

#### The following samples were submitted and identified on behalf of the client as:

# COMMISSION DELEGATED REGULATION (EU) No 2019/2016 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of household refrigerating appliances

# COMMISSION REGULATION (EU) No 2019/2019 laying down ecodesign requirements for refrigerating appliances pursuant to Directive 2009/125/EC

Report Reference No,...... GZEE220800298931

Tested by (name + signature).....: San Li/ Project engineer

Approved by (+ signature) .....: Sky Lin /Reviewer

Date of issue.....: 2022-09-02

Testing Laboratory...... SGS-CSTC Standards Technical Services Co., Ltd. Shunde

**Branch** 

Address ...... Building 1, European Industrial Park, No.1, Shunhe South Road,

Wusha, Daliang, Shunde District, Foshan, Guangdong, China

Applicant's name .....: Homesun(GD) Refrigeration Technology Co., Ltd.

**Test specification:** 

Standard.....: (EU) No 2019/2016; (EU) No 2021/340

(EU) No 2019/2019; (EU) No 2021/341

Test procedure.....: STR: Regulation (EU) 2017/1369 and Directive 2009/125/EC

Non-standard test method...... None

**Test Report Form No**, ...... EN 62552\_2019/2019\_C

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Test item description .....: Thermoelectric cooler

Trade Mark .....: —

Manufacturer....: Same as applicant

Model/Type reference .....: BCW-18A

Factory...... 1: Same as applicant

2: Da Pan Electric Appliance Ind. Co., Ltd.

No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China

Ratings .....: 100 - 240 V; 50/60 Hz; 58 W



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

Attachment 1- (EU) 2019/2016, (EU) No 2021/340 ANNEX V-Product Information Sheet

Attachment 2- (EU) 2019/2016, (EU) No 2021/340 ANNEX VI- Technical documentation

#### **Summary of testing:**

#### Tests performed (name of test and test clause):

(EU) No 2019/2016

(EU) No 2021/340

(EU) No 2019/2019

(EU) No 2021/341

EN 62552-1:2020

EN 62552-2:2020

EN 62552-3:2020

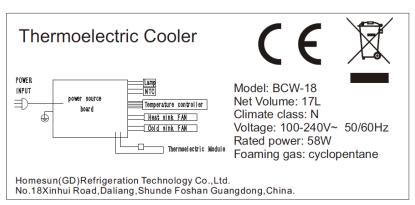
EN IEC 60704-1:2021

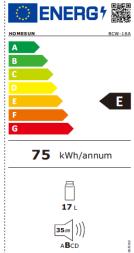
EN 60704-2-14:2013+A11:2015+A1:2019

#### **Testing location:**

See page one

#### Copy of marking plate





Remark: The above marking plates maybe only a draft.



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Test item information	
Supply Connection:	Non-detachable power cord fitted with plug
Appliance designation:	Refrigerator cooler
Product parameters	
Overall space required in use (WxDxH) (mm):	506 x 740 x 493
Defrost type:	☐ Manual ☐ Automatic
If automatic defrost:	☐ Elapsed ☐ CRT ☐ Variable
If variable type:	$T_{d\text{-min}} = h; T_{d\text{-max}} = h$
Does the unit have a through the door: ice dispenser/water dispenser:	No
Condenser type:	-
Condenser location(s):	-
Ambient controlled anti-condensation heater,,:	N/A
Storage compartment humidity:	N/A (For wine storage only)
Bottle capacity for wine storage:	N/A (For wine storage only)
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:	2022-08-18
Date (s) of performance of tests:	2022-08-18 to 2022-08-31



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#### **General remarks:**

The test results presented in this report relate only to the object tested,

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"(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 is used as the decimal separator,

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#### **General product information:**

Household semiconductor refrigerator appliance is fitted with a pantry compartment.

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	COMMISSION DELEGATED REG	ULATIO	N (EU) No 2019/2016	
CI	Requirement-Test		Result-Remark	Verdict
Annex II	Energy efficiency classes and airborne aco	ustical er	mission classes	_
	The energy efficiency class of refrigerating basis of the energy efficiency index (EEI) as			_
	The EEI of a refrigerating appliance shall be of Annex IV,			Р
	'Table 1			Р
	Energy efficiency classes of refrige	rating applia	nces	
	Energy efficiency class	Energ	y efficiency index (EEI)	
	A		EEI ≤ 41	
	В В		41 < EEI ≤ 51	
	C		51 < EEI ≤ 64	
	D		64 < EEI ≤ 80	
	E		80 < EEI ≤ 100	
	F C		100 < EEI ≤ 125	
	G		EEI > 125'	
	Airborne acoustical noise emission	Ai	rborne acoustical noise emission class	Р
	< 30 dB(A) re 1 pW		A	
	≥ 30 dB(A) re 1 pW and < 36 dB(A) re 1 pW		В	
	≥ 36 dB(A) re 1 pW and < 42 dB(A) re 1 pW		С	
	≥ 42 dB(A) re 1 pW		D	
ANNEX III	Label for refrigerating appliances			_
1	LABEL FOR REFRIGERATING APPLIANCEXCEPT FOR WINE STORAGE APPLIANCE			Р
	The label design and information shall according the requirements of 1,1 and 1,2			Р
2	LABEL FOR WINE STORAGE APPLIANCE	S		N/A
	The label design and information shall according the requirements of 2,1 and 2,2	ording to		N/A
3	Label design			Р
	The label design shall according to the 3,1, 3,3	3,2 and		Р
ANNEX IV	Measurement methods and calculations			_
	For the purposes of compliance and verifical compliance with the requirements of this Regulation, measurements and calculations be made using harmonised standards, or or reliable, accurate and reproducible methods takes into account the generally recognised of-the-art methods and are in line with the provisions set out below, The reference nurthese harmonised standards have been purfor this purpose in the Official Journal of the European Union:  General conditions for testing:	s shall ther s, which I state- mbers of olished		P
1,	General conditions for testing:			Р



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	COMMISSION DELEGATED REGULATION		EE22080029893
CI	Requirement-Test	Result-Remark	Verdict
(a)	for refrigerating appliances with anti-condensation heaters that can be switched on and off by the enduser, the anti-condensation heaters shall be switched on and — if adjustable — set at maximum heating and included in the annual energy consumption (AE) as daily energy consumption (Edaily);		N/A
(b)	for refrigerating appliances with ambient controlled anti-condensation heaters, the ambient controlled electric anti-condensation heaters shall be switched off or otherwise disabled, where possible, during the measurement of energy consumption;		N/A
(c)	for refrigerating appliances with dispensers that can be switched on and off by the end-user, the dispensers shall be switched on during the energy consumption test but not operating;		N/A
(d)	for the measurement of energy consumption, variable temperature compartments shall operate at the lowest temperature that can be set by the enduser to continuously maintain the temperature range, as set out in Table 3, of the compartment type which has the lowest temperature;		N/A
(e)	for refrigerating appliances that can be connected to a network, the communication module shall be activated but there is no need to have a specific type of communication or data exchange or both during the energy consumption test, During the energy consumption test it has to be ensured that the unit is connected to a network;		N/A
(f)	for the performance of chill compartments:		_
	(1) for a variable temperature compartment rated as a fresh food and/or chill compartment, the energy efficiency index (EEI) shall be determined for each temperature condition and the highest value shall be applied;		N/A
	(2) a chill compartment shall be able to control its average temperature within a certain range without user-adjustments of its control, this can be verified during the energy consumption tests at 16°C and 32°C ambient temperature;		N/A
(g)	for adjustable volume compartments, when the volumes of two compartments are adjustable relative to one another by the end-user, the energy consumption and the volume shall be tested when the volume of the compartment with the higher target temperature is adjusted to its minimum volume.		N/A
(h)	the freezing capacity of a compartment is calculated as 24 times the light load weight of that compartment, divided by the freezing time to bring the temperature of the light load from +25 to – 18 °C at an ambient temperature of 25 °C expressed in kg/24h and rounded to one decimal place;		N/A



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	COMMISSION DELEGATED REGULATION	N (EU) No 2019/2016	
CI	Requirement-Test	Result-Remark	Verdict
(i)	for 4-star compartments, the freezing time to bring the temperature of the light load from +25 to – 18 °C at an ambient temperature of 25 °C shall be such that the resulting freezing capacity complies with the requirement in Annex I, point 4		N/A
(j)	for the determination of the climate classes, the acronym for the ambient temperature range, that is SN, N, ST or T:		Р
	(1) The extended temperate (SN) has a temperature range from 10 °C to 32 °C; (2) The temperate (N) has a temperature range from 16 °C to 32 °C; (3) The subtropical (ST) has a temperature range from 16 °C to 38 °C; and (4) The tropical (T) has a temperature range from 16 °C to 43 °C,		Р
(k)	the light load weight for each 4-star compartment shall be:		N/A
	<ul> <li>— 3,5 kg/100 l of the volume of the 4-star compartment evaluated, rounded up to the nearest 0,5 kg, and</li> <li>— 2 kg for a 4-star compartment with a volume for which 3,5 kg/100 l leads to a value lower than 2 kg;</li> </ul>		N/A
	in the case that the refrigerating appliance includes a combination of 3- and 4-star compartments, the sum of the light load weights shall be increased so that the sum of the light load weights for all the 4-star compartments shall be:		N/A
	<ul> <li>— 3,5 kg/100 l of the total volume of all 4- and 3-star compartments, rounded up to the nearest 0,5 kg, and</li> <li>— 2 kg for a total volume of all 4- and 3-star compartments for which 3,5 kg/100 l leads to a value lower than 2 kg.';</li> </ul>		N/A
2	Storage conditions and target temperatures per compartment type:		Р
	Table 3 sets out the storage conditions and target temperature per compartment type,		Р
3	Determination of the AE:		Р
(a)	For all refrigerating appliances, except for low noise refrigerating appliances:		Р
	The energy consumption shall be determined by testing at an ambient temperature of 16 °C and 32 °C,		Р
	To determine the energy consumption, the average air temperatures in each compartment shall be equal to or below the target temperatures specified in Table 3 for each compartment type claimed by the supplier, Values above and below target temperatures may be used to estimate the energy consumption at the target temperature for each relevant compartment by interpolation, as appropriate,		P
	The main components of energy consumption to be determined are:		Р



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	COMMISSION DELEGATED REGULATION	N (EU) No 2019/2016	
CI	Requirement-Test	Result-Remark	Verdict
	-a set of steady state power consumption values (Pss) in W and rounded to one decimal place, each at a specific ambient temperature and at a set of compartment temperatures, which are not necessarily the target temperatures;		Р
	-the representative incremental defrost and recovery energy consumption (ΔEd-f), in Wh and rounded to one decimal place, for products with one or more auto-defrost systems (each with its own defrost control cycle) measured at an ambient temperature of 16 °C (ΔEd-f16) and 32°C (ΔEd-f32);		N/A
	-defrost interval (td-f), expressed in h and rounded to three decimal places, for products with one or more defrost systems (each with its own defrost control cycle) measured at an ambient temperature of 16°C (td-f16) and 32°C (td-f32), td-f shall be determined for each system under a certain range of conditions;		N/A
	-for each test performed the Pss and $\triangle$ Ed-f are added together to form a daily energy consumption at a certain ambient temperature ET = 0,001 $\times$ 24 $\times$ (Pss + $\triangle$ Ed-f/td-f), expressed in kWh/24h, specific to the settings applied;		Р
	-Eaux, expressed in kWh/a and rounded to three decimal places, Eaux is limited to the ambient controlled anti-condensation heater and is determined from the heater's power consumption at a number of ambient temperature and humidity conditions, multiplied with the probability that this ambient temperature and humidity condition occurs and summed; this result is subsequently multiplied with a loss factor to account for heat leakage into the compartment and its subsequent removal by the refrigeration system,		N/A
	Each of these parameters shall be determined through a separate test or set of tests, Measurement data is averaged over a test period which is taken after the appliance has been in operation for a certain time, To improve the efficiency and accuracy of testing, the length of the test period shall not be fixed; it shall be such that the appliance is in steady state condition during this test period, This is validated by examining all data within this test period against a set of stability criteria and whether enough data could be collected		N/A
	in this steady state,  AE, expressed in kWh/a and rounded to two decimal places, shall be calculated as follows: $AE = 365 \times E_{daily}/L + E_{aux}$	See summary result	Р
	-the load factor L = 0,9 for refrigerating appliances with only frozen compartments and L = 1,0 for all other appliances; and		Р



Page 9 of 28 Report No.: GZEE220800298931 **COMMISSION DELEGATED REGULATION (EU) No 2019/2016** Result-Remark CI Requirement-Test Verdict -with Edaily, expressed in kWh/24h and rounded to Р three decimal places calculated from ET at an ambient temperature of 16 °C (E16) and at an ambient temperature of 32 ° C (E32) as follows:  $E_{daily} = 0.5 \times (E_{16} + E_{32})$ where E16 and E32 are derived by interpolation of the energy test at the target temperatures set out in Table 3. For low noise refrigerating appliances: (b) N/A The energy consumption shall be determined as N/A provided for in point 3(a), but at an ambient temperature of 25 °C instead of at 16 °C and 32 °C, Edaily, expressed in kWh/24h and rounded to three N/A decimal places for the calculation of the AE is then as follows:  $E_{daily} = E_{25}$ where E25 is ET at an ambient temperature of N/A 25°C and derived by interpolation of the energy tests at the target temperatures listed in Table 3, Determination of the standard annual energy Р consumption (SAE): (a) For all refrigerating appliances: P SAE, expressed in kWh/a, and rounded to two Р decimal places, is calculated as follows:  $SAE = C \times D \times \sum_{c=1}^{n} A_c \times B_c \times [V_c/V] \times (N_c + V \times r_c \times M_c)$  When carrying out the calculations above, for the variable temperature compartments, the compartment type with the lowest target temperature for which it is declared suitable is chosen, Modelling parameters per compartment type for the Р (b) calculation of SAE: The modelling parameters are set out in Table 4, P The values of the modelling parameters per Р compartment type Compensation factors per compartment type in the (c) See summary result calculation of SAE: The compensation factors are set out in Table 5, Р Determination of the EEI: Р EEI, expressed in % and rounded to the first See summary result Р decimal place, calculated as: EEI = AE/SAE. ANNEX V Product information sheet Pursuant to point 1(b) of Article 3, the supplier shall enter into the product database the information as set out in Table 6, If the refrigerating appliance contains multiple compartments of the same type, the lines for these compartments shall be repeated, If a certain compartment type is not present, the compartment parameters and values shall be '-', Light source parameters See Product information sheet

See Attachment 2

ANNEX VI Technical documentation



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	rage 10 01 28	Report No.: GZEEZZO	00023033
	COMMISSION DELEGATED REGULATIO	N (EU) No 2019/2016	
CI	Requirement-Test	Result-Remark	Verdict
1	The technical documentation referred to in point 1(d following elements:	l) of Article 3 shall include the	_
(a)	the information as set out in Annex V;		_
(b)	the information as set out in Table 7. If the refrigerating appliance contains multiple compartments of the same type, the lines for these compartments shall be repeated. If a certain compartment type is not present, the compartment parameters and values shall be '-'. If a parameter is not applicable, the values of that parameter shall be '-'.		
(c)	specific precautions to be taken when the model is assembled, installed, maintained or tested:		
(d)	the values for the technical parameters set out in Table 7; these values are considered as the declared values for the purpose of the verification procedure in Annex IX;		
(e)	the details and the results of calculations performed in accordance with Annex IV;		_
(f)	testing conditions if not described sufficiently in point	nt (b);	_
(g)	equivalent models, if any, including model identifiers.		
	These elements shall also constitute the mandatory documentation that the supplier shall enter into the Article 12 of Regulation (EU) 2017/1369.		_
ANNEX IX	Verification procedure for market surveillance purpo	ses	_
	The verification tolerances set out in this Annex relate only to the verification of the declared parameters by Member State authorities and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation, The values and classes on the label or in the product information sheet shall not be more favourable for the supplier than the values reported in the technical documentation,		



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**COMMISSION REGULATION (EU) No 2019/2019** CI. Result-Remark Verdict Requirement-Test Annex II Ecodesign requirements Energy efficiency requirements: Р From 1 March 2021, the energy efficiency index (a) (EEI) of refrigerating appliances shall not be above the values as set out in Table 1. dedicated low noise refrigerating appliances with fresh food compartment(s) 375 low noise refrigerating appliances with transparent doors 380 other low noise refrigerating appliances, with the exception of low noise combi appliances with a frozen compartment wine storage appliances with transparent doors 190 other wine storage appliances 155 all other refrigerating appliances, with the exception of low noise combi appliances with 125 a frozen compartment From 1 March 2024, the EEI of refrigerating (b) appliances shall not be above the values set out in Table 2. dedicated low noise refrigerating appliances with fresh food compartment(s) 312 low noise refrigerating appliances with transparent door(s) 300 other low noise refrigerating appliances, with the exception of low noise combi appliances 250 with a frozen compartment wine storage appliances with transparent door(s) 172 other wine storage appliances 140 all other refrigerating appliances, with the exception of low noise combi appliances with 100 a frozen compartment Functional requirements: 2 From 1 March 2021, refrigerating appliances shall meet the following requirements: Р (a) Any fast freeze facility, or any similar function N/A achieved through modification of the temperature settings in freezer compartments, shall, once activated by the end-user according to the manufacturer's, the importer's or authorised representative's instructions, automatically revert to the previous normal storage conditions after no more than 72 hours, (b)Winter settings shall be automatically activated N/A or de-activated according to the need to maintain the frozen compartment(s) at the correct temperature,



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CI,	Requirement-Test	Result-Remark	Verdict
	(c)Each compartment shall be marked with the appropriate identification symbol, For the frozen compartments this shall be the number of stars of the compartment, For the chill and unfrozen compartments, this shall be an indication, chosen by the manufacturer, the importer or authorised representative, of the type of food that should be stored in the compartment,		Р
	(d)If the refrigerating appliance contains vacuum insulation panels, the refrigerating appliance shall be labelled with the letters 'VIP' in a clearly visible and readable way,		N/A
	(e)For 2-star sub-compartments or 2-star sections:		N/A
	-a 2-star sub-compartment or 2-star section is separated from the 3-star or 4-star volume by a partition, container, or similar construction;		N/A
	-the volume of the 2-star sub-compartment or 2-star section does not exceed 20 % of the total volume of the containing compartment,		N/A
	(f)For 4-star compartments, the freezing time to bring the temperature of the light load from +25 to -18 °C at an ambient temperature of 25 °C shall be such that the resulting freezing capacity complies with the requirement in Article 2, point 22.		N/A
	Until 1 March 2024, the requirements laid down in points 2(a) and (b) shall not apply to combi appliances with one electromechanical thermostat and one compressor which are not equipped with an electronic control board,		N/A
3	Resource efficiency requirements:	Declared by manufacturer	_
	From 1 March 2021, refrigerating appliances shall meet the following requirements:		_
(a)	Availability of spare parts:		_
	(1) manufacturers, importers or authorised representatives of refrigerating appliances shall make available to professional repairers at least the following spare parts: thermostats, temperature sensors, printed circuit boards and light sources, for a minimum period of seven years after placing the last unit of the model on the market;		P
	(2) manufacturers, importers or authorised representatives of refrigerating appliances shall make available to professional repairers and endusers at least the following spare parts: door handles, door hinges, trays and baskets for a minimum period of seven years and door gaskets for a minimum period of 10 year, after placing the last unit of the model on the market;		P
	(3) manufacturers shall ensure that these spare parts can be replaced with the use of commonly available tools and without permanent damage to the appliance;		Р



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COMMISSION REGULATION (EU) No 2019/2019			
CI,	Requirement-Test	Result-Remark	Verdict
	(4) the list of spare parts concerned by point (1) and the procedure for ordering them shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at the latest two years after the placing on the market of the first unit of a model and until the end of the period of availability of these spare parts;		P
	(5) the list of spare parts concerned by point (2) and the procedure for ordering them and the repair instructions shall be publicly available on the manufacturer's, the importer's or authorised representative's free access website, at the moment of the placing on the market of the first unit of a model and until the end of the period of availability of these spare parts,		P
(b)	Access to repair and maintenance information:		Р
	After a period of two years after the placing on the market of the first unit of a model or of an equivalent model, and until the end of the period mentioned under (a), the manufacturer, importer or authorised representative shall provide access to the appliance repair and maintenance information to professional repairers in the following conditions:		P
	(1) the manufacturer's, importer's or authorised representative's website shall indicate the process for professional repairers to register for access to information; to accept such a request, manufacturers, importers or authorised representative may require the professional repairer to demonstrate that:		P
	(i)the professional repairer has the technical competence to repair refrigerating appliances and complies with the applicable regulations for repairers of electrical equipment in the Member States where it operates, Reference to an official registration system as professional repairer, where such system exists in the Member States concerned, shall be accepted as proof of compliance with this point;		P
	(ii) the professional repairer is covered by insurance covering liabilities resulting from its activity, regardless of whether this is required by the Member State;		Р
	(2) the manufacturers, importers or authorised representatives shall accept or refuse the registration within 5 working days from the date of request by the professional repairer;		Р
	(3) manufacturers, importers or authorised representatives may charge reasonable and proportionate fees for access to the repair and maintenance information or for receiving regular updates, A fee is reasonable if it does not discourage access by failing to take into account the extent to which the professional repairer uses the information;		P



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COMMISSION REGULATION (EU) No 2019/2019				
CI,	Requirement-Test	Result-Remark	Verdict	
	Once registered, a professional repairer shall have access, within one working day after requesting it, to the requested repair and maintenance information, The available repair and maintenance information shall include:		Р	
	<ul> <li>—the unequivocal appliance identification;</li> <li>— a disassembly map or exploded view;</li> <li>—list of necessary repair and test equipment;</li> <li>—component and diagnosis information (such as minimum and maximum theoretical values for measurements);</li> <li>—wiring and connection diagrams;</li> <li>—diagnostic fault and error codes (including manufacturer-specific codes, where applicable);</li> <li>and</li> <li>—data records of reported failure incidents stored on the refrigerating appliance (where applicable),</li> </ul>		P	
	(c) Maximum delivery time of spare parts:		Р	
	(1) during the period mentioned under point 3(a)(1) and point 3(a)(2), the manufacturer, importer or authorised representatives shall ensure the delivery of the spare parts for refrigerating appliances within 15 working days after having received the order;		Р	
	(2) in the case of spare parts available only to professional repairers this availability may be limited to professional repairers registered in accordance with point b,		Р	
	(d)Requirements for dismantling for material recovery and recycling while avoiding pollution:		Р	
	(1) manufacturers, importers or authorised representatives shall ensure that refrigerating appliances are designed in such a way that the materials and components referred to in Annex VII to Directive 2012/19/EU can be removed with the use of commonly available tools;		Р	
	(2) manufacturers, importers and authorised representatives shall fulfil the obligations laid down in Point 1 of Article 15 of Directive 2012/19/EU,		Р	
4	Information requirements:		Р	
	From 1 March 2021, instruction manuals for installers and end-users, and free access website of manufacturers, importers or authorised representatives shall include the following information:		Р	
	(a) the combination of drawers, baskets and shelves that result in the most efficient use of energy for the refrigerating appliance		Р	
	(b)clear guidance about where and how to store foodstuffs in a refrigerating appliance for best preservation over the longest period, to avoid food waste;		P	
	(c)the recommended setting of temperatures in each compartment for optimum food preservation, These settings shall not contradict the storage conditions set out in Annex III, Table 3;		P	



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CI,	Requirement-Test	Result-Remark	Verdict
	(d)an estimation of the impact of temperature settings on food waste;		Р
	(e)a description of the effects of special modes and features, and in particular how temperatures are affected in each compartment and for how long;		Р
	(f)for wine storage appliances: 'this appliance is intended to be used exclusively for the storage of wine', This shall not apply to refrigerating appliances that are not specifically designed for wine storage but may be used for this purpose, or to refrigerating appliances that have a wine storage compartment combined with any other compartment type;		N/A
	(g)instructions for the correct installation and end- user maintenance, including cleaning, of the refrigerating appliance;		Р
	(h)for a freestanding appliance: 'this refrigerating appliance is not intended to be used as a built-in appliance';		Р
	(i)for appliances without a 4-star compartment: 'this refrigerating appliance is not suitable for freezing foodstuffs';		Р
	(j)access to professional repair, such as internet webpages, addresses, contact details;		Р
	(k)relevant information for ordering spare parts, directly or through other channels provided by the manufacturer, importer or authorised representative;		Р
	(I)the minimum period during which spare parts, necessary for the repair of the appliance, are available;		Р
	(m)the minimum duration of the guarantee of the refrigerating appliance offered by the manufacturer, importer or authorised representative;		Р
-	(n)for refrigerating appliances with climate class:		Р
	(O)instruction on how to find the model information in the product database, as defined in Regulation (EU) 2019/2016 by means of a weblink that links to the model information as stored in the product database or a link to the product database and information on how to find the model identifier on the product,		Р



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Test data table:

Table 1. Storage temperature test (Part 2 Cl,6)				
Ambient temperature	16 °C	Control setting	16 °C	
Temperature of pantry compartment	$t_{p1m} = 16,89 \text{ °C}, t_{p2m} = 16,65$	$t_{\text{p1m}} = 16,89 ^{\circ}\text{C}, t_{\text{p2m}} = 16,65 ^{\circ}\text{C}, t_{\text{p3m}} = 16,68 ^{\circ}\text{C}, t_{\text{pma}} = 16,74 ^{\circ}\text{C}$		
Temperature of freezer	_			
The highest maximum temperature in freezer compartment during a defrost and recovery period(°C) (≤3K)	N/A			
Ambient temperature	32 °C	Control setting	16 °C	
Temperature of pantry compartment	$t_{p1m} = 16,80 \text{ °C}, t_{p2m} = 17,03$	3 °C, t <sub>p3m</sub> =16,48 °C, t <sub>pma</sub> =10	6,77 °C	
Temperature of freezer	_			
The highest maximum temperature in freezer compartment during a defrost and recovery period(°C) (≤3K)	N/A			

Clause 6 Appended sketch:
Temperature sensors measure location for storage temperature test in pantry compartment:

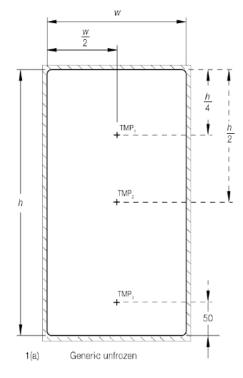


Table 2. Freezing capacity test (Part 2 Cl.8)			N/A
Ambient temperature	_	Control setting	
Mass of ballast load —		Mass of light load	_
Freezing time		_	



Page 17 of 28 Report No.: GZEE220800298931 Measured Freezing capacity (kg) Rated freezing capacity, (kg) Required freezing capacity,4,5kg/100L.24h, Min 2 kg (kg) Warmest temperature in ballast load during test Warmest temperature in ballast load at end of test Warmest temperature in two-star section during test Warmest temperature in two-star section at end of Warmest temperature in light load at end of test The instantaneous temperature *t*a of the fresh-food storage compartment during the test does not exceed +7 °C, with t1, t2, t3 between -1 °C and + 10 °C: Clause 8: The sketch of the storage plan for the refrigerating appliance showing the location of the Mpackages and the location of the warmest M-package: -Supplement information: — Table 3. Temperature rise test (Part 2 Annex C) Ambient temperature..... 25 °C Rated time for temperature rise from -18 °C to -9 °C..... Measured time for temperature rise from -18 °C to -9 °C.....: Supplement information: — Table 4. Energy consumption test (Part 3 Cl,6) Model No..... BCW-18A 230 V, 50 Hz Test voltage..... 61 % Relative humidity....: ⊠ SS1 SS2 Determine Pss case....: ☐ DF1 ☐ DF2 Determine DF case..... 16 °C (warmer) 17 °C Control setting....: Compartment temperature (pantry  $t_{p1m} = 17,77 \, {}^{\circ}\text{C}, t_{p2m} = 17,60 \, {}^{\circ}\text{C}, t_{p3m} = 17,60 \, {}^{\circ}\text{C}, t_{pma} = 17,66 \, {}^{\circ}\text{C}$ compartment) ....: Temperature of freezer.....: The steady state power for the Pss=1,78 W selected temperature control setting: The representative accumulated temperature difference over time for

for defrost and recovery:

defrost and recovery

The representative incremental energy

Defrost interval....:



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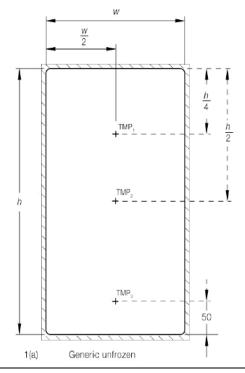
	Page 18 of 28 Report No.: GZEE220800298931
Daily energy consumption:	$E_{daily16C} = 0.043 \text{ kWh/day}$
Control setting:	16 °C
Compartment temperature (pantry compartment):	$t_{\text{p1m}} = 16,90 ^{\circ}\text{C}, \ t_{\text{p2m}} = 16,67 ^{\circ}\text{C}, \ t_{\text{p3m}} = 16,70 ^{\circ}\text{C}, \ t_{\text{pma}} = 16,80 ^{\circ}\text{C}$
Temperature of freezer:	-
The steady state power for the selected temperature control setting:	Pss=1,98 W
The representative accumulated temperature difference over time for defrost and recovery	-
The representative incremental energy for defrost and recovery:	-
Defrost interval:	-
Daily energy consumption:	Edaily16C = 0,048 kWh/day
Energy consumption calculated by interp	polation
Energy consumption:	Edaily16C =0,046 kWh/day
□ 32 °C(warmer)	
Control setting:	17 °C
Compartment temperature (pantry compartment):	t <sub>p1m</sub> =17,82 °C, t <sub>p2m</sub> =18,03 °C, t <sub>p3m</sub> =117,52 °C, t <sub>pma</sub> =17,79 °C
Temperature of freezer:	-
The steady state power for the selected temperature control setting:	11,94 W
The representative accumulated temperature difference over time for defrost and recovery	-
The representative incremental energy for defrost and recovery:	-
Defrost interval:	-
Daily energy consumption:	Edaily32C =0,287 kWh/day
Control setting:	16 °C
Compartment temperature (pantry compartment):	t <sub>p1m</sub> =16,78 °C, t <sub>p2m</sub> =17,00 °C, t <sub>p3m</sub> =16,45 °C, t <sub>pma</sub> =16,74 °C
Temperature of freezer:	-
The steady state power for the selected temperature control setting:	Pss=13,63 W
The representative accumulated temperature difference over time for defrost and recovery	-



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The representative incremental energy for defrost and recovery:	-
Defrost interval:	-
Daily energy consumption:	Edaily32C =0,327 kWh/day
Energy consumption calculated by interp	polation
Energy consumption:	Edaily32C =0,317 kWh/day
Edaily: (=0,5 X(Edaily16C+ Edaily32C))	E <sub>daily</sub> =0,182 kWh/d
Load factor L:	L=1,0
Auxiliary energy	$E_{aux} = 0 \text{ kWh/a}$
Annual consumption: (=365x Edaily/L)	AE=66,43 kWh/a
Clause 6 Appended sketch:	

Temperature sensors measure location for energy consumption test in pantry compartment:



Supplement information: —

Table 5 Annex H Determination of volumes (Part 3 Annex H)					
Compartment identification Rated Measured					
Pantry compartment	17	17,1			
Freezer compartment	_	_			
Total	17	17,1			



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Table 6, Amb	ient controlle	d anti-conde	ensation hea	iters (Part 3 A	nnex F)		N/A
Relative Humidity	RH band mid-point	Probabilit y at 16 °C	Probability at 22 °C	Probability at 32 °C	Heater W at 16 °C	Heater W at 22 °C	Heater W at 32 °C
0 to 10 %	5 %	0,00%	0,00%	0,34%	_	—	
10 to 20 %	15 %	0,61%	6,86%	2,01%	_	—	
20 to 30 %	25 %	3,11%	14,57%	1,61%	_	_	_
30 to 40 %	35 %	5,03%	14,83%	0,86%	_	_	
40 to 50 %	45 %	5,09%	11,67%	0,18%	_	—	
50 to 60 %	55 %	4,67%	8,31%	0,01%	_	—	
60 to 70 %	65 %	3,39%	5,54%	0,00%	_	—	
70 to 80 %	75 %	3,17%	2,51%	0,00%	_	—	
80 to 90 %	85 %	2,85%	0,66%	0,00%	_	_	_
90 to 100 %	95 %	2,05%	0,07%	0,00%	_	_	_
	•	-		Annual er	nergy, Eaux, kV	Vh/y, 0,001	_

Table 7, Nois	e test (EN	60704-2-14)				Р
Humidity	-	52,1 %		Atmospheric pressure	e 101 kPa	
Background (d	dBA)	21,2		Temperature (°C)	24,3	
L1 (m)		0,510		a (m)	0,755	
L2 (m)		0,266		b (m)	1,113	
L3 (m)		0,390		c (m)	1,390	
Microphone	Coordina	te of each position	on (m)	Unit/dB(A)		
position	X	Υ	Z	sample 1	sample 2	sample 3
1	1,510	0	0,695	23,00	-	
2	0,755	1,113	0,695	24,30	-	
3	0,755	-1,113	0,695	24,72	-	
4	1,510	1,113	1,390	19,60	-	
5	1,510	-1,113	1,390	22,64	-	
6	0,755	0	1,390	24,58	-	
Lpm(the avera	aged sound	pressure level)		23,45	-	-
LwA(sound po	ower level)			33,77	-	-
The sound po	wer level (A	Averaged of three	sample)			_



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Table 8. Chill compartment temperature co	ontrol test (Part 3 Annex ZA)		N/A
Reference tests: Ambient: 32 °C			
Items	-	-	
Tccma1-32 (°C)	-	-	
Reference temperature Tccma,ref (°C)	-		
Temperature of fresh-food compartment (°C)	-	-	
Temperature of freezer compartment (°C)	-	-	
Verification tests: Ambient: 16 °C			
Items	-	-	
Tccma1-16 (°C)	-	-	
Verification temperature Tccma (°C)	-		
Temperature of fresh-food compartment (°C)	-	-	
Temperature of freezer compartment (°C)	-	-	
Tccma shall be within Tccma,ref ± 1,5 K.		Yes No	)



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Attachment 1- (EU) 2019/2016, (EU) No 2021/340 ANNEX V-Product Information Sheet Type of refrigerating appliance: ☐ Refrigerator/ ☐ Refrigerator-Freezer/ ☐ Freezer/ ☐ Chest freezer/ ☐ Wine storage/ ☐ Other □ ves ⋈ no □Built-in Low-noise appliance: Design type: ⊠ yes □ no ☐ yes ☒ no Wine storage appliance: Other refrigerating appliance: **General product parameters** Value Parameter Value Parameter 17 Height (x) Rated total storage Overall 393 dimensions volume (L) (x) Width (x) 265 (mm) Depth(x) 515 EEI(x) Energy efficiency class 99 Ε Airborne acoustical noise Airborne acoustical В 35 emissions (dB(A) re 1 pW) noise emissions class Annual energy consumption Climate classes ☐ Extended 75 (kWh/a)(x)temperate Subtropical ☐ Tropical Minimum ambient 16 Maximum ambient 32 temperature (°C), for which temperature (°C), for the refrigerating appliance is which the refrigerating suitable(x) appliance is suitable(x) ☐ yes ☒ no Winter setting **Compartment Parameters:** Compartment type Compartment parameters and values Compartment Recommended Freezing Defrosting type capacity (kg/24 (auto-defrost = Volume (I) temperature (x,x)setting for h)(x,x)A. manual optimised food defrost = M) storage (°C) (x) **Pantry** ⊠ yes □ no 17 ≥+14, ≤+20 Α ☐ yes ☒ no Wine storage ≥+5, ≤+20 ☐ yes ☒ no Cellar ≥+2, ≤+14 ☐ yes ☒ no Fresh-food ≥0, ≤+4 --□ ves ⊠ no 0-star or Ice-≤0 making Chill ☐ yes ☒ no ≥-3, ≤3 ☐ yes ☒ no 1-star ≤-6 ☐ yes ☒ no 2-star ≤-12 ☐ yes ☒ no 3-star ≤-18 -☐ yes ☒ no 4-star ≤-18 ☐ yes ☒ no ≤-12 2-star section



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Variable temperature	☐ yes ⊠ no	-	-	-	-		
For 4-star compa	ırtments						
Fast freeze facility	,	☐ yes ⊠ no					
For wine storage	appliances						
Number of standa	ard wine bottles	N/A					
Light source par	ameters						
Type of light source	ce	Not check					
Light source energ	gy efficiency class	Not check □	N/A Class	A/B/C/D/E/F/G			
Minimum duration claim.  Additional inform		ntee offered by t	the manufactu	rer: according to	the manufacturer's		



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### Attachment 2- (EU) 2019/2016, (EU) No 2021/340 ANNEX VI- Technical documentation

Additional information to be included in the technical documentation

A general des identified:	scription of	the r	efrige	rating mod	del,	suffici	ent for	it to be	unequ	ivocally	and easily
Product speci	fication:										
General produ	ıct specificat	tions	:								
Parameter			Value	Э		Param	eter			Value	
Annual energy (kWh/a) (x,xx)	•			75,00		EEI(%)	)(x,x)				99,1
Standard annu consumption (kg				75,71		Combi	parame	eter C(x,x	x)		1,00
Temperature ri	se time (h) (x	,xx)		_		Load fa	actor L(	x,x)			1,0
Door heat loss	factor D(x,xx	x)		1,000		Climate class			☐ Extended temperate ☐ Subtropical ☐ Tropical		
Anti-condensat			□Ar □Ot □No			emissi	ons (dB	stical nois (A) re 1 p	oW)		35
Additional pro appliances:	oduct specif	icatio	ons fo	r refrigera	ting	g applia	ances,	except f	or low	noise	refrigerating
Parameter						Value					
Daily energy co (x,xxx)	onsumption at	t 32 °	C (kW	h/24h)		0,347					
Additional pro	duct specifi	catio	ns for	low noise	ref	rigerati	ng app	liances:			
Parameter						Value					
Daily energy co (x,xxx)	·					-					
Additional pro	duct specifi	catio	ns for	wine stora	ige	appliar	nces				
Parameter			Value	е		Param	eter			Value	
Internal humidi	ty (%)		-			Numbe	er of bot	tles		-	
Compartment	specification	ns:									
	Compartment	param	eters an	d values							
Compartment type	Target temperature( °C) (x)		ment me (L)	Freezing capacity (kg/24 h) (x,x)	na pa	ermody mic rameter c) (x,xx)	NC (x)	MC (x,xx)	Defros (Ac) (x,xx)	st factor	Built-in factor (Bc) (x,xx)
Pantry	17	17,0	0	-	0,	35	75	0,12	1,00		1,00
Wine Storage	-	-		-	-		-	-	-		-
Cellar	-	-		-	-		-	-	-		-
Fresh-food	-	-		-	-		-	-	-		-
Chill	-	-		-	-		-	-	-		-
0-star or Ice- making	-	-		-	-		-	-	-		-
1-star	-	-		-	-		-	-	-		-
2-star	-	-		-	-		-	-	-		-



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3-star	-	-	-	-	-	-	-	-
4-star	-	-	-	-	-	-	-	-
2-star section	-	-	-	-	-	-	-	-
Variable temperature compartment	-	-	-	-	-	-	-	-
The sum of the volumes of the chill compartment( s) and the unfrozen compartment( s) (L) (x)	-	17	-	-	-	-	-	-
The sum of the volumes of the frozen compartment( s) (L) (x)	-	-	-	-	-	-	-	-

Table 4 The values of the modelling parameters per compartment type

Compartment type	r <sub>e</sub> (a)	Ne	M <sub>e</sub>	С
Pantry	0,35			
Wine storage	0,60	75	0,12	
Cellar	0,60	] /,	0,12	
Fresh food	1,00	]		between 1,15 and 1,56 for combi
Chill	1,10	138	0,12	appliances with 3- or 4-star com-
0-star & ice-making	1,20			partments (°), 1,15 for other combi appliances, 1,00 for other
1-star	1,50	]		refrigerating appliances
2-star	1,80	138	0,15	
3-star	2,10	]		
Freezer (4-star)	2,10	]		

<sup>(°)</sup>  $r_c = (T_a - T_c)/20$ ; with  $T_a = 24$  °C and  $T_c$  with values as set out in Table 3.
(°) C for combi appliances with 3- or 4-star compartments is determined as follows: where frzf is the 3- or 4-star compartment volume  $V_{fr}$  as a fraction of V with  $frzf = V_{fr}/V$ :

<sup>-</sup> if  $frzf \le 0.3$  then  $C = 1.3 + 0.87 \times frzf$ ; - else if 0.3 < frzf < 0.7 then  $C = 1.87 - 1.0275 \times frzf$ ; - else C = 1.15.





 ${\it Table~5}$  The values of the compensation factors per compartment type

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Compartment type	1	A <sub>c</sub>	Bc				D	
	Manual defrost	Auto-defrost	Freestanding appliance	Built-in appliance	≤ 2 (*)	3 (°)	4 (*)	> 4 (*)
Pantry								
Wine storage	1			1.02				
Cellar	1,00			1,02				
Fresh food								
Chill			1,00	1,03	1,00	1,02	1,035	1,05
0-star & ice-making			1,00		1,00	1,02	1,033	1,05
1-star								
2-star	1,00	1,10		1,05				
3-star								
Freezer (4-star)	1							

<sup>(\*)</sup> number of external doors or compartments, whichever is lowest.

Summary Test Results								
Item	Rated value	Measure value	Verdict					
Total volume (L)	17	17,1	Р					
Wine storage compartment (L)	-	-	N/A					
Temperature rise time (h)	-	-	N/A					
Internal humidity of wine storage appliances (%)	-	-	N/A					
Freezing capacity (kg/24h)	-	-	N/A					
Energy consumption E16 (kg/24h)	0,065	0,046	Р					
Energy consumption E32 (kg/24h)	0,347	0,317	Р					
Annual energy consumption for ambient controlled anti-condensation heaters, Eaux, (kWh)	_	_	N/A					
Annual energy consumption (kWh/a)	75	66,43	Р					
Standard annul energy consumption, SAE, (kWh/a)	75,71	76,16	Р					
Energy efficiency index, (EEI)	99,1	87,2	Р					
Energy efficiency class	Е	E	Р					
Airborne acoustical noise emissions (dB(A) re 1pW)	35	33,77	Р					
Airborne acoustical noise emission class	В	В	Р					



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## Energy efficiency classes of refrigerating appliances

Energy efficiency class	Energy efficiency index (EEI)
A	EEI ≤ 41
В	41 < EEI ≤ 51
С	51 < EEI ≤ 64
D	64 < EEI ≤ 80
E	80 < EEI ≤ 100
F	100 < EEI ≤ 125
G	EEI > 125'

#### The noise emission class

#### Table 2

#### Airborne acoustical noise emission classes

Airborne acoustical noise emission	Airborne acoustical noise emission class
< 30 dB(A) re 1 pW	A
≥ 30 dB(A) re 1 pW and < 36 dB(A) re 1 pW	В
≥ 36 dB(A) re 1 pW and < 42 dB(A) re 1 pW	С
$\geq$ 42 dB(A) re 1 pW	D



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# **Photo documents: Products General Products General Products General Products General**

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