Test report

Report Number:
300-KLAB-20-250

DANISH TECHNOLOGICAL INSTITUTE

Brand & model

Elcold Nova 45

Tested according to EN 16901:2016

Date
14th of September 2020

Version 2

Energy & Climate
Refrigeration & Heat Pump Technology

Test Report

Report Number:
300-KLAB-20-250

DANISH TECHNOLOGICAL INSTITUTE

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www.teknologisk.dk

Customer:

Company:	Elcold Frysere Hobro ApS
Address:	Løgstørvej 81, Hørby
City:	DK-9500 Hobro, Denmark
Contact:	Mads Frank
Tel.:	+45 96 57 22 22

Component:
Brand: Elcold
Type: Ice-cream freezer
Model: Nova 45

Dates:
Delivered: 25-03-2020
Tested: 20-05-2020 to 24-06-2020

Procedure:
See references chapter 6

Remarks:
The unit is selected and supplied by the customer.
This version 2 replaces version 1

Terms:
Accredited testing was carried out in compliance with international requirements (EN/ISO/IEC 17025:2017) and in compliance with Danish Technological Institute's General Terms and Conditions regarding Commissioned Work accepted by Danish Technological Institute. The test results apply to the tested products only. This report may be quoted in extract only if the laboratory has granted its written consent.
The customer may not mention or refer to
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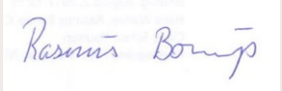
Division/Centre:
Danish Technological Institute
Energy and Climate
Refrigeration Laboratory, Taastrup

Signature:

Hans Walløe
Laboratory manager

Rasmus Borup
Consultant



ilac-MRA DANAK
Test Reg. nr. 300

1. TEST PROGRAM

This test report comprises results from the following tests accredited by DANAK:

Test 1: Determination of net volume.

Test 2: Electrical energy consumption test, climate class A, temperature class C1.

2. EQUIPMENT

Power Analysers – Yokogawa WT333E

Temperature loggers –Measurement Computing TC 32

Ambient temperature and Humidity – Vaisala HMT333

Air velocity - TSI 8475-225-1

3. METHOD

The accredited tests were carried out according to EN 16901:2016.

4. RESULTS

4.1. Tables

The test results solely apply to the tested appliance(s).

Test 1

Volume	Test results	Declared by manufacturer	Deviation %	Require-ment	Meets requirement
Net volume [litres]	343	313 (a)	9,6	≥ - 3 %	Yes

Please see chapter 6 and enclosure 3 for determination of net volume.

(a) Volume was not declared on the rating plate, value found in brochure on the internet www.elcold.com

Test 2

Electrical energy consumption test. Climate class A	Test results	Declared by manufacturer	Deviation %	Require-ment	Meets requirement
Thermostat setting: Pos. 1 3/4					
Energy consumption, E24h [kWh/24h]	2,483	n.a.		< 10%	
Energy consumption, AE [kWh/year]	906,3	n.a	-	-	-
Warmest M-package, class C1 [°C]	-18,2			≤ -18°C	Yes
Calculated EEI (ref 2)	48,8	n.a	-	EEI ≤ 80 *	Yes
Calculated Energy class (ref 2)	D	n.a	-	-	-

* This value will be reduced to 50 1st September 2023

Meet requirements according to COMMISSION DELEGATED REGULATION (EU) and test standard se chapter 6 references. Verification procedure for market surveillance purposes. Tolerances only to be used by Member State authorities.

4.2. Graphs

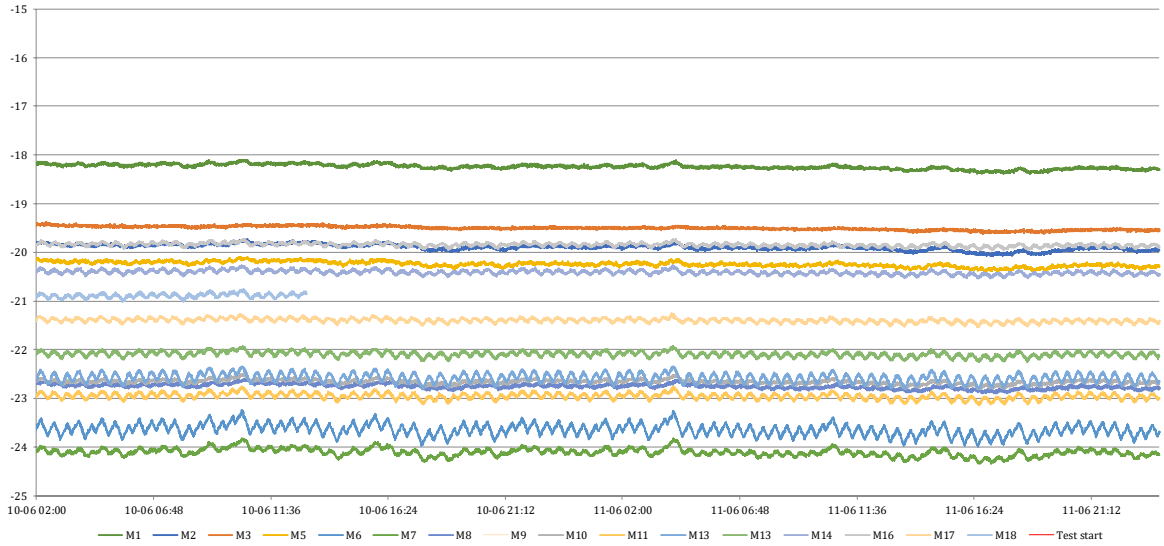


Figure 1. Temperatures of all M-packages according to the standard.

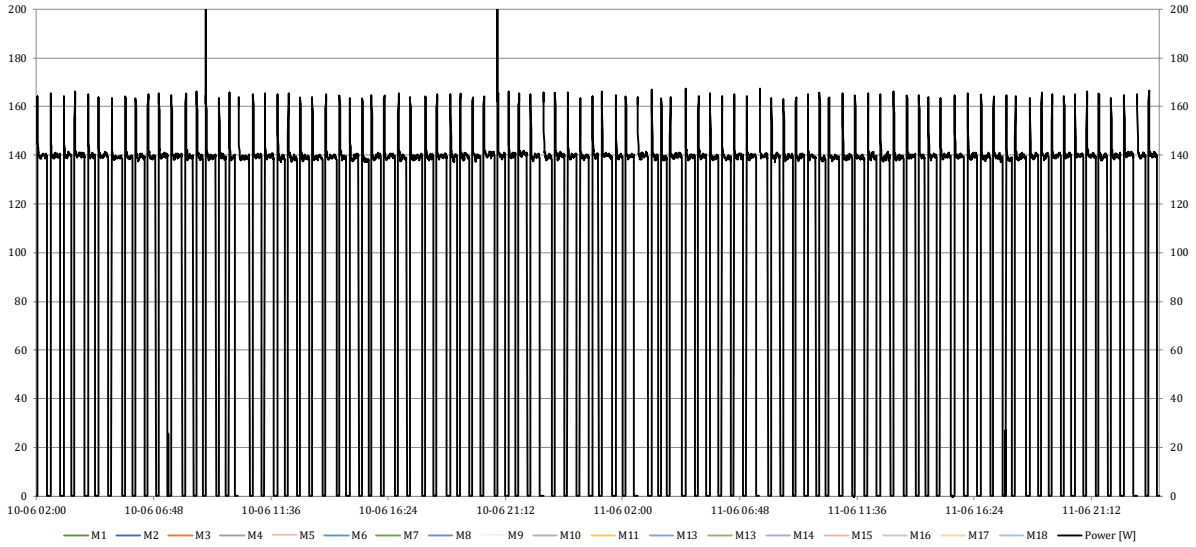
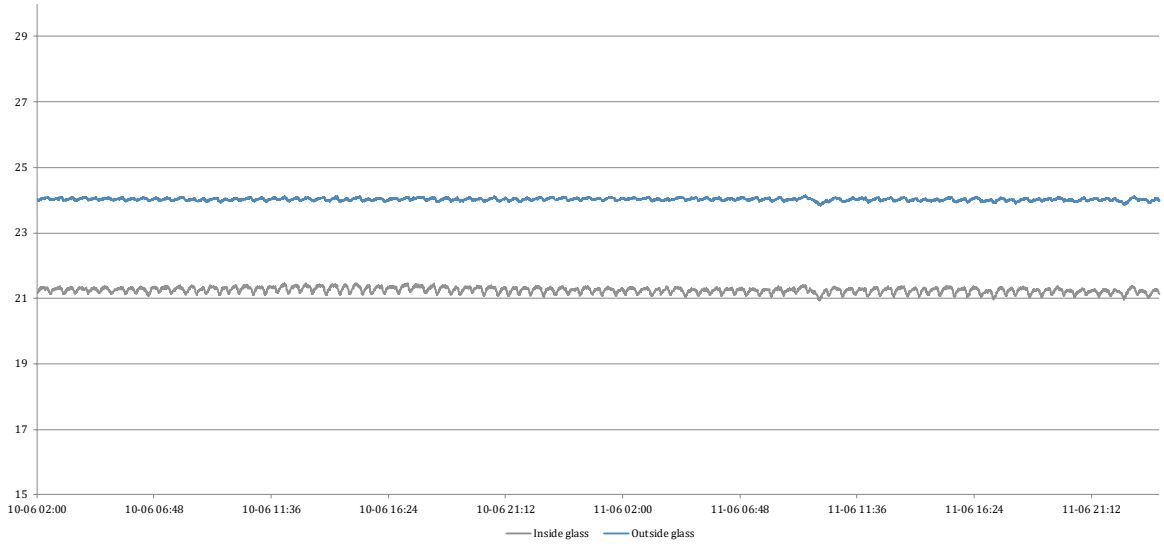


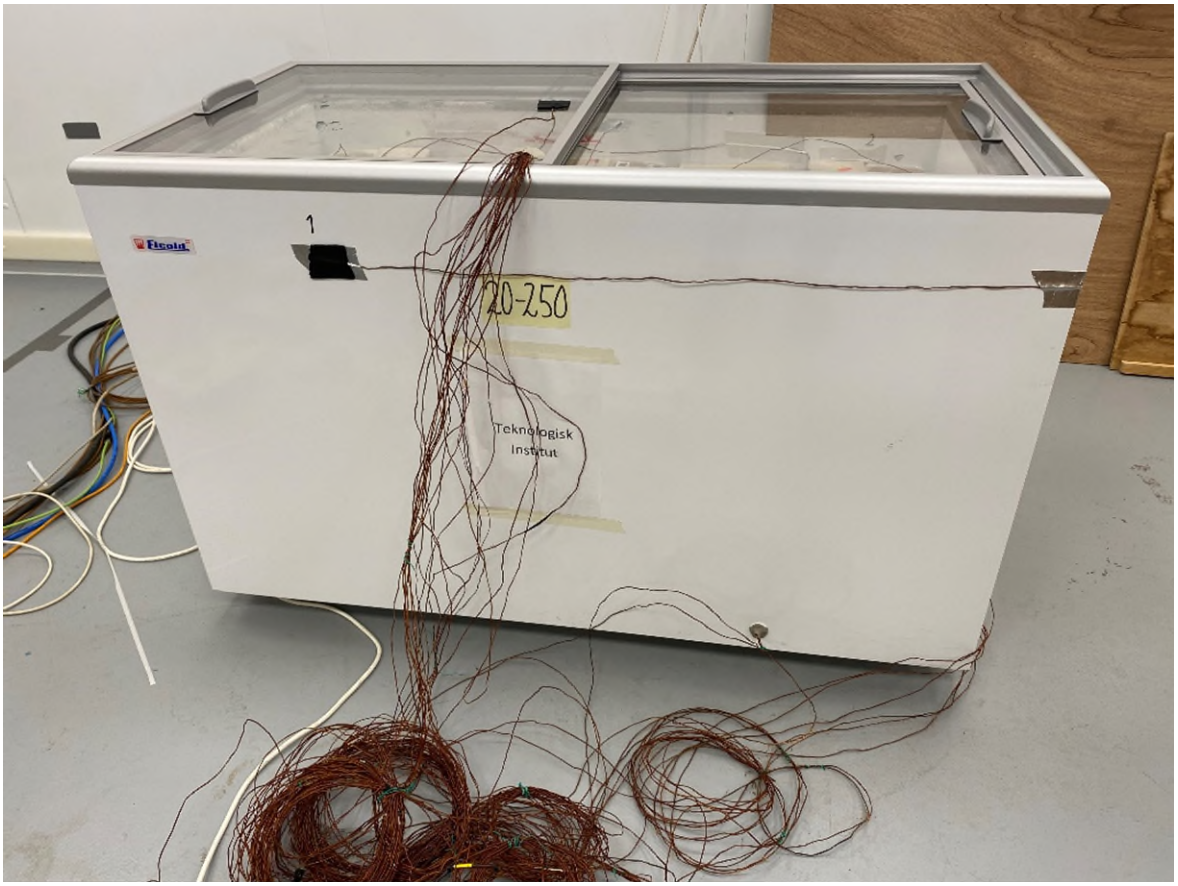
Figure 2. Power consumption. The power consumption is zero when the compressor is not running due to a mechanical thermostat.



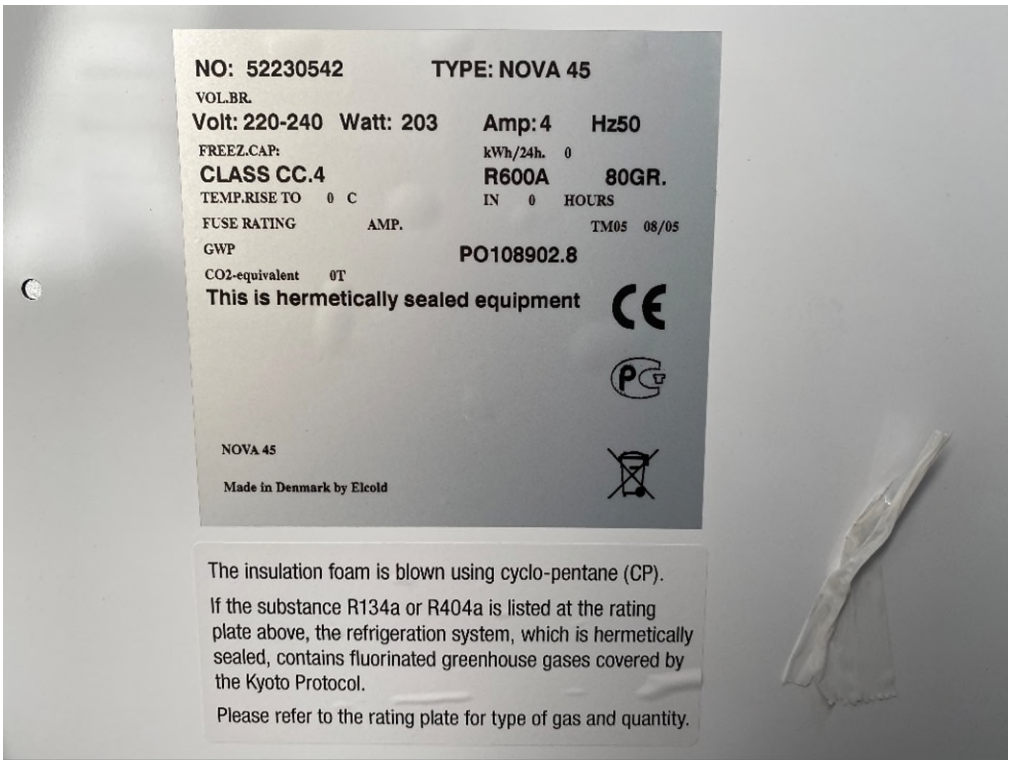
5. REFERENCES

1. European Standard EN 16901:2016 "Ice-cream freezers – Classification, requirements and test conditions
2. COMMISSION DELEGATED REGULATION (EU) 2019/2018 of 11 March 2019 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances with a direct sales function.
3. COMMISSION REGULATION (EU) 2019/2024 of 1 October 2019 laying down ecodesign requirements for refrigerating appliances with a direct sales function pursuant to Directive 2009/125/EC of the European Parliament and of the Council

Pictures




NLE15KK.4
220-240V~50Hz
LBP
LST
R600a
SUCTION
SECOP
105H
6906
MADE IN SLOVAKIA
R600a


NO: 52230542
TYPE: NOVA 45
VOL.BR.
Volt: 220-240 Watt: 203
Amp: 4
Hz50
FREEZ.CAP:
kWh/24h. 0
CLASS CC.4
R600A
80GR.
TEMP.RISE TO 0 C
IN 0 HOURS
FUSE RATING
AMP.
TM05 08/05
GWP
PO108902.8
CO2-equivalent 0T
This is hermetically sealed equipment
NOVA 45
Made in Denmark by Elcold
The insulation foam is blown using cyclo-pentane (CP).
If the substance R134a or R404a is listed at the rating plate above, the refrigeration system, which is hermetically sealed, contains fluorinated greenhouse gases covered by the Kyoto Protocol.
Please refer to the rating plate for type of gas and quantity.

Determination of net and gross volume

No.: **D3.13** Edition: 6 Area: KLAB-T Date:		DANISH TECHNOLOGICAL INSTITUTE

Determination of volume - Freezer

Brand & model	**Report no.**
Elcold Nova 45	KLAB-20-250

Freezer:

Gross volume, stated by the manufacturer [L]	**395**
Gross volume, measured [L]	**402**
Deviation, calculated [%]	**1.8**
Net volume, stated by the manufacturer [L]	**313**
Net volume, measured [L]	**343**
Deviation, calculated [%]	**9.6**

No.: **D3.13** Edition: 6 Area: KLAB-T Date:		DANISH TECHNOLOGICAL INSTITUTE

Determination of volume - Freezer

Brand & model	**Report no.**
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FREEZER

Gross volume:

	No.	Description	Total no.	Factor [x]	H [mm]	W [mm]	D [mm]	Volume [L]
Gross- (Basic)								-
Deduc-tion	2	Compressor compartment	1	1	251.00	200.00	535.00	26.86
								-
								-
Addition	1	Main compartment	1	1	583.00	1,187.00	535.00	370.23
	3	Above loadline to lid	1	1	92.00	1,187.00	535.00	58.42
					Gross volume:			**401.80**

Net volume:

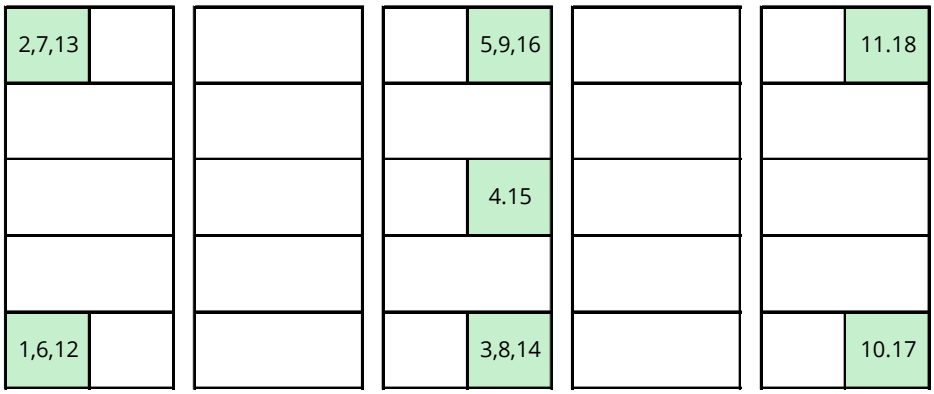
Deduc-tion	2	Compressor compartment	1	1	251.00	200.00	535.00	26.86
								-
								-
Addition	1	Main compartment	1	1	583.00	1,187.00	535.00	370.23
								-
								-
					Net volume:			**343.37**

Loading plan

No.: **D5.05** Edition: 9 Made by: RNN Laboratory: KLAB-T Date:		DANISH TECHNOLOGICAL INSTITUTE
	Storage plan - energy consumption	KLAB- 20-250
Compartment 1 Loaded to the load line		
250 kg		

Compartment 1
Top view

250 kg



Compartment 1
Side view from front