



TD NL USER MANUAL

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1. Foreword

This guide is prepared for the TD NL cabinet. The details below are examined in general.

-How the refrigerator will be used -Technical Details -Installation and Assembling -Infos and suggestions for the users -Care operations

Producer company does not have any responsibilities about the situations below.

- Wrong usage of the refrigerator
- Wrong assembling -Electrical Effects
- Not doing the periodical cares
- Changes of Operation
- Not using the original spare parts
- Ignoring the given infos

P.S. : Applications about electricity are dangerous for your life. Anyone who uses the refrigerator must read this guide


2. Introduction

TD NL is a vertical, front-doored, multi-shelved cooler refrigerator. It's condensing unit is designed as a remote. With its wide display area and loading capacity, it is suitable for normal to and larger stores.

Food such as dairy & meat, products can be displayed in the cabinet. The cabinet has a off cycle defrost

Run case module are 2000 mm, 3000 mm and 4000 mm long.

3. Technical Details



TECHNICAL DATA SHEET

TD NL

Climate Class	3 (25 °C 60 %RH)
M Pack Class	M0
Case Temp (°C)	0/+2 °C
Evap Temp (°C)	-4 °C
Supply	220 V 50 Hz

Technical Details

		2000	3000	4000
Cubic Capacity	(dm ³)	2039	3059	4079
TDA Single Glass	(m ²)	3,49	5,24	6,98
TDA Double Glass	(m ²)	3,16	4,74	6,32
Duty	kW	2,36	3,54	4,72
DEC	kW/day	N / A	N / A	2,3
REC	kW/day	N / A	N / A	28,4
TEC	kW/day	N / A	N / A	30,7

Expansion Valves

		2000	3000	4000
R 744	Cod	#YOK	#YOK	#YOK
	Electronic Valve/Orifice	(60 Bar)	AKVH 10-3	AKVH 10-4
			AKVH 10-5	AKVH 10-5
	Cod	-	-	-
	Electronic Valve/Orifice	(60 Bar)	N / A	N / A

Evaporators

		2000	3000	4000
R 744	Cod			
	Evap Surface	m ²	28,5	44,2
	Evap Internal Pipe Vol.	dm ³	8,9	13,8
	Liquid / Suction	Ø inc	3/8-1/2	3/8-1/2

Fan

		2000	3000	4000
R 744	Cod	20830020	20830020	20830020
	EBM M1G055	1800 rpm n°x W	22 W x 4	22 W x 6
			22 W x 8	22 W x 8
	Cod		20840104	20840104
	Blade	26° A	Ø230 mm	

Lighting**

		2000	3000	4000
	Cod			
	Philips	n°x W	2 x 30	3 x 30
			4 x 30	4 x 30

Air Flow Info

Air speed on honeycomb : 1,2 m/s at ambient conditions

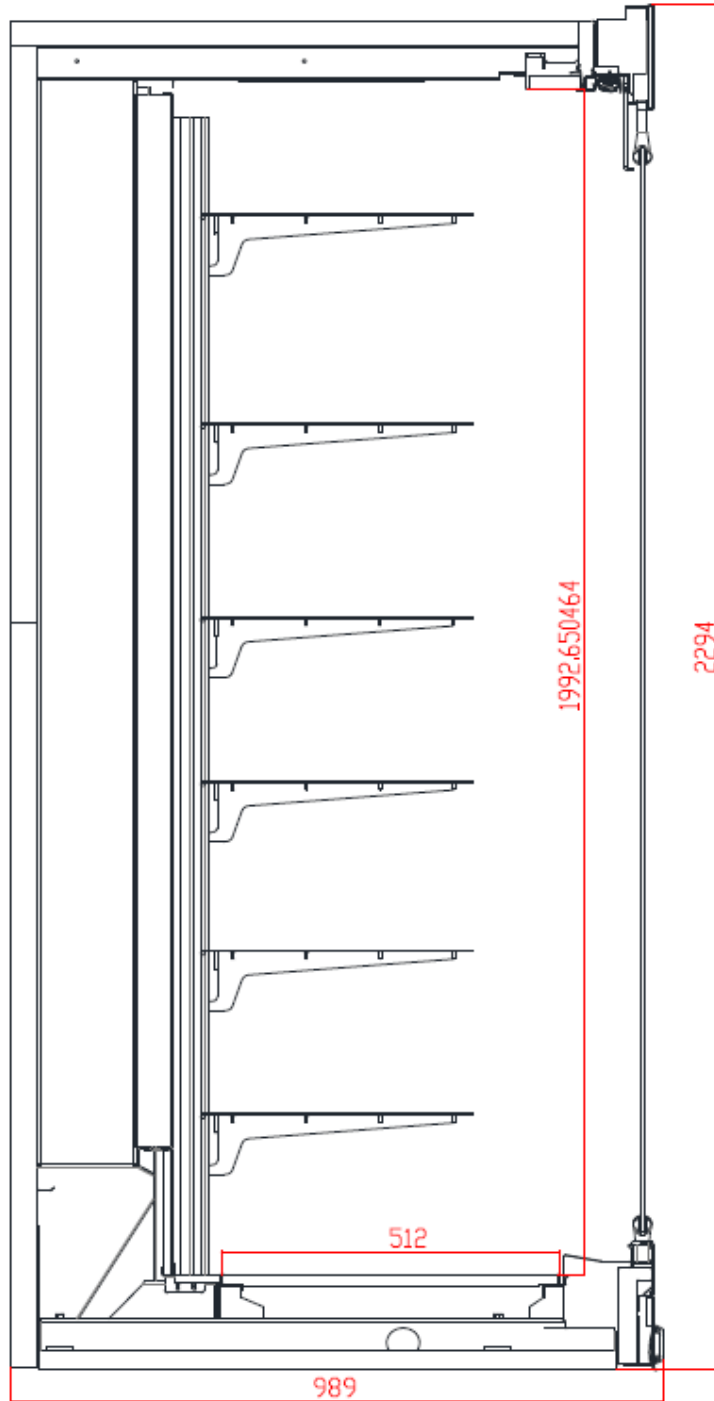
Controls

Thermostat				
Set Point °C	Differential	Sensor	Melt interval Hour	Melt period Minute
-0,7	2	Air OFF	0	0

Alarms	
Alarm Set Point °C	Alarm Delay Time Minute
+15	0

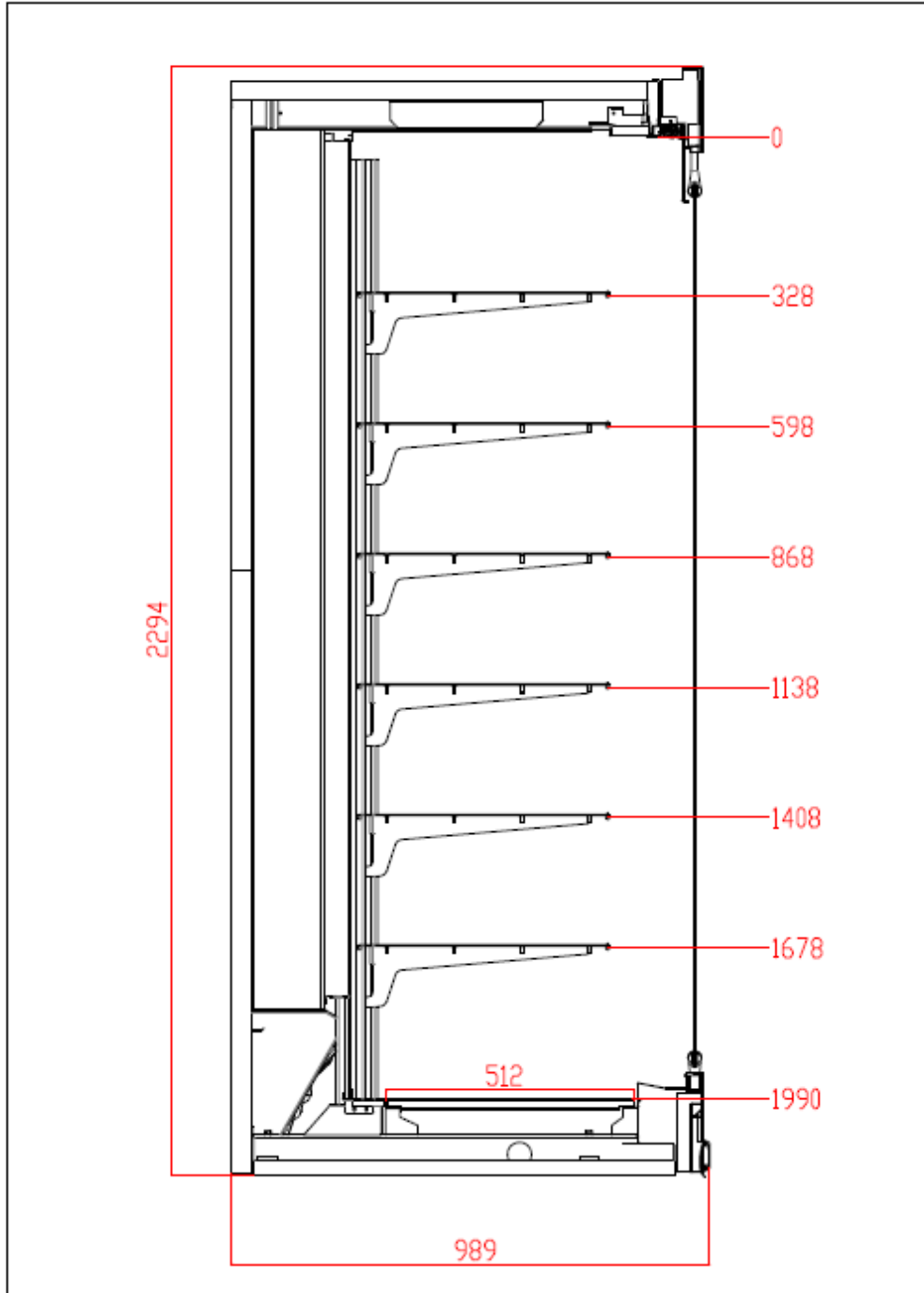
Defrosting					
Dripping time Minute	Fan During Defrost	Type	n°/24	End defrost temperature °C	Maximum defrost duration Minute
0	ON	OFF cycle	6	10	45

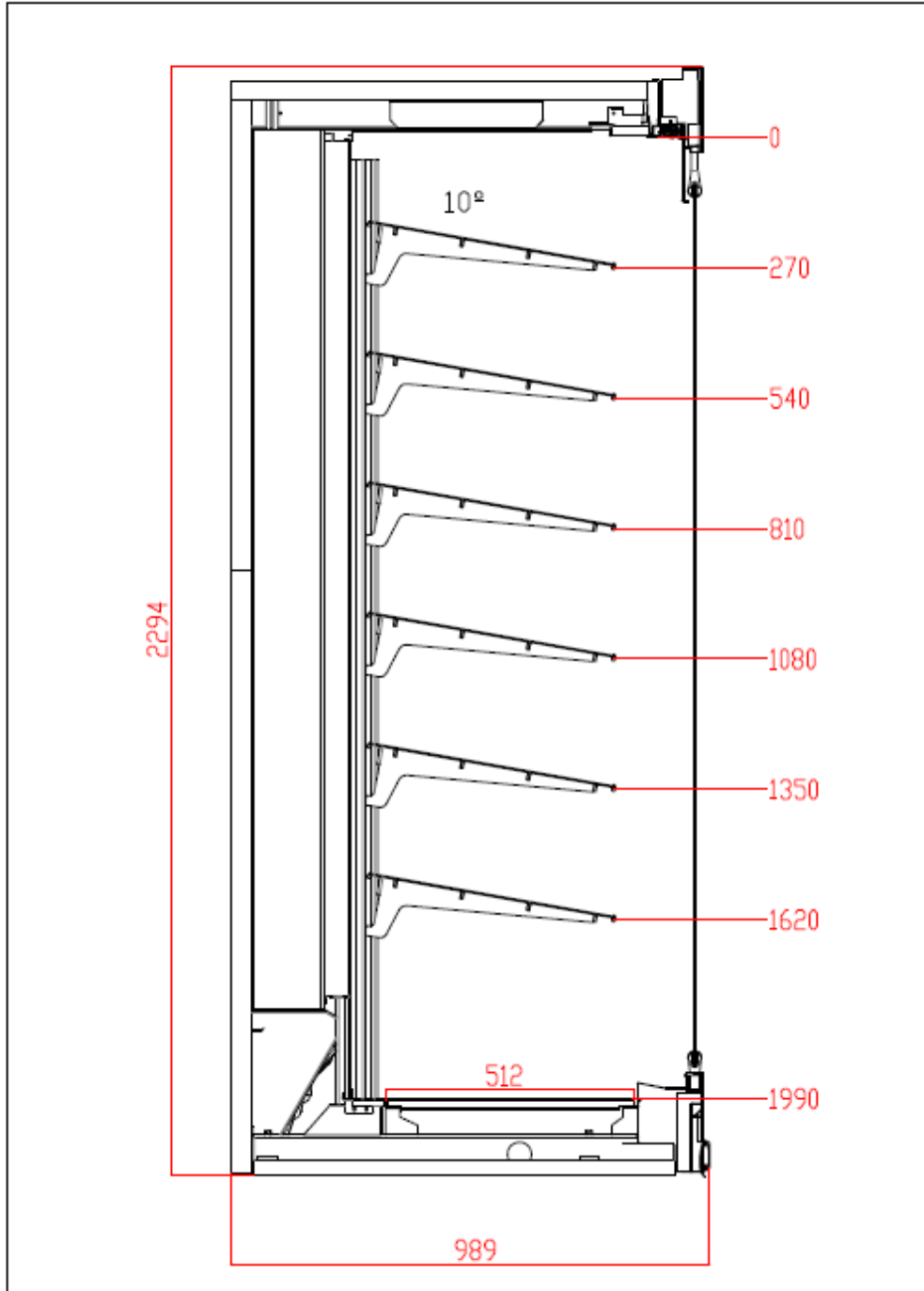
TECHNICAL DOCUMENTATION DATA SHEET		CHAPTER REVISION STATUS		
PRODUCT	DATE of 1st ISSUE	ORD.	DATE	CHANGE ORDER
TD NL	19.03.2018	A		
ORDER	A.Çalışkan	B		
		C		



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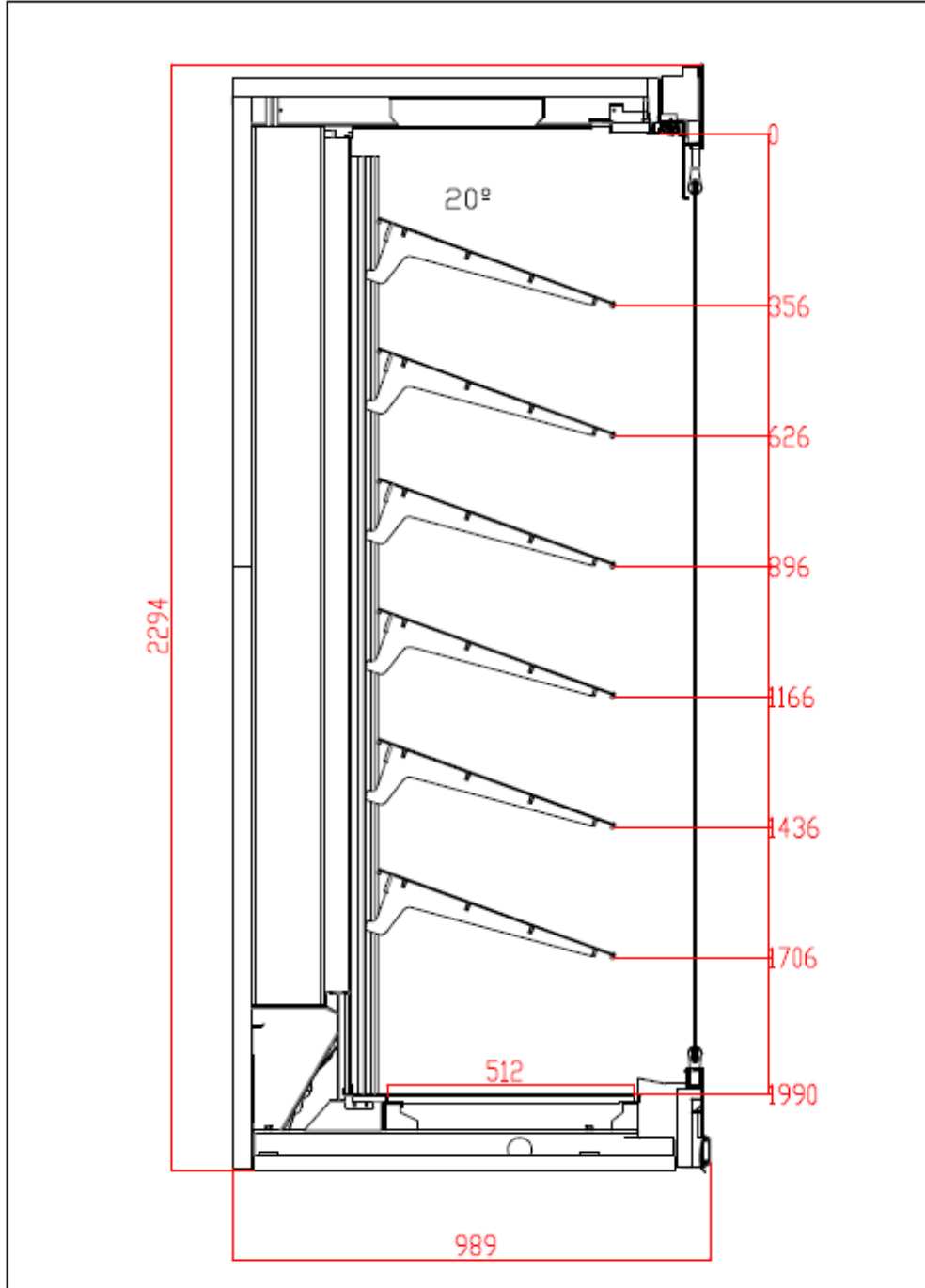
Firmanın teknik detayları haber vereksizin değiştirme hakkına sahiptir.
Any technical features may be modified without notice.



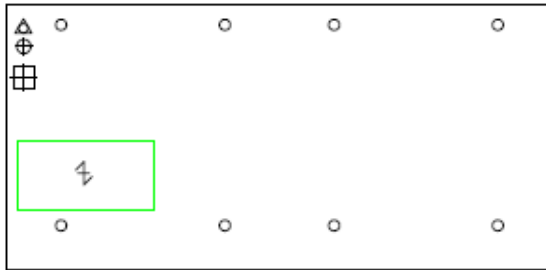


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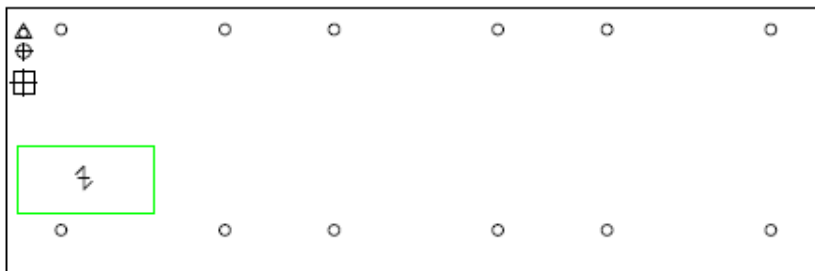
Firmanın teknik detayları haber verileksizlik deđiştirme hakkına sahiptir.
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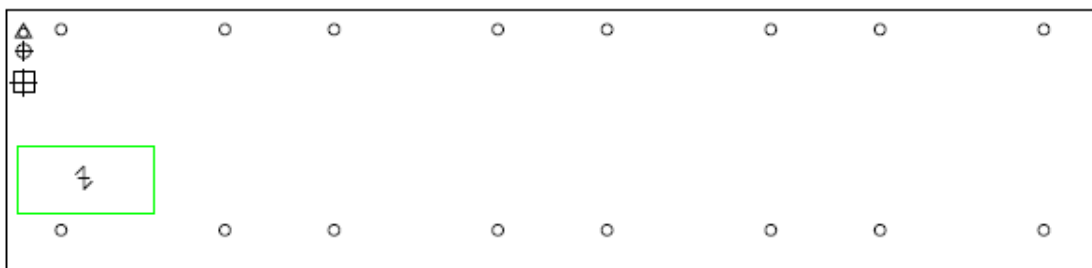
Key	
A ○	= Cabinet Feet
E ⚡	= Electrical Box
R ⊞	= Services Entry
D ⊕	= Cabinet Drain
S ≡	= ———
B △	= Cable Outlet



2000



3000



4000

4. Norms and Certificates

The approved certificates of norms and refrigerators that are using as reference; EN 60204-1; EN 61439-1; EN 61439-2

ENVIRONMENTAL CLIMATIC ATMOSPHERE (EN 23953-2)

This refrigerator is tested as to atmosphere heat class 3.

(higher enthalpy will result in excepting product temperature limits)

Class	Dry Air Temperature	Relative Humidity	Dew Point
1	16°C	%80	12°C
2	22°C	%65	15°C
3	25°C	%60	17°C
4	30°C	%55	20°C
5	40°C	%40	24°C
6	27°C	%70	21°C

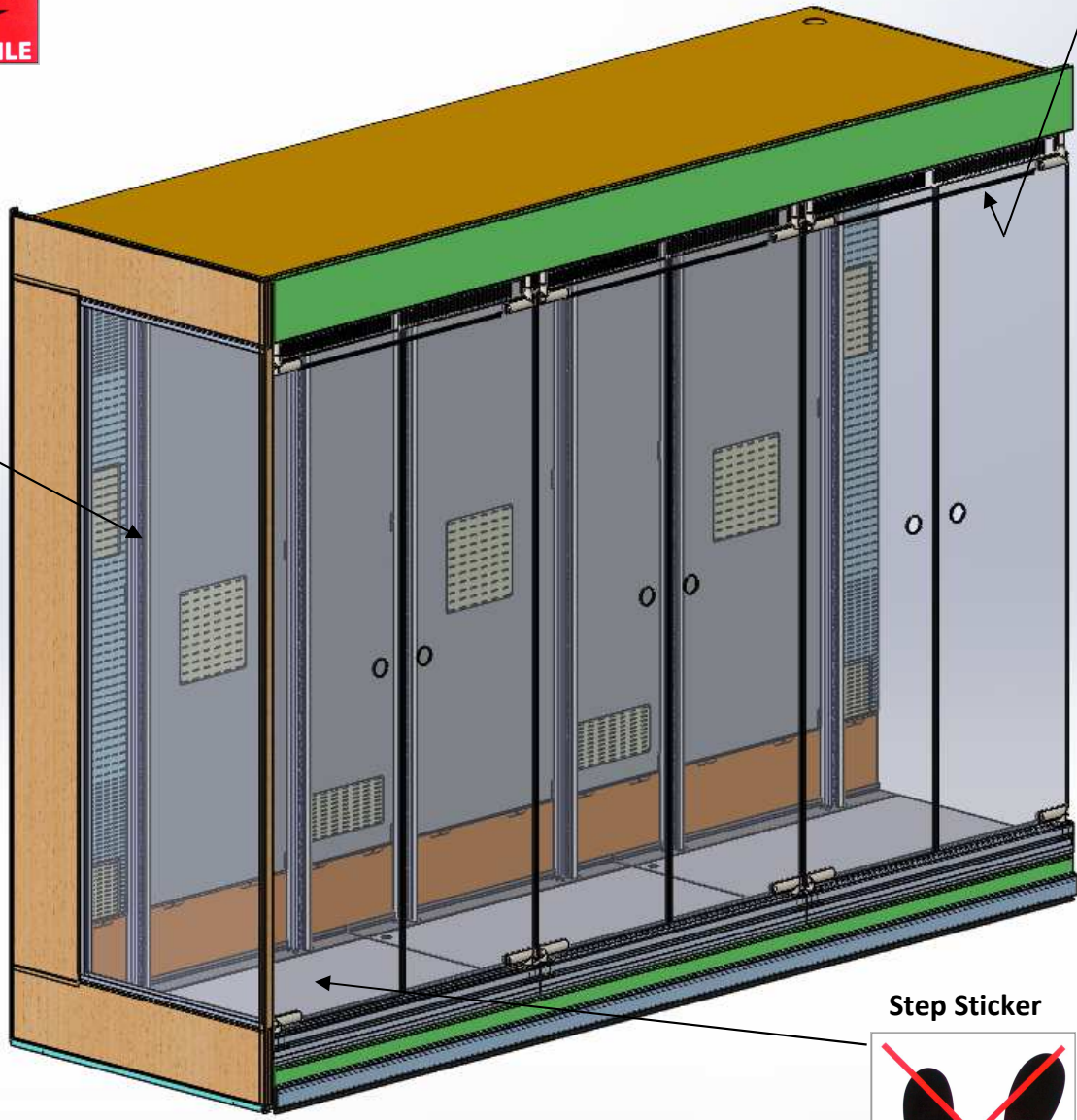
The directives that the refrigerator suits EEC 73/23 , EEC 98/37

(lower enthalpy of the environment will allow other defrost temperature/time settings always consult a Ahmet Yar A.Ş. representative for this.)

5. Warning and definition stickers on the case

PRODUCT :	CH818T	FANS :	138 / 138
MODEL :	TD 210-250mm	LIGHTING ON CANOPY :	120 / 138
PRODUCT NUMBER :	180204-103032	WATER DRAIN HEATER :	1188
PRODUCTION DATE :	10/04/2012	DEFROST HEATER :	1188
CLASS :	1	MEAT BLIND :	1188
TEMP RANGE :	+2 to +7 °C	MAX POWER CONSUMPTION :	102 / 138
REFRIGERANT :	R136A		
TEST PRESSURE :	32 MP		
WORKING PRESSURE :	27 MP		
VOLTAGE :	230/240 V/50 Hz		
DIRECTIVE :	2006 / 48 / EC - 2004 / 108 / EC		
STANDARD :	EN 60335-1/EN 60335-2-24		

Fragile Sticker

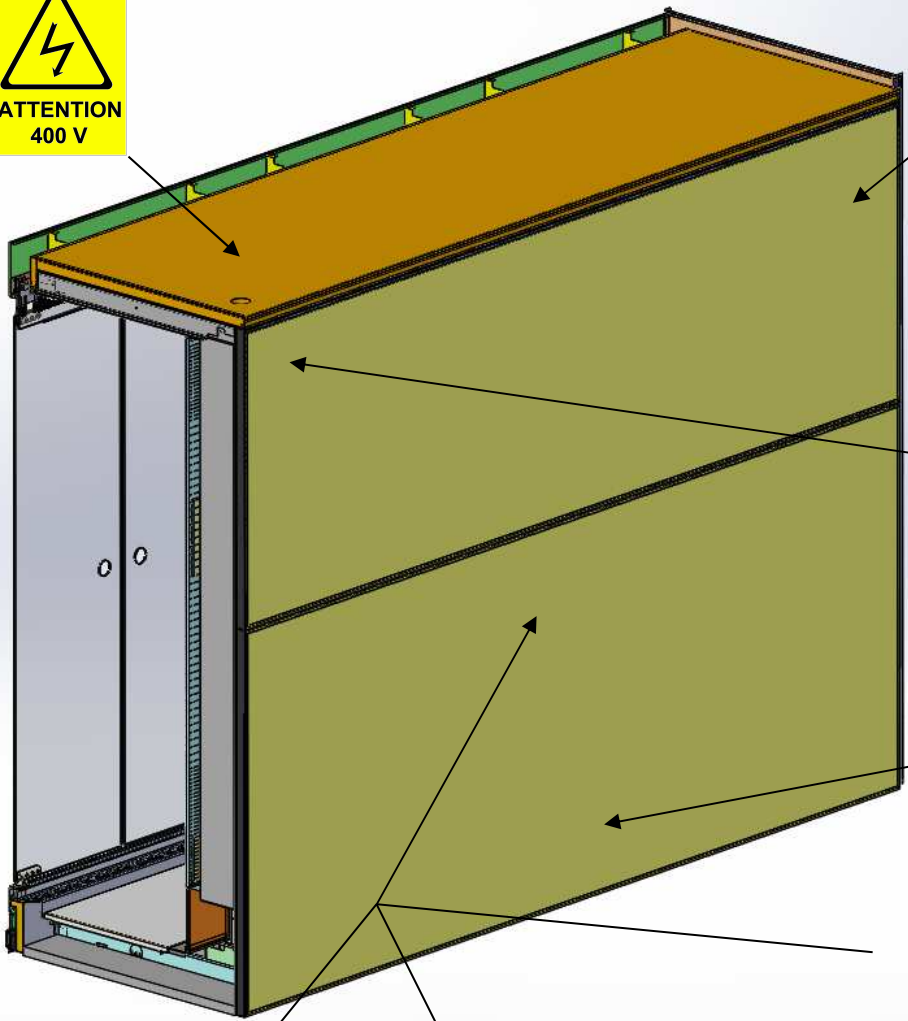


Step Sticker





ATTENTION
400 V



Product Quality Control

ÖRETIM KONTROL ETKETİ
Product Quality Control

Üretim Tarihi (Date of Production) : / /
Stok Kodu :
Şişme Kodu :
Migteri : (Customer)
Şişme No (Order No) : Model No (Model) : Model (Mod. Seri) :

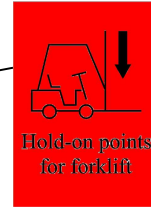
M1 M2 PR1 Ağız Testi (Mouth Test) Elektrik Testi (Electrical Test)
M3 M4 PR2 Paketlenme (Packaging) Final Kalite (Final Quality)

12.12.2007

Pressure Sticker



Transport Sticker



Process Control Form

PROCESS CONTROL FORM		PASTE DESCRIPTION LABEL IN THIS AREA	
EPHEBUS CASE (EPHEBUS)		CHECK BY	CHECK BY
DESCRIPTION	DATE/TIME	DATE/TIME	DATE
MECHANICAL ASSEMBLY OF CASE			
1. BACK PANEL/SUPPORT LEO	DEFORMATION SHEET METAL / BÜYÜK HANGIŞI / ÇOKLUYAKARIMLI VE DOĞRU TOPLAMA	OK	
2. AIR REFLECTOR/REFLECTOR SHEET / FRONT AIR GRILL	ACCEPTABLE / DEFORMASYONUN YERİNE YERİNE	OK	
3. COILING SHEET / HONEY COMB / HONEY COMB SUPPORT / TRUCK GRILL	ACCEPTABLE / DEFORMASYONUN YERİNE YERİNE	OK	
4. UPPER/LOWER DECOR AND UPPER DECOR AL	ACCEPTABLE / DEFORMASYONUN YERİNE YERİNE	OK	
5. BUMPER PROFILE	ACCEPTABLE / DEFORMASYONUN YERİNE YERİNE	OK	
6. NIGHT BLIND	ACCEPTABLE / ÇOKLUYAKARIMLI	OK	
7. BASE TRAYS	ACCEPTABLE / DEFORMASYONUN YERİNE YERİNE	OK	
8. DECOR TOP PANEL (MAX 3000)	ACCEPTABLE / DEFORMASYONUN YERİNE YERİNE	OK	
9. KAPA KAPASİTESİ DOLU YAKA VE YERİNE YERİNE	ACCEPTABLE / DEFORMASYONUN YERİNE YERİNE	OK	
10. NICELATE PLASTIC	ACCEPTABLE / ÇOKLUYAKARIMLI	OK	
11. ALL PAINTED PARTS	COMPATIBILITY / ÇOKLUYAKARIMLI	OK	
ELECTRICAL ASSEMBLY CONTROL			
1. PLACE OF PROBER / ISOLATION OF PROBER CABLE TO THE	ACCEPTABLE / ÇOKLUYAKARIMLI	OK	
2. FAN / COMMUNICATION CARD	ACCEPTABLE / ÇOKLUYAKARIMLI	OK	
3. CONTROLLER DETAIL	CORRECT / ÇOKLUYAKARIMLI	OK	
4. ELECTRICAL TEST FORM	AVAILABLE / ÇOKLUYAKARIMLI	OK	
COOLING EQUIPMENTS AND ASSEMBLY CONTROL			
1. EXHP FINS AND QUIND / EXHP PIPE CONNECTION / EXHP INSULATION BAND	ACCEPTABLE / ÇOKLUYAKARIMLI	OK	
2. COOLING SYSTEM DETAIL UNIVER / PERFORMANSI / ENERJİSİ	CORRECT / ÇOKLUYAKARIMLI	OK	
3. DRAFTER DIRECTION	CORRECT / ÇOKLUYAKARIMLI	OK	

Electrical Test Form

ELEKTRİK TEST FORMU
ELECTRICAL TEST FORM

DİKKAT : TEST YAPARKEN KORUMA ELLEĐİENİNİ MÜLAKA YARINIZ. ATTENTION : İNE PROTECTIVE GLOVES WHILE PERFORMING TEST

TARİH / DATE :
SİPARİS NO / ORDER NO :
SERİ NO / SERIAL NO :
MÜŞERİ ADI / CUSTOMER NAME :
MODEL :

*Test yapmadan önce cihaz kullanım talimatlarını okuyunuz!
Please read manual before performing test!*

FONKSİYON TESTİ (FUNCTION TEST)

F1 - Kontrol / Control

F3 - Fan / Fan
F5 - Kablo Rezistanslar / Rail heaters
F7 - Aydınlatma / Lighting
F9 - Defrost rezistanslar / Defrost heaters
F10 - Defrost rezistanslar / Defrost heaters

TOPLAMA BİRENCİ TESTİ (CONTINUTY - I-V) (I-V)

TOPLAK - PANO YERİNE ARASI ÖLÇÜM YAPINIZ! / MEASURE PANEL TO GROUND!

TEST NO :
Maksimum direnç / Maximum resistance (0 - 100ohm) :
Test akımı / Test current (0 - 25 A) :
Test süresi / Test time : 15 sn

İZOLASYON TESTİ (INSULATION RESISTANCE - RMO 500V)

TEST NO :
Maksimum direnç / Maximum resistance (2M) :
Test voltajı / Test voltage (500 VDC) :
Test süresi / Test time : 15 sn

YÜKSEK GERİLİM TESTİ (WITHSTANDING 1000V)

TEST NO :
Maksimum akım / Maximum current (0 - 10mA) :
Test voltajı / Test voltage (1000 V) :
Test süresi / Test time : 30 sn

KONTROL YAPILDI / CONTROLLED : AD SOYAD / NAME SURNAME : İMZA / SIGN :
SON KONTROL / FINAL CONTROL :
Yayın Tarihi 14.11.2007

Cabinet Function Test

EPHEBUS CABINETS FUNCTION TESTS

DATE :
ORDER NO :
SERIAL NUMBER :
CUSTOMER :
EVEN BRAND :
EVEN QUANTITY :
EVEN LOCATION :
EVEN SLOPE :
EVEN CODE :
EVEN DIMENSIONS :

Applied Voltage / VOLTAGE	Applied Current / CURRENT	Test Results / SONUÇLARI	Control / KONTROL
Evap. Fan STANDEARD			✓
Evap. Fan ENERJİSİ KAYBI			✓

DESCRIPTION :
CONTROLLED BY :
DATE/TIME :
SIGNATURE :

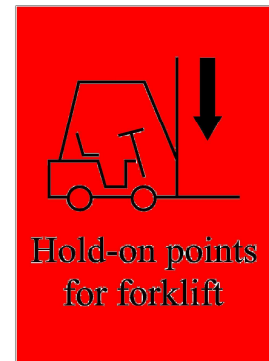
High Voltage Sticker

High voltage sticker is located on the electricity box.



Loading Sticker

There are palettes located on the refrigerator for transportation. Transportations with forklifts or transpalettes are materialized by the assistance of these palettes. There is a sticker behind the refrigerator about the transportation palettes



Pressure Sticker

Pressure sticker is located at the exit points of the copper pipes. It is used for determining the quantity of nitrogen.



Fragile Sticker

There are on the risk of fracture surfaces. Carefully moving is important and do not hit to hard materials. There are fragile stickers on the side walls.



Foot Print Sticker

This sticker located on the base trays



Product Definition Sticker

Product definition sticker is located inside the refrigerator on the ceiling and includes all technical properties.

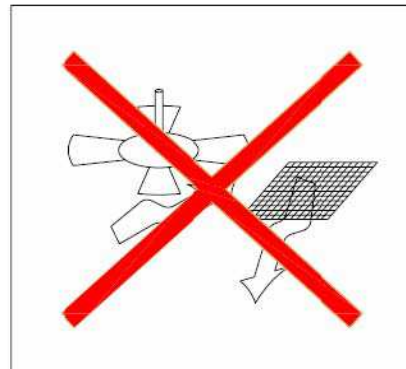
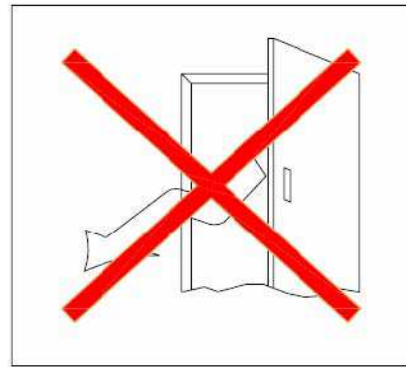
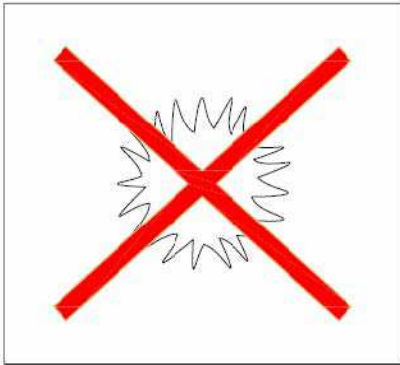
<p>1 →</p> <p>2 →</p> <p>3 →</p> <p>4 →</p> <p>5 →</p> <p>6 →</p> <p>7 →</p> <p>8 →</p> <p>9 →</p> <p>10 →</p> <p>11 →</p>	 <p>AHMET YAR REFRIGERATION İstiklal Mah. 9. Sok. No:5 Kemalpaşa Organize San. Bölgesi İzmir-TURKEY Tel:+90 232 8771750 Fax: +90 232 8771751 www.ahmetyar.com.tr</p> <p>CE</p> <p>PRODUCT : CABINET</p> <p>MODEL : TD 2012-2500mm</p> <p>PRODUCT NUMBER : 58502004-13035/02</p> <p>PRODUCTION DATE : 30/04/2012</p> <p>CLASS : 3</p> <p>TEMP.RANGE : +2 / +4 °C</p> <p>REFRIGERANT : R 134A</p> <p>TEST PRESSURE : 32 bar</p> <p>WORKING PRESSURE : 27 bar</p> <p>VOLTAGE : 220-240 V~NPE / 50 Hz</p> <p>DIRECTIVE : 2006 / 95 / EC - 2004 / 108 / EC</p> <p>STANDARD : EN 60335-1/EN 60335-2-24</p>	<p>← 12</p> <p>← 13</p> <p>← 14</p> <p>← 15</p> <p>← 16</p> <p>← 17</p> <p>← 18</p> <p>← 19</p>
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1. Logo and address info of the producer company
2. Model of the product
3. Serial number of the product
4. Production date of the product
5. Air conditioner class of the product
6. Temperature range of the cabinet
7. Type of refrigerant
8. Test pressure
9. Working pressure
10. Working voltage info
11. Approved certificates of the product and the standards&directives
12. Product certificates and quality certificates of the producer
13. Power of evaporator fans
14. Power of lights for canopy
15. Power of lights for shelves
16. Power of drain heaters
17. Power of defrost heaters
18. Power of night blind
19. Max power consumption

6. Assembling and Environmental Situations

Respect the instructions below prior to assembling.

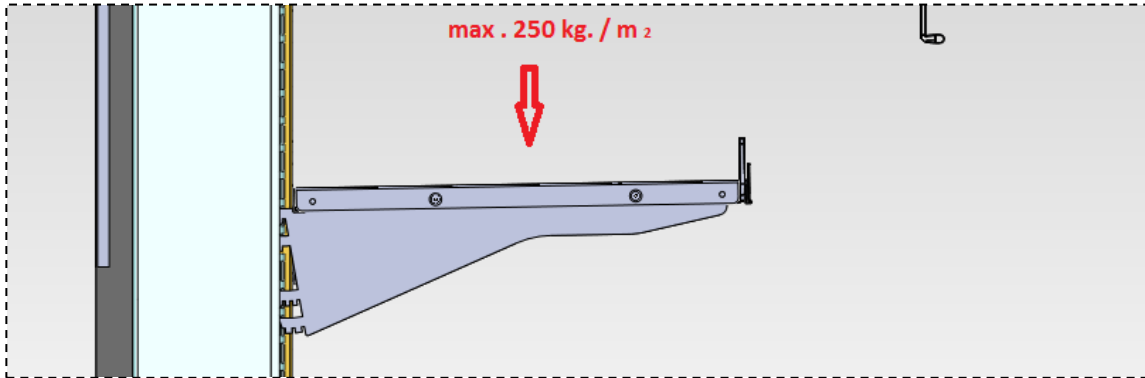
- Do not leave or assemble the refrigerator at the positions below ;
- Not close to any explosive gasses
- Not close to heaters
- Avoid draught area



7. Loading Goods

Cabinet loading important rules that should be followed.

- Locate the goods to the shelves tidy.
- To install packages in the closet, set max and do not leave blank space.
- Between the top shelf loaded with goods leave the 30mm gap.
- ensure consumption of the substance and accordingly load.
- Except for the closet shelf and the base tray, do not install any goods



8. Multiplexing of cases

Follow the sequences below for connecting two or more refrigerators.

- Disassemble the endwalls (if exist)
- Place the refrigerators closer to each other
- Disassemble the palette. Level the refrigerators by arranging the heights of cabinet legs. (Diagram 1) Check on the balance by using water ballance. Check the balance of the refrigerator by moving it.

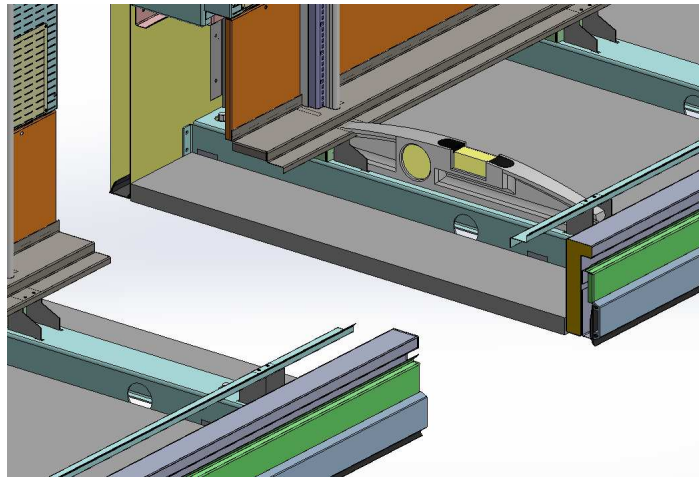


Diagram-1

UPPER PANEL CONNECTIONS

- There are two units of refrigerator connection sheets on the roof of the refrigerators and one connection sheet is located on the front lower body of the refrigerator. (Diagram 2-3)

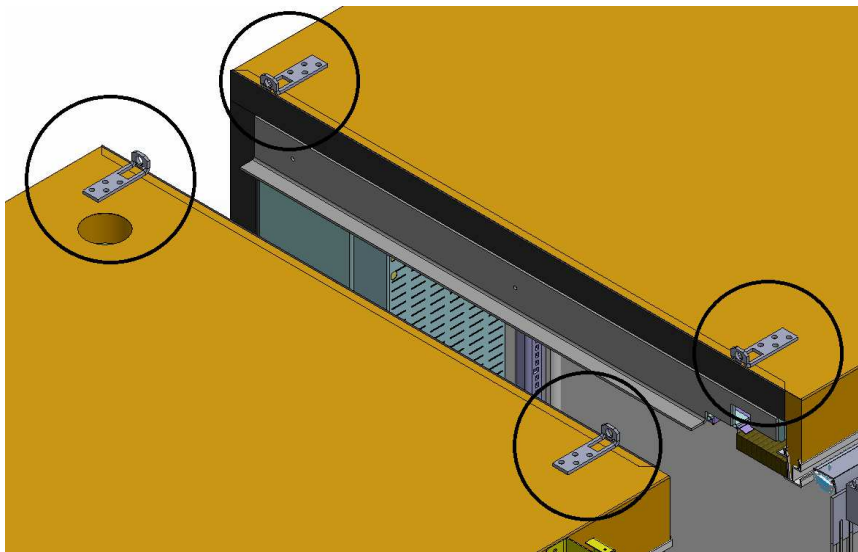
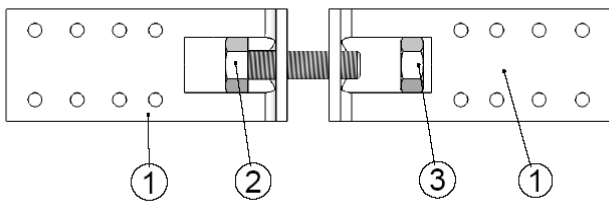


Diagram 2



POS	MATERIAL NAME	UNIT
1	Multiplexing Kit	4
2	M8x40 Hexagonal Bolt	2
3	M8 Nut	2

Diagram 3

9. Installation of Endwalls

For being able to connecting endwalls, first of all stick the isolation tape to the panel plastic and to the body polyurethane supporter. (The surfaces that isolation tape must be sticked are shown in Diagram 4)

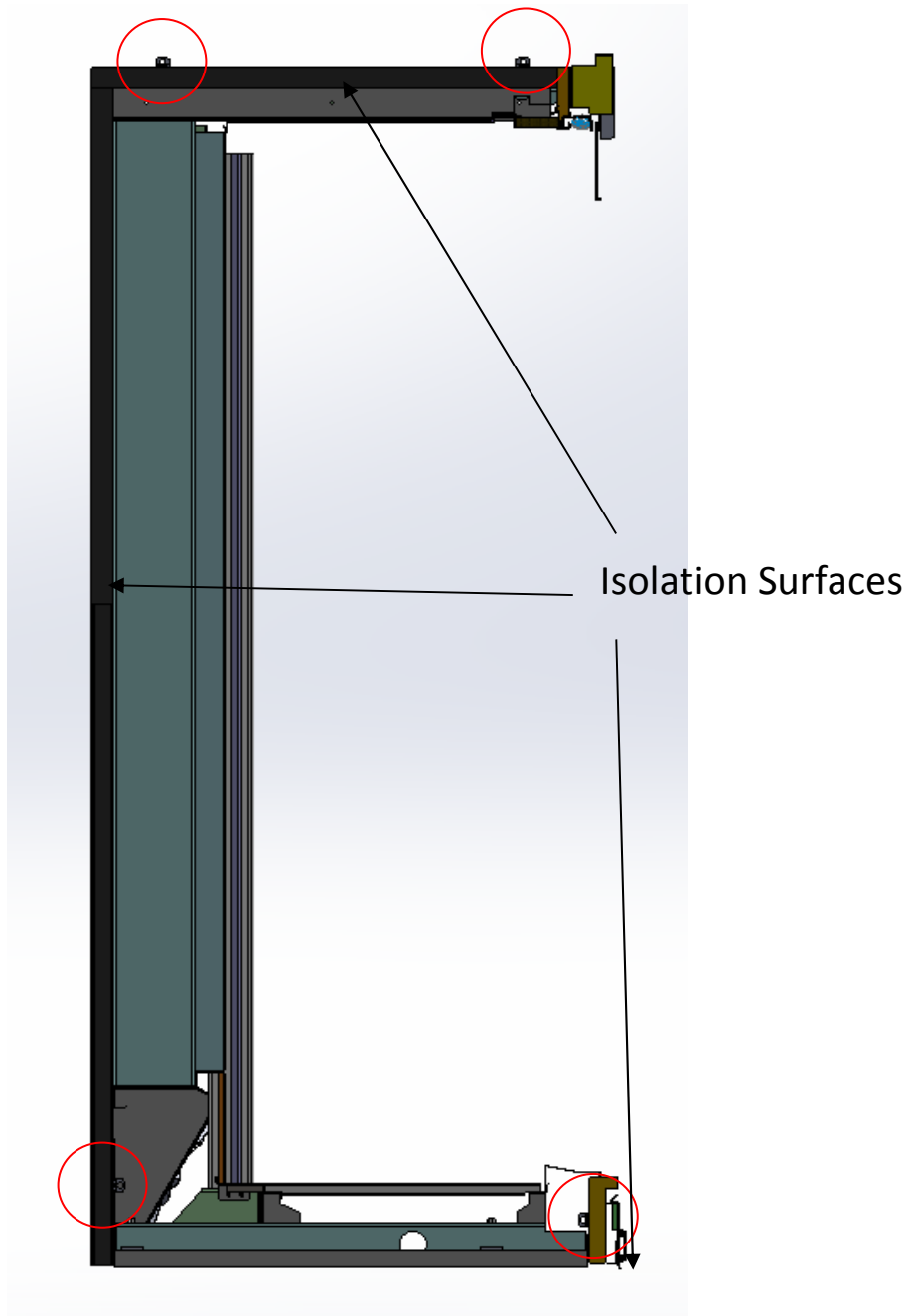


Diagram 4

10. Isolation Panels

Isolation plates are shipped in packaged form. Isolation plates, after the base assembly is placed in the closet. Diagram-5

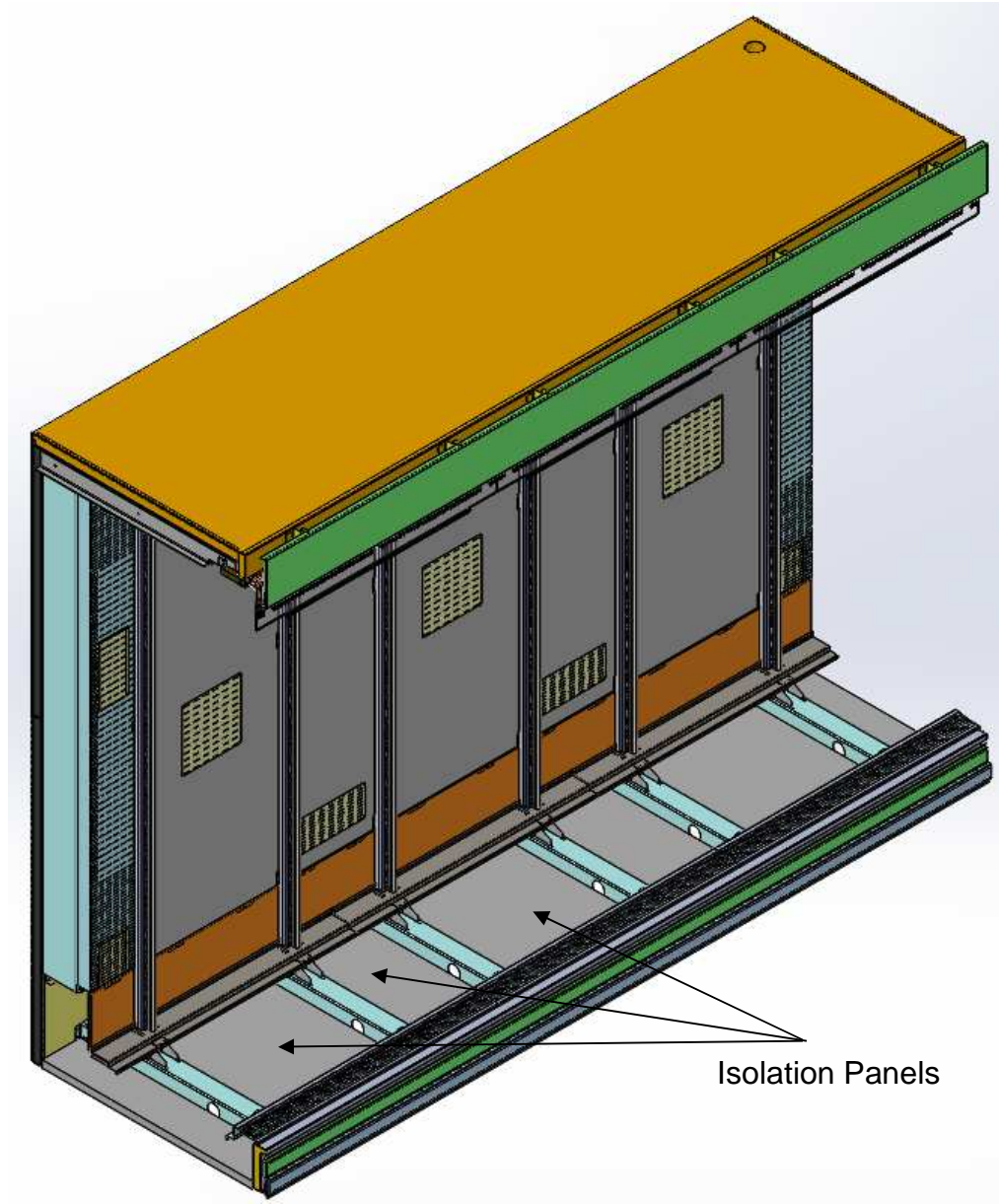


Diagram 5

11. Prob Position

12. Electricity Connection

Details below must be examined while making the electricity connections.

Attention!! Examine the definition stickers, informations and electricity diagrams on the product guide before making the electric connections.

- Protective automatic key and main power switch must be used against electric current on the refrigerator.
- Users must know where the key is kept in case of an emergency.
- Electric systems must be grounded.
- Maximum voltage difference must be guaranteed at $\pm 6\%$.
- The thickness of the cable on the power line must be sufficient but at least 2,5 mm².
- The cable of power line must not exceed 5m, depends on the conditions if cable length increases the cable cross-section must be increased too.
- For making the refrigerator works regularly, be sure you obtained the heat and the damp values which are regarded at EN-23953-2 and be sure the climate class is 3.
- The personnel who will interfere to the refrigerator must be authorized.
- Always respect applicable local/national laws, legislative and norms.

13. Care&Cleaning

Long life and satisfactory performance of any equipment is dependent upon the care it receives. To ensure long life, proper sanitation and minimum maintenance costs, these display Cases should be thoroughly cleaned, all debris removed and the interiors washed down, weekly.



Fan Plenum:

To facilitate cleaning, the fan plenum is hinged and also fastened with screws at each end. After cleaning be sure the plenum is properly lowered into position and that screws are reinstalled OR PRODUCT LOSS WILL RESULT due to improper refrigeration.

Exterior Surfaces:

The exterior surfaces should be cleaned with a mild detergent and warm water to protect and maintain their attractive finish. NEVER USE ABRASIVE CLEANSERS OR SCOURING PADS.

Interior Surfaces:

The interior surfaces may be cleaned with most domestic detergents, ammonia based cleaners and sanitizing solutions with no harm to the surface.

DO NOT USE:

- Abrasive cleansers and scouring pads, as these will damage the finish.
- Solvent, oil or acidic based cleaners on any interior surfaces will cause damage.

! WARNING

Do NOT use HOT water on COLD glass surfaces. This can cause the glass to shatter and could result in personal injury. Allow glass fronts, ends and service doors to warm before applying hot water.

DO:

- Remove the product and all loose debris to avoid clogging the waste outlet.
- Store product in a refrigerated area such as a freezer. Remove only as much product as can be taken to the freezer in a timely manner.
- First turn off refrigeration, then disconnect electrical power.
- Thoroughly clean all surfaces with soap and hot water. Do not use steam or high water pressure hoses to wash the interior.
- These will destroy the display cases sealing causing leaks and poor performance.
- Remove screws and lift fan plenum for cleaning. Be sure to reposition the fan plenum after cleaning display case.
- Take care to minimize direct contact between fan motors and cleaning or rinse water.
- Rinse with hot water, but do not flood. Never introduce water faster than the waste outlet can remove it.
- Allow Display Cases to dry before resuming operation.
- After cleaning is completed, turn on power and refrigerant to the Display Case. Verify that Display Case is working properly

Replacing fan motors and blades:

See cross section for location of evaporator fans. Should it ever be necessary to service or replace the fan motors or blades be certain that the fan blades are re-installed correctly. THE BLADES MUST BE INSTALLED WITH RAISED EMBOSSED (PART NUMBER ON PLASTIC BLADES) POSITIONED AS INDICATED ON THE PARTS LIST. (Refer to the case data sheet for each model.)

For access to these fans:

- Turn off power.
- Remove bottom display pans.
- Disconnect fan from wiring harness.
- Remove fan blade.
- Lift fan plenum and remove screws holding bottom of motor to fan basket.
- Replace fan motor and blade.
- Lower fan plenum.
- Reconnect fan to wiring harness.
- Turn on power.
- Verify that motor is working and blade is turning in the correct direction.
- Close air gaps under fan plenum. Warmer air moving into refrigerated air reduces effective cooling. If the plenum does not rest against the case bottom without gaps, apply foam tape to the bottom of the fan plenum to reduce improper air movement. Use silicone sealant to close other gaps.
- Replace display pans. Bring Display Case to operating temperature before restocking.

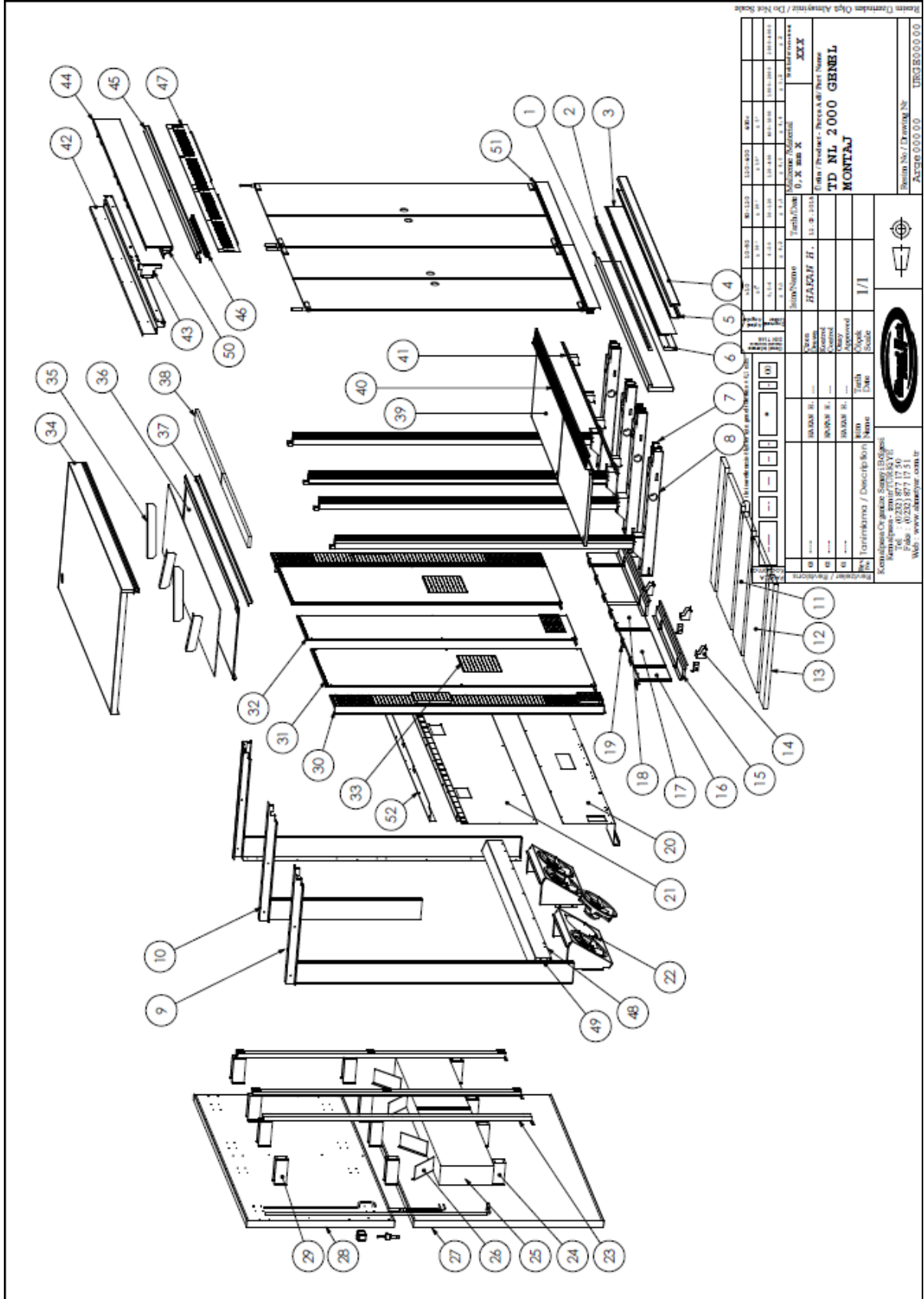
14. Recycle Parts

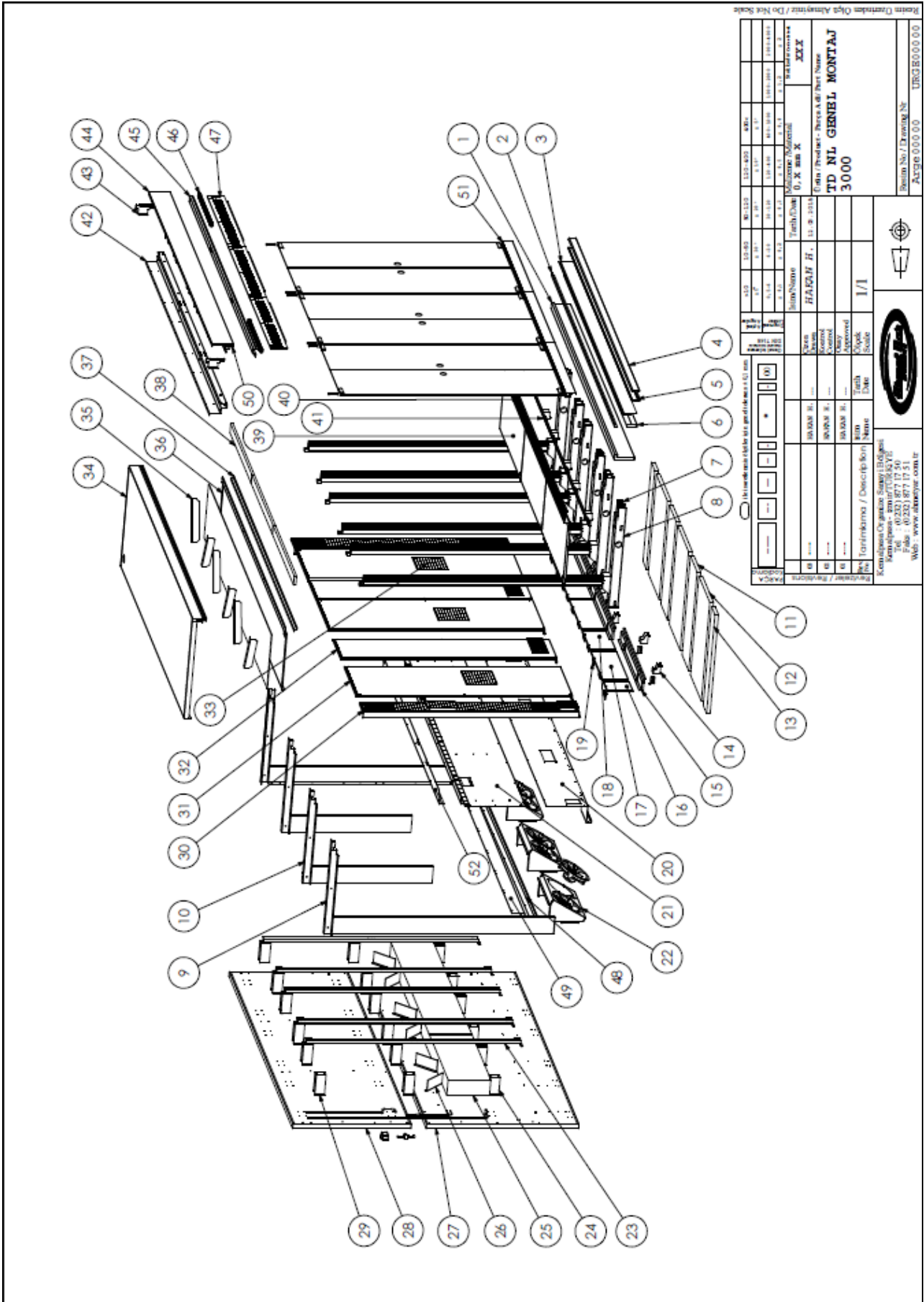
All countries are disposing of waste according to EU laws and norms

Current Recycle Parts on the case

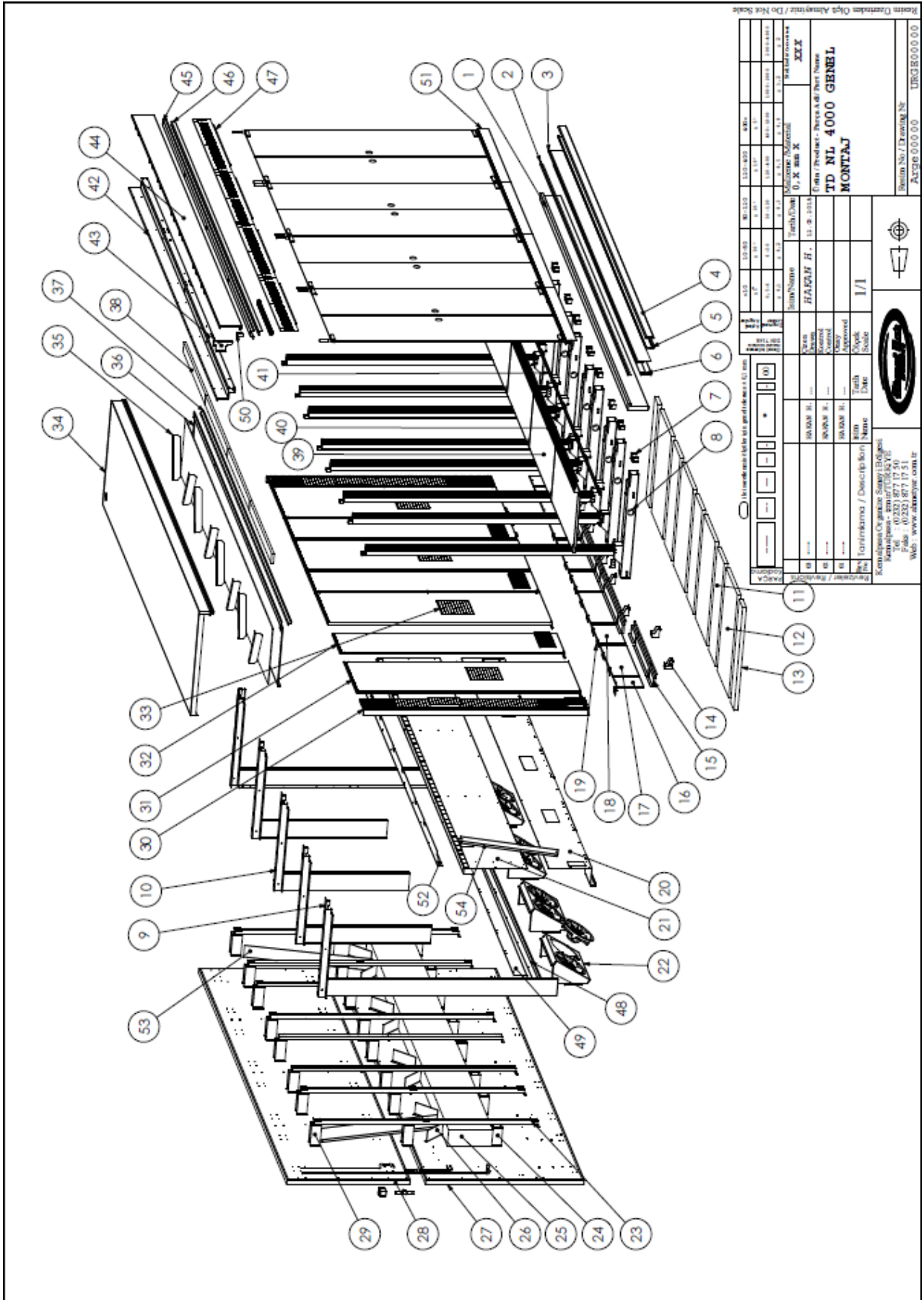
- Painted Metals :Pillars ,shelves ,legs, back panel, base tray, ceiling
- Cupper, Aluminium :Evaporator and electrical parts
- Stainless Steels :Bottom panels ,painted panels ,basic parts , base tray
- Polyurethane :Thermal injection
- Thermopane :Glass parts
- PVC :Handrails
- Polystyrene :Side endwalls
- Polycarbon :Led Lighting cover

15. Spare Parts





Revizyonlar / Revisions		Date / Tarihi		Scale / Ölçek		Drawing No / Çizim No		Project No / Proje No	
1	01.03.2018	01.03.2018	01.03.2018	1/1	TD NL GENEL MONTAJ	3000			
2	01.03.2018	01.03.2018	01.03.2018						
3	01.03.2018	01.03.2018	01.03.2018						
4	01.03.2018	01.03.2018	01.03.2018						
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41	01.03.2018	01.03.2018	01.03.2018						
42	01.03.2018	01.03.2018	01.03.2018						
43	01.03.2018	01.03.2018	01.03.2018						
44	01.03.2018	01.03.2018	01.03.2018						
45	01.03.2018	01.03.2018	01.03.2018						
46	01.03.2018	01.03.2018	01.03.2018						
47	01.03.2018	01.03.2018	01.03.2018						
48	01.03.2018	01.03.2018	01.03.2018						
49	01.03.2018	01.03.2018	01.03.2018						
50	01.03.2018	01.03.2018	01.03.2018						
51	01.03.2018	01.03.2018	01.03.2018						
52	01.03.2018	01.03.2018	01.03.2018						



Kodlar / Codes		Boyutlar / Dimensions		Ağırlıklar / Weights		Maddeler / Materials	
Model	Yıl / Year	Geni / Width	Yüksek / Height	Net / Net	Kabuk / Shell	İçerik / Content	Notlar / Notes
TD NL 4000 GENEL	2018	1200	1200	120	0,8 mm X	0,8 mm X	
<p>Genel Özellikler / General Features</p> <p>Model / Model: TD NL 4000 GENEL</p> <p>Yıl / Year: 2018</p> <p>Boyutlar / Dimensions: 1200 x 1200 x 1200</p> <p>Ağırlıklar / Weights: Net 120 kg, Gross 150 kg</p> <p>Maddeler / Materials: 0,8 mm X</p>							
<p>Montaj / Assembly</p> <p>Montaj / Assembly: 1/1</p>							
<p>İletişim Bilgileri / Contact Information</p> <p>Adres / Address: Atatürk Bulvarı No: 100, Beşiktaş / İstanbul</p> <p>Telefon / Phone: 0212 252 1877</p> <p>Faks / Fax: 0212 252 1877</p> <p>Web: www.ahmetyasar.com.tr</p>							

TD NL SPARE PARTS LIST						
POS	PART NO	PARÇA ADI	PCS			UNIT
			2000	3000	4000	
1	41102007	TD NL FRONT PANEL 2000 MM	1			AD
	41103007	TD NL FRONT PANEL 3000 MM		1		AD
	41104007	TD NL FRONT PANEL 4000 MM			1	AD
2	31102053	TD NL FRONT KICK PLATE UPPER BRACKET 2000 MM	1			AD
	31103053	TD NL FRONT KICK PLATE UPPER BRACKET 3000 MM		1		AD
	31104053	TD NL FRONT KICK PLATE UPPER BRACKET 4000 MM			1	AD
3	41102051	TD NL FRONT KICK PLATE SHEET 2000 MM PAINTED	1			AD
	41103051	TD NL FRONT KICK PLATE SHEET 3000 MM PAINTED		1		AD
	41104051	TD NL FRONT KICK PLATE SHEET 4000 MM PAINTED			1	AD
4	10410396	EPHESUS BUMPER PROFILE 4100 mm. METALIC GREY 185 (76022)	0,5	0,75	3	AD
5	10410397	TD 2012 BUMPER HOLDER PROFILE 4100 mm. - R07 BLACK (76037)	0,5	0,75	1	AD
6	31102052	TD NL FRONT KICK PLATE SHEET LOWER BRACKET2000 MM	1			AD
	31103052	TD NL FRONT KICK PLATE SHEET LOWER BRACKET3000 MM		1		AD
	31104052	TD NL FRONT KICK PLATE SHEET LOWER BRACKET4000 MM			1	AD
7	31100095	TD NL FRONT DECOR CONNECTION SHEET	4	6	8	AD
8	41100104	TD NL MIDDLE BRACKET WELDED PAINTED	4	6	8	AD
9	41100102	TD NL LEFT SIDE BRACKET WELDED PAINTED	1	1	1	AD
	41100103	TD NL RIGHT SIDE BRACKET WELDED PAINTED	1	1	1	AD
10	41100105	TD NL MIDDLE SIDE BRACKET WELDED PAINTED	1	2	3	AD
11	41100038	TD NL FLOOR INSULATION PANEL NARROW	1	2	3	AD
12	41100039	TD NL FLOOR INSULATION PANEL WIDE	2	3	4	AD
13	41100040	TD NL FLOOR INSULATION PANEL SIDE	2	2	2	AD
14	31100096	TD NL FRONT BASE SUPPORT BRACKET	4	6	8	AD
15	41101038	TD NL BACK BASE SUPPORT BRACKET 1000 MM PAINTED	2	3	4	AD
16	41100121	TD NL LOWER CLOSURE SHEET SIDE PAINTED	2	2	2	AD
17	41100123	TD NL LOWER CLOSURE SHEET WIDE PAINTED	2	3	4	AD
18	41100122	TD NL LOWER CLOSURE SHEET NARROW PAINTED	1	2	3	AD
19	31100099	TD NL LOWER CLOSURE SHEET CONNECTION BRACKET	8	12	16	AD
20	31102109	TD NL EVAPORATOR LOWER SHEET 2000 MM	1			AD
	31103109	TD NL EVAPORATOR LOWER SHEET 3000 MM		1		AD
	31104109	TD NL EVAPORATOR LOWER SHEET 4000 MM			1	AD
21	31102093	TD NL EVAPORATOR CLOSURE SHEET 2000 MM	1			AD
	31103093	TD NL EVAPORATOR CLOSURE SHEET 3000 MM		1		AD
	31104093	TD NL EVAPORATOR CLOSURE SHEET 4000 MM			1	AD
22	41100047	TD NL FAN MOTOR SHEET COMPLETE	2	3	4	AD
22.1	31100090	TD NL FAN SHEET	2	3	4	AD

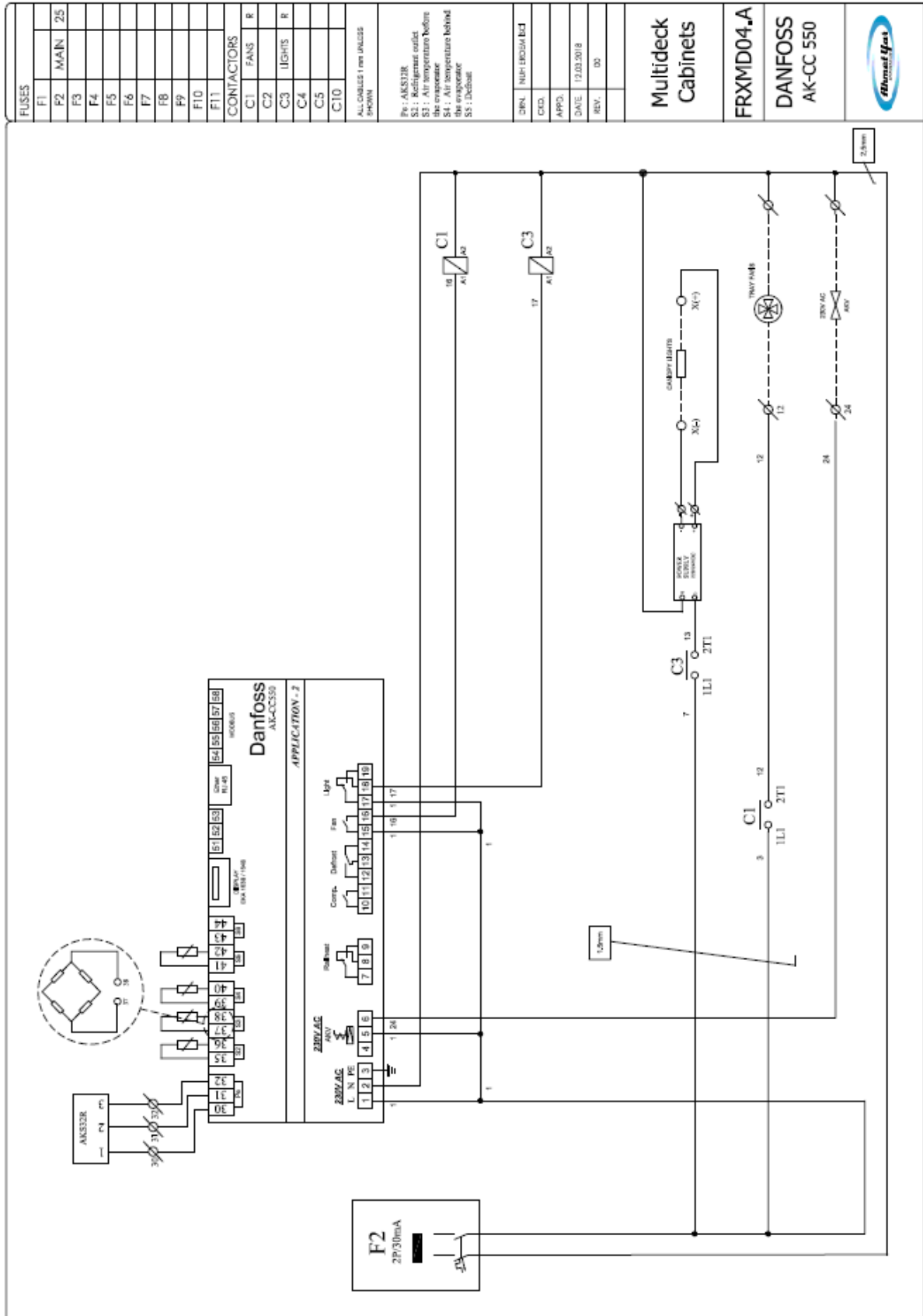
22.2	20830034	ENERGY SAVING FAN ECM HC 20-25 (EFA20250VC0426N) 2 PRESET SPEED AND PROGRAMMABLE) - ELCO	4	6	8	AD
22.3	20840104	FAN BLADE SUCTION230-28	4	6	8	AD
22.4	20850103	FAN HOUSING TERMOPLASTIK 230	4	6	8	AD
23	31100089	TD NL BACK PANEL CONNECTION U SHEET	4	6	8	AD
24	31100087	TD NL CONNECTION BRACKET OF BACK SUPPORT	4	6	8	AD
25	24710054	TD NL MODULE 2000 EVAPARATOR	1			AD
	24710055	TD NL MODULE 3000 EVAPARATOR		1		AD
	24710056	TD NL MODULE 4000 EVAPARATOR			1	AD
26	31100091	TD NL AIR DIRECTOR SHEET	4	6	8	AD
27	41102003	TD NL LOWER BACK PANEL 2000 MM	1			AD
	41103003	TD NL LOWER BACK PANEL 3000 MM		1		AD
	41104003	TD NL LOWER BACK PANEL 4000 MM			1	AD
28	41102002	TD NL UPPER BACK PANEL 2000 MM	1			AD
	41103002	TD NL UPPER BACK PANEL 3000 MM		1		AD
	41104002	TD NL UPPER BACK PANEL 4000 MM			1	AD
29	31100088	TD NL CONNECTION BRACKET OF BACK SUPPORT 2	8	12	16	AD
30	41100113	TD NL BACK PANEL SHEET SIDE RIGHT PAINTED	1	1	1	AD
	41100114	TD NL BACK PANEL SHEET SIDE LEFT PAINTED	1	1	1	AD
31	41100116	TD NL BACK PANEL SHEET WIDE PAINTED	2	3	4	AD
32	41100115	TD NL BACK PANEL SHEET NARROW PAINTED	1	2	3	AD
33	41100117	TD NL BACK PANEL SIDE SERVICE SHEET ALT PAINTED	1	1	1	AD
	41100118	TD NL BACK PANEL SIDE SERVICE SHEET UST PAINTED	1	1	1	AD
	41100119	TD NL BACK PANEL NARROW SERVICE SHEET PAINTED	1	2	3	AD
	41100120	TD NL BACK PANEL WIDE SERVICE SHEET PAINTED	2	3	4	AD
34	41102012	TD NL UPPER PANEL 2000 MM	1			AD
	41103012	TD NL UPPER PANEL 3000 MM		1		AD
	41104012	TD NL UPPER PANEL 4000 MM			1	AD
35	31100094	TD NL CEILING AIR DIRECTOR SHEET	4	6	8	AD
36	41102025	TD NL CEILING SHEET 2000 MM PAINTED	1			AD
	41103025	TD NL CEILING SHEET 3000 MM PAINTED		1		AD
	41104025	TD NL CEILING SHEET 4000 MM PAINTED			1	AD
37	41102054	TD NL HONEYCOMB Z SHEET 2000 MM PAINTED	1			AD
	41103054	TD NL HONEYCOMB Z SHEET 3000 MM PAINTED		1		AD
	41104054	TD NL HONEYCOMB Z SHEET 4000 MM PAINTED			1	AD
38	21030201	HONEY COMB 1255*560*25 MM GREY (D:6 mm) (160 aPCS)	0,3	0,45	0,6	AD
39	41101055	TD NL BASE BRACKET 1000 MM PAINTED	2	3	4	AD
40	31101079	TD NL FRONT SUCTION SHEET 1000 MM PSM	2	3	4	AD
41	41101037	TD NL BASE SUPPORT FRON SHEET 1000 MM PAINTED	2	3	4	AD
42	31102108	TD NL UPPER HINGE SHEET 2000 MM	1			AD

	31103108	TD NL UPPER HINGE SHEET 3000 MM		1		AD
	31104108	TD NL UPPER HINGE SHEET 4000 MM			1	AD
43	31100098	TD NL UPPER DECOR CONECTION SHEET	4	6	8	AD
44	41102062	TD NL UPPER DECOR SHEET 2000 MM PAINTED	1			AD
	41103062	TD NL UPPER DECOR SHEET 3000 MM PAINTED		1		AD
	41104062	TD NL UPPER DECOR SHEET 4000 MM PAINTED			1	AD
45	31102064	TD NL LIGHTENING SHEET 2000 MM PSM	1			AD
	31103064	TD NL LIGHTENING SHEET 3000 MM PSM		1		AD
	31104064	TD NL LIGHTENING SHEET 4000 MM PSM			1	AD
46	22340106	LED POWER DRIVER OUTD.100-240V. 100 W. 24 V.- PHILIPS	1	1	1	AD
	22340401	TD UPPER CANOPY LED PRIMESET VISION LDM 521 1000 mm. (39") 830 WW (3000 K.) (9290 009 67306) -PHILIPS	2	3	4	AD
	22340492	CONNECTION PROFILE 10 DEGREE 1175 mm (MOUNTING PROFILE 10 DEGR.) - PHILIPS (929000978006)	2	3	4	AD
47	23640842	TD NL CURVED UPPER PLEXY 1000MM (4 MM)	2	3	4	AD
48	31102026	TD NL DRAIN SHEET 2000 MM PSM	1			AD
	31103026	TD NL DRAIN SHEET 3000 MM PSM		1		AD
	31104026	TD NL DRAIN SHEET 4000 MM PSM			1	AD
49	31102027	TD NL DRAIN DIRECTOR SHEET 2000 MM PSM	1			AD
	31103027	TD NL DRAIN DIRECTOR SHEET 3000 MM PSM		1		AD
	31104027	TD NL DRAIN DIRECTOR SHEET 4000 MM PSM			1	AD
50	23500661	DERLIN UPPER HINGE HOUSING (BNT 26)	4	6	8	AD
51	23500536	TD NL SINGLE HINGE GLAZED CLOSING SYSTEM ALIMIUN LOWER 2000 MOD.	1		2	AD
	23500537	TD NL SINGLE HINGE GLAZED CLOSING SYSTEM ALIMIUN LOWER 3000 MOD.		1		AD
52	31102110	TD NL BACK BRACKET L SHEET 2000 MM	1			AD
	31103110	TD NL BACK BRACKET L SHEET 3000 MM		1		AD
	31104110	TD NL BACK BRACKET L SHEET 4000 MM			1	AD
53	31100093	TD NL AIR DIRECTOR SHEET BIG UPPER			2	AD
54	31100092	TD NL AIR DIRECTOR SHEET BIG LOWER			2	AD

Haz : M. Demirgunes

Yayın Tarihi : 08.02.2018 - Rev.No : 00

16. Electrical diagram



CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
/Pro (Prob parameters)							
/2	Measurement stability		4	4	4	4	4
/4	Virtual Prob: Blowing and suction probes rates for regulation		100	100	100	50	50
	0= Blow probe						
	100= Suction probe						
/5	°C or °F selection		0	0	0	0	0
	0=°C, 1=°F						
/6	Decimal		1	1	1	1	1
	0=active,						
	1= inactive						
rHS	Virtual probe regulation rate to calculate glass temperature		20	20	20	20	20
	0= Blow probe						
	100= Suction probe						
/t	Are signals and alarms viewed in non-button terminal?		0	0	0	0	0
	0= inactive						
	1= active						
/t1	probe to be viewed in button terminal		12	12	12	12	12
	0 = Terminal inactive	8 =Serial probe 8					
	1 = Probe 1	9 =Serial probe 9					
	2 = Probe 2	10 =Serial probe 10					
	3 = Probe 3	11 =Serial probe 11					
	4 = Probe 4	12 = Control probe					
	5 = Probe 5	13 = Virtual probe					
	6 = Probe 6	14 = Set point					
	7 = Probe 7						
/t2	probe to be viewed in non-button terminal		12	12	12	12	12
	0 = Terminal inactive	8 =Serial probe 8					
	1 = Probe 1	9 =Serial probe 9					
	2 = Probe 2	10 =Serial probe 10					
	3 = Probe 3	11 =Serial probe 11					
	4 = Probe 4	12 = Control probe					
	5 = Probe 5	13 = Virtual probe					
	6 = Probe 6	14 = Set point					
	7 = Probe 7						

CAREL PARAMETERS			ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
/to	button/non-button terminal configuration		3	3	3	3	3	3
	Button terminal	Non-button terminal						
	0 Yes	yes						
	1 optional	yes						
	2 Yes	optional						
3 optional	optional							
/P1	S1 ,S2 , S3 (Group 1) probe type		0	0	0	0	0	0
	0 = NTC Standard Range -50T90°C							
	1 = PTC Standard Range -50T150°C							
	2 = PT1000 Standard Range -50T150°C							
	3 = NTCL243 Standard Range -50T90°C							
/P2	S4 ,S5 (Group2) probe type		0	0	0	0	0	0
	0 = NTC Standard Range -50T90°C							
	1 = PTC Standard Range -50T150°C							
	2 = PT1000 Standard Range -50T150°C							
	3 = NTCL243 Standard Range -50T90°C							
/P3	S6 (Group3) probe type		4	4	4	4	4	4
	0 = NTC Standard Range -50T90°C							
	1 = PTC Standard Range -50T150°C							
	2 = PT1000 Standard Range -50T150°C							
	3 = NTCL243 Standard Range -50T90°C							
4 = 0 to 5V ratiometric pressure transmitter								
/P4	S7, (Group4) probe type		0	0	0	0	0	0
	0 = NTC Standard Range -50T90°C							
	1 = PTC Standard Range -50T150°C							
	2 = PT1000 Standard Range -50T150°C							
	3 = NTCL243 Standard Range -50T90°C							
	4 = 0 to 5V ratiometric pressure transmitter							
	5 = 0 to 10 V input							
6 = 4 to 20 mA input								
/P5	S8 den S11 e (Group5) serial problar probe type		0	0	0	0	0	0

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
CtL (Control)							
OFF	ON/OFF control unit on-off		0	0	0	0	0
	0 = ON; 1 = OFF;						
St	Set point		-20	-20	-20	-20	2
St2	Double thermostate control suction set value		50	50	50	50	50
rd	St set value difference		2	2	2	2	2
rd2	Double thermostate control suction set value difference		0	0	0	0	0
	0.0 = Function inactive						
r1	Allowed minimum set value		-24	-24	-24	-24	-4
r2	Allowed maximum set value		-18	-18	-18	-18	4
r3	Defrost warning activation ending in time		0	0	0	0	0
	0 = inactive, 1 = active						
r4	Automatic night set point		0	0	0	0	0
r5	Will minimum and maximum temperatures be kept to which probe in the memory?		1	1	1	1	1
	0 = Monitoring inactive						
	1 = Control probe (Sreg)						
	2 = virtual probe (Sv)						
	3 = Blow probe (Sm)						
	4 = defrost probe (Sd)						
5 = Suction probe (Sr)							
6 = superheat temperature probe (tGS)							
7 = saturated evaporation temperature probe (tEu)							
8 = auxiliary defrost probe (Sd2)							
9 = auxiliary probe (Saux)							
10 = auxiliary probe 2 (Saux2)							
rt	Recorded min and max temperature monitoring time range		-	-	-	-	-
rH	Recorded max temperature		-	-	-	-	-
rL	Recorded min temperature		-	-	-	-	-
r6	Night Control probe		0	0	0	0	0
	0 = virtual probe Sv; 1 = Suction probe Sr						
ro	For Virtual Probe, probe error offset		0.0	0.0	0.0	0.0	0.0
r7	Master solenoid valve configuration		0	0	0	0	0
	0 = local valve ;1 = network valve (connected to the Master)						
rSu			0	0	0	0	0

CAREL PARAMETERS			ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
CMP (compressor)								
c0	Compressor and fan starting time delay		0	0	0	0	0	0
c1	Minimum time between successive start		0	0	0	0	0	0
c2	Compressor minimum OFF Time		0	0	0	0	0	0
c3	Compressor minimum ON Time		0	0	0	0	0	0
c4	Control probe error duty time. Compressor and solenoid outlet works for the time stated there		0	0	0	0	0	0
	holds for 15 minutes and works again.							
	0 = Compressor/valve always OFF; 100 = compressor/valve always ON							
cc	Continuous cycle time		1	1	1	1	1	1
c6	Post-continuous cycle alarm by-pass		60	60	60	60	60	60
c7	Maximum pump down time		0	0	0	0	0	0
Def (defrost)								
d0	Defrost type		4	0	0	0	0	0
	0 = temperature-based heater	4 = time and temperature-based heater defrost						
	1 = temperature-based hot gas	5 = temperature-based heater multiplied hotgas bypass						
	2 = temperature-based heater	6 = time-based heater multiplied hotgas bypass						
	3 = time-based hot gas							
d2	Defrost-end synchronization by Master		1	1	1	1	1	1
	0 = unsynchronous; 1 = synchronous							
d1	Time between defrosts		8	8	6	6	6	6
dt1	Defrost-end temperature, Evaporator Sd1		10	10	12	12	10	10
dt2	Defrost-end temperature,AUX Evaporator Sd2		10	10	12	12	10	10
dP1	Maximum Defrost time		35	35	40	45	45	45
dP2	Maximum Defrost time, AUX 2. Evaporator		35	35	40	45	45	45
d4	Initially defrost		0	0	0	0	0	0
	0 = No initial defrost ; 1 = inital defrost							
	(Master = network defrost; Slave = local defrost)							
d5	Defrost time delay at the beginning if d4=1		0	0	0	0	0	0
	0 = delay inactive							
d6	Terminal indicator status during defrost		2	2	2	2	2	2
	0 = Real temperature value and "dEF" flashes							
	1 = pre-defrost last temperature remains on the screen							
	2 = 'dEF' is viewed							
dd	Post-Defrost drip time		2	2	2	2	2	2
	0= No drip							

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET	
d7	defrost by-pass	0	0	0	0	0	0	
	0 = inactive ; 1 = active;							
d8	Alarm delay following defrost and door opening	30	30	30	30	30	30	
d9	Status of compressor protection times in hotgas bypass	1	1	1	1	1	1	
	0 = protection times are followed ; 1 = protection times are ignored							
Sd1	Defrost Probe value	-	-	-	-	-	-	
Sd2	Second Evaporator defrost probe value	-	-	-	-	-	-	
dC	Defrost time basis	0	0	0	0	0	0	
	0 = dl hour,dP1,dP2 and ddP minute; 1 = dl minute,Dp2 and ddP second							
d10	Time for defrost based on lamel temperature	0	0	0	0	0	0	
	0 = Function inactive							
d11	Temperature-based defrost activation temperature threshold	-30	-30	-30	-30	-30	-30	
d12	During Defrost, pressure transmitter alarm status	0	0	0	0	0	0	
	probe failure							failure in supervisor
	0 inactive							active
	1 active							active
	2 inactive							inactive
3 active	inactive							
dS1	Compressor stop time for successive defrost (when stops for this time, defrost ends,	0	0	0	0	0	0	
	0 = Function inactive							
dS2	Compressor operation time for successive defrost (defrost starts when the	120	120	120	120	120	120	
ddt	Defrost end temperature offset for Power defrost	0.0	0.0	0.0	0.0	0.0	0.0	
ddp	Defrost time offset for Power defrost	0	0	0	0	0	0	
dn	Nominal Defrost bypass time rate	75	75	75	75	75	75	
d1S	daily defrost based on td1 time zone	0	0	0	0	0	0	
	0 = inactive							8 = 3 hours 0 minute
	1 = 24 hours 0 minute							9 = 2 hours 40 minutes
	2 = 12 hours 0 minute							10 = 2 hours 24 minutes
	3 = 8 hours 0 minute							11 = 2 hours 11 minutes
	4 = 6 hours 0 minute							12 = 2 hours 0 minute
	5 = 4 hours 48 minutes							13 = 1 hour 0 minute
	6 = 4 hours 0 minute							14 = 30 minutes
7 = 3 hours 26 minutes								

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
d2S	see d1S parameter for td1 time zone daily defrosts	0	0	0	0	0	0
dH1	Pumpdown time	0	0	0	0	0	0
	0= pump down inactive						
dHG	Multiplied hot gas bypass type	0	0	0	0	0	0
	0 = Compensator valve is OFF usually						
	1 = Compensator valve is ON usually						
ALM (Alarm)							
AA	Determination of temperature probe for AH and AL alarms		1	1	1	1	1
	1 = control (sreg)	8 = auxiliary defrost probe (Sd2)					
	2 = virtual (Sv)	9 = auxiliary probe (Saux)					
	3 = blow (Sm)	10 = auxiliary probe 2 (Saux2)					
	4 = defrost (Sd)	11 = ortam sıcaklığı (SA)					
	5 = suction (Sr)	12 = ortam nemi (SU)					
	6 = superheat temperature probe(tGS)	13 = cam sıcaklığı (Syt)					
	7 =SH pressure transmitter temperature equivalence (tEu)	14 = çığırma noktası (SdP)					
AA2	Determination of temperature probe for AH2 and AL2 alarms control AA parameter		5	5	5	5	5
A0	Low and high temperature alarm difference		2.0	2.0	2.0	2.0	2.0
A1	Threshold type for AL and AH 1. Alarm delays		0	0	0	0	0
	0 = relative AL and AH set value 1 = absolute AL and AH absolute values						
A2	Threshold type for AL2 and AH2 2. Alarm delays		0	0	0	0	0
	0 = relative AL and AH set value 1 = absolute AL and AH finite values						
AL	Low temperature 1. alarm threshold		4	4	4	4	4
AH	High temperature 1. alarm threshold		5	5	5	5	5
AL2	Low temperature 2. alarm threshold		0	0	0	0	0
AH2	High Temperature 2. alarm threshold		0	0	0	0	0
Ad	Low and high temperature alarm alarm delay		15	15	15	15	15
A4	ID1 digital input configuration in S4 input		0	0	0	0	0
	0 = input is not active	5 = kapı switci konfigürasyonu kompresör ve fanlar OFF					
	1 = momentary external alarm	6 = uzaktan ON/OFF					
	2 = delayed external alarm	7 = perde switchi					
	3 = defrost activation	8 = sürekli çevrim başlama / durma					
	4 = defrost starting	9 = ışık sensörü					

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
A5	ID2 digital input configuration in S5 input, see the list in A4 parameter	0	0	0	0	0	0
A6	In the event of external alarm, solenoid/compressor working times. Compressor and solenoid work for this time, stop for 15 minutes and work againn.	0	0	0	0	0	0
	0 = Compressor/valve always OFF; 100 = compressor/valve always ON						
A7	Time delay for delayed external alarm	0	0	0	0	0	0
A8	Virtual digital input configuration see the list in A4 parameter	0	0	0	0	0	0
A09	Digital input selection transferred from master to slave		0	0	0	0	0
	0 = supervisor	3 = D13					
	1 = D11	4 = D14					
	2 = D12	5 = D15					
A10	ID3 digital input configuration in S6 input see the list in A4 parameter	0	0	0	0	0	0
A11	Id4 digital input configuration in S7 input, see the list in A4 parameter	0	0	0	0	0	0
A12	Digital input configuration in D15 input, see the list in A4 parameter	0	0	0	0	0	0
Ar	Is alarm signal in slaves shown in master?	1	1	1	1	1	1
	0 = no ; 1 = yes						
A13	When slaves are offline, hotgas bypass procedure	0	0	0	0	0	0
	0 = inactive 1 = active						
Fan (Evaporator fans)							
F0	Evaporator fan management	0	0	0	0	0	0
	0 = always ON						
	1 = Fan activation Sd defrost - Sv virtual (or Sd defrost - Sm blow double thermostat control) 2 =Activation Sd defrost probe						
F1	Fan activation threshold (only F0=1 and 2)	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
F2	Will fans stop when the compressor stops?	0	0	0	0	0	0
	0 =Fans work 1 = Fans stop						
F3	Status of fans during defrost	0	0	1	1	0	0
	0 = Fans work in Defrost 1 = fans stop						
Fd	Post-defrost drip fan waiting time	2	2	2	2	2	2
Frd	Fan activation difference (including variable speed fans)	2.0	2.0	2.0	2.0	2.0	2.0
F5	Evaporator fan stop threshold (difference 1C)	50.0	50.0	50.0	50.0	50.0	50.0
F6	Maximum Evaporator fan speed	100	100	100	100	100	100

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
F7	Minimum Evaporator fan speed	0	0	0	0	0	0
F8	Evaporator fan peak time	0	0	0	0	0	0
	0 = Function inactive						
F9	PWM1/' fan control output selection (by phase-break)	1	1	1	1	1	1
	0 = pulse 1 = time-dependant						
F10	Time of working of evaporator fans at maximum speed	0	0	0	0	0	0
	0 = Function inactive						
Eud (Electronic valve)							
P1	Electronic valve	2	2	2	2	2	2
	0 = not used 1 = PWM valve 2 = CAREL E2V valve						
P3	Superheat Set point	10.0	10.0	10.0	10.0	10.0	10.0
P4	Proportional rate	15.0	15.0	15.0	15.0	15.0	15.0
P5	Integration rate (Integral factor)	150	150	150	150	150	150
	0 = Function inactive						
P6	Derivative rate	5.0	5.0	5.0	5.0	5.0	5.0
	0 = Function inactive						
P7	LowSH: low superheat threshold	7.0	7.0	7.0	7.0	7.0	7.0
P8	LowSH: low superheat integral time	15.0	15.0	15.0	15.0	15.0	15.0
	0 = Function inactive						
P9	LowSH: düşük superheat alarm gecikmesi	600	600	600	600	600	600
	0 = alarm inactive						
P10	Will solenoid valve be OFF in the event of low superheat or low suction temperature?	0	0	0	0	0	0
	1 = OFF is active						
P11	LSA: low evaporation temperature alarm	-45.0	-45.0	-45.0	-45.0	-45.0	-45.0
P12	LSA: alarm delay	600	600	600	600	600	600
	0 = alarm inactive						
P13	LSA: alarm difference (C)	10.0	10.0	10.0	10.0	10.0	10.0
	0 = reset the alarm all the time automatically						
P14	('blo') alarm signal activation	1	1	1	1	1	1
	1= blo alarm is active						
P15	Complementary temperature acceptance value in the event of Superheat pressure	-30	-30	-30	-12	-12	-12

CAREL PARAMETERS			ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
PH	Gas type		3	3	3	3	3	3
	1 = R22	8 = R600						
	2 = R134a	9 = R600a						
	3 = R404A	10 = R717						
	4 = R407C	11 = R744						
	5 = R410A	12 = R728						
	6 = R507A	13 = R1270						
	7 = R290	14 = R417A						
OSH	Superheat offset for modulation thermostate		0.0	0.0	0.0	0.0	0.0	0.0
	0 = Function inactive							
Phr	Fast updating of valve parameters by the supervisor		0	0	0	0	0	0
	0 = fast update is inactive							
PM1	MOP: Maximum evaporation pressure temperature value		50.0	50.0	50.0	50.0	50.0	50.0
PM2	MOP: Integral time		10.0	10.0	10.0	10.0	10.0	10.0
PM3	MOP: alarm delay		0	0	0	0	0	0
	0 = Function is inactive							
PM4	MOP: MOP function delay at the beginning		2	2	2	2	2	2
PM5	MOP: activating solenoid valve shutting		0	0	0	0	0	0
	0 = OFF is inactive							
	1 = OFF is active							
PL1	LOP: Minimum evaporation pressure temperature value		-50.0	-50.0	-50.0	-50.0	-50.0	-50.0
PL2	LOP: Integral time		0.0	0.0	0.0	0.0	0.0	0.0
PL3	LOP: alarm delay		0	0	0	0	0	0
	0 = Function is inactive							
SH	Superheat value		-	-	-	-	-	-
PPU	valve ON rate		-	-	-	-	-	-
tGS	Superheat temperature sensor reading value		-	-	-	-	-	-
tEu	Superheat pressure sensor temperature value (value of the pressure equivalent to the temperature)		-	-	-	-	-	-
/cE	Saturated evaporation temperature calibration		0.0	0.0	0.0	0.0	0.0	0.0
Po6	PWM expansion valve T on/OFF period		6	6	6	6	6	6
cP1	Valve position when the control is ON		30	30	30	30	30	30
Pdd	Post-Defrost valve position		10	10	10	10	10	10
PSb	valve standby position		0	0	0	0	0	0
PF	valve opening stages		-	-	-	-	-	-

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET	
PMP	Electronic expansion valve manual operation activation	0	0	0	0	0	0	
	0 = inactive 1 = active							
PMu	Manual valve position	-	-	-	-	-	-	
Phc	Large capacity valve activation	0	0	0	0	0	0	
Cnf (Configuration)								
In	MPXPRO Unit type	1	1	1	1	1	1	
	0 = Slave 1 = Master							
Sn	Number of slave in local network	0	0	0	0	0	0	
	0 = No Slave							
H0	Supervisor and Master-Slave network address	199	199	199	199	199	199	
H1	AUX1 output configuration	8	8	8	8	8	8	
	0 = no function							7 = second Evaporator defrost output
	1 = alarm without energy normally							8 = Evaporator Fan output
	2 = energy alarm normally							9 = Glass heater output
	3 = auxiliary output							10 = Suction valve
	4 = auxiliary output shared by Master with slaves							11 = Compensation valve
	5 = Light output							12 = Solenoid valve
6 = auxiliary output shared by Master with slaves								
H2	Button set and remote control deactivation	1	1	1	1	1	1	
	1 = Button set and remote control is active							
H3	Remote control activation code	0	0	0	0	0	0	
	0 =no remote control activation code							
H4	Buzzer activation	0	0	0	0	0	0	
	0 = active; 1 = inactive							
H5	Please see AUX2 output configuration H1 parameter	7	2	2	2	2	2	
H6	Terminal button set locking configuration	0	0	0	0	0	0	
H7	Please see AUX3 output configuration H1 parameter	5	5	5	5	5	5	
H8	Output association with time bands	0	0	0	0	0	0	
	0 = Light 1 = AUX							

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
H9	Output association with AUX button	0	0	0	0	0	0
	0 = Light 1 = AUX						
H10	Compressor output configuration	0	0	0	0	0	0
	0 = Cooling 1 = heating						
H11	Fan output configuration	0	0	0	0	0	0
	0 = Cooling 1 = Heating						
H12	Light sensor threshold	25	25	25	25	25	25
H13	Please see AUX4 output configuration H1 parameter	12	12	12	12	12	12
Hdn	default set parameters number	0	0	0	0	0	0
Htc	External time card insertion	0	0	0	0	0	0
	0 = not inserted						
rHu	Manual glass heater activation rate (rHt period)	70	70	70	70	70	70
	0 = Function is inactive						
rHt	Manual glass heater activation period	5	5	5	5	5	5
	0 = Function is inactive						
rHo	Glass heater modulation offset	2.0	2.0	2.0	2.0	2.0	2.0
rHd	Glass heater modulation difference	0.0	0.0	0.0	0.0	0.0	0.0
rHL	PWM output load type for glass heater modulation	0	0	0	0	0	0
	0 = resistant 1 = inductive						
rHA	Factor A for calculated glass temperature	2	2	2	2	2	2
rHb	Factor B for calculated glass temperature	22	22	22	22	22	22
HSt (Alarm log)							
H90 to 9	0 dan 9'a alarmlar (sete basın)	-	-	-	-	-	-
---	0 dan 9'a alarm kodu	-	-	-	-	-	-
h_	0 dan 9'a alarm houri	0	0	0	0	0	0
n_	0 dan 9'a alarm minutesi	0	0	0	0	0	0
---	0 dan 9'a alarm süresi	0	0	0	0	0	0
HcP (HACCP alarms)							
Ht0	HACCP alarm	0	0	0	0	0	0
HAn	HA alarm type number	0	0	0	0	0	0

CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
HA to HA2	HA type active HACCP alarm number	-	-	-	-	-	-
y_	From 1 to 3 alarm-Year	0	0	0	0	0	0
M_	From 1 to 3 alarm - month	0	0	0	0	0	0
d_	From 1 to 3 alarm - which day of the month	0	0	0	0	0	0
h_	From 1 to 3 alarm - hour	0	0	0	0	0	0
n_	From 1 to 3 alarm - minute	0	0	0	0	0	0
...	From 1 to 3 alarm - Alarm time	0	0	0	0	0	0
HFn	HF alarm type number	0	0	0	0	0	0
HF to HF2	HF type active HACCP alarm number	-	-	-	-	-	-
y_	From 1 to 3 alarm - Year	0	0	0	0	0	0
M_	From 1 to 3 alarm -month	0	0	0	0	0	0
d_	From 1 to 3 alarm - which day of the month	0	0	0	0	0	0
h_	From 1 to 3 alarm - hour	0	0	0	0	0	0
n_	From 1 to 3 alarm - minute	0	0	0	0	0	0
_	From 1 to 3 alarm - Alarm time	0	0	0	0	0	0
Htd	HACCP alarm delay	0	0	0	0	0	0
	0 = alarm viewing deactivated						
rtc (Real Time Clock)							
td1 to 8	Defrost time from 1 to 8 (press Set)	-	-	-	-	-	-
d_	From 1 to 8 defrost day selection	0	0	0	0	0	0
	0 = no defrost						
	1 to 7 = days one by one from Monday to Sunday						
	8 = every day from Monday to Friday						
	9 = everyday from Monday to Saturday						
	10 = only Saturday Sunday						
11 = everyday							
h_	Defrost hour	0	0	0	0	0	0
n_	Defrost minute	0	0	0	0	0	0
P_	Power defrost selection	0	0	0	0	0	0
	0 = Normal defrost; 1 =Power defrost						
tS1 to 8	Time band starting from 1 to 8 (press Set)	-	-	-	-	-	-
d	Time band starting: day	0	0	0	0	0	0
h	Time band starting: hour	0	0	0	0	0	0
n	Time band starting: minute	0	0	0	0	0	0
tE1 to 8	Time band end from 1 to 8 (press Set)	-	-	-	-	-	-

DANFOSS PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
Normal operation							
---	Temperature (setpoint)	-26	-20	-20	-20	0	2
Thermostat							
r01	Differential	2	2	2	2	2	2
r02	Max. limitation of setpoint setting	-22	-18	-18	-18	-4	-4
r03	Min. limitation of setpoint setting	-29	-23	-23	-23	4	4
r04	Adjustment of temperature indication	0	0	0	0	0	0
r05	Temperature unit (°C/°F)	0	0	0	0	0	0
r09	Correction of the signal from S4	0	0	0	0	0	0
r10	Correction of the signal from S3	0	0	0	0	0	0
r12	Manual service, stop regulation, start regulation (-1, 0, 1)	1	1	1	1	1	1
r13	Displacement of reference during night operation	0	0	0	0	0	0
r14	Define thermostat function	1	1	1	1	1	1
	1=ON/OFF						
	2=Modulating						
r15	Definition and weighting, if applicable, of thermostat sensors - S4% (100%=S4, 0%=S3)	100	0	0	0	50	50
r16	Time between melt periods	0	0	0	0	0	0
r17	Duration of melt periods	0	0	0	0	0	0
r21	Temperature setting for thermostat band 2 . As differential use r01	-26	-20	-20	-22	0	0
r59	Correction of the signal from S6	0	0	0	0	0	0
r61	Definition and weighting, if applicable, of thermostat sensors when night cover is on. (100%=S4, 0%=S3)	100	0	0	0	50	50
r62	Heat function	2	2	2	2	2	2
	Neutral zone between refrigeration and heat function						
r63	Time delay at switch between refrigeration and heat function	0	0	0	0	0	0
Alarms							
A03	Delay for temperature alarm	15	15	15	15	20	20
A04	Delay for door alarm	0	0	0	0	0	0
A12	Delay for temperature alarm after defrost	60	60	60	60	60	60
A13	High alarm limit for thermostat 1	-18	-15	-15	-15	4	6
A14	Low alarm limit for thermostat 1	-30	-26	-26	-26	-6	-6
A20	High alarm limit for thermostat 2	-18	-15	-15	-15	4	6
A21	Low alarm limit for thermostat 2	-30	-26	-26	-26	-6	-6
A22	High alarm limit for sensor S6 at thermostat 1	8	8	8	8	8	8
A23	Low alarm limit for sensor S6 at thermostat 1	-30	-30	-30	-30	-30	-30
A24	High alarm limit for sensor S6 at thermostat 2	8	8	8	8	8	8
A25	Low alarm limit for sensor S6 at thermostat 2	-30	-30	-30	-30	-30	-30

DANFOSS PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
A26	S6 alarm time delay	240	240	240	240	240	240
	With setting = 240 the S6 alarm will be omitted						
A27	Alarm time delay or signal on the DI1 input	30	30	30	30	30	30
A28	Alarm time delay or signal on the DI2 input	30	30	30	30	30	30
A36	Signal for alarm thermostat. S4% (100%=S4, 0%=S3)	100	0	0	0	50	50
A52	Delay for S6 (product sensor alarm) after defrost	90	90	90	90	90	90
Compressor							
c01	Min. ON-time	0	0	0	0	0	0
c02	Min. OFF-time	0	0	0	0	0	0
c05	Time delay for cutin of comp.2	5	5	5	5	5	5
Defrost							
d01	Defrost method	1	1	1	1	1	1
	0=off						
	1= EL						
	2= gAs						
d02	Defrost stop temperature	10	10	12	12	10	10
d03	Interval between defrost starts	8	8	6	6	6	6
d04	Max. defrost duration	35	35	35	35	45	45
d05	Displacement of time on cutin of defrost at start-up	0	0	0	0	0	0
d06	Drip off time	2	2	2	2	3	3
d07	Delay for fan start after defrost	2	2	2	2	0	0
d08	Fan start temperature	-5	-5	-5	-5	-5	-5
d09	Fan cutin during defrost	1	1	0	0	1	1
	0: Stopped						
	1: Running						
	2: Running during pump down and defrost						
d10	Defrost sensor	3	1	1	1	1	1
	0 =Stop on time						
	1=S5						
	2=S4						
	3=Sx						
(Application 1-8 and 10: both S5 and S6. Application 9: S5 and S5B)							
d16	Pump down delay	0	0	0	0	0	0
d17	Drain delay (used at hot gas defrost only)	0	0	0	0	0	0
d18	Max. aggregate refrigeration time between two defrosts	0	0	0	0	0	0
d20	Heat in drip tray. Time from defrosting stops to heating in the drip tray is switched off	30	30	30	30	30	30

DANFOSS PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET	
t45	Clock - Setting of date	REAL TIME	REAL TIME	REAL TIME	REAL TIME	REAL TIME	REAL TIME	
t46	Clock - Setting of month	REAL TIME	REAL TIME	REAL TIME	REAL TIME	REAL TIME	REAL TIME	
t47	Clock - Setting of year	REAL TIME	REAL TIME	REAL TIME	REAL TIME	REAL TIME	REAL TIME	
Miscellaneous								
o01	Delay of output signals after start-up	5	5	5	5	5	5	
o02	Input signal on DI1. Function:	0	0	0	0	0	0	
	0=not used							7=thermostat band changeover (activate r21)
	1=status on DI1							8=alarm function when closed
	2=door function with alarm when open							9=alarm function when open
	3=door alarm when open							10=Appliance cleaning (pulse signal)
	4=defrost start (pulse-signal)							11=forced cooling at hot gas defrost
	5=ext.main switch							12=night cover
6=night operation	15=case shut down							
o03	Network address	0	0	0	0	0	0	
o04	On/Off switch (Service Pin message) IMPORTANT! o61 must be set prior to o04 (used at LON 485 and DANBUSS only)	Off	Off	Off	Off	Off	Off	
o05	Access code 1 (all settings)	0	0	0	0	0	0	
o06	Used sensor type	0	0	0	0	0	0	
	0=Pt1000							
	1=Ptc1000,							
o08	Readout of software version	**	**	**	**	**	**	
o16	Max hold time after coordinated defrost	20	20	20	20	20	20	
o17	Select signal for display view. S4% (100%=S4, 0%=S3)	100	0	0	0	50	50	
o20	Pressure transmitter working range – min. value	-1	-1	-1	-1	-1	-1	
o21	Pressure transmitter working range – max. value	12	12	12	12	12	12	

DANFOSS PARAMETERS			ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET	
o30	Refrigerant setting:		19	19	19	19	19	19	
	1=R12	15=R227							29=R1270
	2=R22	16=R401A							30=R417A
	3=R134a	17=R507							31=R422A
	4=R502	18=R402A							32=R413A
	5=R717	19=R404A							33=R422D
	6=R13	20=R407C							34=R427A
	7=R13b1	21=R407A							35=R438A
	8=R23	22=R407							36=R513A
	9=R500	23=R410A							37=R407F
	10=R503	24=R170							38=R1234ze
	11=R11	25=R290							39=R1234yf
	12=R142b	26=R600							40=R448A
	13=User defined	27=R600a							41=R449A
14=R32	28=R744	42=R452A							
o30	Refrigerant setting:		19	19	19	19	19	19	
o37	Input signal on DI2. Function:		0	0	0	0	0	0	
	(0=not used.	5=ext. main switch							10=Appliance cleaning (pulse signal).
	1=status on DI2.	6=night operation							11=forced cooling at hot gas defrost.).
	2=door function with alarm when open.	7=thermostat band changeover (activate r21).							12=night cover,
	3=door alarm when open.	8=alarm function when closed.							13=coordinated defrost).
4=defrost start (pulse-signal).	9=alarm function when open.	15=case shut down							
o38	Configuration of light function:		1	1	1	1	1	1	
	1=Light follows day /night operation,								
	2=Light control via data communication via 'o39',								
	3=Light control with a DI-input,								
4=As "2", but light switch on and night cover will open if the network cut out for more than 15 minutes.									
o39	Activation of light relay (only if o38=2) On=light		Off	Off	Off	Off	Off	Off	
o41	Rail heat On time during day operations		100	100	100	100	100	100	
o42	Rail heat On time during night operations		100	100	100	100	100	100	
o43	Rail heat period time (On time + Off time)		10	10	10	10	10	10	
o46	Appliance cleaning.		0	0	0	0	0	0	
	0=no Appliance cleaning.								
	1=Fans only.								
	2=All output Off.								
o61	Selection of EL diagram. See overview page 12 and 13		9	1	4	4	1	1	
o62	Download a set of predetermined settings. See overview page 27.		0	0	0	0	0	0	

DANFOSS PARAMETERS			ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET	
o64	Access code 2 (partial access)		0	0	0	0	0	0	
o67	Replace the controllers factory settings with the present settings		Off	Off	Off	Off	Off	Off	
o84	Input signal on DI3. Function: (high voltage input)		0	0	0	0	0	0	
	(0=not used.	6=night operation,							12=night cover.
	1=status on DI2.	7=thermostat band changeover (activate r21)							13=Not used.
	2=door function with alarm when open.	8=Not used.							14=Refrigeration stopped (forced closing)).
	3=door alarm when open	9=Not used.							15=case shut down
	4=defrost start (pulse-signal).	10=Appliance cleaning (pulse signal).							
	5=ext. main switch	11=forced cooling at hot gas defrost,							
o85	Rail heat control		0	0	0	0	0	0	
	0=not used,								
	1=pulse control with timer function (o41 and o42),								
	2=pulse control with dew point function								
o86	Dew point value where the rail heat is minimum		8	8	8	8	8	8	
o87	Dew point value where the rail heat is 100% on		17	17	17	17	17	17	
o88	Lowest permitted rail heat effect in %		30	30	30	30	30	30	
o89	Time delay from "open door" refrigeration is started		30	30	30	30	30	30	
o90	Fan operation at stopped cooling (forced closing): 0= Stopped (defrost allowed)		1	1	1	1	1	1	
	1= Running (defrost allowed)								
	2= Stopped (defrost not allowed)								
	3= Running (defrost not allowed)								
o92	1=defrost stop temperature,		1	1	1	1	1	1	
	2=S6 temperature,								
	3=S5_B temperature (application 9), 4=S3B (application 10)								
o97	Display of temperature		1	1	1	1	1	1	
	1= u56 Air temperature								
	2= u36 product temperature								
o98	Light and night blinds defined		0	0	0	0	0	0	
	0: Light is switch off and night blind is open when the main switch is off								
	1: Light and night blind is independent of main switch								

DANFOSS PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
P41	Configuration of alarm relay	1	1	1	1	1	1
	The alarm relay will be activated upon an alarm signal from the following groups:						
	1 - High temperature alarms						
	2 - Low temperature alarms						
	4 - Sensor error						
	8 - Digital input enabled for alarm 16 - Defrosting alarms						
	32 - Miscellaneous 64 - Injection alarms						
The groups that are to activate the alarm relay must be set by using a numerical value which is the sum of the groups that must be activated. (E.g.: a value of 5 will activate all high temperature alarms and all sensor error and 0 will cancel the relay function).							