

OPERA KW, PEPPER

USER MANUAL

READ ATTENTIVELY AND STORE CAREFULLY WITH THE CABINET (original instructions)



SECTION 1: QUICK REFERENCE INSTRUCTION

Model	OPERA KW, PEPPER	KYSOR WARREN Optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	2/24

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SYMBOLS USED



Prohibition symbol: it prohibits the carrying out of specific operations.



Attention symbol: accident prevention rules for the operator.



Warning symbol: there is the possibility of damaging the cabinet and/or its components.



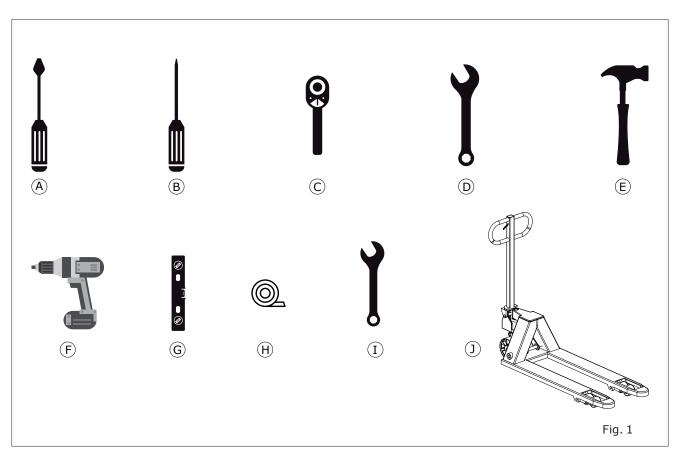
Note symbol: it provides useful information.

Personal protection equipment

Personal protection equipment		
	Safety shoes	
	Protective gloves	
	Safety glasses	
	Safety helmet	
	Safety vests	

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1. EQUIPMENT REQUIRED



- A. Flat screwdriver
- B. Star screwdriver
- C. Ratchet wrench
- D. 12mm wrench
- E. Hammer

- F. Electric screwdriver
- G. Spirit level
- H. Scotch tape
- I. 8mm wrench
- J. Pallet truck

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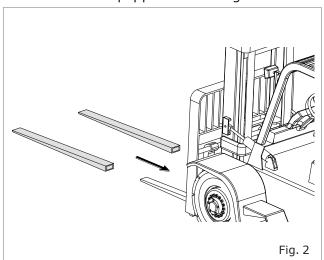
2. HANDLING AND REMOVAL OF THE PACKAGING



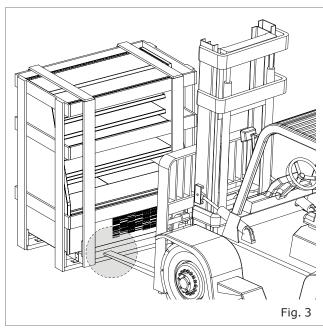
Before carrying out the operations to remove the packaging and transport, wear personal protective clothing and use means and tools suitable for the dimensions and weight of the appliance.

2.1 Handling

For the transport of the cabinets it is necessary to use forklifts equipped with elongated forks.



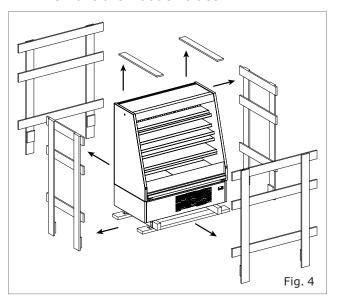
The cabinet must be lifted as shown in the diagrams, by inserting the forks of the lift under the cabinet in the location shown.



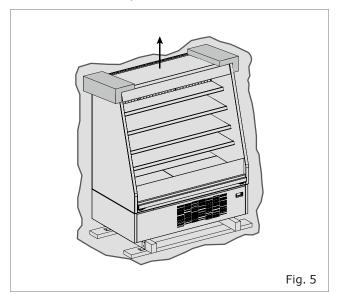
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2.2 Removal of packaging

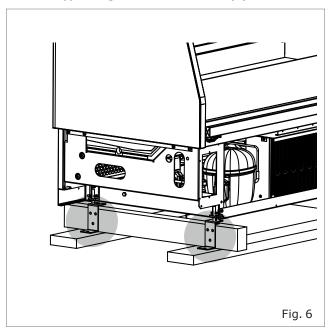
• Remove the wooden sides.



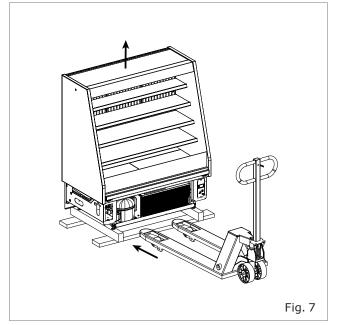
- Remove the anti-scratch sheet.
- Remove the protective corners.



• Remove the side brackets (on one side only) using the screwdriver (F).

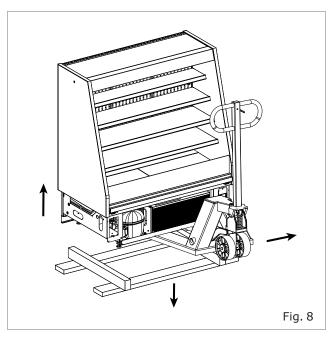


• Lift the cabinet with the pallet truck (J).

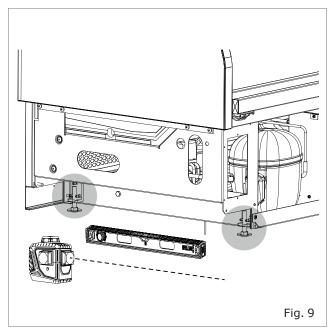


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- Remove the wooden skids placed under the cabinet with the help of a hammer (E).
- Remove the skid from under the cabinet.



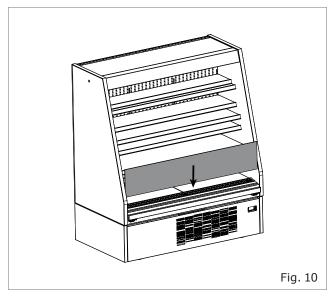
- Adjust the feet using the 19mm (D) wrench.
- Check the flatness of the bench using the level (G).



- Install lower side panels using the screwdriver (F).
- Install front grille panel using the screwdriver (F).

2.3 Cabinet completion

• Insert the front glass in the track on the top of the cabinet nose.

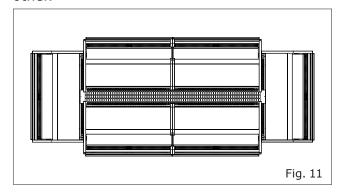


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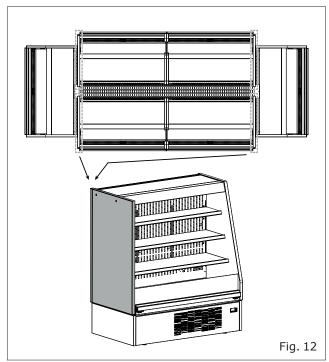
3. INSTALLATION

3.1 Configurations and joining

The Opera cabinets can be coupled to each other.



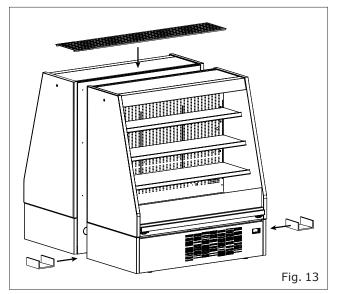
A special bracket is used when combining the end cabinet with the linear cabinet.



It is possible to combine end and linear cabinets, and back to back.

3.2 Back to back combination

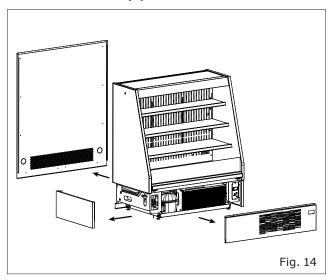
To carry out the back-to-back layout it is necessary to use the joint kit, which includes 2 spacers and an upper grill. Kit #1955943 (for black exterior cases) When not using an end case use Kit # 1955939 to cover the gap on the end of the back to back cases



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3.3 Coupling

- Remove the front fairing using the screwdriver (F).
- Remove the side fairing using the screwdriver (F).
- Remove the rear panel (optional) using the screwdriver (F).

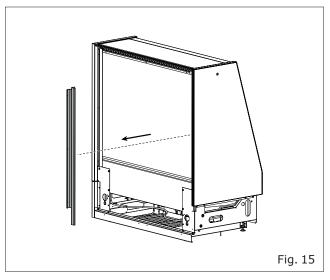


- Check the flatness in both the transverse and longitudinal directions using a spirit level (G).
- Adjust the feet with the 19mm (D) wrench to level the cabinet.

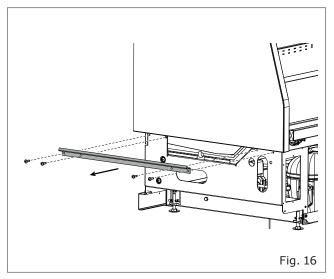


Avoid unscrewing the feet completely. The cabinet is shipped with the feet screwed on; the height of the cabinet is adjustable.

• Unscrew the end panel support bracket using the (F) screwdriver.

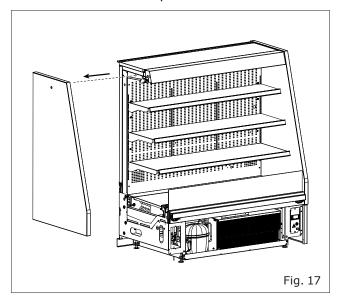


 Unscrew the screws using the screwdriver (F) and remove the bracket.

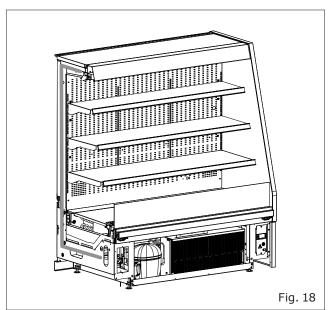


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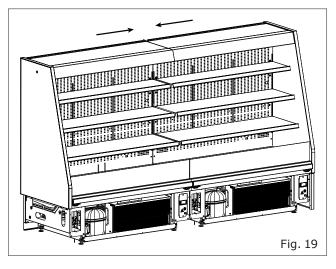
- Unscrew with ratchet wrench (C) the screws on the end panel.
- Remove the end panel.



• Apply the adhesive gasket to the edge of the cabinet.



• Pair the cabinets.

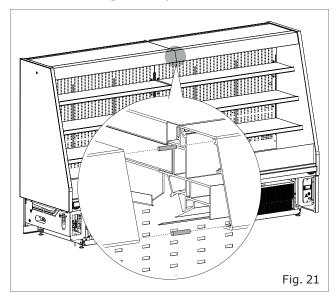


• Use the joint kit# 86870000 (shipped inside case) to attach the cabinets to each other.

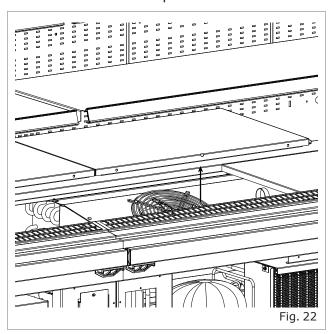


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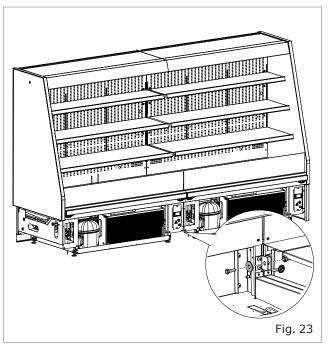
- Remove the top panels using the screwdriver (F).
- Screw the bolt, washer and nut using the ratchet wrench (C).
- Insert alignment pins



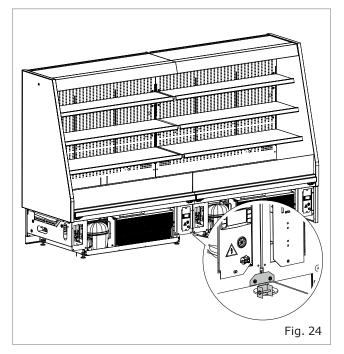
• Remove the deck pans.



• Screw the bolt, washer and nut using the ratchet wrench (C).

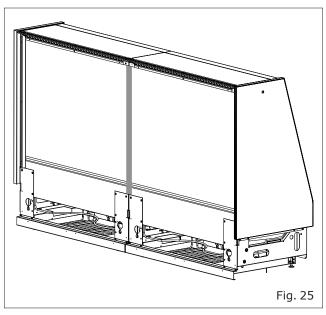


• Secure the coupling bracket by tightening the screws with the screwdriver (F).



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 Apply the aluminum tape included in the kit to the back case joint.

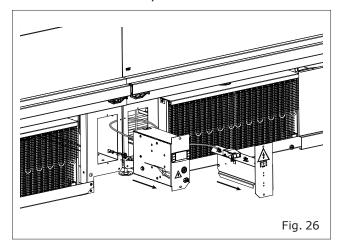


• Fit the side fairings and the front fairing using the (F) screwdriver.

3.4 Electric connections

Connecting the sync cable

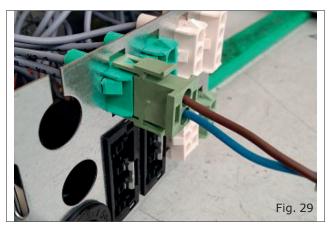
- Unscrew the screws that hold the electrical panels.
- Pull out the electrical panels.
- Connect the banks through the supplied cable to allow synchronization.



• Reposition the electrical panels and fix them with the screws previously removed.

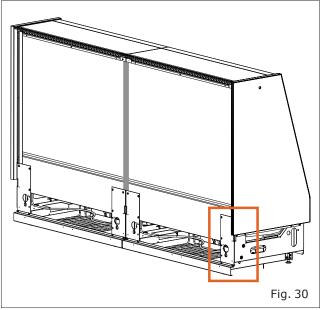


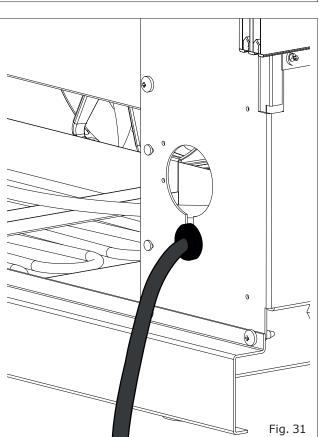




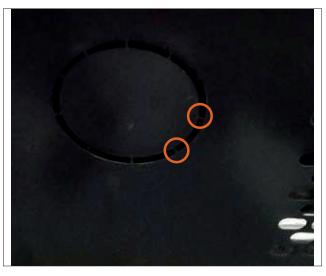
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• Locking to the bench frame,





• Passage on the back panel.



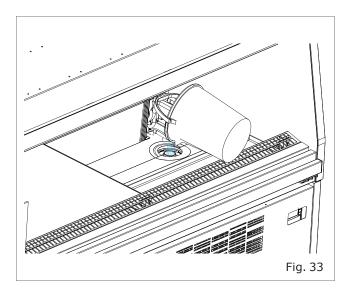
The aesthetic rear panel is pre-cut, remove round knock outforthe power cord to pass through.

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3.5 Starting



Before starting the cabinet, fill the drain lines with water.



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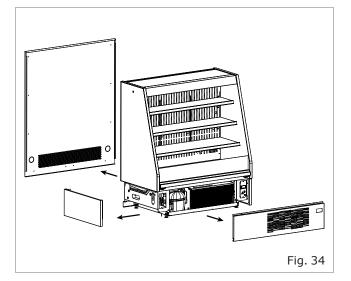
4. MAINTENANCE



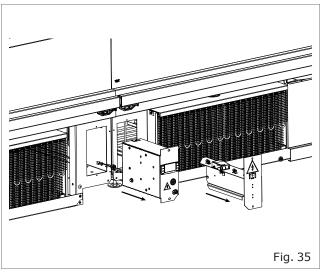
Before carrying out maintenance operations, wear personal protective clothing and use means and tools suitable for the size and weight of the cabinet. Ensure the case is unplugged and recieving no power before performing electrical work.

4.1 Access to the electrical panel

- Remove the front fairing using the screwdriver (F).
- Remove the side fairing using the screwdriver (F).
- Remove the rear panel (optional) using the screwdriver (F).

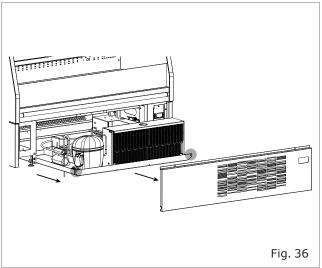


- Unscrew the screws that hold the electrical panels.
- Remove the electrical panels.



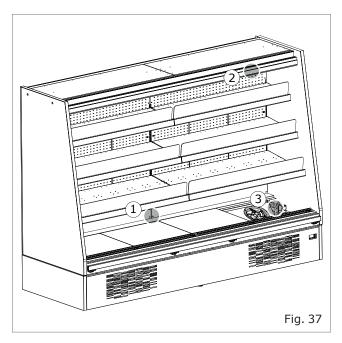
4.2 Access to the condenser

- Remove the front fairing using the screwdriver (F).
- Remove the screws holding the condenser.
- Pull out the condenser.



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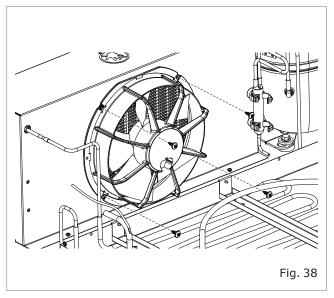
4.3 Probe position



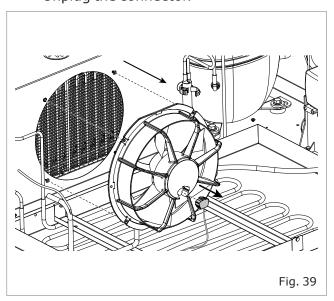
- 1) Probe "AO" (air outlet)
- 2) Probe "AR" (air intake)
- 3) Probe "ED" (evaporator defrosting end)

4.4 Condenser fan replacement

• Remove the fan screws using the screwdriver (F).



- Remove the fan.
- Unplug the connector.

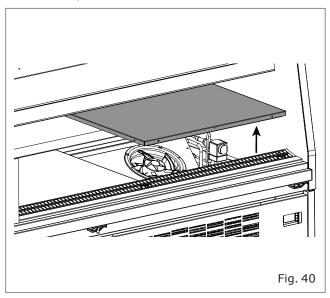


- Replace the fan.
- Reverse the procedure to reassemble the fan.

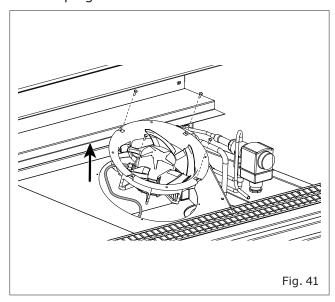
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4.5 Evaporator fan replacement

• Remove the deck pan to access the fan to be replaced.



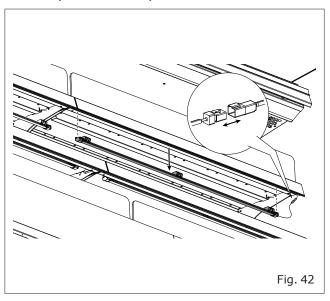
- Remove the fan screws using the screwdriver (F).
- Unplug the connector.



• Replace the fan.

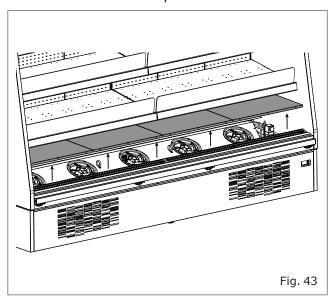
4.6 Lamp replacement

- Remove the lamp holder screws using the screwdriver (F).
- Disconnect the connector.
- Replace the lamp.



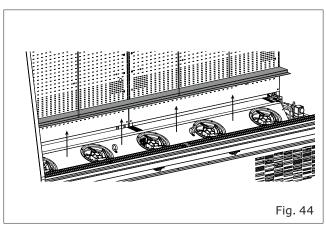
4.7 Defrost heater replacement

• Remove the deck pans.

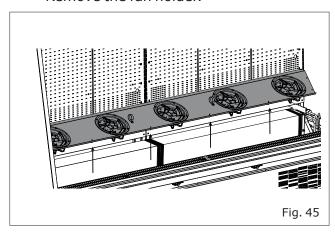


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• Remove the back cover.



- Remove the screws of the fan holder using the screwdriver (F).
- Remove the fan holder.



• Replace the heater by detaching the hooks from the evaporator.

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Model	OPERA KW, PEPPER	KYSOR WARREN epta refrigeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	19/24

5. SETTINGS

	_	_	.,		5 6 11	Opera-KW SV	Opera-KW SV
-	Param	Par	Max	U/M	Default	OPEN L937	OPEN L1250
Set point	SET	LS	US	°F	-5	27	27
Regulation					"CP"		
Differential	Ну	0.1	25.5	°F	2	39	39,2
Minimum set point	LS	-100	SET	°F	-50	14	14
Maximum set point	US	SET	110	°F	110	50	50
Thermostat probe calibration	Ot	-12	12	°F	0	0	0
Evaporator probe presence	P2P	n	Y	-	Υ	Y	Υ
Evaporator probe calibration	OE	-12	12	°F	0	0	0
Third probe presence	P3P	n	Y	-	n	n	n
Third probe calibration	03	-12	12	°F	0	0	0
Fourth probe presence	P4P	n	Y	-	n	Y	Υ
Fourth probe calibration	04	-12	12	°F	0	0	0
Outputs activation delay at start up	OdS	0	255	min	0	0	0
Anti-short cycle delay	AC	0	50	min	1	3	3
P1-P2 percentage for regulation (100=P1, 0=P2)	rtr	0	100	%	100	100	100
Compressor ON time during fast freezing	CCt	0.0	0.0	hrs	0	0	0
Set point for continuous cycle	CCS	-100	150	٥F	-5	23	23
Compressor ON time with faulty probe	COn	0	255	min	15	15	15
Compressor OFF time with faulty probe	COF	0	255	min	30	30	30
Display					-		
Temperature measurement unit	CF	°C	°F	_	°C	°F	°F
Resolution (integer/decimal point)	rES	in	DE	-	dE	dE	dE
Local display	Lod	P1	P2	_	P1	P4	P4
X-REP display (P1 - P2 - P3 - P4 - SEt - dtr)	rEd2	P1	dtr	-	P1	P4	P4
Display temperature delay	dLy	0	20	min	0	0	0
P1-P2 percentage for display	dtr	1	99	%	50	100	100
Defrost					-		
Kind of interval for defrost	EdF	rtc	in	_	rtc	In	In
Defrost type (EL=el. heater; in=	tdF	EL	in	-	El	EI	El
Probe selection for defrost termination (nP; P1; P2; P3; P4)	dFP	nP	P4	-	P2	P2	P2
Probe selection for second defrost termination (nP; P1; P2; P3; P4)	dSP	nP	P4	-	P2	P2	P2
Defrost termination temperature	dtE	-50	50	°F	8	50	50
Second defrost termination temperature	dtS	-50	50	°F	8	50	50

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-	Param	Par	Max	U/M	Default	Opera-KW SV OPEN L937	Opera-KW SV OPEN L1250
Defrost					-		
(Maximum) lenght for 1° defrost	Mdf	0	255	min	30	45	45
(Maximum) lenght for 2° defrost	MdS	0	255	min	30	45	45
Start defrost delay	dSd	0	99	min	0	0	0
Displaying during defrost (rt, it, SEt, DEF)	dFd	rtc	DEF	-	it	DEF	DEF
MAX display delay after defrost	dAd	0	255	min	30	10	10
Draining time	Fdt	0	120	min	0	2	2
First defrost after start up (n=after IdF; y=immed.)	dPO	n	У	-	n	n	n
Defrost after fast freezing	dAF	0	23	hrs	0	0	0
Fans			'	'	-		
Fans operating mode (C-n, o-n, C-y, o-Y)	FnC	C-n	o-Y	-	O-n	О-у	О-у
Fans delay after defrost	Fnd	0	255	min	10	2	2
Differential of temperature for forced activation of fans	Fct	0	50	°F	10	50	50
Fans stop temperature	FSt	-50	50	°F	2	36	36
Fan on time with compressor off	Fon	0	15	min	0	0	0
Fan off time with compressor off	FoF	0	15	min	0	0	0
Probe selection for fan management (nP; P1; P2; P3; P4)	FAP	nP	P4	-	P2	nP	nP
Auxiliary thermostat configuration					-		
Kind of action for auxiliary relay	ACH	CL	Ht	-	cL	cL	cL
Set Point for auxiliary relay	SAA	-100	110	٥F	0	0	0
Differential for auxiliary relay	Shy	0,1	25.5	٥F	2	2	2
Probe selection for auxiliary relay (nP; P1; P2; P3; P4)	ArP	nP	P4	-	nP	nP	nP
Auxiliary relay operating during defrost	Sdd	n	У	-	n	n	n
Alarms					-		
Alarm probe selection (nP; P1; P2; P3; P4)	ALP	nP	P4	-	P1	P1	P1
Temperature alarms configuration (rE= related to set; Ab = absolute)	ALC	rE	Ab	-	Ab	Ab	Ab
MAXIMUM temperature alarm	ALU	SET	110	°F	110	50	50
minimum temperature alarm	ALL	-100	SET	٥F	-50	14	14
Temperature alarm and fan differential	AFH	0,1	25,5	°F	2	1	1
temperature alarm delay	Ald	0	255	min	15	30	30
Delay of temperature alarm at start up	dAO	0	23	hrs	1,3	1,3	1,3

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-	Param	Par	Max	U/M	Default	Opera-KW SV OPEN L937	Opera-KW SV OPEN L1250
Condenser temperature alarm					-		
Probe for temperat. alarm of condenser (nP; P1; P2; P3; P4)	AP2	nP	P4	-	P4	nP	nP
Condenser for low temperat. Alarm	AL2	-100	150	°F	-40	-40	-40
Condenser for high temperat. Alarm	AU2	-100	150	°F	110	110	110
Differ. for condenser temp. alar. Recovery	AH2	0,1	25,5	°F	5	5	5
Condenser temperature alarm delay	Ad2	0	254	min	15	10	10
Delay of cond. temper. alarm at start up	dA2	0.0	23	hrs	1,3	1,3	1,3
Compr. off for condenser low temperature alarm (n(0) - Y(1))	bLL	n	Υ	-	n	n	n
Compr. off for condenser high temperature alarm $(n(0) - Y(1))$	AC2	n	Υ	-	n	n	n
Auxiliary relay					-		
Second relay configuration (ALr = alarm; dEF = do not select it; Lig = Light; AUS = AUX; onF=always on; Fan= do not select it; db = neutral zone; cP2 = second compressor; dF2 = do not select it; HES = night blind)	oA2	Alr	HES	-	Lig	Fan	Fan
Alarm relay disabling	tbA	n	У	-	У	У	У
Fourth relay configuration (ALr = alarm; dEF = do not select it; Lig = Light; AUS = AUX; onF=always on; Fan= do not select it; db = neutral zone; cP2 = second compressor; dF2 = do	oA3	Alr	HES	-	Lig	Alr	CP2
not select it; HES = night blind) Alarm relay polarity (oA3=ALr)	AoP	οР	cL	-	cL	cL	cL

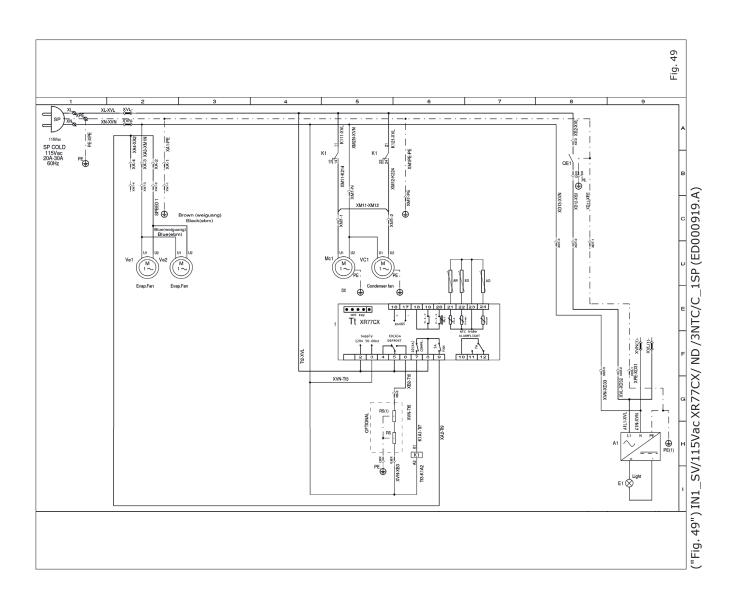
Model	OPERA KW, PEPPER	KYSOR WARREN epterefrigeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	22/24

-	Param	Par	Max	U/M	Default	Opera-KW SV OPEN L937	Opera-KW SV OPEN L1250
Digital inputs					-		
Digital input polarity (18-20)	i1P	οР	cL	-	cL	cL	cL
Digital input 1 configuration							
(18-20)	i1F	οР	CL	-	dor	dor	dor
(oP=opening;CL=closing)							
Digital input polarity (18-19)	i2P	dor	dEF	-	cL	cL	cL
Digital input configuration							
(18-19)	i2F	oΡ	CL	-	EAL	EAL	EAL
(oP=opening;CL=closing)							
Digital input alarm delay (18-20)			_				
(EAL - bAL- PAL - dor - dEF - ES	did	EAL	onF	-	15	15	15
- AUS - Htr - FAn - HdF - onF)			255		4.5	4.5	45
Door open alarm delay	doA	0	255	min	15	15	15
Number of activation of pressure switch	nPs	0	255	min	15	15	15
Compress and fan status when open	odc	0	15	-	F-c	F-c	F-c
Regulation restart with door	uud		г.с	_	.,	.,	.,
open alarm (no; Fan; CPr; F_C)	rrd	no	F_C	-	У	У	У
Differential for Energy Saving	HES	-54	54	°F	32	32	32
Current time an weekly					_		
holidays							
Current hour	Hur	-30	30	hrs	-		
Current minute	Min	0	23	min	-		
Current day	dAY	0	59	-	-	Set in field	Set in field
First weekly holiday	Hd1	Sun	nu	-	nu		
Second weekly holiday	Hd2	Sun	nu	-	nu		
Energy saving times					-		
Energy saving cycle start during workdays	ILE	0	23h50	hrs	0		
Energy saving cycle length during workdays	dLE	0	24	hrs	0		0 6
Energy saving cycle start on holidays	ISE	0	23h50	hrs	0	Set in field	Set in field
Energy saving cycle length during holidays	Dse	0	24	hrs	0		

Model	OPERA KW, PEPPER	KYSOR WARREN Optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	23/24

_	Param	Par	Max	U/M	Default	Opera-KW SV	Opera-KW SV
_	Paraili	Pai	Мах	U/ M	Delauit	OPEN L9370	OPEN L1250
Defrost times							
1st workday defrost start (0 ÷ 23h 50 min nu)	Ld1	0	nu	hrs	6.0		
2nd workday defrost start (0 ÷ 23h 50 min nu)	Ld2	0	nu	hrs	13.0		
3rd workday defrost start (0 ÷ 23h 50 min nu)	Ld3	0	nu	hrs	21.0		
4th workday defrost start (0 ÷ 23h 50 min nu)	Ld4	0	nu	hrs	nu		
5th workday defrost start (0 ÷ 23h 50 min nu)	Ld5	0	nu	hrs	nu		Set in field
6th workday defrost start (0 ÷ 23h 50 min nu)	Ld6	0	nu	hrs	nu	Set in field	
1st holiday defrost start (0 ÷ 23h 50 min nu)	Sd1	0	nu	hrs	6.0		
2nd holiday defrost start (0 ÷ 23h 50 min nu)	Sd2	0	nu	hrs	13.0		
3rd holiday defrost start (0 ÷ 23h 50 min nu)	Sd3	0	nu	hrs	21.0		
4th holiday defrost start (0 ÷ 23h 50 min nu)	Sd4	0	nu	hrs	nu		
5th holiday defrost start (0 ÷ 23h 50 min nu)	Sd5	0	nu	hrs	nu		
6th holiday defrost start (0 ÷ 23h 50 min nu)	Sd6	0	nu	hrs	nu		
Other					-		
Serial address	Adr	1	247	-	1	Set in field	Set in field
Probe type selection	PbC	Pt1000	ntc	-	NTC	NTC	NTC
On / Off function enabled	OnF	nu	ES	-	nu	Set in field	Set in field
Room probe display	dP1	-	-	-	-		
Evaporator probe display	dP2	-	-	-	-		
Third probe display	dP3	-	-	-	-		
Fourth probe display	dP4	-	-	-	-	read only	read only
Real set	rSE	-	-	-	-		
Software release	rEL	-	-	-	2,6		
Map code	Ptb	-	-	-	24		

Model	OPERA KW, PEPPER	KYSOR WARREN optarefrigeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	24/24





SECTION 3: USER MANUAL

Model	OPERA KW, PEPPER	KYSOR WARREN Optarolfigieration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	2/23

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SYMBOLS USED



Prohibition symbol: it prohibits the carrying out of specific operations.



Attention symbol: accident prevention rules for the operator.



Warning symbol: there is the possibility of damaging the cabinet and/or its components.



Note symbol: it provides useful information.

Model	OPERA KW, PEPPER	KYSOR WARREN OPERFORMER
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	3/23

1. INTRODUCTION

It is recommended to attentively read the content of this Manual and keep it together with the cabinet.

The manufacturer shall not be held liable for any harm caused to people or damage to property due to the failure to observe the warnings contained in this Manual.



The Manual contains information considered necessary for the good use and operation of the cabinet.

Inside you will find the following descriptions and information:

- a functional description of the cabinet and each of its parts
- information on the safety of the cabinet and the safety rules to follow
- a correct use of the cabinet
- a correct ordinary and programmed maintenance, including cleaning operations

Information not contained in this Manual:

Installation instructions

For the correct installation of the cabinet refer to the following documents:

- Technical Manual
- Quick Reference Instructions

This Manual is for the following professional figures:

- QUALIFIED OPERATOR: a qualified person, educated to operate, regulate, clean and carry out ordinary maintenance on the cabinet
- SPECIALISED TECHNICIAN a technician trained and authorised by the body indicated in the contract (manufacturer/ concessionaire/distributor) to carry out: installation, non-routine maintenance, repair, replacement and overhaul of the cabinet

Instructions for use are also available on: www.eptarefrigeration.com.

Make reference to the declaration of conformity for the regulations and certifications of the cabinet.

Always keep the instruction booklet and in case of sale.

Model	OPERA KW, PEPPER	KYSOR WARREN Optarolifogration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	4/23

2. SAFETY WARNINGS

2.1 Warnings for the appliances that use R290 (propane)



Propane is a natural gas with a low environmental impact, but it is flammable. It is therefore essential to ensure that all the pipes of the cooling circuit are not damaged, before connecting the cabinet to the power supply. The location in which the cabinet is installed must have a minimum volume of 1 m³ for every 8q of refrigerant. The quantity of refrigerant of the cabinet is indicated on the technical data plate positioned on the cabinet. In case of leakage of refrigerant ensure that open flames or sources of ignition are not near the leak point.



Do not damage the refrigeration circuit.



In order to reduce flammability-related risks, this cabinet may only be installed by suitably qualified personnel.

2.2 General warnings



The manufacturer disclaims any liability for damage caused to people or property due to the failure to observe the warnings contained in this manual. Any person who uses this cabinet must read this user manual.



The employer must educate staff on the risks of accidents, on the devices arranged for staff safety, on the risks of noise emission and on the general safety rules provided for by the rules in force.



The cabinet must be used by adults in possession of the necessary knowledge and whose physical, sensory or mental abilities are not impaired; the cabinet is not designed for use by minors (in particular from 0 to 3 years). Children, under the supervision and responsibility of adults, must not play with the cabinet.



Any other use not explicitly indicated in this manual is considered dangerous and the manufacturer cannot be held liable for any damage deriving from improper, wrong and unreasonable use.



The cabinet must be used by staff equipped with the appropriate personal protection equipment.



It is compulsory to use work gloves.



Do not leave the cabinet exposed to weathering agents



Do not use direct or indirect jets of water on the cabinet.



Do not touch the cabinet with wet or damp hands and feet; do not use the cabinet with bare feet.



The removal of protection devices or panels that require the use of tools to be removed is reserved exclusively for qualified personnel.

Model	OPERA KW, PEPPER	KYSOR WARREN epta refrigeration
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For assembling dedicated optional accessories, contact Kysor Warren.



Each service or repair must be carried out exclusively by qualified personnel and, in every case, before each service or repair the power supply of the cabinet must be disconnected.



Instruct anyone who uses the cabinet on the location of the disconnector switch.



Thermostat adjustment is reserved for the technical after-sales service only.



Pay attention to the hot or moving parts marked with the appropriate symbol.



In case of fire, do not use water to put out the flames but only dry fire extinguishers



Do not damage the refrigeration circuit.



Avoid fire or sparks inside the appliance.



Keep the ventilation openings in the appliance housing free from obstructions.



Do not use electrical appliances inside the compartments of the appliance for the preservation of frozen foods if these are not the type recommended by the manufacturer.



Do not store explosive or dangerous substances, such as containers under pressure with flammable propellant, in this appliance.



Do not place liquid containers and do not pour liquids on the counter.

2.3 Warnings for cabinet maintenance



Access to the electrical parts and/or parts that require the use of tools is reserved for specialist technicians.



Prior to any maintenance and cleaning operation reserved for the user, turn off the cabinet using the wall-mounted disconnector switch.



Pay attention to the hot or moving parts marked with the appropriate symbol.



It is compulsory to use work gloves.

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2.4 Electrical warnings



Ensure that the power voltage corresponds to the rating plate of the cabinet.



The electrical installation must be carried out in a competent manner by specialised technicians.



The removal of the cover of the electrical panel is reserved for specialist technicians.



In compliance with the installation rules, the power supply must include an omnipolar disconnection device, which ensures complete disconnection from the network in overvoltage category III conditions.



The cabinet must be installed following the instructions of the manufacturer, by professionally qualified staff and in compliance with the rules on electrical systems in force in individual Countries.



A wrong cabinet installation can cause damage to people, animals or property, for which the manufacturer cannot be held liable.



If the power cord is damaged, it must be replaced by authorized service personnel. Do not attempt to repair the cable.



Do not power the cable if it is damaged. If in doubt, contact the after-sales service or your dealer.

2.5 Prohibitions



It is forbidden to use devices in addition to those provided in the cabinet by the manufacturer to accelerate the defrosting process.



It is forbidden for unskilled staff to remove the cover of the electrical panel or open panels that require the use of tools.



It is forbidden to use the cabinet for the preservation and/or display of explosive, flammable or corrosive substances, such as spray cans containing a flammable propellant.



It is forbidden to use the cabinet for the preservation and/or display of pharmaceutical products.



In case of PRODUCTS NOT PACKAGED OR PRESERVED AT LOW TEMPERATURE, it is prohibited to use the cabinet for the preservation and/or display of bottles and packages in glass.



It is forbidden to place the cabinet in areas with the presence of explosive gaseous substances.



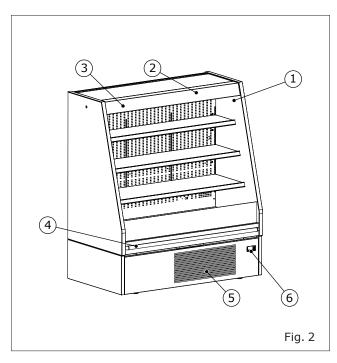
It is forbidden to remove the identification plate from the cabinet.



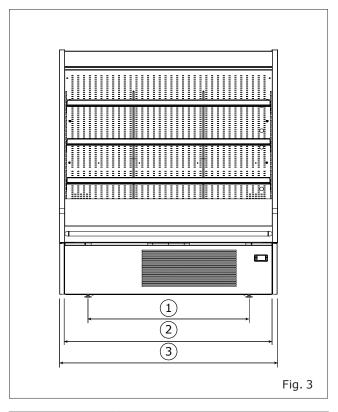
It is forbidden to get on the cabinet or on the cabinet bumper. Do not climb, sit stand, etc. on the cabinet.

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Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	7/23

3. GENERAL DESCRIPTION



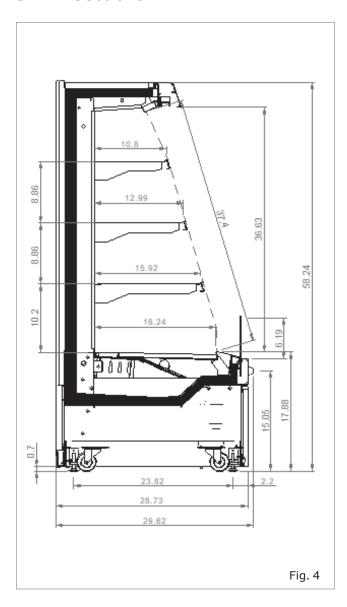
- 1. Rating plate
- 2. Upper lighting
- 3. Night blinds
- 4. Bumper rail
- 5. Condenser area
- 6. Control panel



Reference	Length (in)	Length (mm)
1	25.78 - 38.11	655 - 968
2	36.85 - 49.17	936 - 1249
3	39.21 - 51.54	996 - 1309

Model	OPERA KW, PEPPER	KYSOR WARREN optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	8/23

3.1 Sections



Model	OPERA KW, PEPPER	KYSOR WARREN optarefrigeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	9/23

4. TRANSPORTATION OF THE CABINET





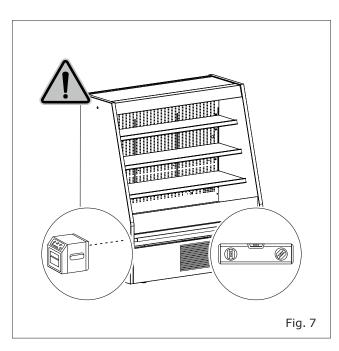
1. Lifting points : 70 cm = 27.56 in

Chart I

Length	Weight (kg)	Weight (lb)	Weight with packaging (kg)	Weight with packaging (lb)
937	210	463	240	529
1250	240	529	270	595

Model	OPERA KW, PEPPER	KYSOR WARREN optarefrigeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	10/23

5. AMBIENT CONDITIONS



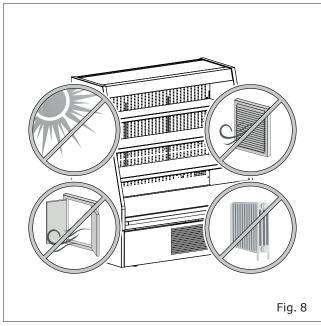
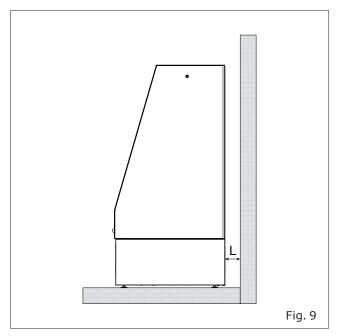


Chart II

Characteristics		
Type of premises	Closed	
Temperature	24°C/75°F	
Relative humidity	55 %	
Lighting	800 lx	



L = 3.9in / 100mm

Model	OPERA KW, PEPPER	KYSOR WARREN Optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	11/23

6. TECHNICAL FEATURES

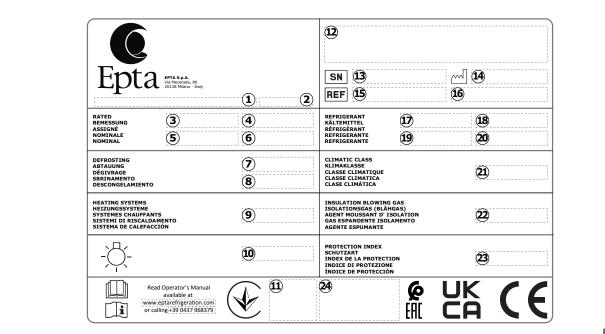


Fig. 10

- 1. Origin of the product
- 2. Product in "Country of origin"
- 3. Rated voltage
- 4. Rated power
- 5. Rated frequency
- 6. Rated current
- 7. Defrosting power
- 8. Defrosting current
- 9. Heating system
- 10. Lighting system
- 11. Operator manual
- 12. Barcode
- 13. Serial number

- 14. Date of production
- 15. Hat Code
- 16. Model
- 17. Type of refrigerant 1
- 18. Refrigerant mass 1
- 19. Type of refrigerant 2
- 20. Refrigerant mass 2
- 21. Climate class
- 22. Gas isolation
- 23. Protection index
- 24. Certification brands



Warning: it contains flammable refrigerant gas.

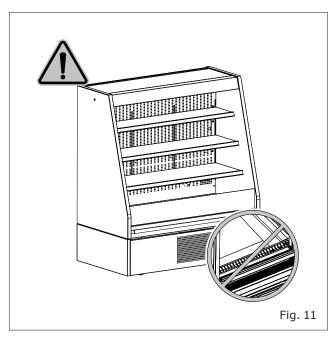
Application voltage and frequency: 115V/60Hz 1Ph

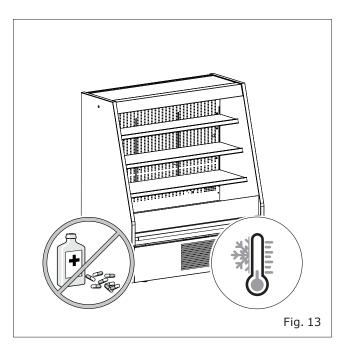
Chart III

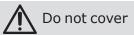
Quantity of R290 refrigerant		
Model	Circuit A (g)	Circuit A (oz)
937	120	4233
1250	140	4938

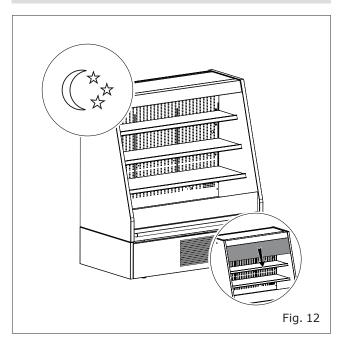
Model	OPERA KW, PEPPER	KYSOR WARREN Optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	12/23

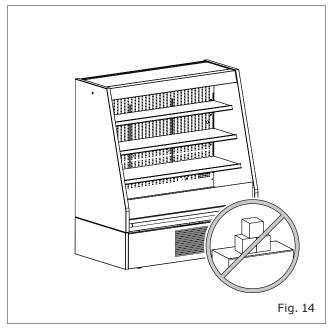
7. USE OF CABINET



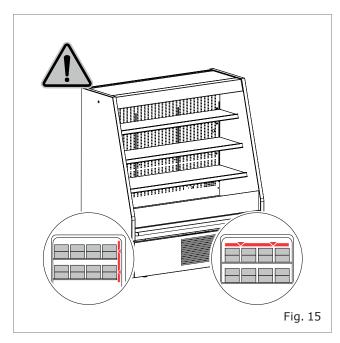




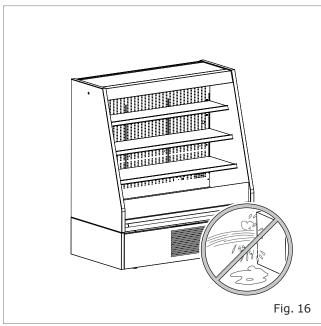


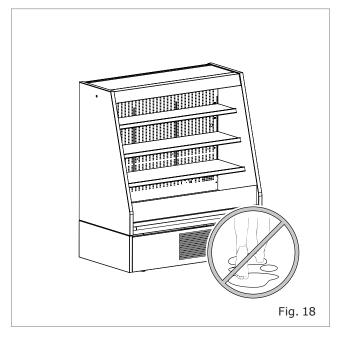


Model	OPERA KW, PEPPER	KYSOR WARREN optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	13/23

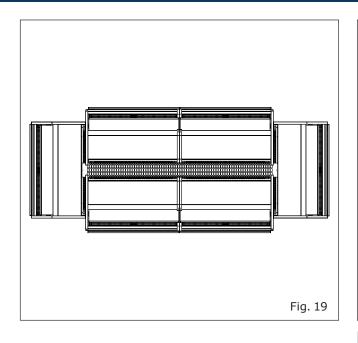


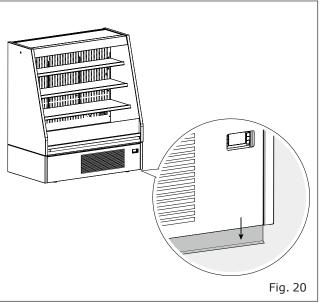






Model	OPERA KW, PEPPER	KYSOR WARREN Optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	14/23



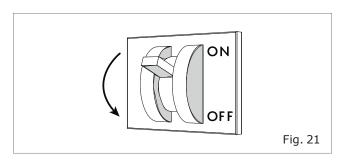




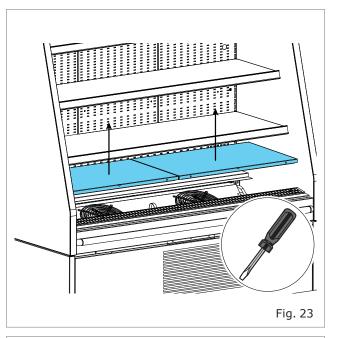
Model	OPERA KW, PEPPER	KYSOR WARREN Optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	15/23

8. ORDINARY MAINTENANCE

8.1 Cleaning the cabinet

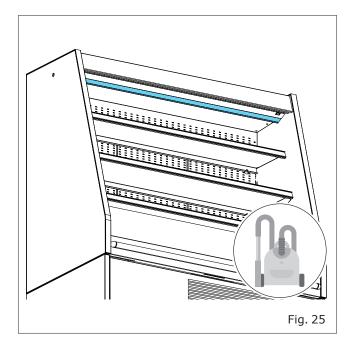


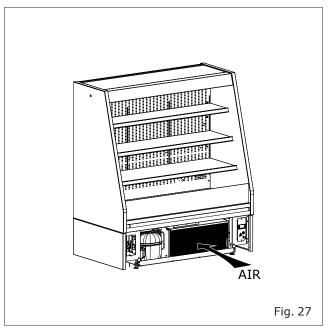


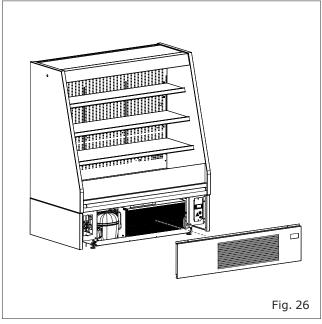




Model	OPERA KW, PEPPER	KYSOR WARREN Optarelingeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	16/23







Model	OPERA KW, PEPPER	KYSOR WARREN eptarefrigeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	17/23

9. USER INDICATIONS

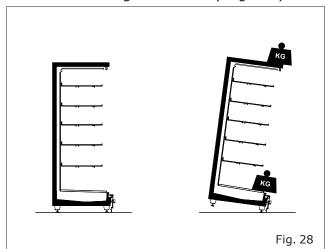
9.1 Description of the cabinet

This display case was designed and manufactured exclusively for the display of fresh packed food, drinks and dairies.

The cabinet are manufactured to meet ANSI/ASHRAE Standard 72 and National Sanitation Foundation (NSF*) Standard #7 (Type I - Display Refrigerator/ Freezer Intended for 75°F/55%RH Ambient Application) requirements.

The general characteristics and the dimensions are illustrated in the figures and in the sections contained in "General description" (to pg. "7").

During transport and handling, receipt and storage, installation, loading, use, cleaning and maintenance, dismantling, pay attention to the risk of overturning the cabinet ("Fig. 28").



9.2 Transport and handling

The cabinet is contained in a specific packaging equipped with a platform for handling with forklift trucks.

To transport and handle the cabinet use:

- Exclusively a dedicated or equivalent platform
- A manual or electric forklift suited to lifting the cabinet, with characteristics that comply with current Standards

The weights of the cabinet (empty and with packaging) and the dimensions of the packaging are shown in "Transportation of the cabinet" (chart "Chart I" and figures at pg."9").

The handling operations must be carried out by qualified staff able to assess weights, lifting points and most suitable means in terms of safety and capacity.

9.3 Receipt and storage

Check conditions of the packaging before accepting the cabinet from the carrier. If there is obvious damage in the packaging:

- Remove the packaging of the cabinet in the presence of the carrier.
- Sign the delivery document with reservation

The manufacturer shall not be held responsible for any damage caused due to transport or incorrect storage of the cabinet.

The cabinet must be stored in a place sheltered from sun and weather, with a temperature of between -13°F (-25°C) and +131°F (+55°C)and a relative humidity of the air between 30% and 95%.

Model	OPERA KW, PEPPER	KYSOR WARREN Optarefrigeration
Manufacturer	Epta Spa - Via Mecenate, 86 - 20138 Milano (MI) ITALIA Tel. 800-866-5596	18/23

9.4 Installation and ambient conditions

The cabinet is not designed to be installed outdoors.

For a correct operation of the cabinet, ensure that it is positioned:

- On a levelled floor ("Fig. 7").
- Far from heat sources, from the direct radiation of the sun, from doors, windows, fans and air vents ("Fig. 8").

Provide the space necessary for the use of the cabinet by the client.

The ambient conditions in which the cabinet should be placed are set out in "Ambient conditions".

9.5 Electrical connection

An omnipolar disconnector switch must be installed upstream of the cabinet. This must have:

- Minimum distance of the contacts of 0.12in (3mm)
- Adequate breaking power

The disconnector switch must be placed in a position that makes it easy to operate in emergency situations (maximum distance of 9.84ft (3m)).

Before connecting the cabinet, ensure that the supply voltage corresponds to the rating plate data of the cabinet. To guarantee smooth operation, the maximum voltage variation must be between +/- 6% of the nominal value.

9.6 Technical features

The identification plate shows the characteristic technical data of the cabinet. Its position and the type of data are shown in "Technical features" ("Fig. 10").

Wiring diagrams, control instrument calibration lists, installation instructions and copy of the Declaration of Conformity are available on the website https://documents.eptarefrigeration.com.

The sound pressure level generated by the operation of the cabinet is lower than 70 dB(A). The cabinet does not cause harmful vibrations.

9.7 Loading the product

Turn on the cabinet to start its cooling cycle, by using the general disconnector switch mounted on the wall. After about 2 hours it is possible to load the cabinet.

The cabinet is suitable to maintain the temperature of the goods and not lower it; the foods, therefore, must be introduced inside it only if already cooled to the respective temperatures of preservation. Products which have been heated must never be introduced into the cabinet.

In the presence of glass fronts on the cabinet, it is recommended to load the goods when there is no customer in the sales area.

In loading the goods, ensure that:

- The load is similar in terms of dimension and quality of the products
- The goods do not obstruct the correct flow of refrigerated air ("Fig. 11")
- The goods do not exceed the load line

Uniformly distributed maximum permissible load:

- On the bottom level: 46.083lbm/ft² (225kg/m²)
- On the shelves: 28.674lbm/ft² (140kg/m²)

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9.8 Use of cabinet

Lighting

The cabinet lighting is controlled by a switch on the top right of the cabinet.

Thermostat/thermometer

A remote thermostat/thermometer is positioned on the bottom right of the cabinet to control the temperature ("Fig. 2").

The remote thermostat displays the existing temperature inside the housing and the temperature is controlled using the dedicated buttons.



Using night covers or night curtains, if any are installed, during closing hours. ("Fig. 12").

9.9 Cleaning and ordinary maintenance

Good visibility in the area to be serviced is recommended, possibly using an additional light source.

Cleaning the cabinet

Only use water at a maximum temperature of 149°F (65°C) and household soap or neutral detergent diluted in water.

For glass surfaces use only products for cleaning glass. It is recommended to avoid the use of water since it may deposit limestone on the surface of the glass.

Never use:

- Abrasive sponges
- Flammable or abrasive products such as alcohol, acetone or solvents
- Detergents that contain non-ionic surfactants, lemon or vinegar (acetic acid)



Do not wash or clean the top part of the cabinet with water or liquids.

Clean all the external parts of the cabinet **ONCE A WEEK**.

Clean all the internal parts of the cabinet **ONCE A MONTH**, following the instructions below:

- Disconnect the power supply to the cabinet using the wall-mounted main switch-disconnector ("Fig. 21").
- Empty the cabinet, storing the goods in cold rooms or refrigerators to maintain the preservation temperature.
- Wait for the inside of the cabinet to have reached the ambient temperature and then clean
- Lift the bottom shelves using the screwdriver ("Fig. 23").
- Remove the vent with the screwdriver and clean it with a cloth ("Fig. 24").
- Clean the honeycomb using a vacuum cleaner ("Fig. 25").
- After carefully checking that the inside of the cabinet is completely dry, restart the appliance by re-energising the cabinet.
- After a couple of hours, load the goods again.

When you put the cabinet out of service, disconnect the power and follow the passages above, leaving the doors open (if available) to avoid odors.

Defrost the cabinet **EVERY THREE MONTHS** to allow the ice to melt which may have formed on the fins of the evaporator preventing correct operation. The duration of the defrosting activity is regulated directly in the factory. Any adjustments are reserved exclusively for the technical service department. The defrosting water is collected by a special drain and conveyed to a dissipation bowl placed at the bottom of the cabinet. Periodically check that the defrosting water drains normally. If not, intervene immediately using a non-pointed flexible probe.

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Do as indicated to clean the internal parts **MONTHLY**, but in this case foresee a longer waiting time to allow the ice to melt completely.

The condenser is a self-cleaning model that does not require routine maintenance. However, for safety reasons, **EVERY TWO YEARS** must be cleaned by blowing air through a compressed air pump to remove any residue or accumulated dust ("Fig. 27").

To access the condenser, it is necessary to first disconnect the electric voltage from the cabinet and then, remove the front cover ("Fig. 26").

A dirty condensing unit cools less, causing waste of energy and poor performance. Wear cut resistant gloves when cleaning the condensing unit.

9.10 Emergency situations

The cabinet does not start or it stops:

- Check there is no electrical blackout.
- Check that the main power switch on the wall is on.
- Check the cabinet plug is inserted into the socket.

If the power outage does not depend on these reasons, contact the nearest authorised service center and empty completely and immediately store the product in cold rooms or refrigerators that can maintain the preservation temperature.

The cabinet does not cool sufficiently:

- Check that the condensing unit is clean and able to carry out its heat exchange function; clean thoroughly, if the fins are obstructed.
- Check that the cabinet is loading correctly.
- Defrost the cabinet and then resume normal operation, if this operation has not been carried out for more than three months.
- Check that the cabinet is not close to heat sources or air currents.
- Verify the ambient conditions; the reference values are contained in "Ambient conditions" ("Chart II").
- Check the flatness of the cabinet using a leveller.

If cooling failure persists, contact your nearest authorised service centre.

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The cabinet is noisy:

- Check screws and bolts are properly tightened.
- Check the flatness of the cabinet using a leveller.

If the noise persists, contact your nearest authorised service center.

9.11 Technical assistance

Where technical assistance personnel are required, contact immediately the supplier from whom the cabinet was purchased.

If you need to use spare parts always refer to the technical assistance service: ask and ensure that original spare parts are used.

If the inconvenience persists, contact your nearest authorised service centre.

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If you need to use spare parts always refer to the technical assistance service: ask and ensure that original spare parts are used.

9.12 Dismantling and elimination

For the sake of the environment, please sort the parts and materials of the display case in accordance with the waste disposal provisions in force in your country, state or city, so that they can be properly disposed of or recycled. All parts cannot be treated as household waste, except for the metal parts.

THE PARTS OF THE REFRIGERATING CIRCUIT MUST NOT BE SEVERED OR SEPARATED BUT BE DELIVERED INTACT TO A CENTER SPECIALIZING IN RECYCLING REFRIGERANT GAS.

The components of the refrigeration circuit must not be cut and/or separated before the circuit is discharged, with the recovery of refrigerant gas by qualified personnel.

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10. SUPPLEMENTARY GENERAL WARNINGS

Instructions for correct installation and maintenance

The user and maintenance instructions are found in the User Manual available on the website:

www.eptarefrigeration.com.

The installation instructions dedicated to expert staff are available:

- From the service network
- In some categories of product in paper format delivered together with the product

Professional repair services

The services are provided by our service network which can be consulted in the contacts area at the website address www.kysorwarren. com.

Spare parts

Should it be necessary to contact technical assistance, contact Kysor Warren immediately:

- Phone number: 1-800-866-5596
- Email: KWParts@kysorwarren.com

If spare parts are needed, always refer to your after-sales service. Insist on the use of original spare parts.

Cleaning air condenser

The plug in cabinets maintain their efficiency only if the condenser is cleaned using the methods and times indicated in the user and maintenance manual.

Important information on food waste

It is recommended to follow closely the instructions of preservation shown in the packages of the products and the indications provided by the food producers.

Therefore, the temperature settings must be suited to the characteristics of preservation of the food products consistently in accordance with the indications set out in our technical documentation.

Incorrect uses can result in deterioration.

Ambient conditions

This appliance is intended to function in environments in which the temperature and humidity fall within the limits provided for in the User and maintenance manual.

Instructions for disassembly

For disassembly activities, it is necessary to contact the professional operators.

Epta group has always been driven by a particular attention to the environment. It makes available to users the manuals for dismantling and treating the waste of the plugin refrigerated cabinets, which can be downloaded below.

Manual for dismantling open plug-in cabinets:



Manual for dismantling closed plug-in cabinets:



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Limits of application



This cabinet is designed for the use, transport and storage of up to a maximum altitude of 6561ft (2000m) above sea level.

Storage:

- Temperature between 59°F (15°C) and 122°F (50°C)
- Relative humidity between 20% and 90%
- Maximum time 6 months

Transport:

- Temperature between 68°F (20°C) and 158°F (70°C)
- Relative humidity between 20% e 90%
- Maximum time 2 months

Installation:

- Temperature between 32°F (0°C) and 104°F (40°C)
- Relative humidity between 20% and 90%
- Maximum time 2 months

Use:

The performance of the cabinet is not guaranteed outside of its normal use. Its integrity and safety is guaranteed within the following limits for temporary conditions.

Environment outside of the cabinet:

 From class 1 (60.8°F (16°C) / 80%rh) to class 4 (86°F (30°C) / 55%rh) or class 6 (80.6°F (27°C) / 70%rh) The performance of the cabinet is not guaranteed outside of its normal use. Its integrity and safety is guaranteed within the following limits.

Environment inside the cabinet (conditions for electrical safety):

Positive temperature cabinet

- Temperature between 14°F (-10°C) and 50°F (+10°C)
- Relative humidity between 70% and 100%
- Maximum time 10 years



During operation, the heating elements could locally record temperatures higher than the aforementioned limits, however always in full respect of the safety conditions.

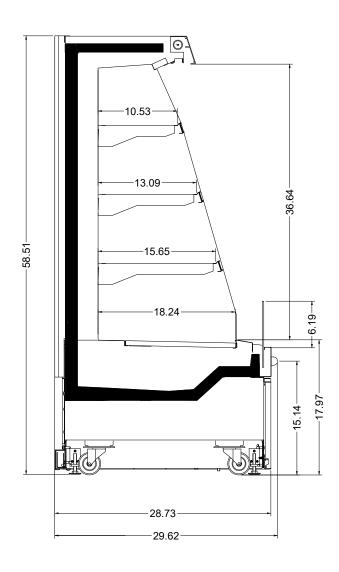


SECTION 3: DATASHEET

OPERA KW, PEPPER

Module		3.07	4.10	Unit
		Dimension and weights		
Len	ghts	36.89	49.21	
End	lwall	1.7	1.26	
Minimum distance	e between cabinet	2.0	24	in
and wall		3.9	94	in
	Pitch	0.0	98	
Shelves	Depth	10.53-13.	.09-15.65	
	Rows	3	3	n
Total Display Area (TDA)		9.48	12.65	ft ²
Volume		10.06	13.42	ft ³
Weight		462.97	529.11	- Ib
Weight Packaged		529.11	595.25	TID ID

Cross Section



Module	3.07	4.10	Unit

Refrigeration data					
	Propane	60Hz	110/3.88	130/4.94	grams/ oz
Climate Class 3	Compressor	60Hz	1	1	HP
	Energy consumption	3M1	16.11	19.85	kWh/ 24h
	Heat Flux to ambient	3M1	2291	2823	BTU/h

Electrical Absorptions			
Power Supply (Volts/Hertz/Phase)	115V/60HZ/1PH	115V/60HZ/1PH	
Minimum Circuit Ampacity	15	.12	
Maximum Overcurrent Protection	2	0	Α
Rated Amps	12	.19	

TECHNICAL DATA SHEET		

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User manual

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User manual





