

# TD 2012 USER MANUEL

---

## 1. Foreword

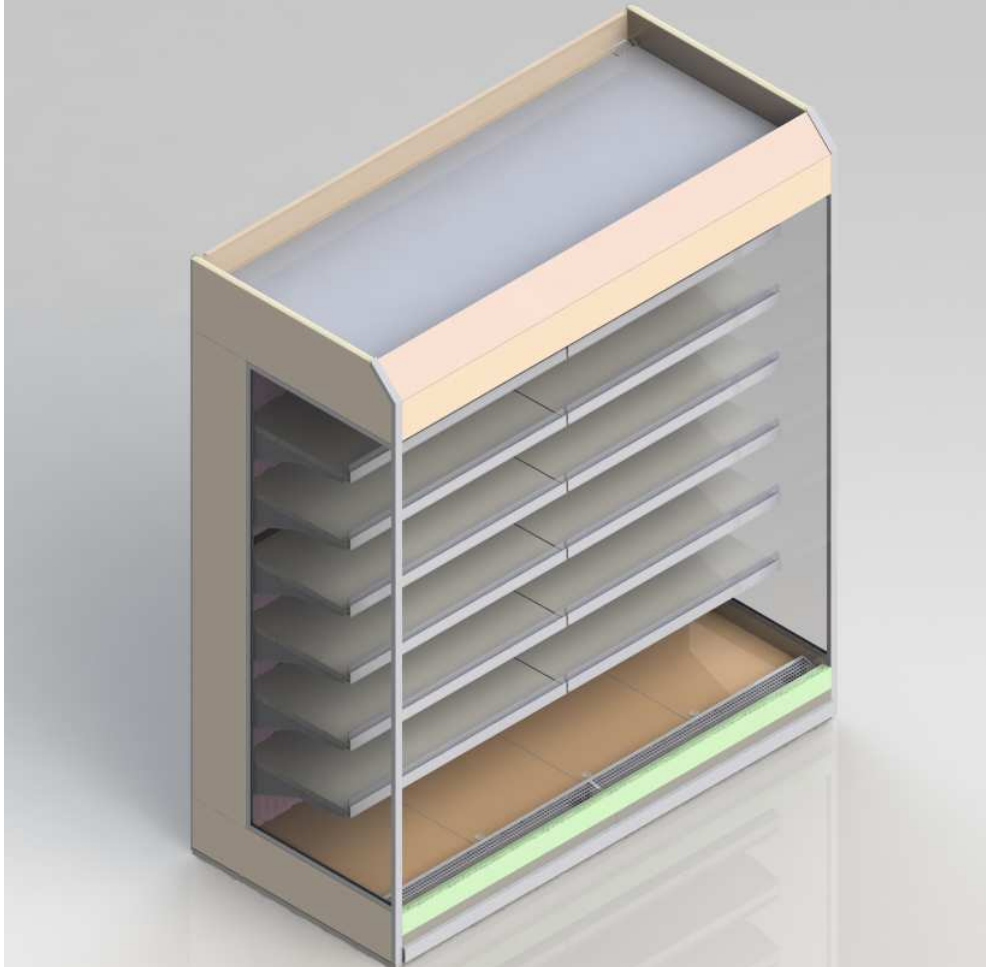
This guide is prepared for the TD 2012 cabinet. The details below are examined in general.

-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 2012 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 2500 mm, 3750 mm and 2000 CE long.

### 3. Technical Details

	<b>TECHNICAL DATA SHEET - TD</b>
---	----------------------------------

TECHNICAL DETAILS	1250 mm	2500 mm	3750 mm	2000 mm(CE) without day cover
-------------------	---------	---------	---------	----------------------------------

Refrigeration Load				
Case Temp (°C)	-1/+4			
Evap Temp (°C)	-6			
Duty (kW)	1,58	3,15	4,73	3,4
Expansion Valve (R134a)	TES2 Or	TES2 Or	TES2 Or	TES2 Or
	AKV 10-3	AKV 10-5	AKV 10-6	AKV 10-5
Pipe Size - Suction	5/8"	19 mm	22 mm	19 mm
Pipe Size - Liquid	3/8"	3/8"	1/2"	3/8"
Pipe Size - Drain	28 mm			
Cubic Capacity (dm <sup>3</sup> )	-	-	-	-
Display Area (m <sup>2</sup> )	4,48	8,97	13,46	7,18

Defrost Details		
Defrost Type	Off-cycle	
Duration (minutes)	30 min x 6	30 min x 8
Termination	Temp +8 C	

Defrost Heaters				
Evaporator (Coil)	-	-	-	-
Frame (Schott Termofrost)	-	-	-	-
Doors (Schott Termofrost)	-	-	-	-
Front Glass	-	-	-	-
Side Glass	-	-	-	-
End Walls	-	-	-	-
Body	-	-	-	-
Water Drain	-	-	-	-
Air Return	-	-	-	-
Air Intake	-	-	-	-

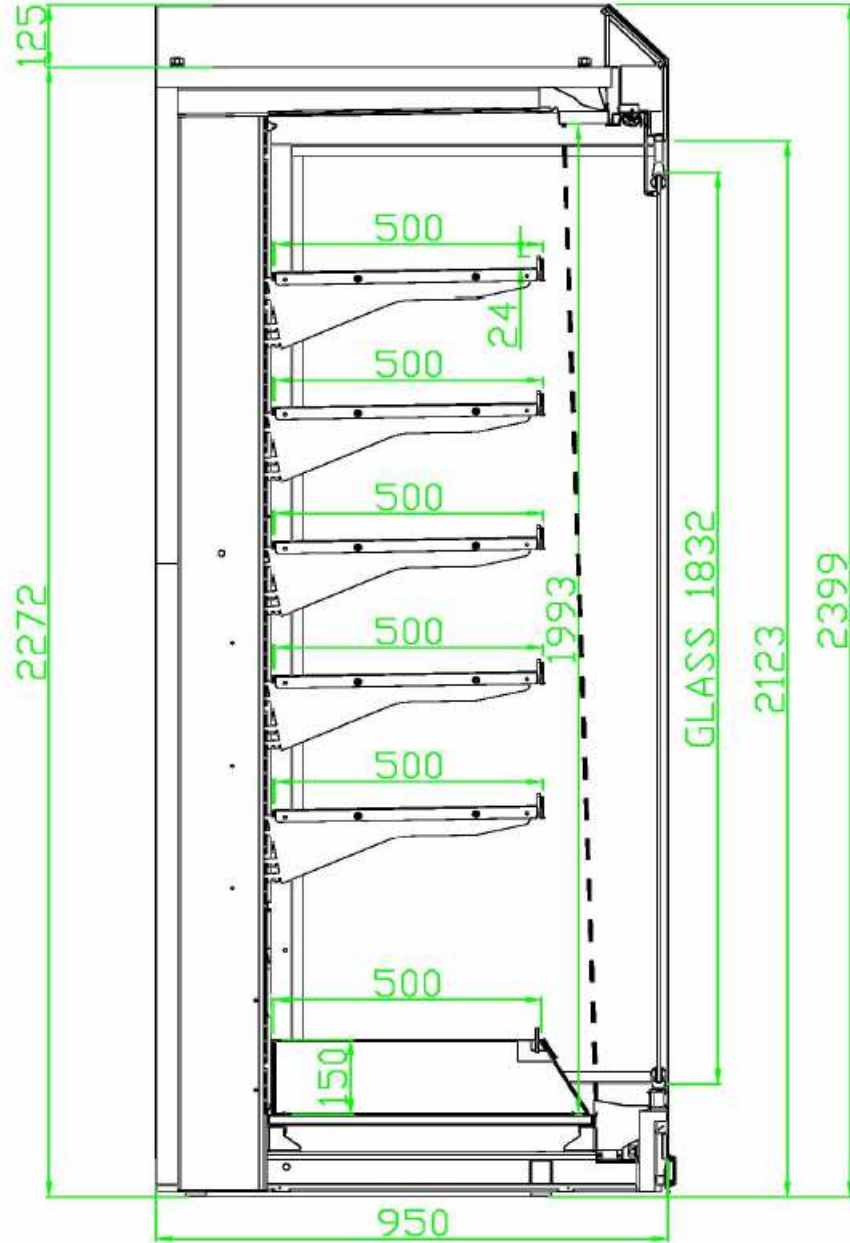
Electrical / Fans				
Supply	230 V / 50 Hz			
Lighting LED Philips LDM 421	27W	54W	81W	42W
Evaporator Fans	1100 rpm			1200 rpm
EBM M1G 055-BD91 254 mm/AO 28°	24W x 2	24W x 4	24W x 6	30W x 4

Design Conditions					
Temp (°C)	25	Humidity (%)	60	Cross Draft Air Speed (m/s)	0,2

	TECHNICAL DOCUMENTATION	CHAPTER REVISION STATUS					
		ORD.	DATE	CHANGE ORDER	ORD.	DATE	CHANGE ORDER
PRODUCT	TD	A	27.02.12	U.G.	D	19.03.12	U.GÜDÜCÜ
DATE of 1st ISSUE	08.02.2012	B	06.03.12	U.G.	B	23.04.12	U.GÜDÜCÜ
ORDER	ULAS GÜDÜCÜ	C	15.03.12	U.G.	F	04.09.12	U.GÜDÜCÜ



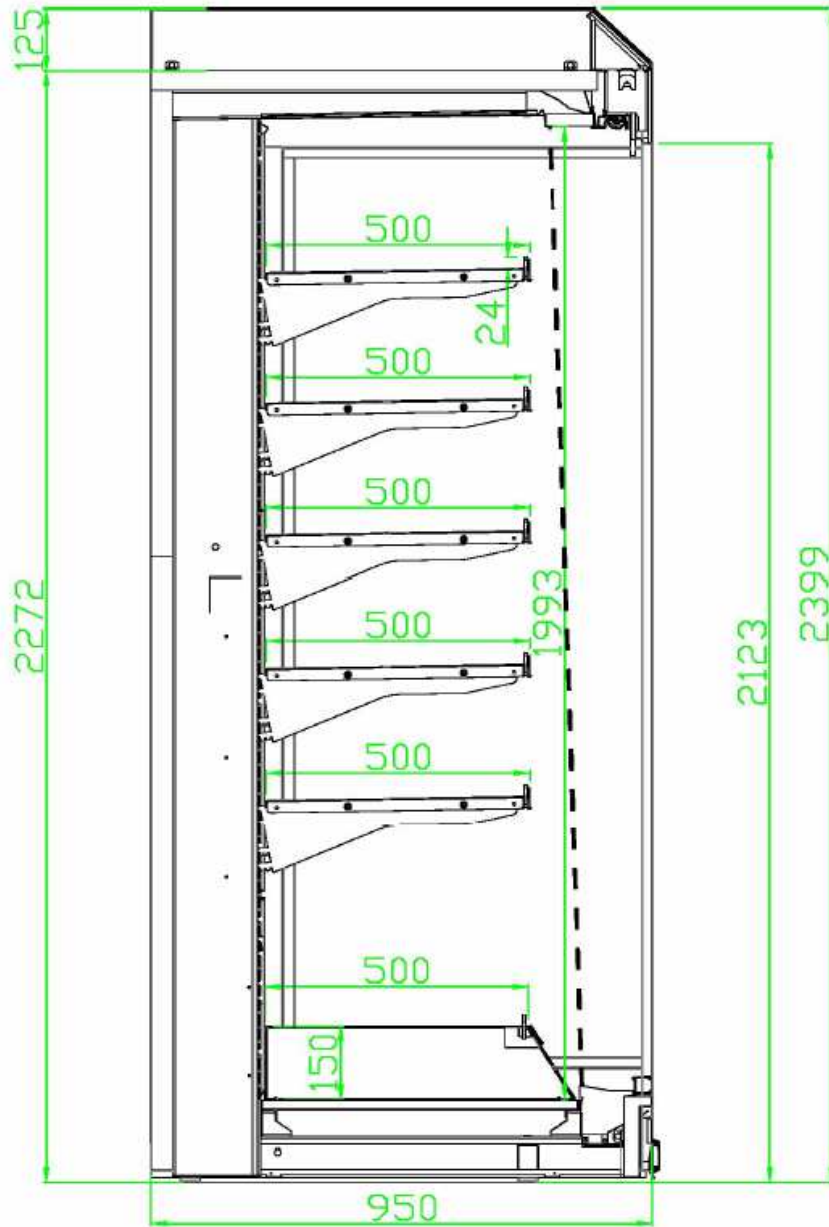
TECHNICAL DATA SHEET - TD



	TECHNICAL DOCUMENTATION	CHAPTER REVISION STATUS					
		ORD.	DATE	CHANGE ORDER	ORD.	DATE	CHANGE ORDER
PRODUCT	TD	A	27.02.12	U.G.	D	19.03.12	U.GÜDÜCÜ
DATE of 1st ISSUE	08.02.2012	B	06.03.12	U.G.	E	23.04.12	U.GÜDÜCÜ
ORDER	ULAS GÜDÜCÜ	C	15.03.12	U.G.	F	04.09.12	U.GÜDÜCÜ



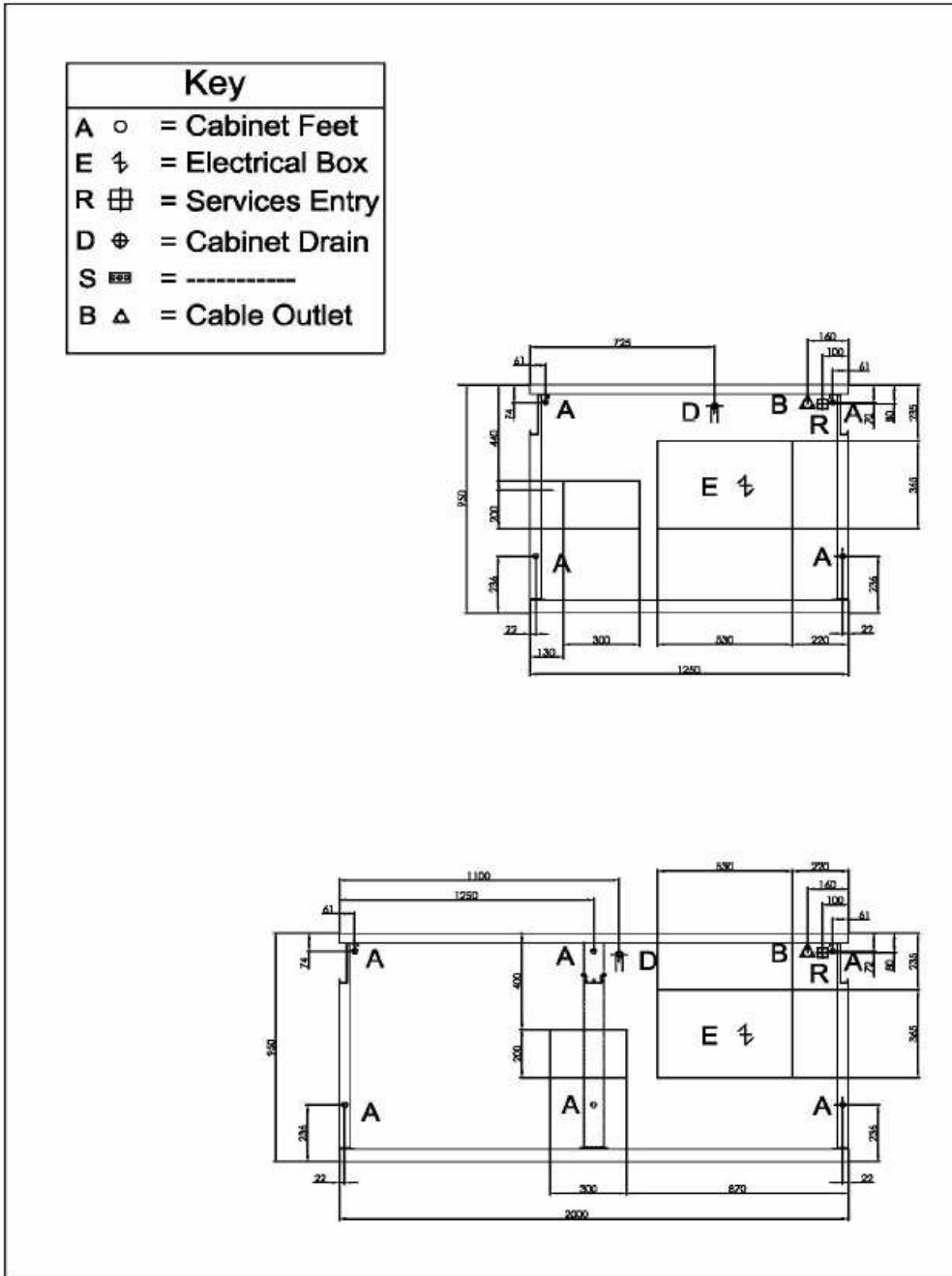
TECHNICAL DATA SHEET - TD CE




	TECHNICAL DOCUMENTATION	CHAPTER REVISION STATUS					
		ORD.	DATE	CHANGE ORDER	ORD.	DATE	CHANGE ORDER
PRODUCT	TD	A	27.02.12	U.G.	D	19.03.12	U.GÜDÜCÜ
DATE of 1st ISSUE	08.02.2012	B	06.03.12	U.G.	E	23.04.12	U.GÜDÜCÜ
ORDER	ULAS GÜDÜCÜ	C	15.03.12	U.G.	F	04.09.12	U.GÜDÜCÜ



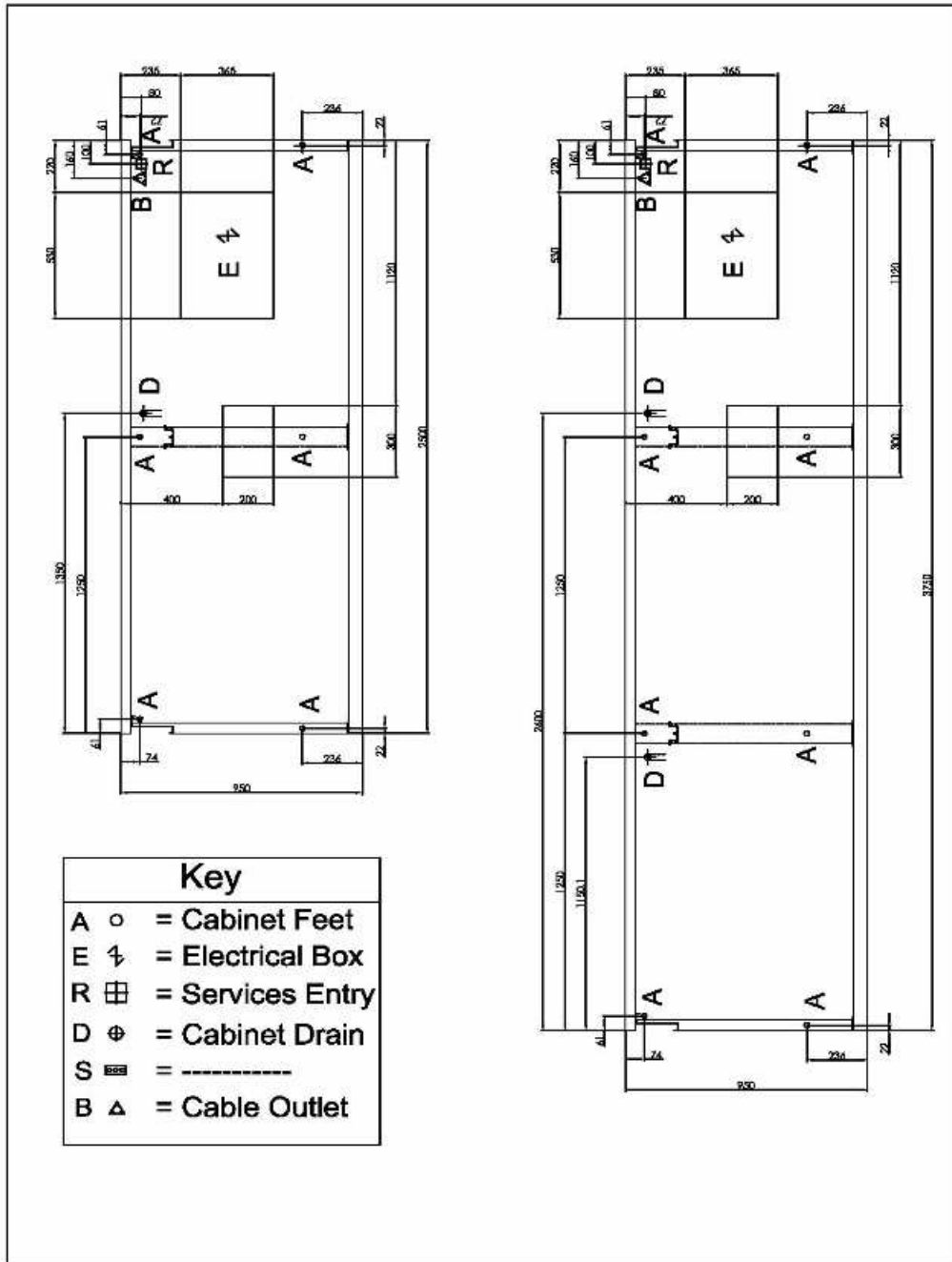
## TECHNICAL DATA SHEET - TD



	 TECHNICAL DOCUMENTATION	CHAPTER REVISION STATUS					
		ORD.	DATE	CHANGE ORDER	ORD.	DATE	CHANGE ORDER
PRODUCT	TD	A	27.02.12	U.G.	D	19.03.12	U.GÜDÜCÜ
DATE of 1st ISSUE	08.02.2012	B	06.03.12	U.G.	E	23.04.12	U.GÜDÜCÜ
ORDER	ULAS GÜDÜCÜ	C	15.03.12	U.G.	F	04.09.12	U.GÜDÜCÜ




**TECHNICAL DATA SHEET - TD**



	TECHNICAL DOCUMENTATION	CHAPTER REVISION STATUS					
		ORD.	DATE	CHANGE ORDER	ORD.	DATE	CHANGE ORDER
PRODUCT	TD	A	27.02.12	U.G.	D	19.03.12	U.GÜDÜCÜ
DATE of 1st ISSUE	08.02.2012	B	06.03.12	U.G.	E	23.04.12	U.GÜDÜCÜ
ORDER	ULAS GÜDÜCÜ	C	15.03.12	U.G.	F	04.09.12	U.GÜDÜCÜ

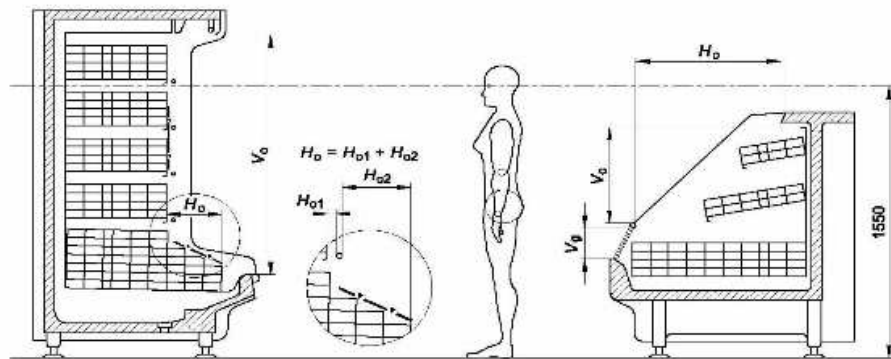





## TDA CALCULATION - TD

MODUL	Ho	Loh	Tgh	Hg	Lgh	Vo	Lov	Vg	Tgv	Lgv	TDA
2500	0,10	2,50	1	0	2,50	0,00	2,50	1,91	0,90	2,50	4,55
3750	0,10	3,75	1	0	3,75	0,00	3,75	1,91	0,90	3,75	6,82

TDA = (Ho\*Loh)+(Tgh\*Hg\*Lgh)+(Vo\*Lov)+(Vg\*Tgv\*Lgv)    prEN ISO 23953-2

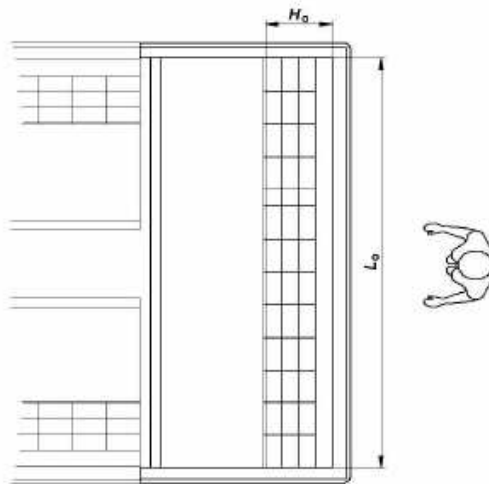
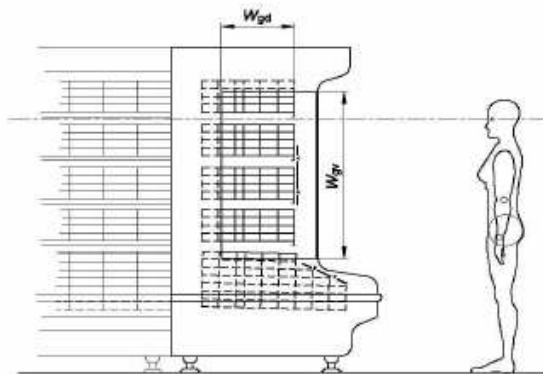


	TECHNICAL DOCUMENTATION	CHAPTER REVISION STATUS					
		ORD.	DATE	CHANGE ORDER	ORD.	DATE	CHANGE ORDER
PRODUCT	TD	A	27.02.12	Ü.G.	D	19.03.12	Ü.GÜDÜCÜ
DATE of 1st ISSUE	08.02.2012	B	06.03.12	Ü.G.	E	23.04.12	Ü.GÜDÜCÜ
ORDER	ULAS GÜDÜCÜ	C	15.03.12	Ü.G.	F	04.09.12	Ü.GÜDÜCÜ

TDA CALCULATION - TD CE

MODUL	Ho	Loh	Tgh	Hg	Lgh	Vo	Lov	Vg	Tgv	Lgv	Wgd	Tgw	Wgv	TDA
2000	0,10	2,00	1	0	2,00	0,00	2,00	1,91	0,90	2,00	0,67	0,81	1,88	4,65

$TDA = (Ho \cdot Loh) + (Tgh \cdot Hg \cdot Lgh) + (Vo \cdot Lov) + (Vg \cdot Tgv \cdot Lgv) + (Tgw \cdot Wgv \cdot Wgd)$  prEN ISO 23953-2



	TECHNICAL DOCUMENTATION	CHAPTER REVISION STATUS					
		ORD.	DATE	CHANGE ORDER	ORD.	DATE	CHANGE ORDER
PRODUCT	TD	A	27.02.12	U.G.	D	19.03.12	U.GÜBÜCÜ
DATE of 1st ISSUE	06.02.2012	B	06.03.12	U.G.	E	23.04.12	U.GÜBÜCÜ
ORDER	ULAS GÜBÜCÜ	C	15.03.12	U.G.	F	04.09.12	U.GÜBÜCÜ

## 4. Norms and Certificates

The approved certificates of norms and refrigerators that are using as reference; EN 60204-1; EN 60439-1; EN 60439-2

### ENVIRONMENTAL CLIMATIC ATMOSPHERE (EN 441-4)

This refrigerator is tested as to atmosphere heat class 3.

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

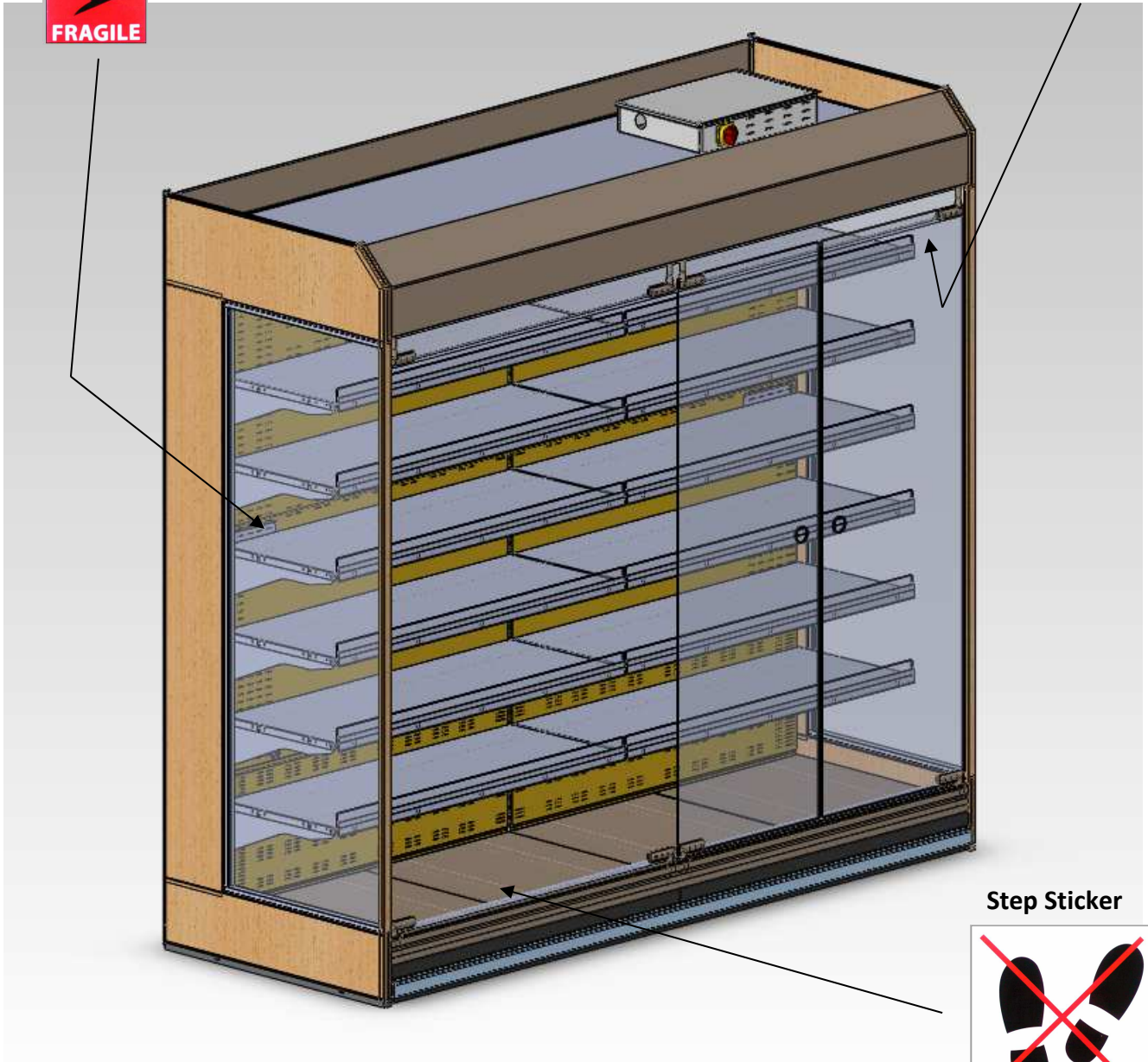
The directives that the refrigerator suits EEC 73/23 , EEC 98/37

## 5. Warning and definition stickers on the case

### Fragile Sticker

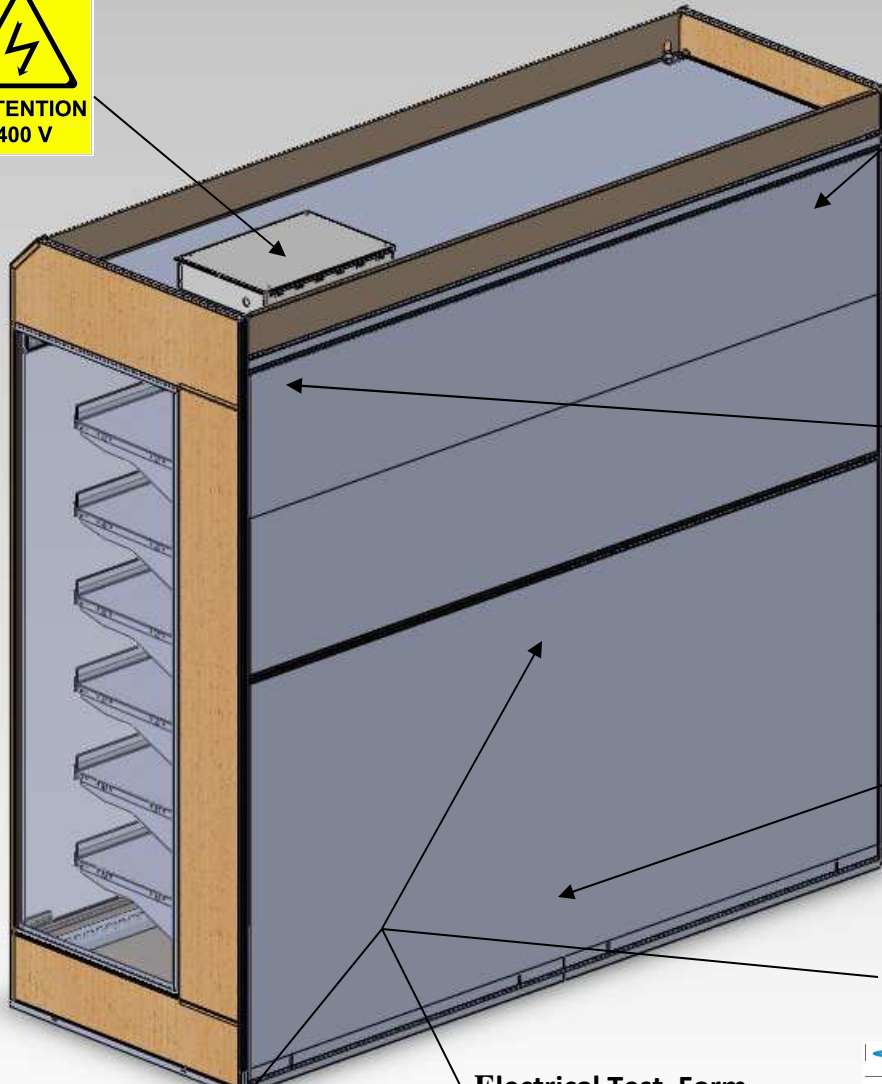


		CE	
PRODUCT	: C-80 BT	FANS	: 108 FIVE
MODEL	: TD 210-200mm	LIGHTING ON CANOPY	: 20 (10E)
PRODUCT NUMBER	: 880234/101892	LIGHTING ON DISPLAY	: 20W
PRODUCTION DATE	: 30/05/2012	WATER DRAIN HEATER	: 10E
CLASS	: 1	DEFROST HEATER	: 10E
TEMP RANGE	: -12 to +4 °C	NOISE LEVEL	: 10E
REFRIGERANT	: R 952a	MAX POWER CONSUMPTION	: 102 (10E)
TEST PRESSURE	: 12 BAR		
WORKING PRESSURE	: 27 BAR		
VOLTAGE	: 220-240 V/50Hz/1E AC		
DIRECTIVE	: 2006/96/EC-2004/108/EC		
STANDARD	: EN 60335-1/EN 60335-2-24		



### Step Sticker



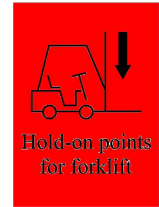


ÖRNEK KONTROL ETİKETİ Product Quality Control			
Üretim Giriş Tarihi: (Date of Production)			
Stok Kodu: (Product Code)			
Mağazi: (Customer)			
Sipariş No: (Order No.)	Model No: (Model)	Model: (Mod. No.)	
M1	M2	PR1	Azot Testi (Nitrogen Test)
M3	M4	PR2	Paketleme (Packaging)
			Elektrik Testi (Electrical Test)
			Final Kalite (Final Quality)
Form No: _____			
12.12.2007			

Pressure Sticker



Transport Sticker



Tradit Process Control Form

PROCESS CONTROL FORM		PASTE DESCRIPTION LABEL IN THIS AREA		
EPHESUS CASE (EPHESUS I)		CHECK BY	CHECK BY	CHECK BY
EXPLANATION:				
CONTROL CHECKS				
MECHANICAL ASSEMBLY OF CASE				
1	BACK PANEL/SUPPORT LEG	ACCEPTABLE		
2	AIR REFLECTOR/GENERATOR FRONT GRILL	ACCEPTABLE		
3	CEILING BRACKET	ACCEPTABLE		
4	UPPER PROFILE	ACCEPTABLE		
5	NIGHT BLIND	ACCEPTABLE		
6	BASE TRAYS	ACCEPTABLE		
7	DECOR TOP PANEL (MAX 100%)	ACCEPTABLE		
8	SAFE HOLD (NOZ) COLLECTOR PANEL	AVAILABLE		
9	INSULATE PLASTIC	ACCEPTABLE		
10	ALL PAINTED PARTS	COMPATIBILITY		
ELECTRICAL ASSEMBLY CONTROL				
1	ISOLATION OF PROBE (CABLE IN)	ACCEPTABLE		
2	FAN COMMUNICATION CARD	ACCEPTABLE		
3	CONTROLLER DETAIL	CORRECT		
4	ELECTRICAL TEST FORM	AVAILABLE		
COOLING EQUIPMENTS AND ASSEMBLY CONTROL				
1	DRYER	ACCEPTABLE		
2	COOLING SYSTEM (GAS VALVE, REFRIGERANT, DRAVER ETC.)	CORRECT		
3	DRAVER DIRECTION	CORRECT		
ACCORDING TO THE DATA ABOVE, THE CONTROLLER, THE PROBE OF PROBE AND IN THIS ALL OF THE PROBE BEING DONE				
NAME: _____				DATE: SIGNATURE: _____

Electrical Test Form

**Elektrik Test Formu**  
ELECTRICAL TEST FORM

**DİKKAT: TEST YAPARKEN KORUM ALDIDİVENİŞİ MUTLAKA TAKINIZ. ATTENTION: USE PROTECTIVE GLOVES WHILE PERFORMING TEST!**

TARİHİ / DATE: \_\_\_\_\_  
SİPARİŞ NO / ORDER NO: \_\_\_\_\_  
SERİ NO / SERIAL NO: \_\_\_\_\_  
MAĞAZA ADI / CUSTOMER NAME: \_\_\_\_\_  
MODEL : \_\_\_\_\_

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

**FONKSİYON TESTİ (FUNCTION TEST)**

TEST NO: F1 - Kontrol

AKN	İLETTİV	Watt	OK
Amp	Volt		
F3 - Fan / Fan			
F5 - Kabin Isıtıcıları / Rail heaters			
F7 - Aydınlatma / Lighting			
F9 - Defrost rezistansları / Defrost heaters			
F10 - Defrost rezistansları / Defrost heaters			

**TOPRAK YASA DİRENÇLİLİK TESTİ (CONTINUITY - IV - IBA)**

TEST NO: **TOPRAK - PANO YERELİ ARASI ÖLÇÜM YAPINIZ / MEASURE PANEL TO GROUND**

Maksimum direnç / Maximum resistance (0 - 100ohm): \_\_\_\_\_  
Test akımı / Test current (0 - 25 A): \_\_\_\_\_  
Test süresi / Test time: 15 sn

**İZOLASYON TESTİ (INSULATION RESISTANCE - RESO 500V)**

**FAZ - TOPRAK ve NÖTR-TOPRAK ARASI ÖLÇÜM YAPINIZ / MEASURE PHASE TO GROUND and NEUTRAL TO GROUND:**

L1-PE	L2-PE	L3-PE	N-PE	OK

Maksimum direnç / Maximum resistance (2M): \_\_\_\_\_  
Test voltajı / Test voltage (500 VDC): \_\_\_\_\_  
Test süresi / Test time: 15 sn

**YÜKSEK GERİLİM TESTİ (WITHSTANDING 1000V)**

**FAZ - TOPRAK ve NÖTR-TOPRAK ARASI ÖLÇÜM YAPINIZ / MEASURE PHASE TO GROUND and NEUTRAL TO GROUND:**

L1-PE	L2-PE	L3-PE	N-PE	OK

Maksimum akım / Maximum current (0 - 10 mA): \_\_\_\_\_  
Test voltajı / Test voltage (1000 V): \_\_\_\_\_  
Test süresi / Test time: 30 sn

AD SOYAD / NAME SURNAME: \_\_\_\_\_ İMZA / SIGN: \_\_\_\_\_

KONTROL YAPILDI / CONTROLLED: \_\_\_\_\_  
SON KONTROL / FINAL CONTROL: \_\_\_\_\_  
Yayın Tarihi: 04.11.2007

Tradit Cabinet Function Test

**EPHESUS CABINETS FUNCTION TESTS**

DATE: \_\_\_\_\_  
ORDER NO: \_\_\_\_\_  
SERIAL NO: \_\_\_\_\_  
CUSTOMER: \_\_\_\_\_

FAZ BİLEŞİMİ: \_\_\_\_\_  
FAN YÖNÜ: \_\_\_\_\_  
FAN HIZI: \_\_\_\_\_

TEST NO	TEST ADI	TEST SONUCU		KONTROL
		YERELİ	GENEL	
F1	FAZ BİLEŞİMİ			
F2	FAN YÖNÜ			
F3	FAN HIZI			

TEST YAPAN / TESTER: \_\_\_\_\_  
KONTROL YAPAN / CONTROLLED BY: \_\_\_\_\_



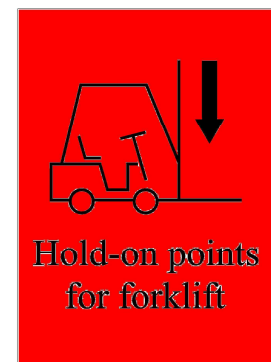
## High Voltage Sticker

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.

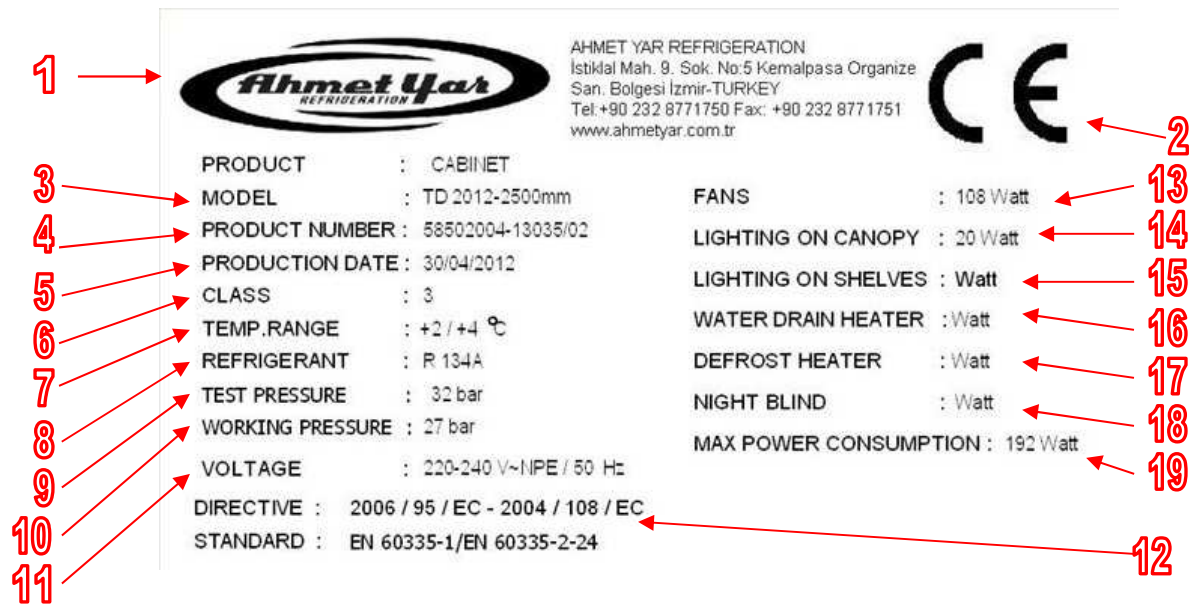


## Foot Print Sticker

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.



- 1 Logo and address info of the producer company
- 2 Product certificates and quality certificates of the producer
- 3 Model of the product
- 4 Serial number of the product
- 5 Production date of the product
- 6 Air conditioner class of the product
- 7 Temperature range of the cabinet
- 8 Type of refrigerant
- 9 Test pressure
- 10 Working pressure
- 11 Working voltage info
- 12 Approved certificates of the product and the standards&directives
- 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

Follow the instructions below for assembling.

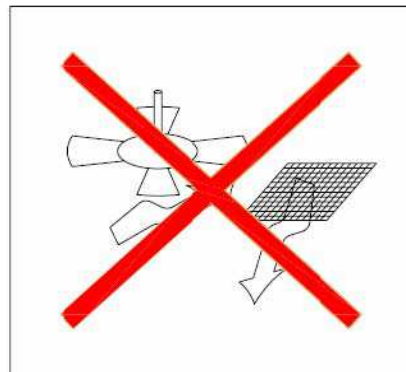
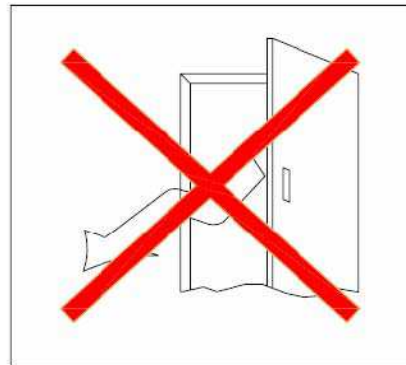
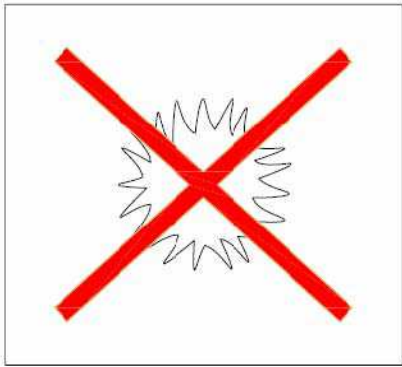
The situations that must be paid attention to placing the refrigerators

Do not leave or assemble the refrigerator at the positions below ;

Closer to any explosive gasses

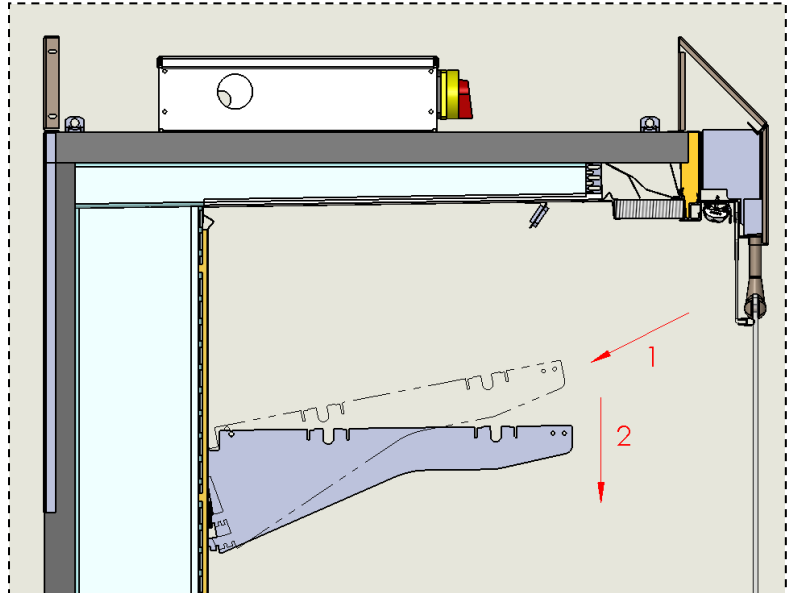
Closer to heaters

Through the draught

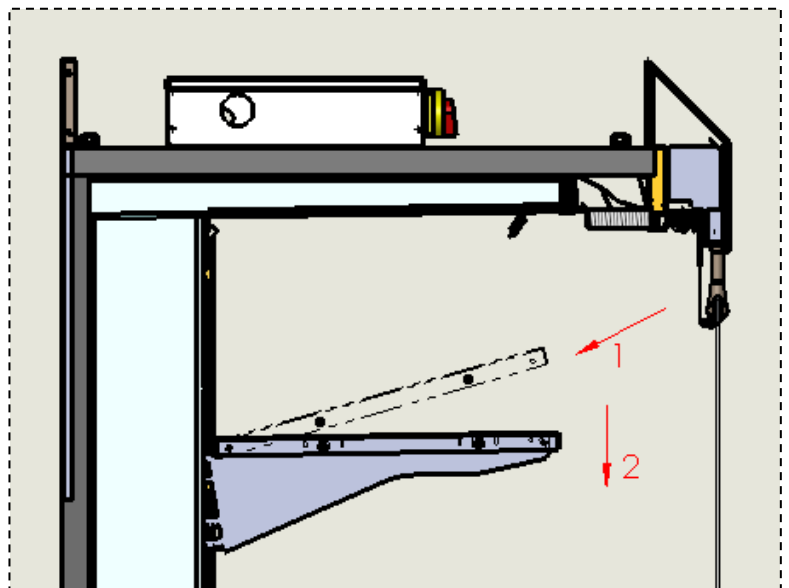


## 7. Shelf Assembly

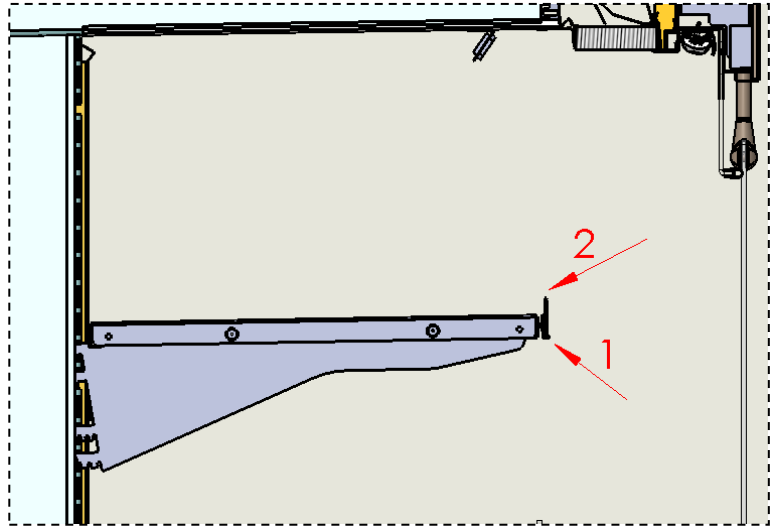
1.) Bracket ;



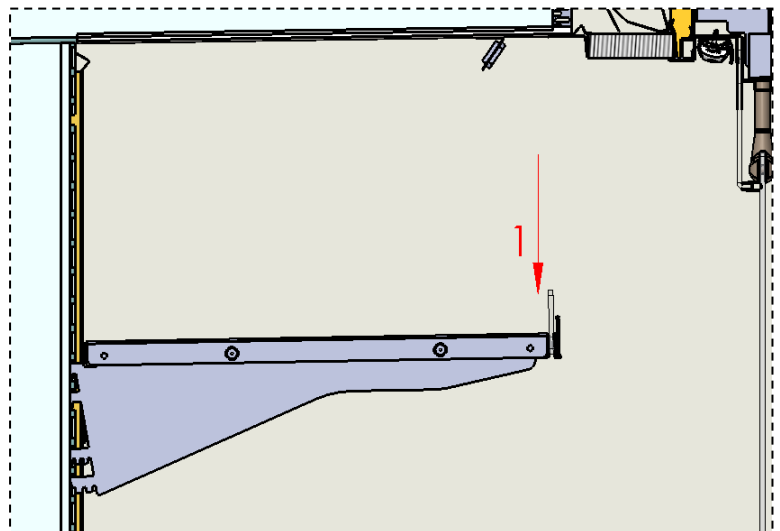
2.) Shelf ;



3.) Price rail ;



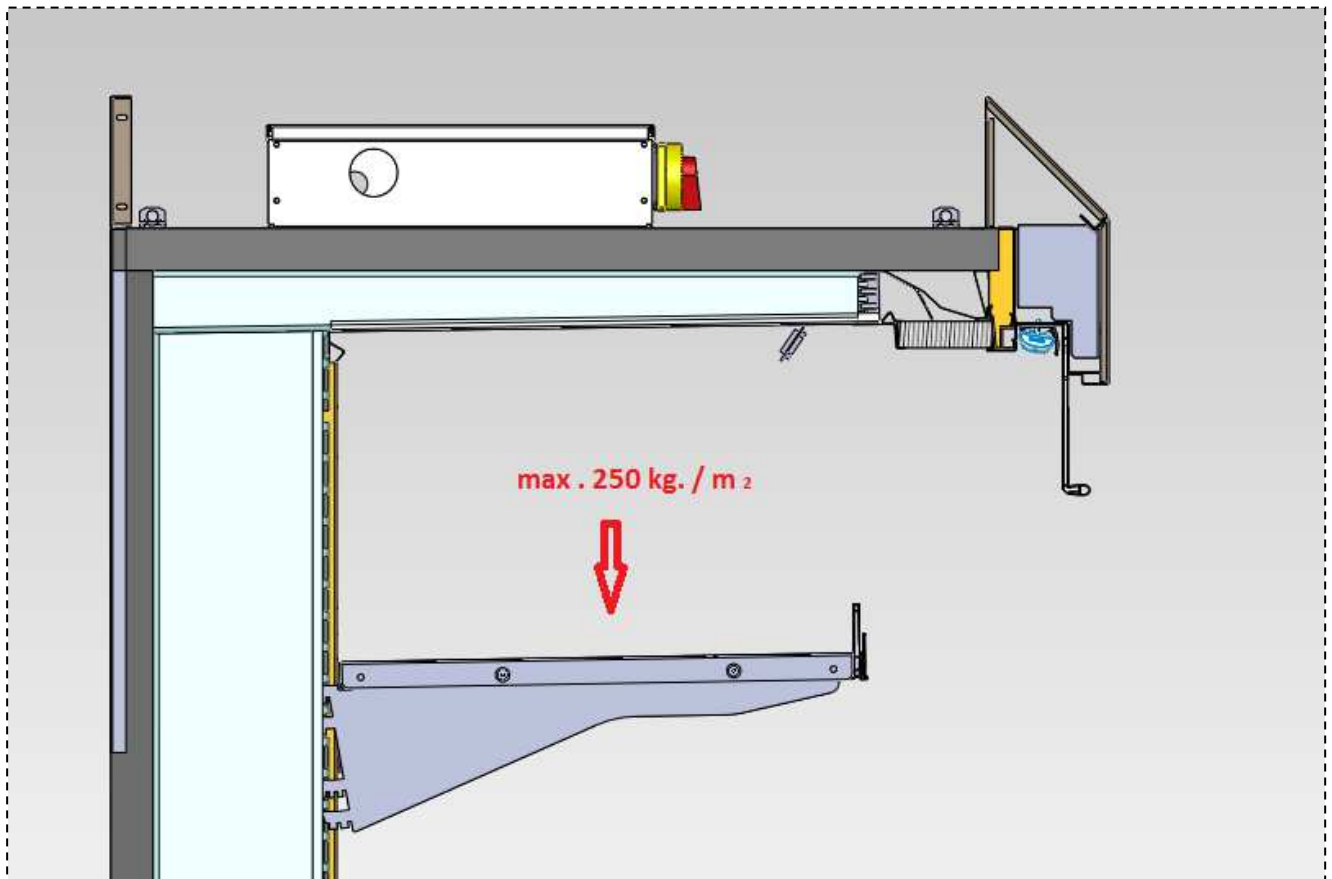
4.) Product stopper ;



## 8. 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



## 9. 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.

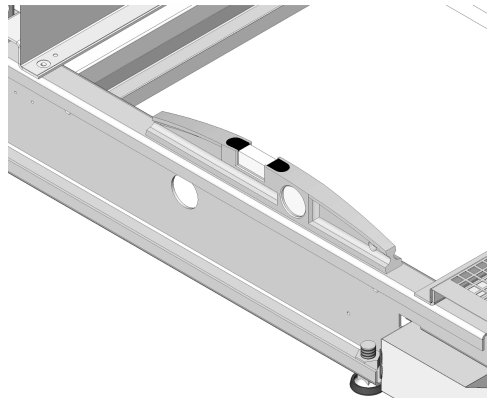


Diagram-1

### Side Pillar Connection

- Attach the connection equipments to the connection hole which is located near the refrigerator on the base tray pillars. Connection equipments and their locations are shown on the (Diagram 2-3).

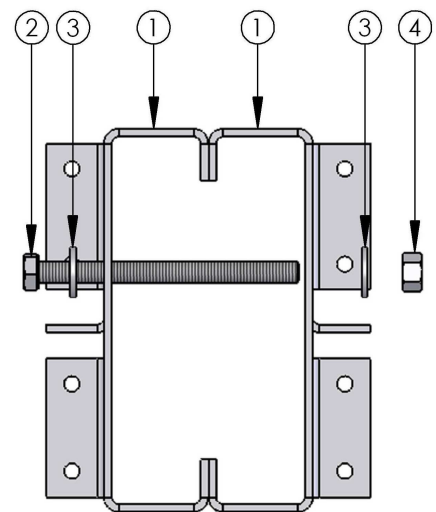
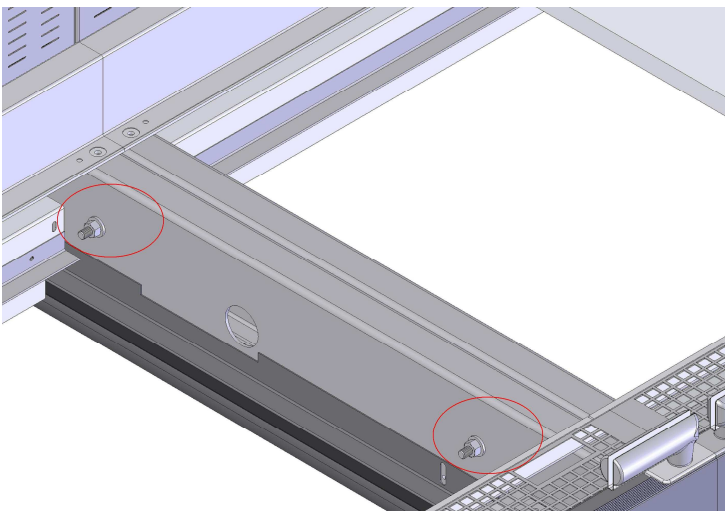


Diagram -2

POS NO	MATERIAL NAME	UNIT
1	Side Pillar	On it
2	M8x100 Hexagonal screw	2
3	M8 Washer	4
4	M8 Nut	2

**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 3-4)

Diagram 3

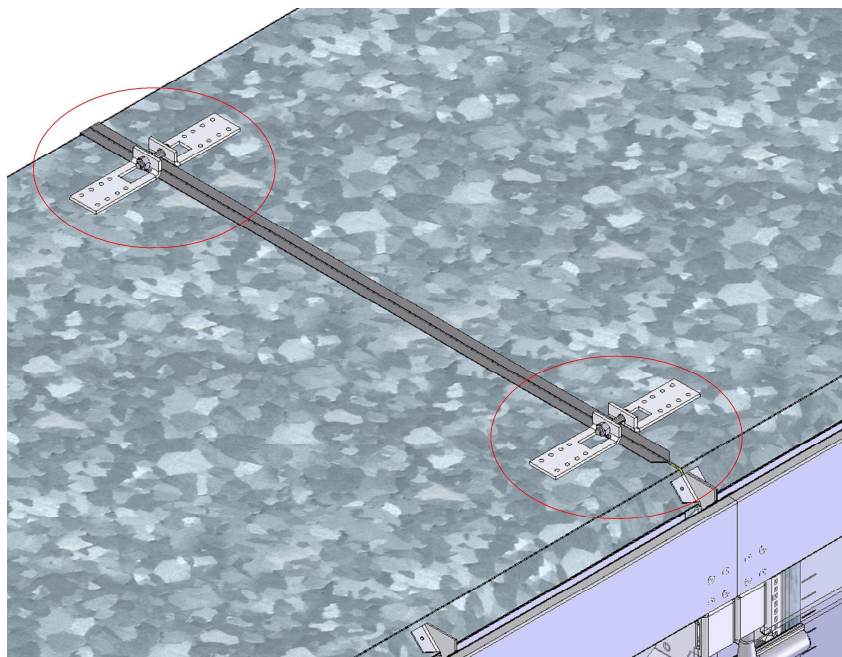
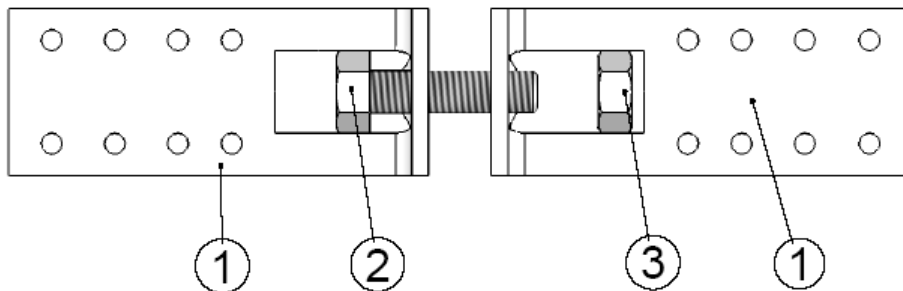


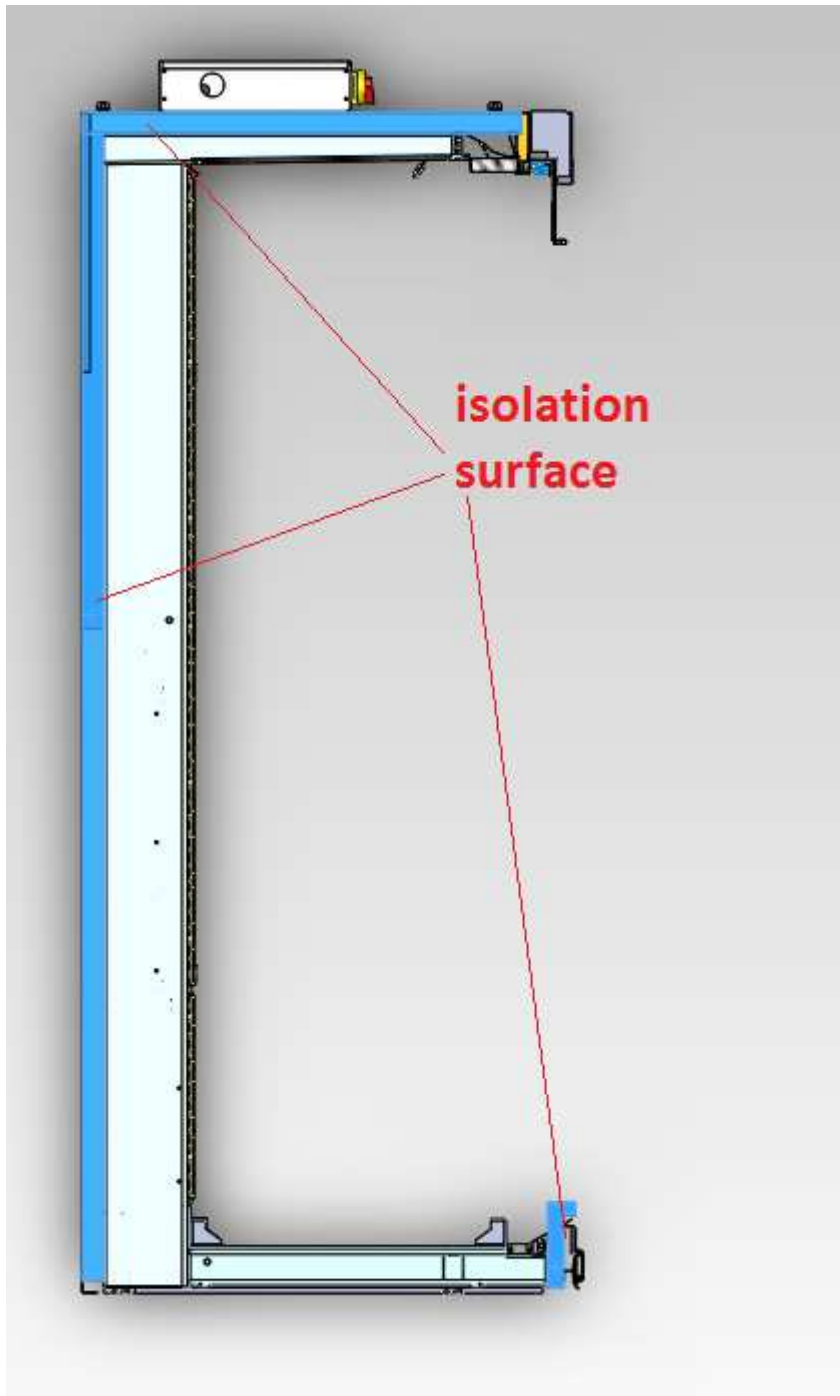
Diagram 4



POS NO	MATERIAL NAME	UNIT
1	Multiplexing Kit	4
2	M8x40 Hexagonal Bolt	2
3	M8 Nut	2

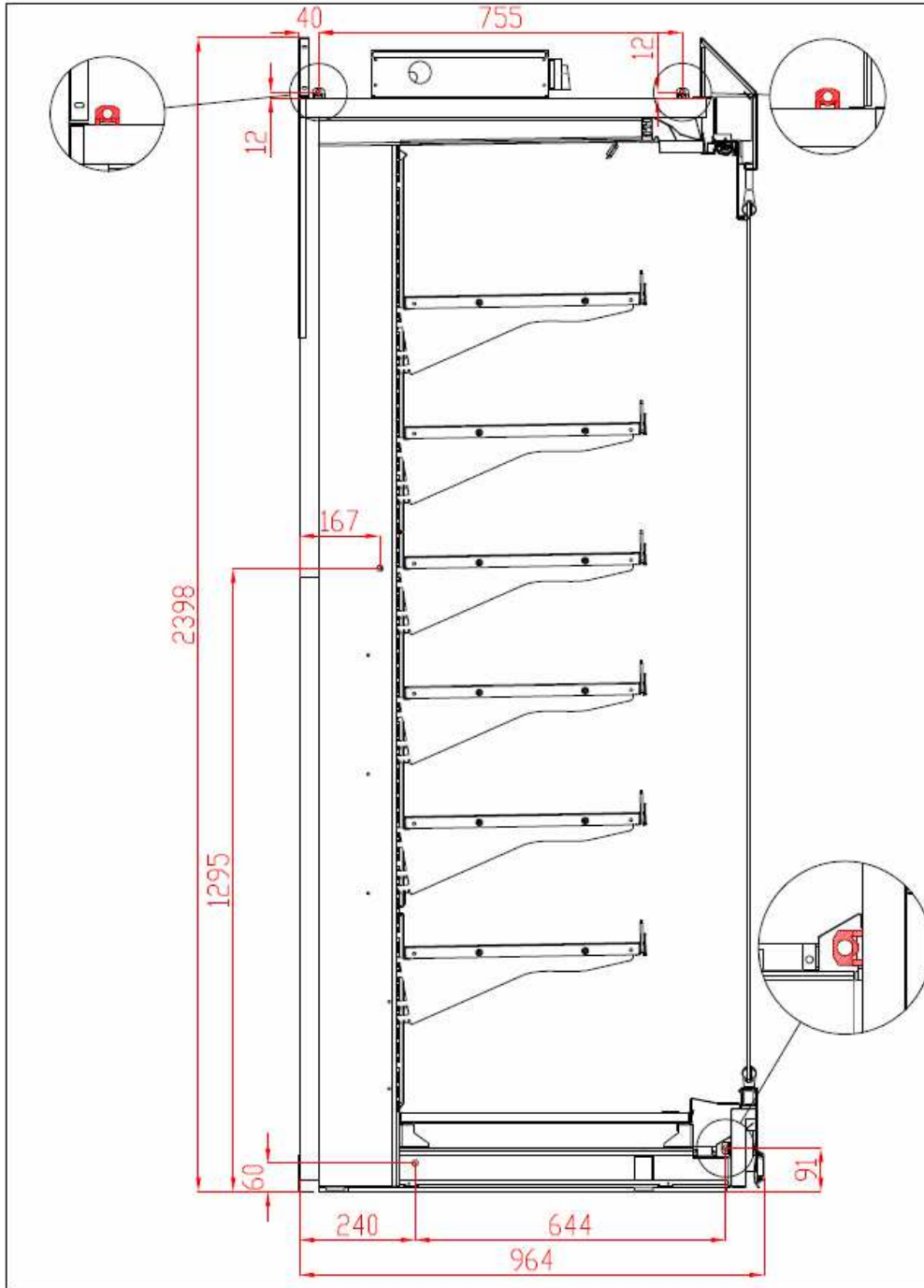
## 10. Installation of Endwalls

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 stucked are shown in Diagram 5)

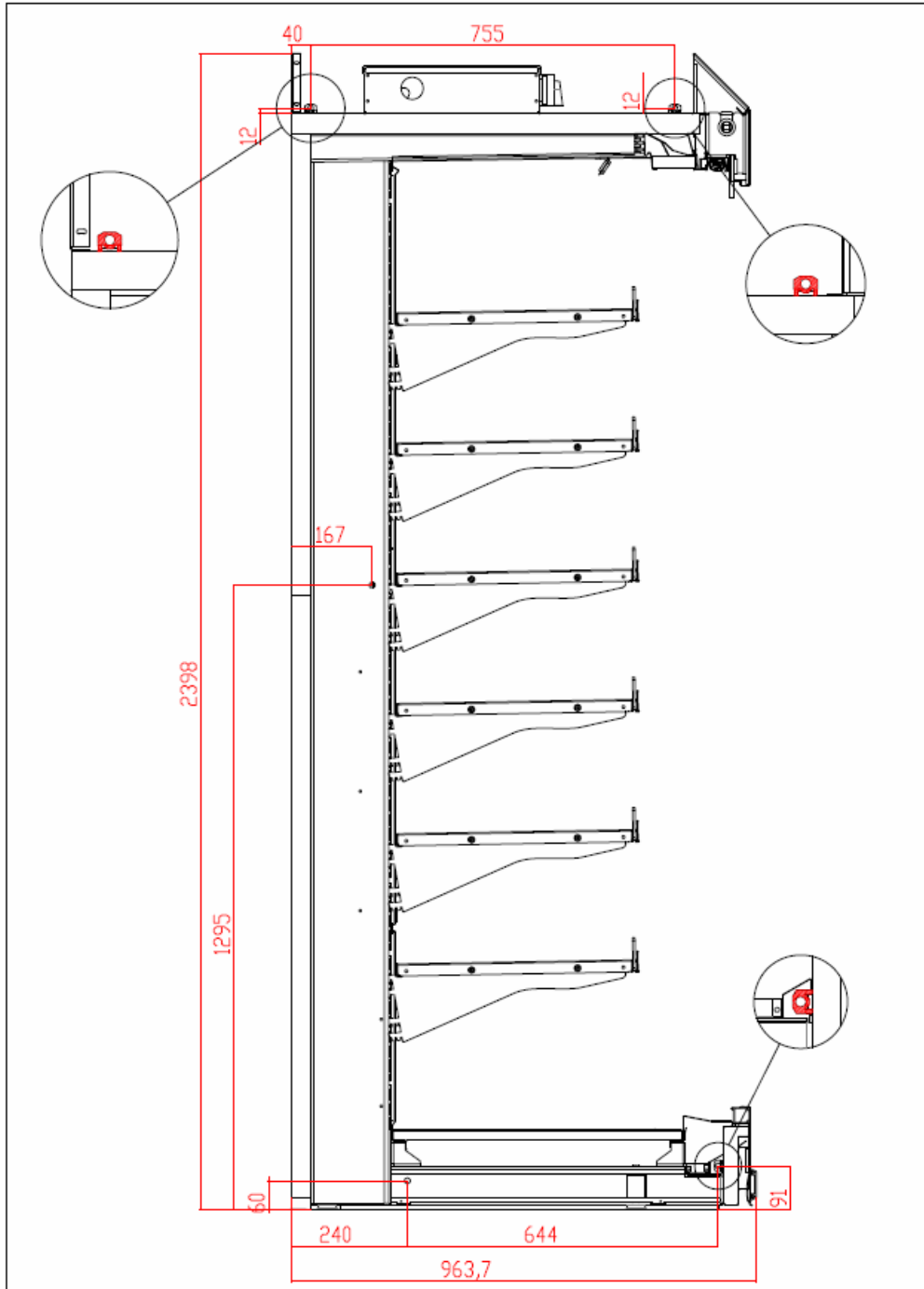




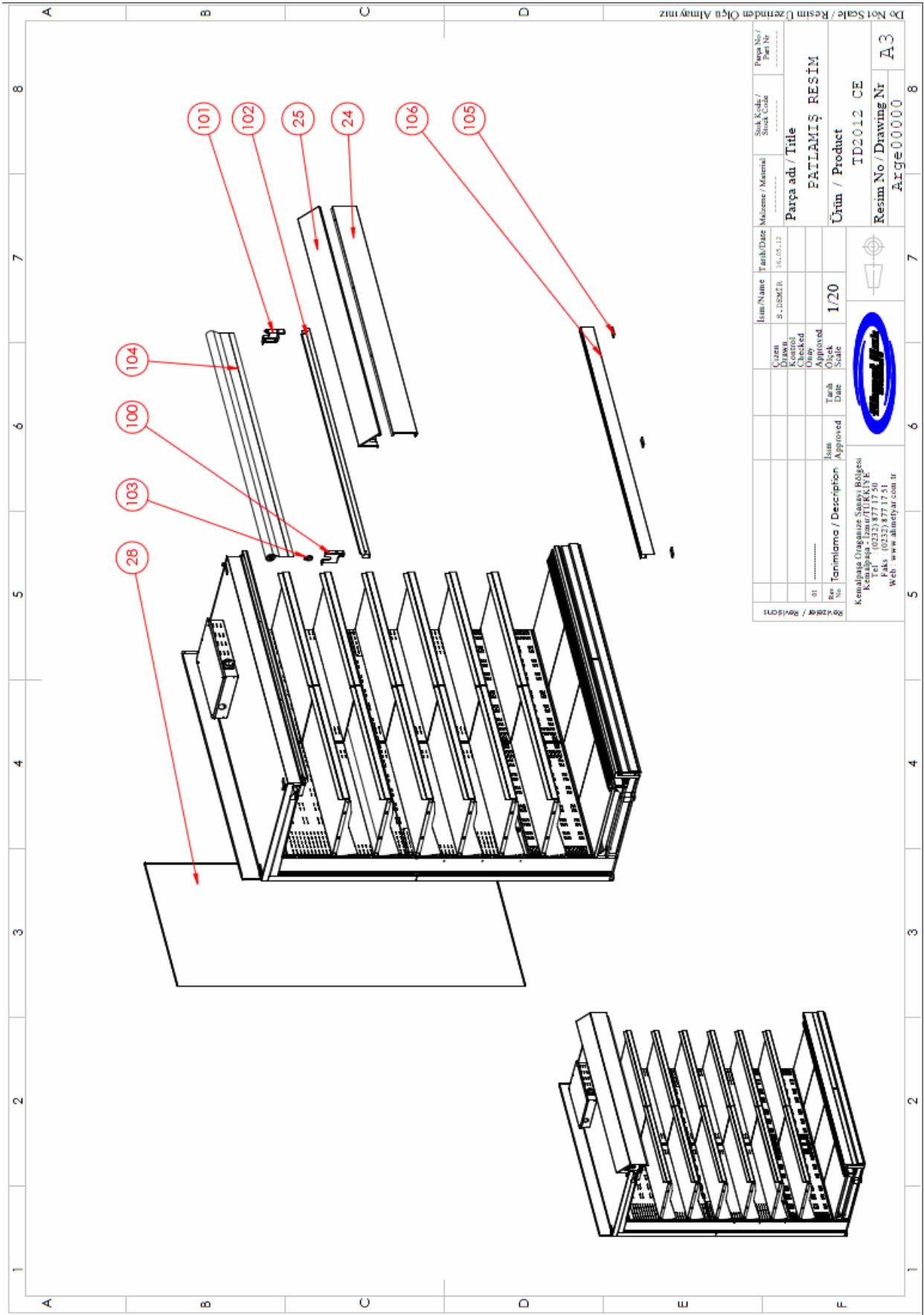
Firmamız teknik detayları haber vermesizizin deđiştirme hakkına sahiptir.  
Any technical features may be modified without notice.



Firmanız teknik detayları haber vermesizin deęişirne hakkına sahiptir.  
Any technical features may be modified without notice.



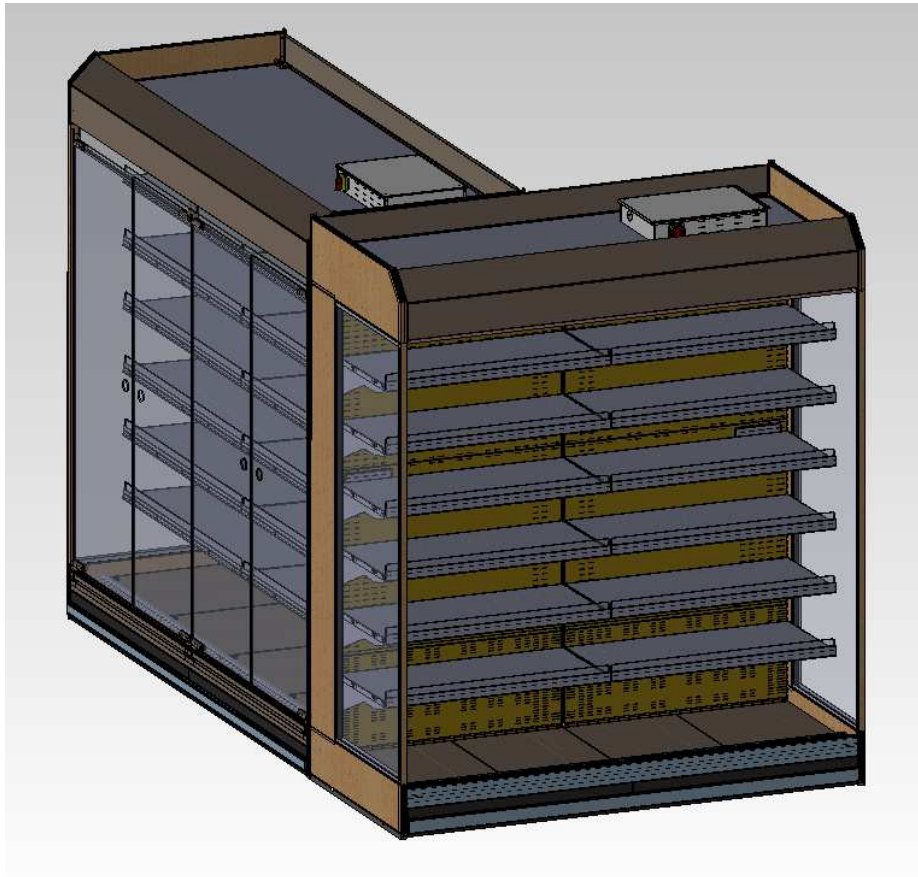
# 11. CE Modül



Revizyon / Revizyonlar	01	Tanımama / Description	İsmi / Approved	Tarih / Date	1/20	İsmi/Name	Tarih/Date	Malzeme / Material	Stok Kodu / Stock Code	Parça No / Part No
						8.1020413	14.05.12	Parça adı / Title		
								PATLAMIŞ RESİM		
								Ürün / Product		
								TD2012 CE		
								Resim No / Drawing Nr		A3
								Arççe00000		

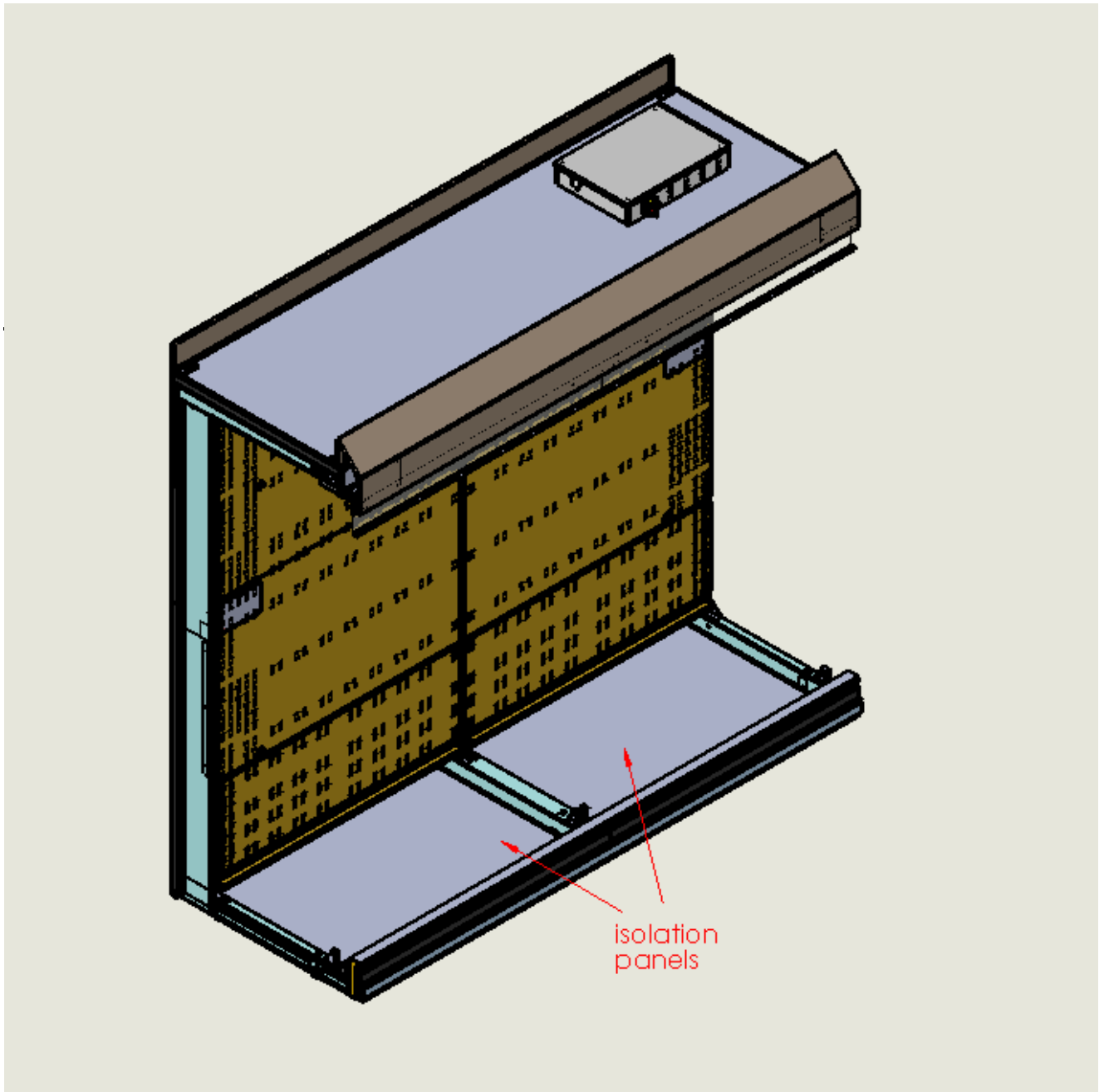
**TD2012 CE MODULE SPECIAL**

NO	STOCK CODE	DESCRIPTION	2000CE
24	48515062	TD2012 UPPER DEKOR SHEET 2000CE PAINTED	1 pcs.
25	48515063	TD2012 UPPER DEKOR SHEET EKLENTISI 2000CE PAINTED	1 pcs.
28	48515155	TD2012 BACK KAPAMA SHEET 2000CE MM PAINTED	1 pcs.
100		TD2012 CE MODULE UPPER DEKOR CONNECTION BRACKET LEFT	1 pcs.
101		TD2012 CE MODULE UPPER DEKOR CONNECTION BRACKET RIGHT	1 pcs.
102		TD2012 CE MODULE UPPER DEKOR BRACKET SUPPORT SHEET	1 pcs.
103		NIGHT BLIND CONNECTION SHEET	1 pcs.
104		ELECTRONIC NIGHT BLIND	1 pcs.
105		BENTCAM ADJUSTMENT PLATE	3 pcs.
106		BENT Q PROFILE	1 pcs.



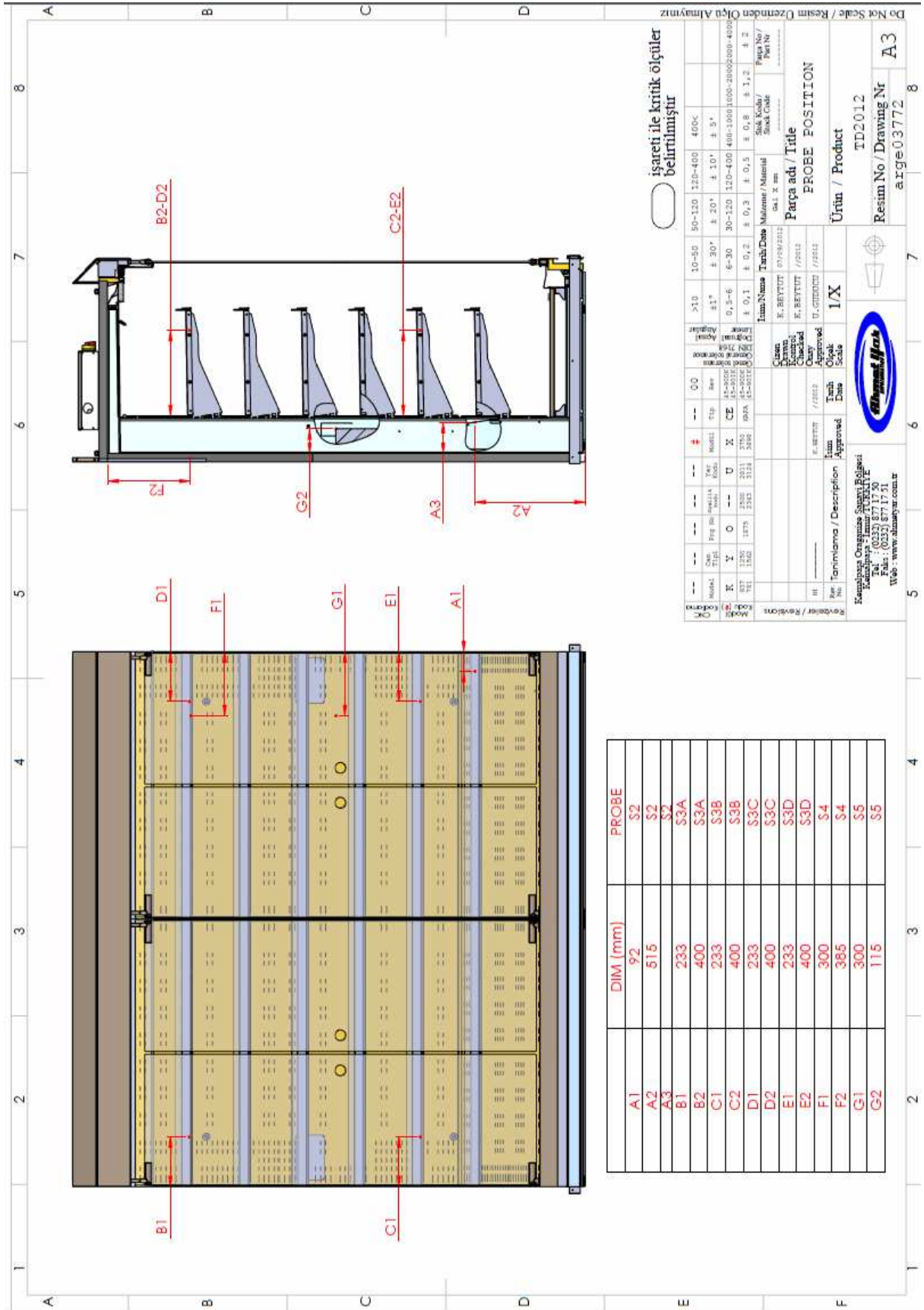
## 12.Isolation Panels

Isolation plates are shipped in packaged form. Isolation plates, after the base assembly is placed in the closet. Diagram-9





# 13.Prob Position



ışareti ile kritik ölçüler belirtilmiştir

10-30	± 20°	± 10'	± 5'
30-120	± 0,2	± 0,3	± 0,5
120-400	± 0,3	± 0,5	± 0,8
400-1000	± 0,5	± 0,8	± 1,2
1000-2000	± 0,8	± 1,2	± 2
2000-4000	± 1,2	± 2	± 3

İşletme Tarihi/Date: 07/05/2012  
 Çizim / Drawing: K. BEYUTU / 00012  
 Kontrol / Checked: U. ÖZGÜÇER / 00012  
 Onay / Approved: U. ÖZGÜÇER / 00012  
 Ölçek / Scale: 1/X

Parça adı / Title: PROBE POSITION  
 Ürün / Product: TD2012  
 Resim No / Drawing Nr: arge03772  
 A3

Revizyon / Revisions: 01  
 No: 00  
 Tanımlama / Description: K. BEYUTU / 07/05/2012  
 İnceleme / Checked: U. ÖZGÜÇER / 07/05/2012  
 Onay / Approved: U. ÖZGÜÇER / 07/05/2012

Kağızın Özellikleri: Standart B5/210x297  
 Çizim Ölçeği: 1/1  
 Çizim Tarihi: 07/05/2012  
 Çizim Yeri: 00012  
 Çizim No: 00012

İletişim Bilgileri:  
 Tel: (0312) 877 17 50  
 Faks: (0312) 877 17 51  
 Web: www.ahmetuyar.com.tr

## 14. 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 energy line must be at least 2,5 mm<sup>2</sup>

  - and must put up with high current

- The cable of energy line must not be longer than 4-5m, 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 EN441 and be sure the climate class is 3.

The personnel who will interfere to the refrigerator must have electricity certificate.



## 15. 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 mar the finish.  
Solvent, oil or acidic based cleaners on any interior surfaces.

! 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:

- 1 Turn off power.
- 2 Remove bottom display pans.
- 3 Disconnect fan from wiring harness.
- 4 Remove fan blade.
- 5 Lift fan plenum and remove screws holding bottom of motor to fan basket.
- 6 Replace fan motor and blade.
- 7 Lower fan plenum.

- 8 Reconnect fan to wiring harness.
- 9 Turn on power.
- 10 Verify that motor is working and blade is turning in the correct direction.
  
- 11 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.
- 12 Replace display pans. Bring Display Case to operating temperature before restocking.

## 16. 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  
Copper, 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





TD2012 DETAILED PARTS LIST							
NO	STOCK CODE	DESCRIPTION	2500 mm	3750 mm	2000CE		
1	1	48500102	TD2012 SIDE BRACKET WELDED PAINTED LEFT	1 pcs.	1 pcs.	1 pcs.	
2	2	48500103	TD2012 SIDE BRACKET WELDED PAINTED RIGHT	1 pcs.	1 pcs.	1 pcs.	
3	3	48500104	TD2012 MIDDLE BRACKET WELDED PAINTED	1 pcs.	1 pcs.	1 pcs.	
4	4	48504002	TD2012 BACK PANEL UPPER 2500 mm	1 pcs.			
		48506002	TD2012 BACK PANEL UPPER 3750 mm		1 pcs.		
		48515002	TD2012 BACK PANEL UPPER 2000CE			1 pcs.	
5	5	48504003	TD2012 BACK PANEL LOWER 2500 mm	1 pcs.			
		48506003	TD2012 BACK PANEL LOWER 3750 mm		1 pcs.		
		48515003	TD2012 BACK PANEL LOWER 2000CE			1 pcs.	
6	6	48504007	TD2012 FRONT PANEL 2500 mm ASSEMBLED	1 pcs.			
		48506007	TD2012 FRONT PANEL 3750 mm ASSEMBLED		1 pcs.		
		48515007	TD2012 FRONT PANEL 2000CE ASSEMBLED			1 pcs.	
7	7	48504012	TD2012 UPPER PANEL 2500 mm	1 pcs.			
		48506012	TD2012 UPPER PANEL 3750 mm		1 pcs.		
		48515012	TD2012 UPPER PANEL 2000CE			1 pcs.	
8	8	44900080	EPHESUS CABINET CONNECTION SHEET PAINTED	6 pcs.	6 pcs.	6 pcs.	
9	9	48500026	TD2012 BASE HOLDER DESTEK SHEET RIGHT PAINTED	4 pcs.	4 pcs.	6 pcs.	
10	10	48500027	TD2012 BASE HOLDER DESTEK SHEET LEFT PAINTED	4 pcs.	4 pcs.	6 pcs.	
11	11	48500140	TD2012 BACK PANEL SERVIS SHEET PAINTED	2 pcs.	2 pcs.	2 pcs.	
		48504025	TD2012 UPPER SHEET 2500 mm PAINTED	1 pcs.			
		48506025	TD2012 UPPER SHEET 3750 mm PAINTED		1 pcs.		
12	12	48515025	TD2012 UPPER SHEET 2000CE PAINTED			1 pcs.	
		48504026	TD2012 SULUK SHEET 2500 mm ASSEMBLED	1 pcs.			
		48506026	TD2012 SULUK SHEET 3750 mm ASSEMBLED		1 pcs.		
13	13	48515026	TD2012 SULUK SHEET 2000CE ASSEMBLED			1 pcs.	
		48502036	TD2012 LOWER DECOR SHEET 1250 MM PAINTED	2 pcs.	3 pcs.		
		48515036	TD2012 LOWER DECOR SHEET 2000CE PAINTED			2 pcs.	
15	15	48502037	TD2012 BACK PANEL LOWER RIGHT 1250 MM PAINTED	1 pcs.	1 pcs.		
		48515037	TD2012 BACK PANEL LOWER RIGHT 1000 MM PAINTED			1 pcs.	
		48502038	TD2012 BACK PANEL LOWER LEFT 1250 MM PAINTED	1 pcs.	1 pcs.		
16	16	48515038	TD2012 BACK PANEL LOWER LEFT 1000 MM PAINTED			1 pcs.	
		48502040	TD2012 BACK PANEL UPPER RIGHT 1250 MM PAINTED	1 pcs.	1 pcs.		
		48515040	TD2012 BACK PANEL UPPER RIGHT 1000 MM PAINTED			1 pcs.	
18	18	48502041	TD2012 BACK PANEL UPPER LEFT 1250 MM PAINTED	1 pcs.	1 pcs.		
		48515041	TD2012 BACK PANEL UPPER LEFT 1000 MM PAINTED			1 pcs.	
		48502043	TD2012 BACK PANEL MIDDLE RIGHT 1250 MM PAINTED	1 pcs.	1 pcs.		
19	19	48515043	TD2012 BACK PANEL MIDDLE RIGHT 1000 MM PAINTED			1 pcs.	
		48502044	TD2012 BACK PANEL MIDDLE LEFT 1250 MM PAINTED	1 pcs.	1 pcs.		
		48515044	TD2012 BACK PANEL MIDDLE LEFT 1000 MM PAINTED			1 pcs.	
21	21	48502046	TD2012 FRONT SUCTION SHEET 1250 MM PAINTED	2 pcs.	3 pcs.		
		48515046	TD2012 FRONT SUCTION SHEET 1000 MM PAINTED			2 pcs.	
		48502053	TD2012 BACK KICKPLATE SHEET 1250 MM PAINTED	2 pcs.	3 pcs.		
22	22	48515053	TD2012 BACK KICKPLATE SHEET 1000 MM PAINTED			2 pcs.	
		48504054	TD2012 HONEYCOMB TUTTURMA SHEET 2500 MM PAINTED	1 pcs.			
		48506054	TD2012 HONEYCOMB TUTTURMA SHEET 3750 MM PAINTED		1 pcs.		
23	23	48515054	TD2012 HONEYCOMB TUTTURMA SHEET 2000CE PAINTED			1 pcs.	
		48504062	TD2012 UPPER DECOR SHEET 2500 PAINTED	1 pcs.			
		48506062	TD2012 UPPER DECOR SHEET 3750 PAINTED		1 pcs.		
24	24	48515062	TD2012 UPPER DECOR SHEET 2000CE PAINTED			1 pcs.	
		48504063	TD2012 UPPER DECOR SHEET pcs.DITION 2500 MM PAINTED	1 pcs.			
		48506063	TD2012 UPPER DECOR SHEET pcs.DITION 3750 MM PAINTED		1 pcs.		
25	25	48515063	TD2012 UPPER DECOR SHEET pcs.DITION 2000CE PAINTED			1 pcs.	
		48504137	TD2012 BASE HOLDER SHEET 2500 MM PAINTED	1 pcs.			
		48506137	TD2012 BASE HOLDER SHEET 3750 MM PAINTED		1 pcs.		
26	26	48515137	TD2012 BASE HOLDER SHEET 2000CE PAINTED			1 pcs.	
		48502047	TD2012 GROUND ISOLATION PLATE 1250 MM	2 pcs.	3 pcs.		
		48515147	TD2012 GROUND ISOLATION PLATE 1000 MM			2 pcs.	
28	28	48504155	TD2012 BACK COVER SHEET 2500 MM PAINTED	1 pcs.			
		48506155	TD2012 BACK COVER SHEET 3750 MM PAINTED		1 pcs.		
		48515155	TD2012 BACK COVER SHEET 2000CE MM PAINTED			1 pcs.	
29	29	48504084	TD2012 BACK UPSTAND SHEET 1250 MM PAINTED	1 pcs.			
		48506084	TD2012 BACK UPSTAND SHEET 2500 MM PAINTED		1 pcs.		
		48515084	TD2012 BACK UPSTAND SHEET 2000CE PAINTED			1 pcs.	
30	30	48502055	TD2012 BASE PAINTED BRACKET 625*600 MM	4 pcs.	6 pcs.		
	30,1	23700225	BASE CAP - GREY	4 pcs.	4 pcs.		
	30,2	24110005	GUM SEAL GREY	0,2 pcs.	0,2 pcs.		
	30,3	38502067	TD2012 BASE SHEET 625*600 MM	4 pcs.	4 pcs.		
	30,4	40012011	BASE BRACKET 590 MM	8 pcs.	8 pcs.		
	30	48515055	TD2012 BASE PAINTED BRACKET 500*600 MM			4 pcs.	
	30,1	23700225	BASE CAP - GREY			4 pcs.	
30,2	24110005	GUM SEAL GREY			0,2 pcs.		
30,3	38515067	TD2012 BASE SHEET 500*600 MM			4 pcs.		
30,4	40012011	BASE BRACKET 590 MM			8 pcs.		
31	48504130	TD2012 LIGHTING SHEET 1250 MM COMPLETE	1 pcs.				
31,1	22340105	LED POWER SUPPLY 80 W. - PHILIPS	1 pcs.				
31,2	22340401	TD UPPER CANOPY LED 21W. 998 mm. LDM 421 (9290 004 750) - PHILIPS	2 pcs.				
31,3	22340491	(MOUNTING PROFILE 10 DEGR.) - PHILIPS	2 pcs.				
31,4	24040502	SCREW 4,2*16	8 pcs.				
31,5	24110006	MASTIC GREY COLOR	0,1 kg				
31,6	48542030	TD2012 LIGHTING SHEET SHEET 1250 mm PAINTED	1 pcs.				

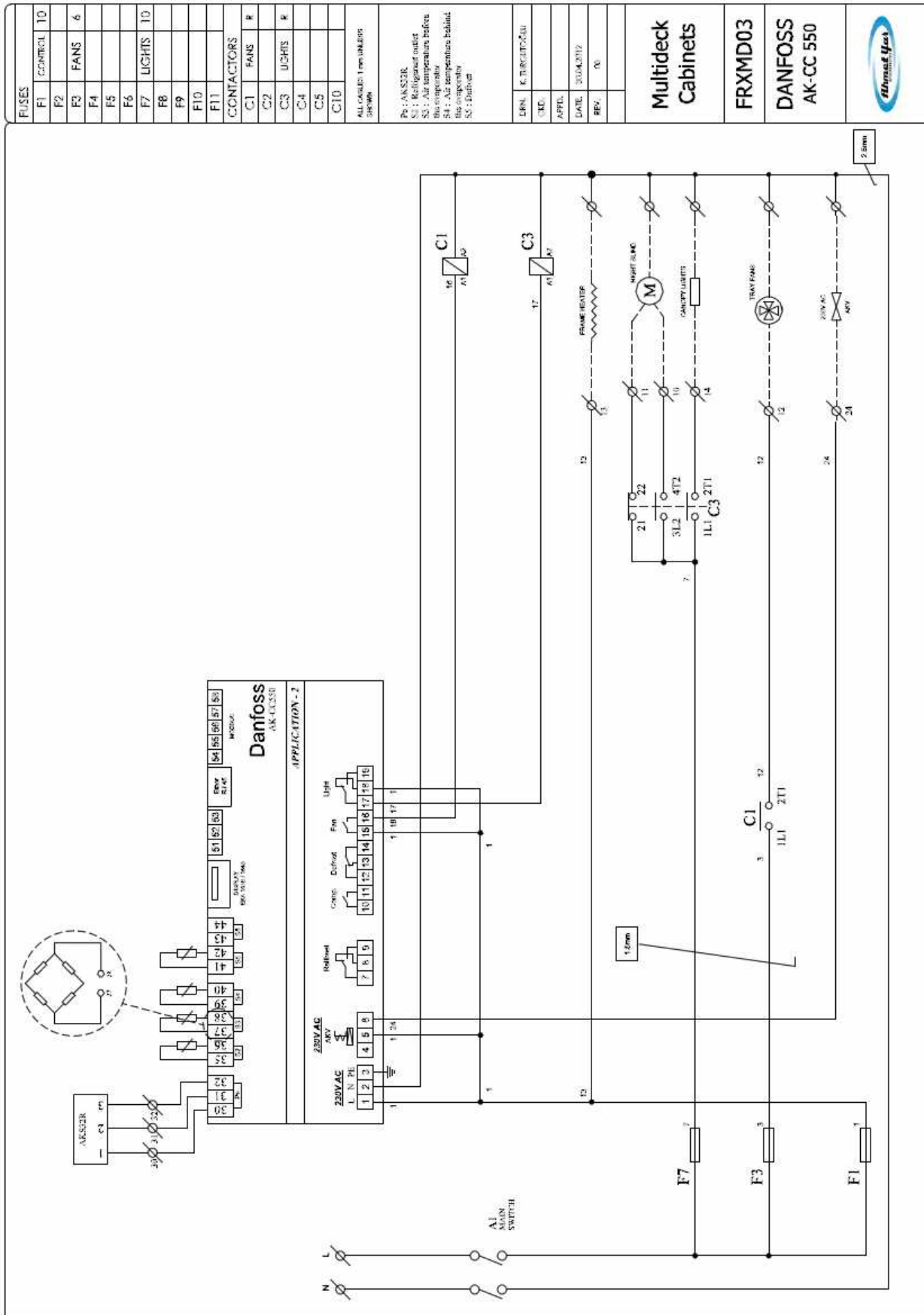


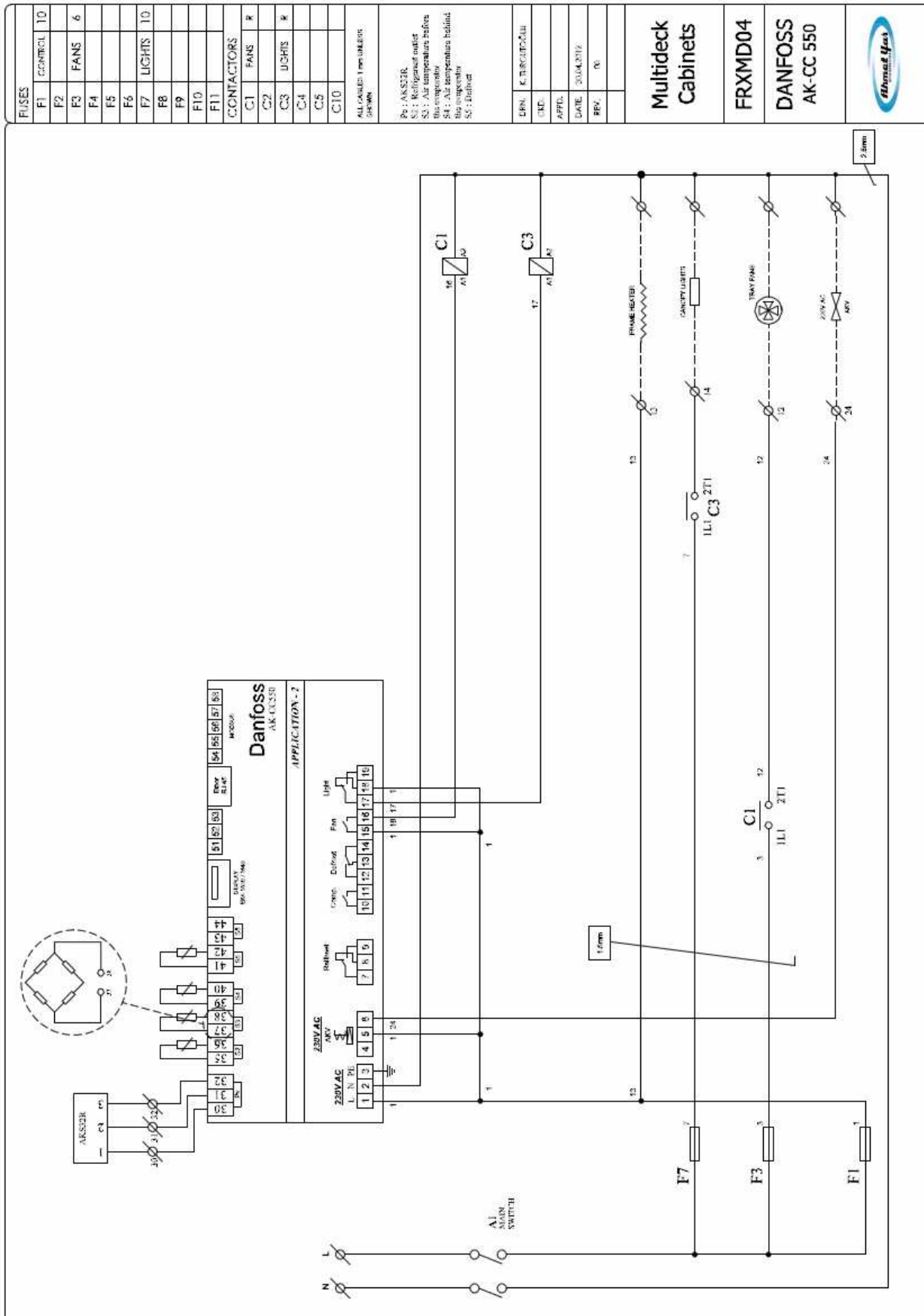
TD2012 DETAILED PARTS LIST						
NO	STOCK CODE	DESCRIPTION	2500 mm	3750 mm	2000CE	
31	31	48506130	TD2012 LIGHTING SHEET 3750 MM COMPLETE		1 pcs.	
	31,1	22340105	LED POWER SUPPLY 80 W. - PHILIPS		1 pcs.	
	31,2	22340401	TD UPPER CANOPY LED 21W. 998 mm. LDM 421 [9290 004 750] - PHILIPS		2 pcs.	
	31,3	22340491	MOUNTING PROFILE 10 DEGR.) - PHILIPS		2 pcs.	
	31,4	24040502	SCREW 4,2*16		8 pcs.	
	31,5	24110006	MASTIC GREY COLOR		0,1 kg	
	31,6	48506030	TD2012 LIGHTING SHEET SHEET 3750 MM PAINTED		1 pcs.	
	31	48515130	TD2012 LIGHTING SHEET 2000CE COMPLETE			1 pcs.
	31,1	22340105	LED POWER SUPPLY 80 W. - PHILIPS		1 pcs.	
	31,2	22340401	TD UPPER CANOPY LED 21W. 998 mm. LDM 421 [9290 004 750] - PHILIPS		2 pcs.	
	31,3	22340491	MOUNTING PROFILE 10 DEGR.) - PHILIPS		2 pcs.	
	31,4	24040502	SCREW 4,2*16		8 pcs.	
31,5	24110006	MASTIC GREY COLOR		0,1 kg		
31,6	48515030	TD2012 LIGHTING SHEET SHEET 2000CE PAINTED			1 pcs.	
32	32	40001150	AHCZ SHELF ASSEMBLY 1250*500 PAINTED	12 pcs.	18 pcs.	
	32,1	10411322	SHELF PRICE STRIP (AHOLD CZECH)	12 pcs.	12 pcs.	
	32,2	23640170	TD 2012 SHELF RISER 1250 mm.	12 pcs.	12 pcs.	
	32,3	24030106	POP RIVET 4,8*10 WIDE FLANS ( MICRO MBACK )	108 pcs.	108 pcs.	
	32,4	40001151	AHCZ SHELF SHEET 1250*500 PAINTED	12 pcs.	12 pcs.	
	32,5	40001152	AHCZ SHELF ARM 500 MM PAINTED	24 pcs.	24 pcs.	
	32,6	40001153	AHCZ SHELF BRACKET 1250 MM PAINTED	24 pcs.	24 pcs.	
	32,7	40001154	AHCZ SHELF PRICE STRIP SHEET 1250 MM PAINTED	12 pcs.	12 pcs.	
	32	40001155	AHCZ SHELF ASSEMBLY 1000*500 PAINTED			12 pcs.
	32,1	10411322	SHELF PRICE STRIP (AHOLD CZECH)			12 pcs.
	32,2	23640170	TD 2012 SHELF RISER 1000 mm.			12 pcs.
	32,3	24030106	POP RIVET 4,8*10 WIDE FLANS ( MICRO MBACK )			96 pcs.
	32,4	40001152	AHCZ SHELF ARM 500 MM PAINTED			24 pcs.
	32,5	40001153	AHCZ SHELF BRACKET 1250 MM PAINTED			24 pcs.
32,6	40001156	AHCZ SHELF SHEET 1000*500 PAINTED			12 pcs.	
32,7	40001157	AHCZ SHELF PRICE STRIP SHEET 1250 MM PAINTED			12 pcs.	
33	33	48504047	TD2012 FAN SHEET WITH MOTOR 2500 MM COMPLETE	1 pcs.		
	33,1	20830020	ENERGY SAVING ERM M1G055-BD91-18 - 1400 RPM - 230V 50/60Hz 27W 0,24A (ARCTIC-BLOWERIC)	4 pcs.		
	33,2	20840205	FAN BLPCS.E 254-28 ( ELCO AG / ERM A )	4 pcs.		
		20870001	ENERJİ SAVING FAN CABLE ( ERM FAN MOTORU )	4 pcs.		
		22200101	CABLE BAND 3,6*150 mm UB150B-N NATURAL BEYAZ	15 pcs.		
		22200105	CABLE BAND TOLL H.TYTON T50SDP6.HB5P 5x168 SIY	10 pcs.		
		23840199	AGRAM FAN PSU CABLE AHY104 - 5,5 mt.	1 pcs.		
	33,3	23840215	WATER RESISTANT SOCKET FOR FANASSEMBLY AHY057 (FAN CARLENA MONTAJ)	4 pcs.		
		23840230	2500 SAMSUN FAN CABLE (OZG 013)	1 pcs.		
		24040502	SCREW 4,2*16	16 pcs.		
	33,4	38500127	TD2012 FAN SHEET LOWER BRACKET	1 pcs.		
	33,5	38500128	TD2012 FAN RAIN COVER SHEET	4 pcs.		
	33,6	38502090	TD2012 FAN SHEET 1250 MM	1 pcs.		
	33	48506047	TD2012 FAN SHEET WITH MOTOR 3750 MM COMPLETE		1 pcs.	
	33,1	20830020	ENERGY SAVING ERM M1G055-BD91-18 - 1400 RPM - 230V 50/60Hz 27W 0,24A (ARCTIC-BLOWERIC)	6 pcs.		
	33,2	20840205	FAN BLPCS.E 254-28 ( ELCO AG / ERM A )	6 pcs.		
		20870001	ENERJİ SAVING FAN CABLE ( ERM FAN MOTORU )	6 pcs.		
		22200101	CABLE BAND 3,6*150 mm UB150B-N NATURAL BEYAZ	24 pcs.		
	22200105	CABLE BAND TOLL H.TYTON T50SDP6.HB5P 5x168 SIY	15 pcs.			
	23840199	AGRAM FAN PSU CABLE AHY104 - 5,5 mt.	1 pcs.			
33,3	23840215	WATER RESISTANT SOCKET FOR FANASSEMBLY AHY057 (FAN CARLENA MONTAJ)	6 pcs.			
	23840231	3750 SAMSUN FAN CABLE (OZG 014)	1 pcs.			
	24040502	SCREW 4,2*16	24 pcs.			
33,4	38500127	TD2012 FAN SHEET LOWER BRACKET	2 pcs.			
33,5	38500128	TD2012 FAN RAIN COVER SHEET	6 pcs.			
33,6	38506090	TD2012 FAN SHEET 3750 MM	1 pcs.			
33	48515047	TD2012 FAN SHEET WITH MOTOR 2000CE COMPLETE			1 pcs.	
33,1	20830020	ENERGY SAVING ERM M1G055-BD91-18 - 1400 RPM - 230V 50/60Hz 27W 0,24A (ARCTIC-BLOWERIC)	4 pcs.			
33,2	20840205	FAN BLPCS.E 254-28 ( ELCO AG / ERM A )	4 pcs.			
	20870001	ENERJİ SAVING FAN CABLE ( ERM FAN MOTORU )	4 pcs.			
	22200101	CABLE BAND 3,6*150 mm UB150B-N NATURAL BEYAZ	15 pcs.			
	22200105	CABLE BAND TOLL H.TYTON T50SDP6.HB5P 5x168 SIY	10 pcs.			
	23840199	AGRAM FAN PSU CABLE AHY104 - 5,5 mt.	1 pcs.			
33,3	23840215	WATER RESISTANT SOCKET FOR FANASSEMBLY AHY057 (FAN CARLENA MONTAJ)	4 pcs.			
	23840230	2500 SAMSUN FAN CABLE (OZG 013)	1 pcs.			
	24040502	SCREW 4,2*16	16 pcs.			
33,4	38500127	TD2012 FAN SHEET LOWER BRACKET	1 pcs.			
33,5	38500128	TD2012 FAN RAIN COVER SHEET	4 pcs.			
33,6	38515090	TD2012 FAN SHEET 2000CE	1 pcs.			
34	34	48500165	TD2012 PILOT KUTUSU COMPLETE (DANPOSS ARCC 550)	1 pcs.	1 pcs.	1 pcs.
	34,1	37300250	SPG   WDM   ELECTRICAL BOX ( WDM-EL-EB)	1 pcs.	1 pcs.	1 pcs.
	34,2	37300251	WDM   SPG   ELECTRICAL BOX COVER ( WDM-EL-EBL)	1 pcs.	1 pcs.	1 pcs.
	34,3	37300252	WDM   SPG   ELECTRICAL BOX TRAY   WDM-EL-ERT	1 pcs.	1 pcs.	1 pcs.
35	35	49785404	TD2012 EVAPORATOR WITH VALVE 2500 MM AKV R 404	1 pcs.		
		49785406	TD2012 EVAPORATOR WITH VALVE 3750 MM AKV R 404		1 pcs.	
		49785415	TD2012 EVAPORATOR WITH VALVE 2000CE AKV R 404			1 pcs.
36	36	38500017	TD2012 UPPER DECOR CONNECTION BRACKET	4 pcs.	4 pcs.	4 pcs.
37	37	38500057	TD2012 MIDDLE BRACKET BACK PANEL CONNECTION SHEET	1 pcs.	1 pcs.	1 pcs.
38	38	38500060	TD2012 BYPASS SHEET RIGHT	1 pcs.	1 pcs.	1 pcs.
39	39	38500061	TD2012 BYPASS SHEET LEFT	1 pcs.	1 pcs.	1 pcs.

TD2012 DETAILED PARTS LIST							
NO	STOCK CODE	DESCRIPTION	2500 mm	3750 mm	2000CE		
40	40	38500094	TD2012 AIR SEPERATOR SHEET CONNECTION BRACKET	4 pcs.	4 pcs.	4 pcs.	
41	41	38500096	TD2012 EVAP. COVER SHEET SIDE CONNECTION BRACKET	2 pcs.	2 pcs.	2 pcs.	
42	42	38500119	TD2012 FAN COVER SHEET SIDE CONNECTION BRACKET	4 pcs.	4 pcs.	4 pcs.	
43	43	38500163	TD2012 UPPER AIR GRILL	2 pcs.	2 pcs.	2 pcs.	
44	44	38500164	TD2012 MIDDLE BRACKET BACK COVER SHEET	1 pcs.	1 pcs.	1 pcs.	
45	45	38502164	TD2012 FRONT SUCTION SHEET 1250 MM PSM.	2 pcs.	3 pcs.		
		38515079	TD2012 FRONT SUCTION SHEET 1000 MM PSM.			2 pcs.	
		38504093	TD2012 EVAP. COVER SHEET 2500 MM	1 pcs.			
46	46	38506093	TD2012 EVAP. COVER SHEET 3750 MM		1 pcs.		
		38515093	TD2012 EVAP. COVER SHEET 2000CE			1 pcs.	
		38504103	TD2012 DEFLECTOR SHEET 2500 MM	1 pcs.			
47	47	38506103	TD2012 DEFLECTOR SHEET 3750 MM		1 pcs.		
		38515103	TD2012 DEFLECTOR SHEET 2000CE			1 pcs.	
		38504108	TD2012 UPPER HINGE SHEET 2500 MM	1 pcs.			
48	48	38506108	TD2012 UPPER HINGE SHEET 3750 MM		1 pcs.		
		38515108	TD2012 UPPER HINGE SHEET 2000CE			1 pcs.	
		38502108	TD2012 AIR SEPERATOR SHEET 1250 MM RIGHT	1 pcs.	1 pcs.		
49	49	38515109	TD2012 AIR SEPERATOR SHEET 1000 MM RIGHT			1 pcs.	
		38502109	TD2012 AIR SEPERATOR SHEET 1250 MM LEFT	1 pcs.	1 pcs.		
50	50	38515110	TD2012 AIR SEPERATOR SHEET 1000 MM LEFT			1 pcs.	
51	51	38502110	TD2012 AIR SEPERATOR SHEET 1250 MM MIDDLE		1 pcs.		
		38502159	TD2012 FAN COVER SHEET 1250 MM	2 pcs.	3 pcs.		
52	52	38515159	TD2012 FAN COVER SHEET 1000 MM			2 pcs.	
		38502160	TD2012 BACK AIR FORWARDER SHEET 1250 MM RIGHT	1 pcs.	1 pcs.		
53	53	38515160	TD2012 BACK AIR FORWARDER SHEET 1000 MM RIGHT			1 pcs.	
		38502161	TD2012 BACK AIR FORWARDER SHEET 1250 MM LEFT	1 pcs.	1 pcs.		
54	54	38515161	TD2012 BACK AIR FORWARDER SHEET 1000 MM LEFT			1 pcs.	
		38502161	TD2012 BACK AIR FORWARDER SHEET 1250 MM MIDDLE		1 pcs.		
55	55	38502163	TD2012 DEFLECTOR AIR GRILL 1250 MM	2 pcs.	3 pcs.		
56	56	38515163	TD2012 DEFLECTOR AIR GRILL 1000 MM			1 pcs.	
		38502173	TD2012 LOWER DECOR CONNECTION SHEET 2500 MM	1 pcs.			
57	57	38506173	TD2012 LOWER DECOR CONNECTION SHEET 3750 MM		1 pcs.		
		38515173	TD2012 LOWER DECOR CONNECTION SHEET 2000CE			1 pcs.	
		10410374	EPHESUS (TD) BUMPER PROFILEE 2550 mm - METALIC GREY 185 (76022)	1 pcs.			
58	58	10410375	EPHESUS (TD) BUMPER PROFILEE 3800 mm - METALIC GREY 185 (76022)		1 pcs.		
		10410336	EPHESUS BUMPER PROFILEE 2100 mm - METALIC GREY 185 (76022)			1 pcs.	
59	59	10410378	TD 2012 BUMPER HOLDER PROFILE 2550 mm. - R07 BLACK (76037)	1 pcs.		1 pcs.	
		10410379	TD 2012 BUMPER HOLDER PROFILE 3800 mm. - R07 BLACK (76037)			1 pcs.	
60	60	20430115	LEFT AR THERMOMETER (Hangyl - D2105, Kablo Boyu : 2 m)	1 pcs.	1 pcs.	1 pcs.	
61	61	21030205	HONEYCOMB 1250*95*25 mm GREY - D:3 mm (TD-EPHESUS CEK CIMH.+LIDYA)	2 pcs.	3 pcs.		
		21030203	HONEYCOMB 1000*95*25 mm GREY - D:3 mm (EPHESUS)			2 pcs.	
62	62	23200732	PIPE HOLDER Ø 22*38 MM.	1 pcs.	1 pcs.	1 pcs.	
63	63	23299902	Ø 22/29 PANEL SUPPORTED WATER PIPE (EPHESUS)	2 at.	2 at.	2 at.	
64	64	23700225	BASE CAP - GREY	4 pcs.	6 pcs.	4 pcs.	
65	65	23701005	DRAIN PIPE ( 100025 )	1 pcs.	1 pcs.	1 pcs.	
66	66	23701006	DRAIN PIPE SCREW ( 100026 )	1 pcs.	1 pcs.	1 pcs.	
67	67	23810907	GLD SIEHONE GROUND CONNECTION SHEET	1 pcs.	1 pcs.	1 pcs.	
68	68	23810908	GLD SIEHONE SHEET	1 pcs.	1 pcs.	1 pcs.	
69	69	24040502	SCREW 4,2*16	80 pcs.	100 pcs.	80 pcs.	
70	70	24040516	SCREW 6K 6,3*38	74 pcs.	95 pcs.	74 pcs.	
71	71	32600045	GLD (AHOLD) LEFT AR THERMOMETER SHEET	1 pcs.	1 pcs.	1 pcs.	



# 18. Electrical test report located inside of cabinet.





CAREL PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
<b>/Pro ( Prob parameters)</b>							
<b>/2</b>	Measurement stability		4	4	4	4	4
<b>/4</b>	Virtual Prob: Blowing and suction probes rates for regulation		100	100	100	50	50
	0= Blow probe						
	100= Suction probe						
<b>/5</b>	°C or °F selection		0	0	0	0	0
	0=°C, 1=°F						
<b>/6</b>	Decimal		1	1	1	1	1
	0=active,						
	1= inactive						
<b>rHS</b>	Virtual probe regulation rate to calculate glass temperature		20	20	20	20	20
	0= Blow probe						
	100= Suction probe						
<b>/t</b>	Are signals and alarms viewed in non-button terminal?		0	0	0	0	0
	0= inactive						
	1= active						
<b>/t1</b>	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						
<b>/t2</b>	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
	<b>Button terminal</b>	<b>Non-button terminal</b>						
	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
<b>CtL ( Control)</b>							
<b>OFF</b>	ON/OFF control unit on-off 0 = ON; 1 = OFF;	0	0	0	0	0	0
<b>St</b>	Set point	-20	-20	-20	-20	0	2
<b>St2</b>	Double thermostate control suction set value	50	50	50	50	50	50
<b>rd</b>	St set value difference	2	2	2	2	2	2
<b>rd2</b>	Double thermostate control suction set value difference 0.0 = Function inactive	0	0	0	0	0	0
<b>r1</b>	Allowed minimum set value	-24	-24	-24	-24	-4	-4
<b>r2</b>	Allowed maximum set value	-18	-18	-18	-18	4	4
<b>r3</b>	Defrost warning activation ending in time 0 = inactive, 1 = active	0	0	0	0	0	0
<b>r4</b>	Automatic night set point	0	0	0	0	0	0
<b>r5</b>	Will minimum and maximum temperatures be kept to which probe in the memory?		1	1	1	1	1
	0 = Monitoring inactive	6 = superheat temperature probe (tGS)					
	1 = Control probe (Sreg)	7 = saturated evaporation temperature probe (tEu)					
	2 = virtual probe (Sv)	8 = auxiliary defrost probe (Sd2)					
	3 = Blow probe (Sm)	9 = auxiliary probe (Saux)					
	4 = defrost probe (Sd)	10 = auxiliary probe 2 (Saux2)					
5 = Suction probe (Sr)							
<b>rt</b>	Recorded min and max temperature monitoring time range	-	-	-	-	-	-
<b>rH</b>	Recorded max temperature	-	-	-	-	-	-
<b>rL</b>	Recorded min temperature	-	-	-	-	-	-
<b>r6</b>	Night Control probe 0 = virtual probe Sv; 1 = Suction probe Sr	0	0	0	0	0	0
<b>ro</b>	For Virtual Probe, probe error offset	0.0	0.0	0.0	0.0	0.0	0.0
<b>r7</b>	Master solenoid valve configuration 0 = local valve ;1 = network valve (connected to the Master)	0	0	0	0	0	0
<b>rSu</b>		0	0	0	0	0	0



CAREL PARAMETERS			ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
<b>CMP (compressor)</b>								
<b>c0</b>	Compressor and fan starting time delay		0	0	0	0	0	0
<b>c1</b>	Minimum time between successive start		0	0	0	0	0	0
<b>c2</b>	Compressor minimum OFF Time		0	0	0	0	0	0
<b>c3</b>	Compressor minimum ON Time		0	0	0	0	0	0
<b>c4</b>	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							
<b>cc</b>	Continuous cycle time		1	1	1	1	1	1
<b>c6</b>	Post-continuous cycle alarm by-pass		60	60	60	60	60	60
<b>c7</b>	Maximum pump down time		0	0	0	0	0	0
<b>Def (defrost)</b>								
<b>d0</b>	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							
<b>d2</b>	Defrost-end synchronization by Master		1	1	1	1	1	1
	0 = unsynchronous; 1 = synchronous							
<b>d1</b>	Time between defrosts		8	8	6	6	6	6
<b>dt1</b>	Defrost-end temperature, Evaporator Sd1		10	10	12	12	10	10
<b>dt2</b>	Defrost-end temperature,AUX Evaporator Sd2		10	10	12	12	10	10
<b>dP1</b>	Maximum Defrost time		35	35	40	45	45	45
<b>dP2</b>	Maximum Defrost time, AUX 2. Evaporator		35	35	40	45	45	45
<b>d4</b>	Initially defrost		0	0	0	0	0	0
	0 = No initial defrost ; 1 = inital defrost							
	(Master = network defrost; Slave = local defrost)							
<b>d5</b>	Defrost time delay at the beginning if d4=1		0	0	0	0	0	0
	0 = delay inactive							
<b>d6</b>	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							
<b>dd</b>	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	
	<b>probe failure</b>							<b>failure in supervisor</b>
	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
<b>d2S</b>	see d1S parameter for td1 time zone daily defrosts	0	0	0	0	0	0
<b>dH1</b>	Pumpdown time	0	0	0	0	0	0
	0= pump down inactive						
<b>dHG</b>	Multiplied hot gas bypass type	0	0	0	0	0	0
	0 = Compensator valve is OFF usually						
	1 = Compensator valve is ON usually						
<b>ALM (Alarm)</b>							
<b>AA</b>	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)					
<b>AA2</b>	Determination of temperature probe for AH2 and AL2 alarms control AA parameter		5	5	5	5	5
<b>A0</b>	Low and high temperature alarm difference		2.0	2.0	2.0	2.0	2.0
<b>A1</b>	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						
<b>A2</b>	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						
<b>AL</b>	Low temperature 1. alarm threshold		4	4	4	4	4
<b>AH</b>	High temperature 1. alarm threshold		5	5	5	5	5
<b>AL2</b>	Low temperature 2. alarm threshold		0	0	0	0	0
<b>AH2</b>	High Temperature 2. alarm threshold		0	0	0	0	0
<b>Ad</b>	Low and high temperature alarm alarm delay		15	15	15	15	15
<b>A4</b>	ID1 digital input configuration in S4 input		0	0	0	0	0
	0 = input is not active	5 = kapı switchi 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						
<b>Fan (Evaporator fans)</b>							
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						
<b>Eud (Electronic valve)</b>							
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	
<b>Cnf ( Configuration)</b>								
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
<b>HSt (Alarm log)</b>							
HSo 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
<b>HcP (HACCP alarms)</b>							
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
<b>HA to HA2</b>	HA type active HACCP alarm number	-	-	-	-	-	-
<b>y_</b>	From 1 to 3 alarm-Year	0	0	0	0	0	0
<b>M_</b>	From 1 to 3 alarm - month	0	0	0	0	0	0
<b>d_</b>	From 1 to 3 alarm - which day of the month	0	0	0	0	0	0
<b>h_</b>	From 1 to 3 alarm - hour	0	0	0	0	0	0
<b>n_</b>	From 1 to 3 alarm - minute	0	0	0	0	0	0
<b>...</b>	From 1 to 3 alarm - Alarm time	0	0	0	0	0	0
<b>HFn</b>	HF alarm type number	0	0	0	0	0	0
<b>HF to HF2</b>	HF type active HACCP alarm number	-	-	-	-	-	-
<b>y_</b>	From 1 to 3 alarm - Year	0	0	0	0	0	0
<b>M_</b>	From 1 to 3 alarm -month	0	0	0	0	0	0
<b>d_</b>	From 1 to 3 alarm - which day of the month	0	0	0	0	0	0
<b>h_</b>	From 1 to 3 alarm - hour	0	0	0	0	0	0
<b>n_</b>	From 1 to 3 alarm - minute	0	0	0	0	0	0
<b>_</b>	From 1 to 3 alarm - Alarm time	0	0	0	0	0	0
<b>Htd</b>	HACCP alarm delay	0	0	0	0	0	0
	0 = alarm viewing deactivated						
<b>rtc (Real Time Clock)</b>							
<b>td1 to 8</b>	Defrost time from 1 to 8 (press Set)	-	-	-	-	-	-
<b>d_</b>	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							
<b>h_</b>	Defrost hour	0	0	0	0	0	0
<b>n_</b>	Defrost minute	0	0	0	0	0	0
<b>P_</b>	Power defrost selection	0	0	0	0	0	0
	0 = Normal defrost; 1 =Power defrost						
<b>tS1 to 8</b>	Time band starting from 1 to 8 (press Set)	-	-	-	-	-	-
<b>d</b>	Time band starting: day	0	0	0	0	0	0
<b>h</b>	Time band starting: hour	0	0	0	0	0	0
<b>n</b>	Time band starting: minute	0	0	0	0	0	0
<b>tE1 to 8</b>	Time band end from 1 to 8 (press Set)	-	-	-	-	-	-



DANFOSS PARAMETERS		ISLAND FREEZER	WALL FREEZER	COMBI FREEZER	UPRIGHT FREEZER	COUNTER	MULTIDECK CABINET
<b>Normal operation</b>							
---	Temperature (setpoint)	-26	-20	-20	-20	0	2
<b>Thermostat</b>							
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
<b>Alarms</b>							
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
<b>Compressor</b>							
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
<b>Defrost</b>							
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	
<b>Miscellaneous</b>								
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 <b>must</b> 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).							