## Test report

Report Number: 300-KLAB-18-217



# **DRAFT VERSION**

Brand & model Elcold Focus 131

Tested according to 16901:2016 (Please read chapter 5 for test information)

Date 26<sup>th</sup> November 2018

Version 1

Energy & Climate Refrigeration & Heat Pump Technology

## **Test Report**

Report Number: 300-KLAB-18-217



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	EN:	16901:2016	

- Component: Brand: Elcold Type: Commercial refrigerator (Ice-cream freezer) Model: Focus 131
- Dates: Delivered: November 2018 Tested: November 2018
- Procedure: See references chapter 6

Remarks: The prototype has been built by Elcold. The installation and test settings were done according to the manufacturer's instructions.

Terms: The test has been performed according to the conditions laid down by DANAK (The Danish Accreditation), cf. <u>www.danak.dk</u>, and the general terms and conditions of The Danish Technological Institute. The results from DTI's work in this report, i.e. analyses, assessments and instructions may only be used or reported in their entirety. The customer may not mention or refer to DTI or DTI's employees for advertising or marketing purposes unless the DTI has granted its written consent in each case.

Test Reg. nr. 300

- Division/Centre: Danish Technological Institute Energy and Climate Refrigeration Laboratory, Taastrup
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### **1. TEST PROGRAM**

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

Test 1:Energy consumption test at ambient temperature 30 °C and relative humidity55%

## 2. EQUIPMENT

The information is given by application to the laboratory.

## 3. METHOD

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

## 4. RESULTS

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

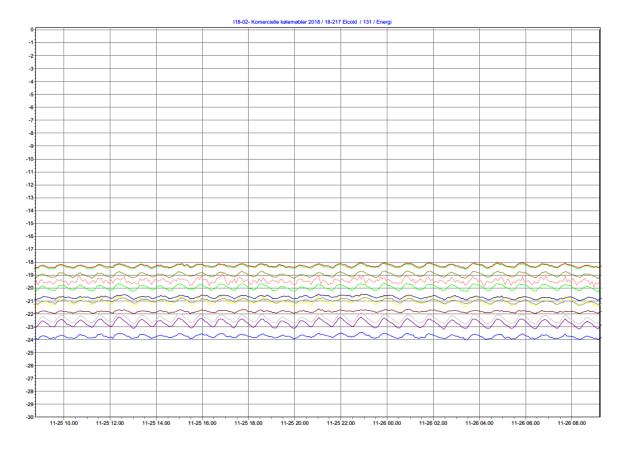
Volume	Test re- sults	Declared by manufac- turer	Deviation %	Require- ment	Meets re- quirement
Net volume, refrigerator [litres]	256	254	0,8	<u>&gt;</u> -3 %	Yes

Please see chapter 5 and enclosed 3 for determination of net volume.

Temperature test Temperature class C1	Test results	Requirement	Meets requirement
Thermostat set- ting: pos. 1			
Highest temperature of warmest M-package, O <sub>ah</sub> [°C]	-18,0	<u>&lt;</u> -18	YES
Lowest temperature of warmest M-package, Θ <sub>al</sub> [°C]	-18,4	-	
Lowest temperature of coldest M-package, $\Theta_b$ [°C]	-23,9	-	
Average mean temperature of all M-packages, $\Theta_{mc}$ [°C]	-20,7	-	-

Electrical energy con- sumption test	Symbol	Value	Unit	Calculations
Thermostat set- ting: pos. 1				
Energy consumption	E24h	1,640	kWh/24h	-
Net volume	VN	256 <sup>1</sup>	Litre	-
M coefficient for vertical chilled	М	1,0	-	-
N coefficient for vertical chilled	Ν	0,009	-	-
Annual Energy Consumption,	AEC	598,6	kWh/year	AEC = E24h *365
Standard Annual Energy Consumption	SAEC	1205,96	kWh/year	SAEC = (M+N* V <sub>N</sub> )*365
Calculated EEI (ref 2)	EEI	49,6	-	EEI = (AEC/SAEC)*100

<sup>&</sup>lt;sup>1</sup> Measured in test report 300-KLAB-18-143 version 1



#### Figure 1 Temperatures of all M-packages

 Warmest M-package	[°C]
 Coldest M-package	[°C]

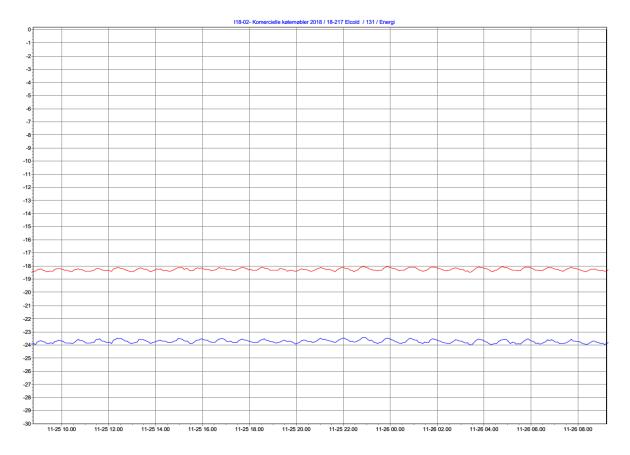


Figure 2 Temperature of the warmest and coldest M-packages

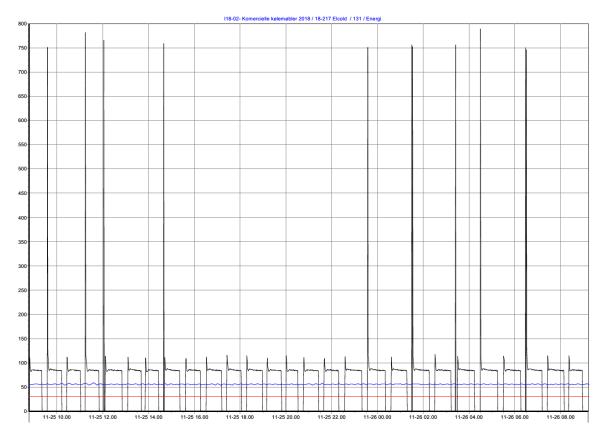


Figure 3 Power, RH & ambient temperature

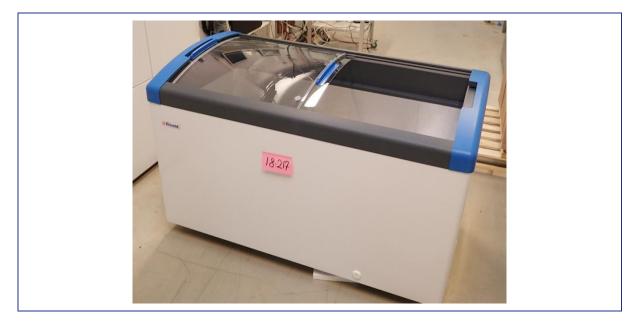
## **5. COMMENTS**

Throughout the test-period no condensation was observed.

## **6. REFERENCES**

- EUROPEAN STAND EUROPEAN STANDARD EN 16901:2016 "Ice-cream freezers – Classification, requirements and test conditions".
- 2. Ecodesign draft regulation for refrigerated commercial display cabinets (as prepared for consultation forum meeting on 2 July 2014)

## **ENCLOSURE 1**





No marking plate was found on prototype

### **ENCLOSURE**

<b>No.:</b> Edition: Made by: Laboratory: Date:	<b>D5.05</b> 9 LBK KLAB-T 16-04-2012		DANISH TECHNOLOGICAL INSTITUTE				
		Storage plan - energy consumption	KLAB- 18-217				
C	Compartment 1: Loaded to the load line +0/-25						
Total load: kg	I						

Compartment 1

kg

Top view

6-8	10-12	14+16
5-7	9-11	13-15

Compartment 1 Side view

5+6	9-10	13+14
7	12	15-16
8	 11	



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