010 (ed.5) ,am1) .....:	R410A; **R32**	P
	Permissible excessive operating pressure for sanitary hot water heat pumps (IEC 60335-2-40 (ed.5)) .....:	No such construction	N/A
	Maximum operating pressure in the water and/or brine for the heat exchanger for hydronic fan coil units (IEC 60335-1:2010 (ed.5) ,am1).....:	No such construction	N/A
	Maximum operating pressure for the refrigerant circuit; if the permissible excessive operating pressure for the suction and discharge side differ, a separate indication is required; (IEC 60335-2-40 (ed.5)) .....:	High-pressure side: 4.15 MPa Low-pressure side: 2.21 MPa	P
	Symbol for degree of protection against ingress of water, other than IPX0 (IEC 60335-2-40 (ed.5)) ...:	Indoor unit	N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Separate marking of appliances with all rated characteristics of supplementary heaters (IEC 60335-2-40 (ed.5)) .....:	No such supplementary heater	N/A
	Marking of direction of fluid flow (IEC 60335-2-40 (ed.5))	It is evident from the design	N/A
	Flame symbol and instruction manual symbol of 7.6 visible when flammable refrigerant employed and following conditions exist (IEC 60335-2-40 (ed.5)):		P
	- accessing parts expected to be subjected to maintenance or repair (IEC 60335-2-40 (ed.5));		P
	- observing appliance under sale or installed conditions (IEC 60335-2-40 (ed.5));		P
	- observing appliance packaging, if appliance charged with refrigerant (IEC 60335-2-40 (ed.5)).		P
	If a flammable refrigerant is used, the symbols for “read operator’s manual”, “operator’s manual; operating instructions” and “service indicator; read technical manual” (symbols ISO 7000-0790 (2004-01), ISO-7000-1641 (2004-01) and ISO 7000-1659 (2004-01)) shall be placed on the appliance in a location visible to the persons required to know the information. The perpendicular height shall be at least 10 mm. (IEC 60335-2-40 (ed.5))		P
	Additional warning symbol (flame symbol: W021 of ISO 7010) placed on nameplate of unit near declaration of refrigerant type and charge information. Perpendicular height be at least 10 mm, and symbol need not be in colour (IEC 60335-2-40 (ed.5))		P
	When installed, the marking should be visible after removing a detachable part (IEC 60335-2-40 (ed.5))		P
	Following warning also applied to appliance when flammable refrigerant employed. WARNING Appliance shall be installed, operated and stored in a room with a floor area larger than ‘X’ m² (only applies to appliances that are not fixed appliances) (IEC 60335-2-40 (ed.5))		N/A
	Not fixed appliances, minimum room size X specified on appliance. X in marking determined in m² according to Clause GG.2 for unventilated areas and the X in the marking shall not be required if the refrigerant charge (m_c) of the appliance is up to m_1 according to GG.1.1. (IEC 60335-2-40 (ed.5), am1)		N/A
	Maximum allowable pressure for low-pressure side and high-pressure side marked on product (IEC 60335-2-40 (ed.5))	High-pressure side: 4.15 MPa Low-pressure side: 2.21 MPa	P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	If not already visible when accessing service port and if service port provided, service port marked to identify type of refrigerant. If refrigerant is flammable, symbol B.3.2 of ISO 3864, be included, without specifying the colour (IEC 60335-2-40 (ed.5))	Symbols ISO7010-W021 used(IEC 60335-2-40 (ed.5))	P
7.2	Warning for stationary appliances for multiple supply		N/A
	Warning placed in vicinity of terminal cover		N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen		P
	Different rated values marked with the values separated by an oblique stroke		N/A
7.4	Appliances adjustable for different rated voltages or rated frequencies, the voltage or the frequency setting is clearly discernible. (IEC 60335-1 (ed.5), am1)		N/A
	Requirement met if frequent changes are not required and the rated voltage or rated frequency to which the appliance is to be adjusted is determined from a wiring diagram. (IEC 60335-1 (ed.5), am1)		N/A
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		P
	the power input is related to the arithmetic mean value of the rated voltage range		N/A
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		P
7.6	Correct symbols used		P
	Flammable refrigerant, warning symbol W021 of ISO 7010, including colour and format, permanently placed on appliance. Perpendicular height of triangle containing "Caution, risk of fire “symbol be at least 30 mm (IEC 60335-2-40 (ed.5))	**R32**	P
	Flammable refrigerant, symbol requiring reference to manual [ISO 7000-0790 (2004-01)], including colour and format, permanently placed on appliance (IEC 60335-2-40 (ed.5))		P
	Symbol for nature of supply placed next to rated voltage		P
	Symbol for class II appliances placed unlikely to be confused with other marking		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Units of physical quantities and their symbols according to international standardized system		P
7.7	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless		P
	correct mode of connection is obvious		P
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		P
	- marking of terminals exclusively for the neutral conductor (letter N)		P
	- marking of protective earthing terminals (symbol IEC 60417-5019)		P
	- marking of functional earthing terminals (symbol IEC 60417-5018) (IEC 60335-1 (ed.5), am1)		P
	- marking not placed on removable parts		P
7.9	Marking or placing of switches which may cause a hazard		N/A
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means .....:	Figure and letter used	P
	This applies also to switches which are part of a control		P
	If figures are used, the off position indicated by the figure 0		P
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		P
7.11	Indication for direction of adjustment of controls		P
7.12	Instructions for safe use provided		P
	Details concerning precautions during user maintenance		P
	Appliances not accessible to general public, classification of clause 6.101 included (IEC 60335-2-40 (ed.5))	Accessible to general public	N/A
	Appliances using flammable refrigerants, an installation, service and operation manual, either separate or combined manuals, provided and include information given in annex DD (IEC 60335-2-40 (ed.5))	See installation instruction and operation manual	P
	The instructions state that:		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction		P
	- children being supervised not to play with the appliance		P
	For a part of class III construction supplied from a detachable power supply unit, the instructions state that the appliance is only to be used with the unit provided		N/A
	Instructions for class III appliances state that it must only be supplied at SELV, unless		N/A
	it is a battery-operated appliance, the battery being charged outside the appliance		N/A
	For appliances for altitudes exceeding 2000 m, the maximum altitude is stated: (IEC 60335-1 (ed.5) ,am1)		N/A
	The instructions for appliances incorporating a functional earth states that the appliance incorporates an earth connection for functional purposes only (IEC 60335-1: (ed.5), am1)		N/A
7.12.1	Sufficient details for installation supplied		P
	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated		N/A
	If different rated voltages or different rated frequencies are marked, the instructions state what action to be taken to adjust the appliance (IEC 60335-1: (ed.5), am1)		N/A
	Sufficient details for installation or maintenance supplied (IEC 60335-2-40 (ed.5)):		P
	- that the appliance shall be installed in accordance with national wiring regulations (IEC 60335-2-40 (ed.5));		P
	- the dimensions of the space necessary for correct installation of the appliance including the minimum permissible distance to adjacent structures (IEC 60335-2-40 (ed.5));		P
	- for appliances with supplementary heaters, the minimum clearance from the appliance to combustible surfaces (IEC 60335-2-40 (ed.5));		N/A
	- a wiring diagram with a clear indication of the connections and wiring to external control devices and supply cord (IEC 60335-2-40 (ed.5));		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	- the range of external static pressures at which the appliance was tested (add-on heat pumps and appliances with supplementary heaters only) (IEC 60335-2-40 (ed.5));	No such construction	N/A
	- the method of connection to the appliance to the electrical supply and interconnection of separate components (IEC 60335-2-40 (ed.5));		P
	- indication of which parts of the appliance are suitable for outdoor use, if applicable (IEC 60335-2-40 (ed.5));	Indoor unit	N/A
	- details of type and rating of fuses , or rating of circuit breakers; (IEC 60335-2-40 (ed.5));		P
	- details of supplementary heating elements that may be used in conjunction with the appliance, including fitting instructions either with the appliance or with the supplementary heater (IEC 60335-2-40 (ed.5));	No such supplementary heating element	N/A
	- maximum and minimum water or brine operating temperatures (IEC 60335-2-40 (ed.5));		N/A
	- maximum and minimum water or brine operating pressures (IEC 60335-2-40 (ed.5)).		N/A
	Open storage tanks of heat pumps for water heating, accompanied by an instruction sheet which state that the vent shall not be obstructed (IEC 60335-2-40 (ed.5))		N/A
7.12.2	Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules		P
7.12.3	Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions state that the fixed wiring must be protected		N/A
7.12.4	Instructions for built-in appliances:		P
	- dimensions of space		P
	- dimensions and position of supporting and fixing		P
	- minimum distances between parts and surrounding structure		P
	- minimum dimensions of ventilating openings and arrangement		P
	- connection to supply mains and interconnection of separate components		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	- allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless		P
	a switch complying with 24.3		N/A
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord	Fixed wiring	N/A
	Replacement cord instructions, type Y attachment		P
	Replacement cord instructions, type Z attachment		N/A
7.12.6	Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard		N/A
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed		P
7.12.8	Instructions for appliances connected to the water mains:		N/A
	- max. inlet water pressure (Pa) .....:	No such appliance	N/A
	- min. inlet water pressure, if necessary (Pa).....:		N/A
	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets		N/A
7.13	Instructions and other texts in an official language	English	P
7.14	Marking clearly legible and durable, rubbing test as specified		P
7.15	Markings on a main part		P
	Marking clearly discernible from the outside, if necessary after removal of a cover		P
	For portable appliances, cover can be removed or opened without a tool		N/A
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		P
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions		P
	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading		P
	Symbol IEC 60417-5018 is placed next to the symbol IEC 60417-5172 or (IEC 60335-1 (ed.5), am1)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Marking on panel allowed, provided panel in place for intended operation of appliance (IEC 60335-2-40 (ed.5))		P
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link		P
7.101	Marking of fuses and overload protective devices, if replaceable (IEC 60335-2-40 (ed.5)):		P
	- fuse rated current in amperes, type and rated voltage or (IEC 60335-2-40 (ed.5))		P
	- manufacturer and model of overload protective device (IEC 60335-2-40 (ed.5))		N/A
7.102	Marking for connection with aluminium wire, if necessary (IEC 60335-2-40 (ed.5))		N/A
7.103	For appliances made up of more than one factory made assembly specified by the manufacturer to be used together, instructions shall be provided for completing the assembly to ensure compliance with the requirements. (IEC 60335-2-40 (ed.5), am1)		N/A
7.104	For partial units, the instructions or markings shall include the following additional information: (IEC 60335-2-40 (ed.5), am1)		N/A
	- For evaporating units and condensing units, the instructions or markings shall include wording to assure that the maximum operating pressure is considered when connecting to any condenser unit or evaporator unit. (IEC 60335-2-40 (ed.5), am1)		N/A
	- For evaporating units, condensing units and condenser units, the instructions or markings shall include refrigerant charging instructions. (IEC 60335-2-40 (ed.5), am1)		N/A
	- A warning to assure that partial units shall only be connected to an appliance suitable for the same refrigerant. (IEC 60335-2-40 (ed.5), am1)		N/A
	- This unit <model xxx> is a partial unit air conditioner, complying with partial unit requirements of this International Standard, and must only be connected to other units that have been confirmed as complying to corresponding partial unit requirements of this International Standard. (IEC 60335-2-40 (ed.5), am1)		N/A
	- The electrical interfaces shall be specified with purpose, voltage, current, and safety class of construction. (IEC 60335-2-40 (ed.5), am1)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	- The SELV connection points, if provided, are to be clearly indicated in the instructions. The connection point should be marked with the “read the instructions” symbol per ISO 7000-0790 (2004-01) and the Class III symbol according to IEC 60417-5180 (2003- 02). (IEC 60335-2-40 (ed.5), am1)		N/A
21	**MECHANICAL STRENGTH**		P
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling		P
	Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J	(see appended table)	P
	The appliance shows no damage impairing compliance with this standard, and		P
	compliance with 8.1, 15.1 and clause 29 not impaired		P
	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3		N/A
	If necessary, repetition of groups of three blows on a new sample		N/A
	Safety requirements specified in annex EE apply. Pressure test in annex EE applies to parts other than pressure vessels (IEC 60335-2-40 (ed.5))		P
	Safety requirements of ISO 14903 apply (IEC 60335-2-40 (ed.5))		P
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements		P
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm		P
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		P
	Appliances using flammable refrigerants withstand the effects of vibration during transport. (IEC 60335-2-40 (ed.5))	Indoor unit	N/A
	Appliance is tested in its final packaging for transport and shall withstand a random vibration test according to ASTM D4728-01. (IEC 60335-2-40 (ed.5))	Indoor unit	N/A
	Compliance is checked as specified (IEC 60335-2-40 (ed.5))	Indoor unit	N/A
22	**CONSTRUCTION**		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled		N/A
22.2	Stationary appliance: means to ensure all-pole disconnection from the supply being provided:		P
	- a supply cord fitted with a plug, or		N/A
	- a switch complying with 24.3, or		N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or		P
	- an appliance inlet		N/A
	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Applied torque not exceeding 0,25 Nm		N/A
	Pull force of 50 N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1 mm		N/A
	Each pin subjected to a torque of 0,4 Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		N/A
22.5	No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance equal to or greater than 0,1 μF, the appliance being disconnected from the supply at the instant of voltage peak (IEC 60335-1 (ed.5), am1)		N/A
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied (IEC 60335-1 (ed.5), am1)		N/A
	The discharge test is then repeated three times, voltage not exceeding 34 V (V) .....: (IEC 60335-1 (ed.5), am1):		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.6	Electrical insulation not affected by condensing water or leaking liquid		P
	Electrical insulation of class II appliances not affected if a hose ruptures or seal leaks		N/A
	In case of doubt, test as described		P
	Electrical insulation not affected by snow penetration to appliance enclosure (IEC 60335-2-40 (ed.5))		P
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		N/A
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use		P
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		P
	the substance has adequate insulating properties		N/A
22.10	Not possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N/A
	- a non-self-resetting thermal cut-out is required by the standard, and		N/A
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A
	Non-self-resetting thermal motor protectors have a trip-free action, unless		N/A
	they are voltage maintained		N/A
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely		N/A
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		P
	Obvious locked position of snap-in devices used for fixing such parts		N/A
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		N/A
	Tests as described		P
22.12	Handles, knobs etc. fixed in a reliable manner		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible		N/A
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		N/A
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		N/A
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		N/A
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		P
	This requirement does not apply to the metallic fins of heat exchangers. (IEC 60335-2-40 (ed.5))		N/A
22.15	Storage hooks and the like for flexible cords smooth and well rounded		N/A
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts		N/A
	Cord reel tested with 6000 operations, as specified		N/A
	Electric strength test of 16.3, voltage of 1000 V applied		N/A
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N/A
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.19	Driving belts not relied upon to provide the required level of insulation, unless		N/A
	constructed to prevent inappropriate replacement		N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		P
	material used is non-corrosive, non-hygroscopic and non-combustible		P
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		P
	impregnated		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		N/A
22.22	Appliances not containing asbestos		P
22.23	Oils containing polychlorinated biphenyl (PCB) not used		P
22.24	Bare heating elements adequately supported to prevent contact with accessible metal parts nor give rise to a hazard in case of rupture or sagging (IEC 60335-2-40 (ed.5))		N/A
	Bare heating elements not used with wood or wood composite enclosures. (IEC 60335-2-40 (ed.5))		N/A
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts		N/A
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		N/A
22.27	Parts connected by protective impedance separated by double or reinforced insulation		N/A
22.28	Metal parts of class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation		N/A
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		N/A
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		P
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		P
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29		P
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N/A
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A
	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation (IEC 60335-1:2010 (ed.5), am1)		N/A
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts		N/A
	unearthed metal parts separated from live parts by basic insulation only (IEC 60335-1:2010 (ed.5), am1)		N/A
	Electrodes not used for heating liquids		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N/A
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		N/A
	the shaft is not accessible when the part is removed		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		N/A
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances and cordless appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal. (IEC 60335-1:2010 (ed.5), am1)		N/A
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		N/A
	they are separated from live parts by double or reinforced insulation		N/A
22.37	Capacitors in class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless		N/A
	the capacitors comply with 22.42		N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out		P
22.39	Lamp holders used only for the connection of lamps		N/A
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible		N/A
	If the appliance cannot operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.41	No components, other than lamps, containing mercury		P
22.42	Protective impedance consisting of at least two separate components		N/A
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		N/A
	Resistors checked by the test of 14.1 a) in IEC 60065		N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		N/A
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		P
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N/A
	If the protective electronic circuit software is a part of the normal operation control, inspection of software shall be limited to relevant source code of safety controls or related software controls. (IEC 60335-2-40 (ed.5))		N/A
	Alternative methods are used (IEC 60335-2-40 (ed.5))		N/A
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N/A
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N/A
	No leakage from any part, including any inlet water hose		N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless		N/A
	the appliance switches off automatically or can operate continuously without hazard		N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode		N/A
	There is a visual indication showing that the appliance is adjusted for remote operation		N/A
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		N/A
	- continuously, or		N/A
	- automatically, or		N/A
	- remotely		N/A
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		N/A
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts have at least double insulation or reinforced insulation between live parts and the functionally earthed parts (IEC 60335-1:2010 (ed.5), am1)		N/A
22.54	Button cells and batteries designated R1 not accessible without the aid of a tool, unless (IEC 60335-1:2010 (ed.5), am1)		N/A
	the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously (IEC 60335-1:2010 (ed.5), am1)		N/A
22.101	Appliances intended to be fixed, securely fixed (IEC 60335-2-40 (ed.5))		P
22.102.1	At least two thermal cut-outs in appliances with supplementary heating elements for air (first one be self-resetting and other non-self-resetting thermal cut-out) (IEC 60335-2-40 (ed.5))		N/A
22.102.2	Appliances provided with supplementary heaters for water incorporate non-self-resetting thermal cut-out, providing all-pole disconnection that operates separately from water thermostats (IEC 60335-2-40 (ed.5))		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	However, for appliances intended to be connected to fixed wiring, the neutral conductor need not be disconnected (IEC 60335-2-40 (ed.5))		N/A
22.102.3	Thermal cut-outs of capillary type open in event of leakage from capillary tube (IEC 60335-2-40 (ed.5))		N/A
22.103	Non-self-resetting cut-outs independent of other control devices (IEC 60335-2-40 (ed.5))		N/A
22.104	Containers of sanitary hot water heat pumps withstand twice permissible operating pressure in closed containers (IEC 60335-2-40 (ed.5)) or		N/A
	0,15 MPa in open containers (IEC 60335-2-40 (ed.5))		N/A
	without leakage or rupture (IEC 60335-2-40 (ed.5))		N/A
22.105	Air or vapour cushion in closed containers not exceeding 10 % (IEC 60335-2-40 (ed.5))		N/A
22.106	Pressure relief devices operating at 0,1 MPa over permissible operating pressure (IEC 60335-2-40 (ed.5))		N/A
22.107	Water outlet systems of open containers free from obstruction causing over-pressure (IEC 60335-2-40 (ed.5))		N/A
	Vented containers of sanitary hot water heat pumps always open to the atmosphere through appropriate aperture (IEC 60335-2-40 (ed.5))		N/A
22.108	Not vented open containers subjected to test in accordance with clause 22.104 to vacuum of 33 kPa for 15 min (IEC 60335-2-40 (ed.5))		N/A
	Container show no deformation which result in a hazard (IEC 60335-2-40 (ed.5))		N/A
22.109	Replacement of non-self-resetting thermal cut-outs does not damage other connections (IEC 60335-2-40 (ed.5))		N/A
22.110	Non-self-resetting thermal cut-outs operate without short-circuiting live parts of different potential and without causing contact between live parts and enclosure (IEC 60335-2-40 (ed.5))		N/A
	Test repeated five times without blowing 3 A fuse which connects appliance to earth (IEC 60335-2-40 (ed.5))		N/A
	Electric strength test as specified in clause 16.3 for supplementary heating elements (IEC 60335-2-40 (ed.5))		N/A
22.111	Manual resetting of thermostats not necessary after power supply interruption (IEC 60335-2-40 (ed.5))		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.112	Construction of refrigerating system comply with requirements of Section 3 of ISO 5149 (IEC 60335-2-40 (ed.5))		P
22.113	Flammable refrigerant used, refrigerant tubing protected or enclosed to avoid mechanical damage (IEC 60335-2-40 (ed.5))		P
	Tubing protected to extent that it will not be handled or used for carrying during moving of product (IEC 60335-2-40 (ed.5))		P
	Tubing located within confines of cabinet considered to be protected from mechanical damage (IEC 60335-2-40 (ed.5))		P
22.114	Flammable refrigerant used, low temperature solder alloys, such as lead/tin alloys, not acceptable for pipe connections or any other refrigerant pressure containing purposes. (IEC 60335-2-40 (ed.5))		P
22.115	Refrigerant charge (mc) of all refrigerating systems within appliance employing flammable refrigerants, not exceed m_3 defined in annex GG (IEC 60335-2-40 (ed.5), am1)		P
	The construction of the refrigerating system using flammable refrigerants shall comply with the requirements in Annex GG for (IEC 60335-2-40 (ed.5), am1)		P
	- the maximum refrigerant charge (m_{max}), (IEC 60335-2-40 (ed.5), am1)		P
	- the minimum floor area Amin, (IEC 60335-2-40 (ed.5), am1)		P
	- mechanical ventilation, (IEC 60335-2-40 (ed.5), am1)		N/A
	- refrigerating systems employing secondary circuits. (IEC 60335-2-40 (ed.5), am1)		N/A
22.116	Appliances using flammable refrigerants constructed that any leaked refrigerant not flow or stagnate so as to cause fire or explosion hazard in areas within appliance and connected ducts where electrical components, which could be a source of ignition and which could function under normal conditions or in event of leak, fitted (IEC 60335-2-40 (ed.5), am1)		P
	Separate components, such as thermostats, which charged with less than 0,5 g of flammable gas not considered to cause fire or explosion hazard in event of leakage of gas within component itself (IEC 60335-2-40 (ed.5))		N/A
	All electrical components that could be a source of ignition and which could function under normal conditions or in the event of a leak, shall be located in an enclosure which satisfies the following (IEC 60335-2-40 (ed.5)):		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	- comply with Clause 20 of IEC 60079-15:2010 for restricted breathing enclosures suitable for use with group IIA gases or the refrigerant used. (IEC 60335-2-40 (ed.5))		N/A
	- not be located in an area where a potentially flammable gas mixture will accumulate as demonstrated by the test of Annex FF. Electrical components not located in an area where a potentially flammable gas mixture will accumulate as demonstrated by the test of Annex FF are not considered an ignition source. (IEC 60335-2-40 (ed.5))		N/A
	Components and apparatus complying with Clause 8 to 19 of IEC 60079-15:2010, for group IIA gases or the refrigerant used or an applicable standard that makes electrical components suitable for use in Zone 2, 1 or 0 as defined IEC 60079-14 are not considered as a source of ignition. (IEC 60335-2-40 (ed.5))		P
22.117	Temperatures on surfaces that exposed to leakage of flammable refrigerants not exceed auto-ignition temperature of refrigerant reduced by 100 K; some typical values given in annex BB (IEC 60335-2-40 (ed.5))		N/A
22.118	Flammable refrigerant used, all appliances charged with refrigerant at manufacturing location or charged on site as recommended by manufacturer (IEC 60335-2-40 (ed.5))		P
	Part of appliance that charged on site, which requires brazing or welding in installation not shipped with flammable refrigerant charge. Joints made in installation between parts of refrigerating system, with at least one part charged, made in accordance with following (IEC 60335-2-40 (ed.5)):		P
	- A brazed, welded, or mechanical connection shall be made before opening the valves to permit refrigerant to flow between the refrigerating system parts. A vacuum valve shall be provided to evacuate the interconnecting pipe and/or any uncharged refrigerating system part (IEC 60335-2-40 (ed.5))	See installation manual	P
	- Mechanical connectors used indoors shall comply with ISO 14903. When mechanical connectors are reused indoors, sealing parts shall be renewed. When flared joints are reused indoors, the flare part shall be re-fabricated. (IEC 60335-2-40 (ed.5))		P
	- Refrigerant tubing shall be protected or enclosed to avoid damage (IEC 60335-2-40 (ed.5))		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Flexible refrigerant connectors (such as connecting lines between the indoor and outdoor unit) that may be displaced during normal operations shall be protected against mechanical damage (IEC 60335-2-40 (ed.5))	See installation manual	P
22.119	Condensing units and evaporating units are equipped with a pressure limiting device or equivalent to assure that the equipment does not exceed the maximum allowable pressure. (IEC 60335-2-40 (ed.5), am1)		N/A
	For partial units, the interconnection circuits for signal communication between each unit shall be of the same type. (IEC 60335-2-40 (ed.5), am1)		N/A
22.120	Partial units shall be provided with a means of connection to the supply mains and shall not be powered by an electrical circuit from another appliance. (IEC 60335-2-40 (ed.5), am1)		N/A
DD	**ANNEX DD (NORMATIVE) (IEC 60335-2-40 (ed.5)) INSTRUCTION MANUAL FOR SERVICING REFRIGERANT CONTAINING APPLIANCES**		P
DD.1	Symbols (IEC 60335-2-40 (ed.5))		P
DD.2.	Information in manual (IEC 60335-2-40 (ed.5))		P
DD.2.1	General (IEC 60335-2-40 (ed.5), am1)		P
DD.2.2	Unventilated areas (IEC 60335-2-40 (ed.5))		P
DD.2.3	Qualification of workers (IEC 60335-2-40 (ed.5))		P
DD.3	Information on servicing (IEC 60335-2-40 (ed.5))		P
DD3.1	Checks to the area (IEC 60335-2-40 (ed.5))		P
DD.3.2	Work procedure (IEC 60335-2-40 (ed.5))		P
DD.3.3	General work area (IEC 60335-2-40 (ed.5))		P
DD.3.4	Checking for presence of refrigerant (IEC 60335-2-40 (ed.5))		P
DD.3.5	Presence of fire extinguisher (IEC 60335-2-40 (ed.5))		P
DD.3.6	No ignition sources (IEC 60335-2-40 (ed.5))		P
DD.3.7	Ventilated area (IEC 60335-2-40 (ed.5))		P
DD.3.8	Checks to the refrigeration equipment (IEC 60335-2-40 (ed.5), am1)		P
DD.3.9	Checks to electrical devices (IEC 60335-2-40 (ed.5))		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
DD.4	Repairs to sealed components (IEC 60335-2-40 (ed.5))		P
DD.5	Repair to intrinsically safe components (IEC 60335-2-40 (ed.5))		P
DD.6	Cabling (IEC 60335-2-40 (ed.5))		P
DD.7	Detection of flammable refrigerants (IEC 60335-2-40 (ed.5))		P
DD.8	Leak detection methods (IEC 60335-2-40 (ed.5))		P
DD.9	Removal and evacuation (IEC 60335-2-40 (ed.5))		P
DD.10	Charging procedures (IEC 60335-2-40 (ed.5))		P
DD.11	Decommissioning (IEC 60335-2-40 (ed.5))		P
DD.12	Labelling (IEC 60335-2-40 (ed.5))		P
DD.13	Recovery (IEC 60335-2-40 (ed.5))		P
GG	**ANNEX GG (NORMATIVE) (IEC 60335-2-40 (ed.5)) CHARGE LIMITS, VENTILATION REQUIREMENTS AND REQUIREMENTS FOR SECONDARY CIRCUITS**		P
GG.1	General (IEC 60335-2-40 (ed.5), am1)		P
GG.2	Requirements for charge limits in unventilated areas (IEC 60335-2-40 (ed.5), am1)		P
GG.3	Requirements for charge limits in areas with mechanical ventilation areas (IEC 60335-2-40 (ed.5), am1)		N/A
GG.4	Requirements for mechanical ventilation within the appliance enclosure (IEC 60335-2-40 (ed.5), am1)		N/A
GG.5	Requirements for mechanical ventilation for rooms complying with ISO 5149 (IEC 60335-2-40 (ed.5))		N/A
GG.6	Requirements for refrigeration systems employing secondary heat exchangers (IEC 60335-2-40 (ed.5))		N/A
GG.7	Additional testing (IEC 60335-2-40 (ed.5))		N/A
GG.8	Non fixed factory sealed single package units with a refrigerant charge amount of $m_1 < m_c \leq 2 \times m_1$ (IEC 60335-2-40 (ed.5) ,am1)		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-2-40
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES
Part-2-40: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers

Differences according to :		EN 60335-2-40:2003 (incl. Corr.:2006) + A11:2004 + A12:2005 + A1:2006 + A2:2009 + A13:2012 (incl. Corr.:2013) EN 60335-1:2012 (incl. Corr.:2014)
Attachment Form No.	**:**	EU_GD_IEC60335_2_40J
Attachment Originator	**:**	VDE
Master Attachment	**:**	2014-06

	CENELEC COMMON MODIFICATIONS		
6.1	Delete “class 0” and “class 01”		P
7.1	Single-phase appliances to be connected to the supply mains: 230 V covered		P
	Multi-phase appliances to be connected to the supply mains: 400 V covered		N/A
7.10	Devices used to start/stop operational functions of the appliance distinguished from other manual devices by means of shape, size, surface texture, position, etc.		P
	An indication that the device has been operated is given by:		P
	- a tactile feedback, or		P
	- an audible and visual feedback		P
7.12	The instructions include the substance of the following:		P
	- this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved		P
	- children shall not play with the appliance		P
	- cleaning and user maintenance shall not be made by children without supervision		P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
7.12.1	Installation instructions for appliances intended to be permanently connected to fixed wiring, and have leakage current exceed 10 mA, state that installation of residual current device (RCD) having rated residual operating current not exceeding 30 mA is advisable (EN 60335-2-40)		N/A
	For appliances not accessible to the general public and which are intended to be permanently connected to fixed wiring and which may have leakage currents exceeding 10 mA, the installation instructions shall specify the rating of the residual current device (RCD) to be installed (EN 60335-2-40/A12)		N/A
7.12.Z1	The specific instructions related to the safe operation of this appliance is collated together in the front section of the user instructions		P
	The height of the characters, measured on the capital letters, is at least 3 mm		P
	These instructions are also available in an alternative format, e.g. on a website		P
8.1.1	Also test probe 18 of EN 61032 is applied		P
	The appliance being in every possible position, except that appliances normally used on the floor and having a mass exceeding 40 kg are not tilted. (EN 60335-1:2012/AC:2014)		P
	The force on the probe in the straight position is increased to 10 N when probe 18 is used		P
	When using test probe 18 the appliance is fully assembled as in normal use without any parts removed, and		P
	parts intended to be removed for user maintenance are also not removed		P
8.2	Compliance is checked by applying the test probes of EN 61032		P
	For built-in appliances and fixed appliances, the test probe B and probe 18 of EN 61032 are applied only after installation		P
11.8	Footnotes to “External enclosure of motor-operated appliances” to be taken into account		P
13.2	Leakage current measurements (EN 60335-2-40)	(See appended table)	P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
15.1.2	Appliances with an automatic cord reel tested with the cord in the most unfavourable position so that the reeling of the wet cord may affect electrical insulation during operation, the cord not being dried before reeling		N/A
15.2	Drain pan filled to brim and subjected to continuous overflow and fan(s) switched on (EN 60335-2-40)		P
16.2	Leakage current measurements (EN 60335-2-40)	(See appended table)	P
20.2	When using the test probe similar to test probe B with a circular stop face, the accessories and detachable covers are removed		P
	Test probe 18 applied with a force of 2,5 N on the appliance fully assembled		P
24.1	Components comply with the safety requirements specified in the relevant standards as far as they reasonably apply		P
	The requirements of clause 29 of this standard apply between live parts of components and accessible parts of the appliance.		P
	The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components		P
	Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2		P
	Components that have been previously tested and shown to comply with the resistance to fire requirements in the standard for the relevant component need not be retested provided that:		N/A
	- the severity specified in the component standard is not less than the severity specified in 30.2, and		N/A
	- the test report for the component states whether it complied with the standard for the relevant component with or without flame, flames not exceeding 2 s during the test are ignored		N/A
	Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		P
	For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant standard for the component are necessary other than those specified in 24.1.1 to 24.1.9		P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	Components that have not been separately tested and found to comply with the relevant standard, and		P
	components that are not marked or not used in accordance with their marking,		P
	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard		P
	Lamp holders and starter holders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance		N/A
	Where the relevant standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of clause 11 are used		N/A
	Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or		N/A
	with connectors and appliance inlets complying with the standard sheets of IEC 60320-1,		N/A
	if direct supply to these parts from the supply mains gives rise to a hazard		N/A
24.1.7	If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is EN 41003		N/A
	Compliance with clause 8 of this standard is not impaired by connecting the appliance to a device covered by EN 41003		N/A
24.Z1	For motor running capacitors (IEC 60252-1 type P2) with a metallic enclosure having an overpressure fuse the flame testing of internal plastic parts supporting current carrying connections as required in 30.2.2 and 30.2.3.1 is not necessary		N/A
25.6	Supply cords of single-phase portable appliances having a rated current not exceeding 16 A, fitted with a plug complying with the following standard sheets of IEC/TR 60083:		N/A
	- for class I appliances: standard sheet C2b, C3b or C4 .....:		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	- for class II appliances: standard sheet C5 or C6.....:		N/A
25.7	Rubber sheathed cords (60245 IEC 53) are not suitable for appliances intended to be used outdoors or when they are liable to be exposed to significant amount of ultraviolet radiation		P
	Halogen-free thermoplastic compound sheathed supply cords have properties at least those of:		N/A
	- halogen-free thermoplastic compound sheathed cords (H03Z1Z1H2-F or H03Z1Z1-F), for appliances having a mass not exceeding 3 kg		N/A
	- halogen-free thermoplastic compound sheathed cords (H05Z1Z1H2-F or H05Z1Z1-F), for other appliances		N/A
	Cross-linked halogen-free compound sheathed supply cords have properties at least those of cross-linked halogen-free compound sheathed cords (H07ZZ-F)		N/A
26.11	Conductors connected by soldering are not considered to be positioned or fixed so that reliance is not placed upon the soldering alone to maintain them in position unless they are held in place near the terminals independently of the solder		N/A
29.3.Z1	Appliance constructed so that if there is a possibility of damaging the insulation during installation, the insulation withstands the scratch and penetration test of 21.2		P
32	Compliance regarding electromagnetic fields is checked according to EN 62233		P
GG.2	Requirements for charge limits in unventilated areas (EN 60335-2-40/A1)		N/A
GG.Z1	Non-fixed factory sealed single package units with a charge amount of $m_1 < M \leq 2 \times m_1$ (EN 60335-2-40/A1)		N/A
Annex I, 19.I.101	The appliance is supplied at rated voltage and operated under normal operation with each of the fault conditions specified		P
	The duration of the test is as specified in 19.7		P
ZA	**ANNEX ZA** (NORMATIVE) **SPECIAL NATIONAL CONDITIONS**		N/A
	Norway		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
19.5	The test is also applicable to appliances intended to be permanently connected to fixed wiring		N/A
	Norway		N/A
22.2	The second paragraph of this subclause, dealing with single-phase, permanently connected class I appliances having heating elements, is not applicable due to the supply system		N/A
	All CENELEC countries		N/A
25.6 and 25.25	Information concerning National plug and socket-outlets is available from the CENELEC website. Normative national requirements concerning plug and socket-outlets are shown in the relevant National standard		N/A
	Ireland and United Kingdom		N/A
25.8	In the table, the lines for 10 A and 16 A are replaced by:		N/A
	> 10 and ≤ 13 1,25 (1,0)[b](EN 60335-1:2012/AC:2014)		N/A
	> 13 and ≤ 16 1,5 (1,0)[b] (EN 60335-1:2012/AC:2014)		N/A
ZB	**ANNEX ZB** (INFORMATIVE) **A-DEVIATIONS**		N/A
	Ireland		N/A
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs complying with I.S. 401:1997, or equivalent, to be fitted to domestic appliances		N/A
	United Kingdom		N/A
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs to BS 1363 to be fitted to domestic appliances. It also allows plugs to BS 4573 and EN 50075 to be fitted to shavers and toothbrushes		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
ZC	**ANNEX ZC** (NORMATIVE) **NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS**		P
	A list of referenced documents in this standard		P
ZD	**ANNEX ZD** (INFORMATIVE) **IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS**		P
	A table with IEC and CENELEC code designations for flexible cords		P
ZE	**ANNEX ZE** (NORMATIVE) **SPECIFIC ADDITIONAL REQUIREMENTS FOR APPLIANCES AND MACHINES INTENDED FOR COMMERCIAL USE**		N/A
7.1	Business name and full address of the manufacturer and, where applicable, his authorized representative .....:		N/A
	Model or type reference .....:		N/A
	Serial number, if any .....:		N/A
	Production year		N/A
	Designation of the appliance.....:		N/A
7.12	Instructions provided with the appliance so that the appliance can be used safely		N/A
	The instructions contain at least the following information:		N/A
	- the business name and full address of the manufacturer and, where applicable, his authorized representative		N/A
	- model or type reference of the appliance as marked on the appliance itself, except for the serial number		N/A
	- the designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers		N/A
	- the general description of the appliance, when needed due to the complexity of the appliance		N/A
	- specific precautions if required during installation, operation, adjusting, user maintenance, cleaning, repairing or moving		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	- when needed drawings, diagrams, descriptions and explanations necessary for the safe use and user maintenance of the appliance		N/A
	- the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance		N/A
	The words “Original instructions” appear on the language version(s) verified by the manufacturer or by the authorized representative		N/A
	When a translation of the original instructions has been provided by a person introducing the appliance on the market; the meaning of the sentence “Translation of the original instructions” appear in the relevant instructions delivered with the appliance		N/A
	The instructions for maintenance/service to be done by specialized personnel, mandated by the manufacturer or the authorized representative may be supplied in only one Community language which the specialized personnel understand		N/A
	The instructions indicate the type and frequency of inspections and maintenance required for safe operation including the preventive maintenance measures		N/A
	“This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons”. (EN 60335-2-40/A13)		N/A
7.12.ZE1	If needed for specific appliances, the following information to be given:		N/A
	- on use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns, if these operations have consequences on stability of the appliance in order to avoid overturning, falling or uncontrolled movements of the appliance or of its component parts		N/A
	- on how to maintain adequate mechanical stability when in use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
	- on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	- on the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur the operating method to safely unblock the appliance		N/A
	- on the specifications on the spare parts to be used, when these affect the health and safety of the operator		N/A
	- on airborne noise emissions, determined and declared in accordance with the Annex ZAB, which includes: (EN 60335-2-40/A13)		N/A
	- the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A).....; (EN 60335-2-40/A13)		N/A
	- where this level does not exceed 70 dB(A), no value needs to be given, but the instructions shall state that the A-weighted sound pressure level is below 70 dB. (EN 60335-2-40/A13)		N/A
	- the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa (130 dB in relation to 20 µPa) :		N/A
	- the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A).....:		N/A
7.12.ZE2	The instructions includes a warning to disconnect the appliance from its power source during service and when replacing parts		N/A
	If the removal of the plug is foreseen, it is clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed		N/A
	If this is not possible, due to the construction of the appliance or its installation, a disconnection with a locking system in the isolated position is provided		N/A
19.11.4.8	The appliance continues to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage fluctuation occurred, or		N/A
	a manual operation is required to restart it		N/A
20.1	Appliances and their components and fittings have adequate mechanical stability during transportation, assembly, dismantling and any other action involving the appliance		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
20.2	Dangerous moving transmission parts safeguarded either by design or guards		N/A
	When guards are used, they are fixed guards, interlocking movable guards or protective devices		N/A
	Moving parts directly involved in the function of the appliance which cannot be made completely inaccessible fitted with:		N/A
	- fixed guards or interlocking movable guards preventing access to those sections of the parts that are not used in the work, and		N/A
	- adjustable guards restricting access to those sections of the moving parts where access is necessary		N/A
	Interlocking movable guards used where frequent access is required		N/A
21.1	Appliances and their components and fittings have adequate mechanical strength and is constructed to withstand such rough handling that may be expected in normal use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
22.ZE.1	For appliances provided with a seat, the seat gives adequate stability		N/A
	The distance between the seat and the control devices capable of being adapted to the operator		N/A
22.ZE.2	For appliances provided with separate devices for the start and the stop functions, the stop function is unambiguously identifiable and does always override the start function		N/A
	For appliances provided with one device performing the start and the stop function, the stop function is unambiguously identifiable and does always override the start function		N/A
22.ZE.3	Appliances designed in such a way that incorrect mounting is avoided, if this can lead to an unsafe situation		N/A
	If this is not possible, information on the correct mounting is given directly on the part and/or the enclosure		N/A
22.ZE.4	Where the weight, size or shape prevents appliances from being moved manually, they are fitted with attachments for lifting gear, or		N/A
	so designed that they can be fitted with such attachments, or		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	be shaped in such a way that standard lifting gear can easily be used		N/A
	Appliances to be moved manually are constructed or equipped so that they can be moved easily and safely		N/A
22.ZE.5	The fixing systems of fixed guards which prevent access to dangerous moving transmission parts only removable with the use of tools		N/A
	If such guards have to be removed by the user for routine cleaning or maintenance their fixing systems remain attached to the fixed guards or to the machine after removal		N/A
	Where possible, guards are incapable of remaining in place without their fixings		N/A
	This does not apply if, after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative		N/A
	Movable guards are interlocked		N/A
	The interlocking devices prevent the start of hazardous appliance functions until the guards are fixed in their position, and give a stop command whenever they are no longer closed		N/A
	Where it is possible for an operator to reach the danger zone before the risk due to hazardous appliance functions has ceased, movable guards associated with a guard locking device in addition to an interlocking device that:		N/A
	- prevents the start of hazardous appliance functions until the guard is closed and locked, and		N/A
	- keeps the guard closed and locked until the risk of injury from the hazardous appliance functions has ceased		N/A
	Interlocking movable guards remain attached to the appliance when open, and		N/A
	they are designed and constructed in such a way that they can be adjusted only by means of an intentional action		N/A
22.ZE.6	Interlocking movable guards designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous appliance functions		N/A
	The guard is opened at the extent needed to cause the interlocking to operate and is then closed. This operation is carried out for 5 000 cycles at a rate of 5 cycles per min. (EN 60335-2-40/A13/AC)		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	After this test any defect that may be expected in normal use is applied to the interlock system, including interruption of the supply, only one defect being simulated at a time		N/A
	After these tests the interlock system is fit for further use		N/A
22.ZE.7	Adjustable guards restricting access to areas of the moving parts strictly necessary for the work are:		N/A
	- adjustable manually or automatically, depending on the type of work involved, and		N/A
	- readily adjustable without the use of tools		N/A
22.ZE.8	In case of interruption, re-establishment after an interruption or fluctuation in whatever manner of the power supply, the appliance does not restart		N/A
	However, automatic restarting of the operation is allowed if the appliance may continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage interruption or fluctuation occurred		N/A
22.ZE.9	Appliances fitted with means to isolate them from all energy sources		N/A
	Such isolators are clearly identified, and		N/A
	they are capable of being locked if reconnection endanger persons		N/A
	After the energy source is disconnected, it is possible to dissipate any energy remaining or stored in the circuits of the appliance without risk to persons		N/A
ZF	**ANNEX ZF** (INFORMATIVE) **CRITERIA APPLIED FOR THE ALLOCATION OF PRODUCTS COVERED BY STANDARDS IN THE EN 60335 SERIES UNDER LVD OR MD**		P
	List of standards under CENELEC/TC61 with the allocation under the LVD (Low Voltage Directive) or the MD (Machinery Directive) .....:		P
ZG	**ANNEX ZG** (NORMATIVE) **UV APPLIANCES**		N/A
	The following modifications to this standard apply to appliances having UV emitters		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	This annex is not applicable to appliances covered by the scopes of IEC 60335-2-27, IEC 60335-2-59 or IEC 60335-2-109		N/A
7.12.ZG	The instructions for appliances incorporating UVC emitters include the substance of the following: WARNING — This appliance contains a UV emitter. Do not stare at the light source		N/A
32	For appliances incorporating UV emitters the manufacturer delivers a declaration providing evidence that the plastic material exposed to the radiation is UV resistant		N/A
ZZ	**ANNEX ZZ** (INFORMATIVE) **COVERAGE OF ESSENTIAL REQUIREMENTS OF EC DIRECTIVES**		P
	Description of the relation between this European standard and the LVD (Low Voltage Directive, 2006/95/EC) and the MD (Machinery Directive, 2006/42/EC)		P
ZAA	**ANNEX ZAA (INFORMATIVE) (EN 60335-2-40/A11)** **THE RELEVENCE OF THE PRESSURE EQUIPMENT DIRECTIVE**		**P**
	Refrigerating systems having a pressure greater than 0,05 MPa are considered to be assemblies falling within the scope of the Pressure Equipment Directive, 97/23/EC. However, according to Article 1, item 3.6 of the directive, equipment classified no higher than category I and covered by the low voltage directive is excluded from its scope. (EN 60335-2-40/A11)		P
	According to guideline 1/39 of the directive, this exclusion applies to both components and assemblies (refrigerant circuits). This applies to appliances containing vessels (e.g. compressors, receivers) or piping with limits in accordance with the following (EN 60335-2-40/A11):		P
	Vessels (EN 60335-2-40/A11)		P
	- dangerous refrigerants (Annex II, Table 1) (EN 60335-2-40/A11):		N/A
	- volume not exceeding 1 l, or (EN 60335-2-40/A11)		N/A
	- pressure x volume not exceeding 5 MPa l (EN 60335-2-40/A11)		N/A
	- non-dangerous refrigerants (Annex II, Table 2) (EN 60335-2-40/A11):		P
	- volume not exceeding 1 l, or (EN 60335-2-40/A11)		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	- pressure x volume not exceeding 20 MPa l (EN 60335-2-40/A11)		P
	Piping (EN 60335-2-40/A11)		P
	- dangerous refrigerants (Annex II, Table 6) (EN 60335-2-40/A11):		N/A
	- numerical designation not exceeding 25, or (EN 60335-2-40/A11)		N/A
	- pressure not exceeding 1 MPa and numerical designation not exceeding 100, or (EN 60335-2-40/A11)		N/A
	- pressure exceeding 1 MPa and pressure x numerical designation not exceeding 100 MPa (EN 60335-2-40/A11).		N/A
	- non-dangerous refrigerants (Annex II, Table 7) (EN 60335-2-40/A11):		P
	- numerical designation not exceeding 100, or (EN 60335-2-40/A11)		N/A
	- pressure x numerical designation not exceeding 350 MPa (EN 60335-2-40/A11).		P
	For other components, the most onerous limit of the two applies (EN 60335-2-40/A11)		P
	The volume is the internal volume of the vessel and includes the volume of pipework up to the first connection. It excludes the volume of fixed internal parts (EN 60335-2-40/A11)		P
	The pressure is the maximum pressure the vessel or piping system is exposed to, as specified by the manufacturer of the appliance (EN 60335-2-40/A11)		P
	The numerical designation designates the size common to all components in the piping system (EN 60335-2-40/A11)		P
	If any component exceeds the limits given above, the appliance has to comply with the directive. The technical requirements are given in Annex I and the conformity assessment tables and procedures in Annexes II and III of the directive (EN 60335-2-40/A11)		N/A
	Commonly used dangerous refrigerants, identified as Group 1 in the directive, are listed in table ZAA.1 (EN 60335-2-40/A11)		N/A
	Commonly used non-dangerous refrigerants, identified as Group 2 in the directive, are listed in table ZAA.2 (EN 60335-2-40/A11)		P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict

ZAB	**ANNEX ZAA (NORMATIVE) (EN 60335-2-40/A13) EMISSION OF ACOUSTICAL NOISE FROM APPLIANCES COVERED BY ANNEX ZE**		**N/A**
ZAB.1	Noise reduction is an integral part of the design process and achieved by particularly applying measures at source to control noise, see for example EN ISO 11688-1. (EN 60335-2-40/A13)		N/A
	Success of the applied noise reduction measures is assessed on the basis of the actual noise emission values in relation to other machines of the same type with comparable non-acoustical technical data. (EN 60335-2-40/A13)		N/A
ZAB.2.1	A-weighted emission sound pressure level determined in accordance with EN 11203:2009, 6.2.3 d) with the surface S being the measurement surface used for the sound power level determination. (EN 60335-2-40/A13)		N/A
	If the sound power level determination is based on a measurement method requiring a reverberant sound field, the surface S to define Q, shall be a parallelepiped measurement surface at a distance of 1 m from the reference box enclosing the source and assuming only one reflecting surface. (EN 60335-2-40/A13)		N/A
ZAB.2.2	A-weighted sound power level determined in accordance with EN 12102 applying a measurement method of at least grade 2. (EN 60335-2-40/A13)		N/A
	If a grade 3 measurement method used for determining the A-weighted sound power level, the. reasons are explicitly mentioned (EN 60335-2-40/A13)		N/A
ZAB.2.3	Total measurement uncertainty is depending on the standard deviation of reproducibility σ_{R0} of the measurement method and the standard deviation σ_{omc} representing the instability of the operating and mounting conditions. (EN 60335-2-40/A13)		N/A
	σ_{R0} has an upper value for a grade 2 measurement method of about 1,5 dB, whereas σ_{omc} may have values between 0,5 dB for small variations of the sound power due on the mounting and operating conditions or 4 dB for very instable sources (EN 60335-2-40/A13)		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	Total measurement uncertainty for the A-weighted emission sound pressure level is of the same order as the one for the respective sound power level measurement. (EN 60335-2-40/A13)		N/A
ZAB.2.4	Information to be recorded covers all the technical requirements of this noise test code. (EN 60335-2-40/A13)		N/A
	Any deviations from this noise test code or from the basic standards upon which it is based are to be recorded together with the technical justification for such deviations. (EN 60335-2-40/A13)		N/A
ZAB.2.5	Information to be given in the test report includes : (EN 60335-2-40/A13)		N/A
	- he data required by the manufacturer for inclusion in the noise declaration,. (EN 60335-2-40/A13)		N/A
	- the data required by the user to verify the declared values. (EN 60335-2-40/A13)		N/A
	Thus the following information shall be included ..: (EN 60335-2-40/A13)		N/A
	- reference to the noise test code and the basic noise emission standards used; (EN 60335-2-40/A13)		N/A
	- description of the installation and operation conditions used; (EN 60335-2-40/A13)		N/A
	- location of the work station(s) and other specified positions; (EN 60335-2-40/A13)		N/A
	- the noise emission values obtained (EN 60335-2-40/A13)		N/A
	Test report states that all requirements of the noise test code have been fulfilled, or, if this is not the case, it shall identify any unfulfilled requirements. (EN 60335-2-40/A13)		N/A
	Deviations from the requirements stated and a technical justification for these deviations shall be given. (EN 60335-2-40/A13)		N/A
ZAB.2.6	Noise emission declaration is made according to EN ISO 4871 (EN 60335-2-40/A13)		N/A
	Emission sound pressure level L_{pA} is made as a dual number noise emission declaration, thus declaring the determined value for L_{pA} and the respective uncertainty K_{pA}. (EN 60335-2-40/A13)		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict

	Sound power level L_{WA} is declared as single number noise emission declaration declaring the sum of the measured sound power level and its uncertainty K_{WA}. (EN 60335-2-40/A13)		N/A
	Noise declaration states that the noise emission values have been obtained according to this noise test code. (EN 60335-2-40/A13)		N/A
	Any deviations from this noise test code or from the basic standards upon which it is based are clearly indicated. (EN 60335-2-40/A13)		N/A
	Additional noise emission values are given in the declaration. (EN 60335-2-40/A13)		N/A
	If undertaken, verification of the noise emission values shall be conducted according to EN ISO 4871, using the same mounting and operating conditions as those used for the initial determination. (EN 60335-2-40/A13)		N/A

Annex EN 62233:2008/ IEC 62233:2005			
Clause	Requirement + Test	Result - Remark	Verdict
EMF- ELECTROMAGNETICS FIELDS			
	The tested product also complies with the requirements of EN 62233:2008/ IEC 62233:2005		P
	Limit ……100%	Measured max. :10.5%	P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-1
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Household and similar electrical appliances – Safety –
Part 1: GENERAL REQUIREMENTS

Differences according to :		EN 60335-1:2012 + AC:2014 + A11:2014 EN 62233:2008
Attachment Form No.	**:**	EU_GD_IEC60335_1T
Attachment Originator	**:**	Nemko AS
Master Attachment	**:**	2015-03

	CENELEC COMMON MODIFICATIONS		
6.1	Delete “class 0” and “class 01”		P
7.1	Single-phase appliances to be connected to the supply mains: 230 V covered		P
	Multi-phase appliances to be connected to the supply mains: 400 V covered		N/A
7.10	Devices used to start/stop operational functions of the appliance distinguished from other manual devices by means of shape, size, surface texture, position, etc.		P
	An indication that the device has been operated is given by:		P
	• a tactile feedback, or		P
	• an audible and visual feedback		P
7.12	The instructions include the substance of the following:		P
	- this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved		P
	- children shall not play with the appliance		P
	- cleaning and user maintenance shall not be made by children without supervision		P
7.12.Z1	The specific instructions related to the safe operation of this appliance is collated together in the front section of the user instructions		P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	The height of the characters, measured on the capital letters, is at least 3 mm		P
	These instructions are also available in an alternative format, e.g. on a website		P
8.1.1	Also test probe 18 of EN 61032 is applied		P
	The appliance being in every possible position during the test, except that		P
	appliances normally used on the floor and having a mass exceeding 40 kg are not tilted		N/A
	The force on the probe in the straight position is increased to 10 N when probe 18 is used		P
	When using test probe 18 the appliance is fully assembled as in normal use without any parts removed, and		P
	parts intended to be removed for user maintenance are also not removed		P
8.2	Compliance is checked by applying the test probes of EN 61032		P
	For built-in appliances and fixed appliances, the test probe B and probe 18 of EN 61032 are applied only after installation		P
11.8	Footnotes to “External enclosure of motor-operated appliances” to be taken into account		P
15.1.2	Appliances with an automatic cord reel tested with the cord in the most unfavourable position so that the reeling of the wet cord may affect electrical insulation during operation, the cord not being dried before reeling		N/A
20.2	When using the test probe similar to test probe B with a circular stop face, the accessories and detachable covers are removed		P
	Test probe 18 applied with a force of 2,5N on the appliance fully assembled		P
24.1	Components comply with the safety requirements specified in the relevant standards as far as they reasonably apply		P
	The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance.		P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components		P
	Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2		P
	Components that have been previously tested and shown to comply with the resistance to fire requirements in the standard for the relevant component need not be retested provided that:		N/A
	- the severity specified in the component standard is not less than the severity specified in 30.2, and		N/A
	- the test report for the component states whether it complied with the standard for the relevant component with or without flame, flames not exceeding 2 s during the test are ignored		N/A
	Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		P
	For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant standard for the component are necessary other than those specified in 24.1.1 to 24.1.9		P
	Components that have not been separately tested and found to comply with the relevant standard, and		P
	components that are not marked or not used in accordance with their marking,		P
	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard		P
	Lamp holders and starter holders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance		N/A
	Where the relevant standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or		N/A
	with connectors and appliance inlets complying with the standard sheets of IEC 60320-1,		N/A
	if direct supply to these parts from the supply mains gives rise to a hazard		N/A
24.1.7	If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is EN 41003		N/A
	Compliance with Clause 8 of this standard is not impaired by connecting the appliance to a device covered by EN 41003		N/A
24.Z1	For motor running capacitors (IEC 60252-1 type P2) with a metallic enclosure having an overpressure fuse the flame testing of internal plastic parts supporting current carrying connections as required in 30.2.2 and 30.2.3.1 is not necessary		N/A
25.6	Supply cords of single-phase portable appliances having a rated current not exceeding 16 A, fitted with a plug complying with the following standard sheets of IEC/TR 60083:		N/A
	- for Class I appliances: standard sheet C2b, C3b or C4..... .... :		N/A
	- for Class II appliances: standard sheet C5 or C6 .... :		N/A
25.7	Rubber sheathed cords (60245 IEC 53) are not suitable for appliances intended to be used outdoors or when they are liable to be exposed to significant amount of ultraviolet radiation		P
	Halogen-free thermoplastic compound sheathed supply cords have properties at least those of:		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	• halogen-free thermoplastic compound sheathed cords (H03Z1Z1H2-F or H03Z1Z1-F), for appliances having a mass not exceeding 3 kg		N/A
	• halogen-free thermoplastic compound sheathed cords (H05Z1Z1H2-F or H05Z1Z1-F), for other appliances		N/A
	Cross-linked halogen-free compound sheathed supply cords have properties at least those of cross-linked halogen-free compound sheathed cords (H07ZZ-F)		N/A
26.11	Conductors connected by soldering are not considered to be positioned or fixed so that reliance is not placed upon the soldering alone to maintain them in position unless they are held in place near the terminals independently of the solder		N/A
29.3.Z1	Appliance constructed so that if there is a possibility of damaging the insulation during installation, the insulation withstands the scratch and penetration test of 21.2		P
32	Compliance regarding electromagnetic fields is checked according to EN 62233		P
Annex I, 19.I.101	The appliance is supplied at rated voltage and operated under normal operation with each of the fault conditions specified		P
	The duration of the test is as specified in 19.7		P
ZA	**ANNEX ZA** (NORMATIVE) **SPECIAL NATIONAL CONDITIONS**		N/A
	Norway		N/A
19.5	The test is also applicable to appliances intended to be permanently connected to fixed wiring		N/A
	Norway		N/A
22.2	The second paragraph of this subclause, dealing with single-phase, permanently connected class I appliances having heating elements, is not applicable due to the supply system		N/A
	All CENELEC countries		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
25.6 and 25.25	Information concerning National plug and socket-outlets is available from the CENELEC website. Normative national requirements concerning plug and socket-outlets are shown in the relevant National standard		N/A
	Ireland and United Kingdom		N/A
25.8	In the table, the lines for >10 A and ≤16 A are replaced by:		N/A
	> 10 and ≤ 13 1,25 (1,0)[b]		N/A
	> 13 and ≤ 16 1,5 (1,0)[b]		N/A
ZB	**ANNEX ZB** (INFORMATIVE) **A-DEVIATIONS**		N/A
	Ireland		N/A
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs complying with I.S. 401:1997, or equivalent, to be fitted to domestic appliances		N/A
	United Kingdom		N/A
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs to BS 1363 to be fitted to domestic appliances. It also allows plugs to BS 4573 and EN 50075 to be fitted to shavers and toothbrushes		N/A
ZC	**ANNEX ZC** (NORMATIVE) **NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS**		P
	A list of referenced documents in this standard		P
ZD	**ANNEX ZD** (INFORMATIVE) **IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS**		P
	A table with IEC and CENELEC code designations for flexible cords		P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict

ZE	**ANNEX ZE** (INFORMATIVE) **SPECIFIC ADDITIONAL REQUIREMENTS FOR APPLIANCES AND MACHINES INTENDED FOR COMMERCIAL USE**		N/A
7.1	Business name and full address of the manufacturer and, where applicable, his authorized representative..... :		N/A
	Model or type reference ..... :		N/A
	Serial number, if any ..... :		N/A
	Production year		N/A
	Designation of the appliance..... :		N/A
7.12	Instructions provided with the appliance so that the appliance can be used safely		N/A
	The instructions contain at least the following information:		N/A
	- the business name and full address of the manufacturer and, where applicable, his authorized representative		N/A
	- model or type reference of the appliance as marked on the appliance itself, except for the serial number		N/A
	- the designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers		N/A
	- the general description of the appliance, when needed due to the complexity of the appliance		N/A
	- specific precautions if required during installation, operation, adjusting, user maintenance, cleaning, repairing or moving		N/A
	- when needed drawings, diagrams, descriptions and explanations necessary for the safe use and user maintenance of the appliance		N/A
	- the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance		N/A
	The words “Original instructions” appear on the language version(s) verified by the manufacturer or by the authorized representative		N/A
	When a translation of the original instructions has been provided by a person introducing the appliance on the market; the meaning of the sentence “Translation of the original instructions” appear in the relevant instructions delivered with the appliance		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	The instructions for maintenance/service to be done by specialized personnel, mandated by the manufacturer or the authorized representative may be supplied in only one Community language which the specialized personnel understand		N/A
	The instructions indicate the type and frequency of inspections and maintenance required for safe operation including the preventive maintenance measures		N/A
7.12.ZE1	If needed for specific appliances, the following information to be given:		N/A
	• on use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns, if these operations have consequences on stability of the appliance in order to avoid overturning, falling or uncontrolled movements of the appliance or of its component parts		N/A
	• on how to maintain adequate mechanical stability when in use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
	• on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided		N/A
	• on the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur the operating method to safely unblock the appliance		N/A
	• on the specifications on the spare parts to be used, when these affect the health and safety of the operator		N/A
	• on airborne noise emissions, determined and declared in accordance with the relevant Part 2, which includes:		N/A
	- the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A) ..... ;		N/A
	- where this level does not exceed 70 dB(A), this fact is indicated		N/A
	- the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa (130 dB in relation to 20 µPa)..... :		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	- the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A)..... :		N/A
7.12.ZE2	The instructions includes a warning to disconnect the appliance from its power source during service and when replacing parts		N/A
	If the removal of the plug is foreseen, it is clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed		N/A
	If this is not possible, due to the construction of the appliance or its installation, a disconnection with a locking system in the isolated position is provided		N/A
19.11.4.8	The appliance continues to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage fluctuation occurred, or		N/A
	a manual operation is required to restart it		N/A
20.1	Appliances and their components and fittings have adequate mechanical stability during transportation, assembly, dismantling and any other action involving the appliance		N/A
20.2	Dangerous moving transmission parts safeguarded either by design or guards		N/A
	When guards are used, they are fixed guards, interlocking movable guards or protective devices		N/A
	Moving parts directly involved in the function of the appliance which cannot be made completely inaccessible fitted with:		N/A
	- fixed guards or interlocking movable guards preventing access to those sections of the parts that are not used in the work, and		N/A
	- adjustable guards restricting access to those sections of the moving parts where access is necessary		N/A
	Interlocking movable guards used where frequent access is required		N/A
21.1	Appliances and their components and fittings have adequate mechanical strength and is constructed to withstand such rough handling that may be expected in normal use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
22.ZE.1	For appliances provided with a seat, the seat gives adequate stability		N/A
	The distance between the seat and the control devices capable of being adapted to the operator		N/A
22.ZE.2	For appliances provided with separate devices for the start and the stop functions, the stop function is unambiguously identifiable and does always override the start function		N/A
	For appliances provided with one device performing the start and the stop function, the stop function is unambiguously identifiable and does always override the start function		N/A
22.ZE.3	Appliances designed in such a way that incorrect mounting is avoided, if this can lead to an unsafe situation		N/A
	If this is not possible, information on the correct mounting is given directly on the part and/or the enclosure		N/A
22.ZE.4	Where the weight, size or shape prevents appliances from being moved manually, they are fitted with attachments for lifting gear, or		N/A
	so designed that they can be fitted with such attachments, or		N/A
	be shaped in such a way that standard lifting gear can easily be used		N/A
	Appliances to be moved manually are constructed or equipped so that they can be moved easily and safely		N/A
22.ZE.5	The fixing systems of fixed guards which prevent access to dangerous moving transmission parts only removable with the use of tools		N/A
	If such guards have to be removed by the user for routine cleaning or maintenance their fixing systems remain attached to the fixed guards or to the machine after removal		N/A
	Where possible, guards are incapable of remaining in place without their fixings		N/A
	This does not apply if, after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative		N/A
	Movable guards are interlocked		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	The interlocking devices prevent the start of hazardous appliance functions until the guards are fixed in their position, and give a stop command whenever they are no longer closed		N/A
	Where it is possible for an operator to reach the danger zone before the risk due to hazardous appliance functions has ceased, movable guards associated with a guard locking device in addition to an interlocking device that:		N/A
	- prevents the start of hazardous appliance functions until the guard is closed and locked, and		N/A
	- keeps the guard closed and locked until the risk of injury from the hazardous appliance functions has ceased		N/A
	Interlocking movable guards remain attached to the appliance when open, and		N/A
	they are designed and constructed in such a way that they can be adjusted only by means of an intentional action		N/A
22.ZE.6	Interlocking movable guards designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous appliance functions		N/A
	The guard is opened to the extent needed to cause the interlocking to operate and is then closed, the number of operations being defined in the specific Part 2 ..... :		N/A
	After this test any defect that may be expected in normal use is applied to the interlock system, including interruption of the supply, only one defect being simulated at a time		N/A
	After these tests the interlock system is fit for further use		N/A
22.ZE.7	Adjustable guards restricting access to areas of the moving parts strictly necessary for the work are:		N/A
	- adjustable manually or automatically, depending on the type of work involved, and		N/A
	- readily adjustable without the use of tools		N/A
22.ZE.8	In case of interruption, re-establishment after an interruption or fluctuation in whatever manner of the power supply, the appliance does not restart		N/A

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict
	However, automatic restarting of the operation is allowed if the appliance may continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage interruption or fluctuation occurred		N/A
22.ZE.9	Appliances fitted with means to isolate them from all energy sources		N/A
	Such isolators are clearly identified, and		N/A
	they are capable of being locked if reconnection endanger persons		N/A
	After the energy source is disconnected, it is possible to dissipate any energy remaining or stored in the circuits of the appliance without risk to persons		N/A
ZF	**ANNEX ZF** (INFORMATIVE) **CRITERIA APPLIED FOR THE ALLOCATION OF PRODUCTS COVERED BY STANDARDS IN THE EN 60335 SERIES UNDER LVD OR MD**		P
	List of standards under CENELEC/TC61 with the allocation under the LVD (Low Voltage Directive) or the MD (Machinery Directive)..... :		P
ZG	**ANNEX ZG** (NORMATIVE) **UV APPLIANCES**		N/A
	The following modifications to this standard apply to appliances having UV emitters		N/A
	This annex is not applicable to appliances covered by the scopes of IEC 60335-2-27, IEC 60335-2-59 or IEC 60335-2-109		N/A
7.12.ZG	The instructions for appliances incorporating UVC emitters include the substance of the following: WARNING — This appliance contains a UV emitter. Do not stare at the light source		N/A
32	For appliances incorporating UV emitters the manufacturer delivers a declaration providing evidence that the plastic material exposed to the radiation is UV resistant		N/A
ZZ	**ANNEX ZZ** (INFORMATIVE) **COVERAGE OF ESSENTIAL REQUIREMENTS OF EC DIRECTIVES**		P

ATTACHMENT 1 - EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement - Test	Result - Remark	Verdict

	Description of the relation between this European standard and the LVD (Low Voltage Directive, 2006/95/EC) and the MD (Machinery Directive, 2006/42/EC)		P

Annex EN 62233:2008/ IEC 62233:2005			
Clause	Requirement + Test	Result - Remark	Verdict
EMF- ELECTROMAGNETICS FIELDS			
	The tested product also complies with the requirements of EN 62233:2008/ IEC 62233:2005		P
	Limit ……100%	Measured max. :10.5%	P