-86

+250

EMSAŞ ®

MEDICAL COOLING & HEATING SYSTEMS

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QUALITY & SAFETY
PROTECTION

BLOOD BANK REFRIGERATOR

LABORATORY - PHARMACY REFRIGERATOR

INCUBATOR - AGITATOR

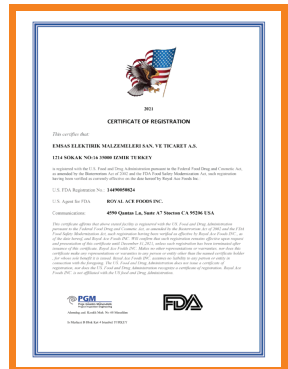**PLASMA THAWER**

DEEP FREEZER

ULTRA LOW FREEZERS

BREAST MILK STORAGE REFRIGERATOR & FREEZER

BABY BOTTLE WARMERS

ETUVE (LABORATORY OVEN) & WATER BATH

COOLED INCUBATOR

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INDEX

EMSAS SINCE 1975 ®
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EKN Serie
(+2°C/+8 °C)

• The outer surface of the device has been produced of galvanized sheet with electrostatic paint resistant to rust and the inner surface is produced of stainless steel sheet.

• The device operates with 195-230V/50 Hz network voltage.

• The door of the device has double thermal glazing, it can be locked and has magnetic seal rings. Thus, it provides an opportunity to trace the stocks.

• Each drawer in the cabinet is 450 ml of whole blood. The devices takes 25, 60, 120, 240, 363 and 672 pieces of bags according to the capacity of the device.

• The device has a pool type stainless steel drawer system. There is a plexi-glass protector in front of each drawer. This mobile drawer system can be easily moved.

• There are separators inside the drawers helping the blood bags to be placed and stocked easily.

• The device operates between +2/+8°C, which is the ideal storage temperature of blood ingredients, and it is set to +4°C.

• The device provides equal temperature distribution with the strengthened fan system it contains.

• The lightening of the inner cabin of the device is carried out with LED lights.

• The device has full automatic defrost system in order to protect the productivity of the cooling evaporator.

• A user - friendly digital control panel with a micro processor has been used on the device. This system can keep the data in memory for 30 days.

• There is a USB socket to transfer the cabinet temperature information to the computer when requested. in this way, the 10 year old temperature records can be transferred to the PC in excel format.

• The thermostat at the control panel of the device can make measurements with 0.1 degree sensitivity.

• There are 2 probs in the blood bank refrigerator. One of these probs measures the inner cabin temperature and the other measures the temperature of the sample liquid at the blood density. This information can be traced on the digital screen.

• There is an accumulator system charged automatically at the control panel of the device. This system allows the control panel and thermal printer to operate for 24 hours when the electricity cuts off.

• The EKN serie has Thermal Printer and 5.5' Touch Screen Display as standard. The numerical printout of the data recorded can taken with the thermal printer. The temperature/time graph of the last 140 minutes can be seen on the touch screen of the device. Every step is done with encryption method in order to prevent unauthorized people from using the device. And, the touch screen display can show 2 alarm status same time.

• While the blood bank refrigerator is working the device gives alerts with the visual and audio signal when the lower and upper temperature li mits are exceeded, the door of the device is left open, and ther e is electricity cut off or low voltage problems.

• The cooling system and the insulation system of the device do not contain CFC gas that is harmful for OZONE.

• There are two castors with braked and two regular castors under the device to provide easy portability.

• All medical devices produced by Emsas A.S. are guaranteed for 2 years.

• There is an external probe input on the device for connection to the heat tracking system.

• All our products are produced in line with the ISO 9001:2008 , TSE service place competence certificates. Our blood bank refrigerators have CE certificates.

EKN 300

363 PCS

450 ml

OPTIONAL GRAPHICAL CHART RECORDER

STANDARD TOUCH SCREEN DISPLAY

STANDARD THERMAL PRINTER

OPTIONAL BLOCK 3XGLASS DOOR

BLOOD BANK REFRIGERATOR

EKN 25
(+2°C/+8°C)
25 PCS

EKN 50
(+2°C/+8°C)
60 PCS

EKN 100
(+2°C/+8°C)
120 PCS

EKN 200
(+2°C/+8°C)
240 PCS

EKN 300
(+2°C/+8°C)
363 PCS

EKN 600
(+2°C/+8°C)
672 PCS

MODEL	EKN 25 / EKN 25	EKN 50 / EKN 50	EKN 100 / EKN 100	EKN 200 / EKN 200	EKN 300 / EKN 300	EKN 600 / EKN 600
Temperature Range	+2 / +8 °C	+2 / +8 °C	+2 / +8 °C	+2 / +8 °C	+2 / +8 °C	+2 / +8 °C
Set Point	+4°C	+4°C	+4°C	+4°C	+4°C	+4°C
External Dimensions (WxLxH) mm	452x843x768	600x690x1161	600x690x1361	600x690x1936	765x850x1936	1450x850x1936
Internal Dimensions (WxLxH) mm	370x367x520	518x546x590	518x546x795	518x546x1385	662x713x1346	1362x717x1346
Volume	70 Liters / 25 Pcs Bags	167 Liters / 60 Pcs Bags	225 Liters / 120 Pcs Bags	388 Liters / 240 Pcs Bags	637 Liters / 363 Pcs Bags	1320 Liters / 672 Pcs Bags
Polyurathane (mm)	41 mm	42,5 mm	42,5 mm	42,5 mm	51,5 mm	40 mm
Packaging Dimensions (WxLxH) mm	580x790x890	605x700x1270	730x690x1550	730x690x2100	900x950x2150	940x1570x2150
Gross KG	65 Kg	97 Kg	128 Kg	175 Kg	229 Kg	380 Kg
Interior Lighting	+	+	+	+	+	+
Door Lock	+	+	+	+	+	+
Alarm	+	+	+	+	+	+
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint
Heating / Cooling System	Fan System	Fan System	Fan System	Fan System	Fan System	Fan System
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane
Drawers	2 Pcs	2 Pcs	3 Pcs	6 Pcs	6 Pcs	12 Pcs
Block Door	Optional	Optional	Optional	Optional	Optional	Optional
Thermal Printer	Standard	Standard	Standard	Standard	Standard	Standard
SMS and E-MAIL MODUL	Optional	Optional	Optional	Optional	Optional	Optional
PC Connection	USB	USB	USB	USB	USB	USB
Castors	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular
Temperature Sensor	NTC	NTC	NTC	NTC	NTC	NTC
Control System	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control
Voltage	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz
Cooling Gas	R134a	R134a	R134a	R134a	R134a	R134a
Power	230 Watt	230 Watt	230 Watt	277 Watt	400 Watt	400 Watt
Natural Gas	Optional	Optional	Optional	Optional	Optional	Optional

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ECI Serie
(+22°C/+24°C)

• The outer surface of the device is made of galvanized steel, painted with electrostatic paint to protect against rust. The inner surface is produced of stainless steel.

• The door of the incubator has double thermal glazing, it can be locked and has magnetic seal rings. Thus, it provides an opportunity to trace the stocks.

• The device operates with 195-230 V/50 Hz network voltage.

• It has been set to 22°C and it is working with 0,5°C tolerance.

• Provides equal temperature distribution with the strengthened fan system it contains.

• The lightening of the inner cabin of the device is carried out with LED lightening.

• A user-friendly digital control panel with a micro processor has been used on the incubator. This system can keep the data in memory for 30 days.

• There is a USB output to transfer the cabinet temperature information to the computer when requested. In this way, the 10 year old temperature records can be transferred to the PC in excel format.

• The thermostat at the control panel of the device can make measurements with 0.1 degree sensitivity.

• There is an accumulator system charged automatically at the control panel of the device. This system allows the control panel and thermal printer to operate for 24 hours when the electricity cuts off.

• While the incubator is working the device gives alerts with the visual and audio signal when the lower and upper temperature limits are exceeded, the door of the device is left open, and there is electricity cut off or low voltage problems. Sends error codes to the thermal printer and the screen.

• When the doors opens while the incubator is working, the fan system and the thrombocyte agitator stops working. The system continues working when the door is closed. If the agitator stops, the incubator continues to give alarm.

• The cooling system and the insulation system of the device do not contain CFC gas that is harmful for OZONE.

• The ECI serie has Thermal Printer and 5.5' Touch Screen Display as standard. The numerical printout of the data recorded can taken with the thermal printer. The temperature/time graph of the last 140 minutes can be seen on the touch screen of the device. Every step is done with encryption method in order to prevent unauthorized people from using the device. And, the touch screen display can show 2 alarm status same time.

• All medical devices produced by Emsas A.S. are guaranteed for 2 years.

• All of our products are produced in line with the ISO 9001:2008, TSE service place competence certificates. The device has CE certificates and UBB record.
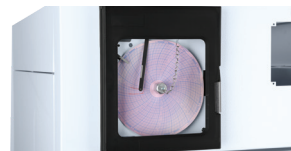
ECI 01

EAJ Serie

• The thrombocyte agitators have been produced with 5 or 9 shelves

and 3 different models.

• Each shelf has the capacity to keep 6 or 11 apheresis.

• It has a modern stainless air circulation shelf system. The shelf edges are designed from plastic material and prevent the noise.

• User-friendlysystem.

• The stainless steel shelves has the feature of easy mounting

• After connected the incubator, the alarm sistem will operate when the agitator stop inside the cabinet.

• The system makes 60 strokes in a minute.

• The agitator works with low sound.

• All medical devices produced by Emsas A.S. are guaranteed for 2 years.

EAJ 05

STANDARD THERMAL PRINTER

STANDARD TOUCH SCREEN DISPLAY

OPTIONAL GRAPHICAL CHART RECORDER

ECI 01
(+22 ℃/+24 ℃)

ECI 02
(+22 ℃/+24 ℃)

ECI 03
(+22 ℃/+24 ℃)

EAJ -L 05
30 PCS

EAJ 09
54 PCS

EAJ -L 09
100 PCS

MODEL	EAJ 05	EAJ 09	EAJ-L 09
Capacity	30 Pcs	54 Pcs	100 Pcs
Voltage	220 V / 50 HZ	220 V / 50 HZ	220 V/ 50 HZ
Net (Kg)	25 KG	28 KG	35 KG
External Dimensions (WxLxH) mm	450x356x350	450x356x450	890x380x450
Packaged Dimensions	550x450x460	550x400x500	970x440x530
Gross (KG)	32 KG	35 KG	65 KG

MODEL	ECI 01	ECI 02	ECI 03
Temperature Range	+22°c / +24°C	+22°c / +24°C	+22°c / +24°C
Set Point	+22°C	+22°C	+22°C
External Dimensions (WxLxH) mm	600x695x910	1220x695x880	697x1215x2000
Internal Dimensions (WxLxH) mm	496x572x496	1120x580x500	580x1162x1600
Volume	1xEAJ05 or 1xEAJ09	2xEAJ05 or 2xEAJ09 or 1xEAJL-09	3xEAJL-09
Polyurathane (mm)	52 mm	50 mm	50 mm
Packaged Dimensions	650x750x950	1270x750x1040	737x1615x2120
Gross (KG)	88 Kg	125 Kg	200 Kg
Interior Lighting	+	+	+
Door Lock	+	+	+
Alarm	+	+	+
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint
Heating / Cooling System	Fan System	Fan System	Fan System
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane
Cr-Ni Shelves with Drawers	+	+	+
Thermal Printer and Touch Screen Display	Standard	Standard	Standard
SMS and E-MAIL MODULE	Optional	Optional	Optional
PC Connection	USB	USB	USB
Castors	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular
Temperature Sensor	NTC	NTC	NTC
Control System	Microprocessor Control	Microprocessor Control	Microprocessor Control
Voltage	220v-50hz	220v-50hz	220v-50hz
Power	230 Watt	230 Watt	230 Watt
Cooling Gas	R134a	R134a	R134a

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EMG POWER UNIT

• The power unit is designed as 1kw, 2kw and 3kw.

• The power unit operate between -15 and +55 degrees. The system protects itself with the temperature sensors and cooling system inside.

• Also, the power unit acts as UPS, and regulates voltage interruptions and fluctuations.

• It is designed to operate the device for 8 hours in case of power cuts. This time can be increased according to request.

• It works silently and without vibration.

• The power unit can be used by connecting solar panels.

• All connection cables are with socket and plug. Connection can be made easily.

• The capacity selection of the power unit should be selected in accordance with the power of the device to be used.

• Solar energy panels are placed on a carcass that can be opened and closed, It can be easily fixed.

NEW PRODUCT

EMSAŞ SINCE 1975 ®
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EPS Serie
(RT+5°C / +45°C)

EPS 10

EPS 10
(RT+5 /+45)

• The device is designed to heat or thaw blood products stored in blood bags such as erythrocytes, fresh frozen plasma.

• The device performs melting process with the watery system. Water is constantly circulated in the device. Therefore, homogeneous heat distribution is provided in the device.

• The water fillable chamber offers a capacity of 20 Liter. Thawing capacity is 6 bags (450ml each)

• Temperature adjustment can be made by the user with the microprocessor control system.

• The device operating range is (RT+5°C.....+45 °C)

• Device lower and upper alarm limit temperatures can be adjusted by the user.

• Stainless Steel basket used in the device to place blood bags. • The device operates with 220V/ 50 Hz

• The heater is located in a separate compartment from the inner chamber so that it does not come into contact with water and products.

• With 300W power, it reaches the desired temperature in a very short time

• With the circulation feature, the thawing times of the product is shortened.

• The water can be drained quickly by the drainage system used in device.

• The device has a PID controlled heating system. In this way, the device can be kept constant at the desired temperature. And energy consumption is minimized.

• The device has a delayed start and timer feature. In this way, the device can automatically turn itself off when the working program is finished.

• The device has a user-friendly panel with a dial-and-push feature that provides easy use.

• All medical devices produced by Emsas A.S. are guaranteed for 2 years.

• ll of our products are produced in line with the ISO 9001:2008, ISO 13485, TSE service place competence certificates. The device has CE certificates and UBB record.

MODEL	EPS 10
Temperature Range	RT+5 / +45°C
Set Point	+37°C
Capacity	6 Bags
External Dimensions (WxLxH) mm	362x333x410
Internal Dimensions (WxLxH) mm	327x298x199
Volume	20 L
Rock Woll (mm)	17,5 mm
Packaging Dimensions (WxLxH) mm	540x440x540
Gross (KG)	21
Interior Lighting	-
Alarm	+
Internal Surface	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint
Heating / Cooling System	Electricity
Insulation	Rock Wool
Castors	Ball Joint
Temperature Sensor	NTC
Control System	Microprocessor Control System
Voltage	220v-50hz
Water Circulation	+
Drainage System	+
Bags Chamber	Stainless Steel Basket
Thermostat Operating Sensivity	0,1°C

ULT Serie
(-50°C / -86°C)

-86
ULTRA LOW FREEZER
ULT - 730
(-50°C/-86°C)

• Ultra low freezers have net volume of 288, 470 and 730 liters as vertical and 267 liters as horizontal.

• The temperature set value can be adjusted the range of -50°c and -86°c on the device's screen.

• The device roll out from our factory by being set to -86°c.

• The inner surface of the device is made of cr-ni alloyed stainless steel material. The outer surface is made of sheet material painted with antibacterial electrostatic powder paint.

• The thermostat which sends data to the control panel of the device, measures with sensitivity of 0.1°c.

• The inner cabin is cooled by the static direct cooling method with the cooling pipes surrounding the cabin.

• The device has cascade cooling system.

• The temperature/time graph of the last 140 minutes can be seen on the screen of the device.

• The device has usb port for recording temperature data. 30 days of temperature data can be recorded to usb memory.

• Pt100 temperature sensor is used in the device.

• 12 cm polyurethane foam is used for good insulation in the device.

• There are two sealing gaskets in order to improve the insulation on the door part of the device.

• Insulating material covers are used in the cubicle of the device, so that the temperature in the cabin does not rise too much when the door of the device is opened.

• Covers with insulating material are used in the cell of the device so that the temperature inside the cabinet does not rise too much when the door of the device is opened.

• The device is microprocessor controlled.

• Every step is done with encryption method in order to prevent unauthorized people from using the device.

• There are 2 free wheels and 2 stoppers wheels for easy transport of the device.

• There is an automatically charged accumulator system on the control panel of the device. This system ensures that the digital control panel continues to operate for 72 hours in case of power failure.

• The device gives warning with visual and audible warning signals when the upper and lower temperature limits are exceeded, when the door of the device is left open, when there is a power cut or low voltage problem while the ultra low freezers are operating. It sends the error codes to the screen, the thermal printer and the files received from the usb.

ULT 730

-86
ULTRA LOW FREEZER
YULT - 350
(-50°C/-86°C)

YULT 350
(-50°C / -86°C)

OPTIONAL SHELVES

EMSAS SINCE 1975 ®
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ULT 470
(-50°C / -86°C)

ULT 730
(-50°C / -86°C)

-86
ULTRA LOW FREEZER
EMSAS
ULT - 470
(-50°C/ -86°C)

-86
ULTRA LOW FREEZER
EMSAS
ULT - 730
(-50°C/ -86°C)

MODEL	CHEST ULTRA LOW FREEZER	VERTICAL ULTRA LOW FREEZERS		
	YULT 350	**ULT 200**	**ULT 470**	**ULT 730**
Temperature Range	-50°C / -86°C	-50°C / -86°C	-50°C / -86°C	-50°C / -86°C
Set Point	-80°C	-80°C	-80°C	-80°C
External Dimensions (WxLxH) mm	1794x800x840	765x760x1610	918x862x1920	910x1100x1995
Internal Dimensions (WxLxH) mm	1060x515x640	525x610x900	670x595x1205	670x850x1285
Volume	267 L	288 L	470 L	730 L
Polyurathane (mm)	120 mm	120 mm	120 mm	120 mm
Packaged Dimensions (WxLxH) mm	1850x850x900	910x870x1930 mm	910x870x1930 mm	990x1000x1980 mm
Gross (KG)	200 KG	225 KG	265 KG	285 KG
Interior Lighting	-	-	-	-
Door Lock	+	+	+	+
Alarm	+	+	+	+
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint
Heating / Cooling System	Cascade	Cascade	Cascade	Cascade
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane
Shelves	4 Pcs	3 Pcs	4 Pcs	4 Pcs
Screen	5,5 Touch Tft Screen	5,5 Touch Tft Screen	5,5 Touch Tft Screen	5,5 Touch Tft Screen
Graphical Screen	+	+	+	+
PC Connection	USB	USB	USB	USB
Castors	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular
Temperature Sensor	PT100	PT100	PT100	PT100
Control System	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control
Voltage	220v-50hz	220v-50hz	220v-50hz	220v-50hz
Cooling Gas	R404a/r508b	R404a/r508b	R404a/r508b	R404a/r508b
Natural Gas	Optional	Optional	Optional	Optional

![EMSAS logo - SINCE 1975]
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EE Serie
(-5°C / -30°C)

• The outer surface of the device is made of galvanized steel, painted with electrostatic paint to protect against rust. The inner surface is produced of stainless steel.

• The device operates with 195-230 V/50 Hz network voltage.

• The door of the device comes with a high density polyurethane filling insulation, which has a heating surface and magnetic seal rings to provide impermeability.

• The inner shelf system has been produced of stainless steel material. It has been designed in ergonomics for speeding up the air circulation.

• The deep freezer provides the opportunity to store between -5°C /-30°C.

• The insulation of the deep freezer is provided with a high density of polyurethane material.

• The device works smooth and quietly.

• There is a filter warning indicator showing the air filter status on the front control panel of the device. The air filter is easily removable and washable.

• The device has full automaticdefrost system in order to protect the productivity of the cooling evaporator.

• A user-friendly digital control panel with a micro processor has been used on the device. This system can keep the data in memory for 30 days.

• There is a USB socket to transfer the cabinet temperature information to the computer when requested. In this way, the 10 year old temperature records can be transferred to the PC in excel format.

• The thermostat at the control panel of the device can make measurements with 0.1 degree sensitivity.

• There is an accumulator system charged automatically at the control panel of the device. This system allows the control panel and thermal printer (if available) to operate for 24 hours when the electricity cutts off.

• The freezer alerts you with visual and audio signals when the lower and upper temparature limits are exceeded, the door of the device is left open, low voltage and/or electricity cut off problems occurs.

• The refrigerant and the insulation of the deep freezer do not contain CFC gas which is harmful for the OZONE.

• There are two braked and two regular castors on the device that provide easy portability.

• As per request of the user, a thermal printer can be installed at the device.The numerical printout of the recorded data can be taken with the thermal printer.

• All medical devices produced by Emsas are guaranteed for 2 years.

• All our products are produced in line with the ISO 9001:2008, ISO 13485 TSE service place competence certificates. Our deep freezers have CE certificates.

• Adjustable shelves feature is standard. The shelf quantities can be changed according to the customer demand as optional feature.
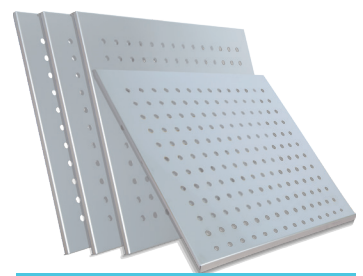
EE 300

OPTIONAL THERMAL PRINTER

OPTIONAL TOUCH SCREEN DISPLAY

OPTIONAL GRAPHICAL CHART RECORDER

OPTIONAL CHROME SHELVES

EMSAŞ
SINCE 1975 ®
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EE 300
(-5 °C/-30 °C)

EE 150
(-5 °C/-30 °C)

DEEP FREEZER
EE - 300
(-5°C/-30°C)

EE 100
(-5 °C/-30 °C)

DEEP FREEZER
EE - 150
(-5°C/-30°C)

-30
LOW FREEZER

EMSAŞ
YEE - 300
(-5°C / -30°C)

YEE 300
(-5 °C/-30 °C)

EE 600
(-5 °C/-30 °C)

DEEP FREEZER
EMSAŞ
EE - 600
(-5°C/-30°C)

MODEL	YEE 300	EE 100	EE 150	EE 300	EE 600
Temperature Range	-5°C / -30°C	-5°C / -30°C	-5°C / -30°C	-5°C / -30°C	-5°C / -30°C
Set Point	-20°C	-20°C	-20°C	-20°C	-20°C
External Dimensions (WxLxH) mm	1300x755x828	600x660x1050	600x670x1650	765x830x1950	910x842x1938
Internal Dimensions (WxLxH) mm	1086x558x660	478x498x556	450x467x1000	570x593x1190	753x630x1427
Volume	340 L	132 L	210 L	402 L	677 L
Polyurathane (mm)	100 mm	61 mm	75 mm	97,5 mm	78,5 mm
Packaged Dimensions (WxLxH)mm	1500x850x950 mm	650x710x1260 mm	605x700x1750 mm	800x850x2050 mm	990x980x2100 mm
Gross (KG)	150 Kg	100 Kg	125 Kg	215 Kg	260 Kg
Interior Lighting	-	-	-	-	-
Door Lock	+	+	+	+	+
Alarm	+	+	+	+	+
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304
Heating / Cooling System	Fan System	Fan System	Fan System	Fan System	Fan System
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurethane
Shelves	2 Pcs	2 Pcs	3 Pcs	4 Pcs	4 Pcs
Thermal Printer / G. Chart Recorder	Optional	Optional	Optional	Optional	Optional
PC Connection	USB	USB	USB	USB	USB
Castors	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular
Temperature Sensor	NTC	NTC	NTC	NTC	NTC
Control System	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control
Voltage	230 V - 50 Hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz
Cooling Gas	R404a	R404a	R404a	R404a	R404a
Natural Gas	Optional	Optional	Optional	Optional	Optional

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EF Serie
(-20°C/-40°C)

Our laboratory freezers are produced with 4 different capacity option.

• The outer surface of the device is made of galvanized steel, painted with electrostatic paint toprotect against rust. The inner surface is produced of stainless steel.

• The device operates with 195-230 V/50 Hz.

• The door of the device comes with a high density polyurethane filling insulation, which has a heating surface and magnetic seal rings to provide impermeability.

• The inner shelf system has been produced of stainless steel material. It has been designed inergonomics for speeding up the air circulation.

• The deep freezer provides the opportunity to store between -20°C /-40°C.

• The insulation of the deep freezer is provided with a high density of polyurethane material.

• The device works smooth and quietly.

• The user-friendly digital control panel, which carried out with a micro processor, enables to keep the data in memory for 30 days.

• There is a USB socket to transfer the cabinet temperature information to the computer when requested. In this way, the 10 year old temperature records can be transferred to the PC in excel format.

• There is an accumulator system charged automatically at the control panel of the device. This system allows the control panel and thermal printer (if available) to operate for 24 hours when the electricity cutts off.

• The freezer alerts you with visual and audio signals when the lower and upper temparature limits are exceeded, the door of the device is left open, low voltage and/or electricity cut off problems occurs.

• The refrigerant and the insulation of the deep freezer do not contain CFC gas which is harmful for the OZONE.

• There are two braked and two regular castors on the device that provide easy portability.

• As per request of the user, a thermal printer can be installed at the device.The numerical printout of the recorded data can be taken with the thermal printer.

• All medical devices produced by Emsaş A.Ş. are guaranteed for 2 years.

• All our products are produced in line with the ISO 9001:2008,ISO 13485, TSE service place competence certificates. Our deep freezers have CE certificates.

EF 300

OPTIONAL GRAPHICAL CHART RECORDER

OPTIONAL THERMAL PRINTER

OPTIONAL TOUCH SCREEN DISPLAY

-40°C / PLASMA FREEZERS

EMSAŞ ®
SINCE 1975
www.emsas-as.com.tr

EF 150
(-20°C/-40°C)

EF 300
(-20°C/-40°C)

EF 100
(-20°C/-40°C)

YEF 300
(-20°C/-40°C)

EF 600
(-20°C/-40°C)

MODEL	YEF 300	EF 100	EF 150	EF 300	EF 600
Temperature Range	-20°C / -40°C	-20°C / -40°C	-20°C / -40°C	-20°C / -40°C	-20°C / -40°C
Set Point	-40°C	-40°C	-40°C	-40°C	-40°C
External Dimensions (WxLxH) mm	1300x755x828	600x660x1050	600x670x1650	765x830x1950	910x842x1938
Internal Dimensions (WxLxH) mm	1086x558x660	478x498x556	450x467x1000	570x593x1190	753x630x1427
Volume	340 L	132 L	210 L	402 L	677 L
Polyurathane (mm)	100 mm	61 mm	75 mm	97,5 mm	78,5 mm
Packaged Dimensions (WxLxH)mm	1500x850x950 mm	650x710x1260 mm	605x700x1750 mm	800x850x2050 mm	990x980x2100 mm
Gross (KG)	150 Kg	100 Kg	125 Kg	215 Kg	260 Kg
Interior Lighting	-	-	-	-	-
Door Lock	+	+	+	+	+
Alarm	+	+	+	+	+
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304
Heating / Cooling System	Fan System	Fan System	Fan System	Fan System	Fan System
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane
Shelves	2 Pcs	2 Pcs	3 Pcs	4 Pcs	4 Pcs
Thermal Printer / G. Chart Recorder	Optional	Optional	Optional	Optional	Optional
PC Connection	USB	USB	USB	USB	USB
Castors	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular
Temperature Sensor	NTC	NTC	NTC	NTC	NTC
Control System	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control
Voltage	230 V - 50 Hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz
Cooling Gas	R404a	R404a	R404a	R404a	R404a
Natural Gas	Optional	Optional	Optional	Optional	Optional

www.emsas-as.com.tr

EKT-D Serie
(0°C /+15°C)
(-5°C /-30°C)

• The outer surface of the device is made of galvanized steel, painted with electrostaticpaint to protect against rust. The inner surface is produced of stainless steel.

• The device operates with 195-230 V/50 Hz network voltage.

• The door of the device has double thermal glazing, it can be locked and has magnetic seal rings. Thus, it provides an opportunity to trace the stocks. The deep freezer door section has polyurethane insulated block-door system.

• There is aplastic covered wire shelves in the device that can be adjusted according to the desire of the user. The deep freezer section has Cr-Ni shelves system.

• The refrigerator section operates range of 0/+15 degrees and it is set to +4 degrees. The deep freezer section is operating range of -5C to -30C and set at -20 C.

• Provides equal temperature distribution with the strengthened fan system it contains.

• Operates smoothly and quitely.

• There is a fully automatic defrost system to maintain

the efficiency of the cabinet cooling evaporator.

• The lightening of the inner cabin of the device is carried out with LED lightening.

• A user-friendly digital control panel with a micro processor has been used on thedevice. This system can keep the data in memory for 30 days. With its password protection system, it prevents unauthorized persons from entering.

• The thermostat at the control panel of the device can make measurements with 0.1degree sensitivity.

• There is an accumulator system charged automatically at the control panel of the device.This system provides that at possible electricity cut offs the digital control panel and the thermal printer continue working for 24 hours.

• While the refrigerator is working the device gives alerts with the visual and audio signal when the lower and upper temperature limits are exceeded, the door ofthe device is left open, and there is electricity cut off or low voltage problems.

• The cooling system and the insulation system of the device do not contain CFC gas that isharmful for OZONE.

• There are two castors with two braked and two regular wheels on the device to provide easy portability.

• As per the request of the user, a thermal printer can be installed at the device. The numerical and graphical printout of the data recorded with the thermal printer can be taken.

• All medical devices produced by Emsaş A.Ş. are guaranteed for 2 years.

• All our products are produced in line with the ISO 9001:2008, ISO 13485, TSE service place competence certificates. The device has CE certificates andbarcode.

The cabinet has CE certificate and barcode.

EKT-D 425

OPTIONAL THERMAL PRINTER

EKT-D 425
(0 °C/+15 °C) (-5 °C/-30 °C)

EKT-D 500
(0 °C/+15 °C) (-5 °C/-30 °C)

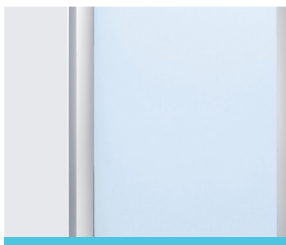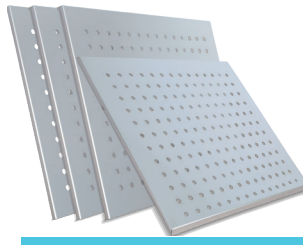| MODEL	EKT-D 175		EKT-D 425		EKT-D 500	
	Refrigerator Section	Freezer Section	Refrigerator Section	Freezer Section	Refrigerator Section	Freezer Section
Temperature Range	0 / +15 °C	-5°c / -30°C	0 / +15 °C	-5°c / -30°C	0 / +15 °C	-5°c / -30°C
Set Point	+4°C	-20°C	+4°C	-20°C	+4°C	-20°C
External Dimensions (WxLxH) mm	600x660x1530		600x660x2030		765x825x2030	
Internal Dimensions (WxLxH) mm	515x542x595	480x464x360	515x542x880	480x464x360	667x720x810	631x628x400
Volume	166 L	80 L	245 L	80 L	390 L	160 L
Polyurethane (mm)	42,5 mm	60 mm	42,5 mm	60 mm	49 mm	67 mm
Packaged Dimensions (WxLxH) mm	690x750x1650 mm		745x690x2100 mm		850x900x2110 mm	
Gross KG	125 Kg		175 Kg		197 Kg	
Interior Lighting	+	-	+	-	+	-
Door Lock	+	+	+	+	+	+
Alarm	+		+		+	
Internal Surface	Stainless Steel Cr-Ni 304		Stainless Steel Cr-Ni 304		Stainless Steel Cr-Ni 304	
External Surface	Galvanized sheet with electrostatic paint		Galvanized sheet with electrostatic paint		Galvanized sheet with electrostatic paint	
Heating / Cooling System	Fan System		Fan System		Fan System	
Insulation	CFC Free - Polyurathane		CFC Free - Polyurathane		CFC Free - Polyurathane	
Shelves (Cr-Ni)	2 Pcs	1 Pcs	3 Pcs	1 Pcs	3 Pcs	1 Pcs
Thermal Printer / Graphical Chart Recorder	Optional		Optional		Optional	
PC Connection	USB		USB		USB	
Castors	2 Braked , 2 Regular, 2 Ball Joint		2 Braked , 2 Regular, 2 Ball Joint		2 Braked , 2 Regular, 2 Ball Joint	
Temperature Sensor	NTC		NTC		NTC	
Control System	Microprocessor Control		Microprocessor Control		Microprocessor Control	
Voltage	220v-50hz		220v-50hz		220v-50hz	
Cooling Gas	R134a	R404a	R134a	R404a	R134a	R404a
Power	350 Watt		472 Watt		514 Watt	
Door Type: Glass/Block	Optional		Optional		Optional	
Natural Gas	Optional		Optional		Optional	

EMSAS *SINCE 1975*

EKT Serie
(0 °C /+15 °C)

• The outer surface of the device is made of galvanized steel, painted with electrostatic paint to protect against rust. The inner surface is produced of stainless steel.

• The device operates with 195-230 V/50 Hz network voltage.

• The door of the device has double thermal glazing, it can be locked and has magnetic seal rings. Thus, it provides an opportunity to trace the stocks.

• There is a plastic covered wire shelves in the device that can be adjusted according to the user request.

• Operates between +0/+15°C and it is set to +4°C.

• Provides equal temperature distribution with the strengthened fan system it contains..

• In order to prevent the temperature rising up speedly , Interior fans shut down when door is opened

• Works smoothly and quitely.

• In order to protect the productivity of the device cooling evaporator, there is full-automatic defrosting system.

• The lightening of the inner cabin of the device is carried out with LED lightening.

• A user-friendly digital control panel with a micro processor has been used on the device. This system can keep the data in memory for 30 days.

• There is a USB socket to transfer the cabinet temperature information to the computer when requested. In this way, the 10 year old temperature records can be transferred to the PC in excel format.

• The thermostat at the control panel of the device can make measurements with 0.1 degree sensitivity.

• There is an accumulator system charged automatically at the control panel of the device. This system allows the control panel and thermal printer (if available) to operate for 24 hours when the electricity cutts off.

• While the refrigerator is working the device gives alerts with the visual and audio signal when the lower and upper temperature limits are exceeded, the door of the device is left open, and there is electricity cut off or low voltage problems.

• The cooling system and the insulation system of the device do not contain CFC gas that is harmful for OZONE.

• High quality well known brand compressor is used which is hermetically sealed and air-cooled

• There are two braked and two regular castors under the device that provide easy portability.

• Our devices can be connected to heat tracking system.

• All medical devices produced by EMSAS A.S. are guaranteed for 2 years.

• As per the request of the user, a thermal printer can be installed at the device. The numerical and graphical printout of the data recorded with the thermal printer can be taken.

• All of our products are produced in line with the ISO 9001:2008, TSE service place competence certificates. The device has CE certificates and barcode.

EKT 425

OPTIONAL BLOCK 3XGLASS DOOR

OPTIONAL CHROME SHELVES

EKT-B Serie
(0 °C/+15 °C)

• EKT-B Serie has same features with EKT Serie only the difference; door system is designed as polyurethane pressed block (solid) door.
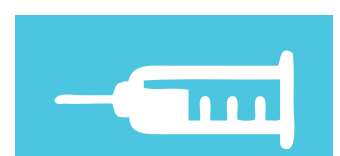
OPTIONAL GRAPHICAL CHART RECORDER

OPTIONAL THERMAL PRINTER

OPTIONAL TOUCH SCREEN DISPLAY

OPTIONAL VACCINE TRACKING SYSTEM

LABORATORY / PHARMACY REFRIGERATOR

EMSAŞ SINCE 1975 ®

EKT 80
(0 °C/+15 °C)

EKT 150
(0 °C/+15 °C)

EKT 175
(0 °C/+15 °C)

OPTIONAL BLOCK DOOR

EKT 250
(0 °C/+15 °C)

EKT 425
(0 °C/+15 °C)

EKT 725
(0 °C/+15 °C)

EKT 1450
(0 °C/+15 °C)

MODEL	EKT 80 - EKT-B 80	EKT 150 - EKT-B 150	EKT 175 - EKT-B 175	EKT 250 - EKT-B 250	EKT 425 - EKT-B 425	EKT 725 - EKT-B 725	EKT 1450 - EKT-B 1450
Temperature Range	0 / +15 °C	0 / +15 °C	0 / +15 °C	0 / +15 °C	0 / +15 °C	0 / +15 °C	0 / +15 °C
Set Point	+4°C	+4°C	+4°C	+4°C	+4°C	+4°C	+4°C
External Dimensions (WxLxH) mm	450x600x750	765x823x900	600x660x1446	600x660x1720	600x660x2020	765x820x2040	1450x821x2030
Internal Dimensions Net (WxLxH) mm	368x365x520	660x462x622	516x472x797	515x472x1070	515x472x1350	662x654x1390	1370x715x1346
Volume	70 L	190 L	225 L	300 L	388 L	637 L	1320 L
Polyurethane (mm)	41 mm	50 mm	42,5 mm	42,5 mm	42,5 mm	51,5	40 mm
Packaged Dimensions (WxLxH)mm	470x675x785 mm	825x875x1050 mm	700x750x1550 mm	700x750x1950 mm	700x740x2100 mm	800x850x2120 mm	1550x900x2090 mm
Gross KG	60 Kg	107 Kg	105 Kg	115 Kg	156 Kg	220 Kg	320 Kg
Interior Lighting	+	+	+	+	+	+	+
Door Lock	+	+	+	+	+	+	+
Alarm	+	+	+	+	+	+	+
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint
Heating / Cooling System	Fan System	Fan System	Fan System	Fan System	Fan System	Fan System	Fan System
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane
Shelves	2 Pcs	2 Pcs	3 Pcs	4 Pcs	5 Pcs	5 Pcs	12 Pcs
Chrome Shelf	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Thermal Printer	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Basket	Optional	Optional	Optional	Optional	Optional	Optional	Optional
SMS and E-MAIL MODULE	Optional	Optional	Optional	Optional	Optional	Optional	Optional
PC Connection	USB	USB	USB	USB	USB	USB	USB
Castors	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular
Temperature Sensor	NTC	NTC	NTC	NTC	NTC	NTC	NTC
Control System	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control	Microprocessor Control
Voltage	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz
Cooling Gas	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Power	230 Watt	230 Watt	230 Watt	230 Watt	277 Watt	277 Watt	400 Watt
Natural Gas	Optional	Optional	Optional	Optional	Optional	Optional	Optional

ANS Serie
(0 °C/+15 °C)
(-5 °C/-25 °C)

EMSAŞ
SINCE 1975 ®
www.emsas-as.com.tr

BREAST MILK REFRIGERATOR
EMSAŞ
ANS - D 425
(0°C/+15°C) (-5°C/-25°C)

BREAST MILK FREEZER
EMSAŞ
ANS - D 425
(0°C/+15°C) (-5°C/-25°C)

ANS-D 425

• The outer surface of the device is made of galvanized steel, painted with electrostatic paint. The inner surface is produced of stainless steel.

• The device operates with 195-230 V/50 Hz network voltage.

• The door of the device has double thermal glazing, it can be locked and has magnetic seal rings. Thus, it provides an opportunity to trace the stocks.

• Each drawer of the device is made of stainless sheet material and contains 20 eyes separated by letter and number systems for prevent baby bottles fall and easily trace the stocks.

• Provides equal temperature distribution with the strengthened fan system it contains.

• Works smoothly and quitely.

• In order to protect the productivity of the device cooling evaporator, there is full- automatic defrosting system.

• The lightening of the inner cabin of the device is carried out with LED lightening.

• A user-friendly digital control panel with a micro processor has been used on the device. This system can keep the data in memory for 30 days.

• There is a USB socket to transfer the cabinet temperature information to the computer when requested. In this way, the 10 year old temperature records can be transferred to the PC in excel format.

• The thermostat at the control panel of the device can make measurements with 0.1 degree sensitivity.

• There is an accumulator system charged automatically at the control panel of the device. This system allows the control panel and thermal printer (if available) to operate for 24 hours when the electricity cutts off.

• While the refrigerator is working the device gives alerts with the visual and audio signal when the lower and upper temperature limits are exceeded, the door of the device is left open, and there is electricity cut off or low voltage problems.

• The cooling system and the insulation system of the device do not contain CFC gas that is harmful for OZONE.

• There are two wheels with stoppers and two regular wheels on the device to provide easy portability.

• All medical devices produced by Emsaş A.Ş. are guaranteed for 2 years.

• As per the request of the user, a thermal printer can be installed at the device. The numerical and graphical printout of the data recorded with the thermal printer can be taken.

• All our products are produced in line with the ISO 9001:2008, TSE service place competence certificates. The device has CE certificates and barcode.

OPTIONAL THERMAL PRINTER

OPTIONAL TOUCH SCREEN DISPLAY

MOTHER MILK REFRIGERATORS AND FREEZERS SPECIAL FOR NEW BORN HOSPITALS

EMSAŞ SINCE 1975 ®
www.emsas-as.com.tr

ANS-D 425
(0 °C/+15 °C) / (-5 °C/-25°C)

BREAST MILK REFRIGERATOR ANS·D 425

BREAST MILK FREEZER ANS·D 425

ANS-F 150
(-20°C)

BREAST MILK FREEZER ANS·F 150 (-20°C)

ANS-E 175
(0 °C/+15 °C)

BREAST MILK REFRIGERATOR ANS·E 175

MODEL	ANS-F 150	ANS-E 175	ANS-D 425	
			Refrigerator Section	Freezer Section
Temperature Range	-5 / -25°C	0 / +15 °C	0 / +15°C	-5 / -25°C
Set Point	-20°C	+4°C	+4°C	-20°C
External Dimensions (WxLxH) mm	600x670x1650	600x660x1446	600x660x2040	
Internal Dimensions NET (WxLxH) mm	450x391x1000	516x462x797	515x450x594	480x394x645
Internal Dimensions GROSS (WxLxH) mm	450x467x1000	515x542x797	515x542x594	480x465x645
Volume	210 L	225 L	166 L	138 L
Polyurethane (mm)	75 mm	42,5 mm	42 mm	60 mm
Packaged Dimensions	650x750x1750 mm	700x750x1550 mm	700x740x2120 mm	
Gross KG	125 Kg	105 Kg	150 Kg	
Interior Lighting	-	+	+	-
Door Lock	+	+	+	-
Alarm	+	+	+	
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	
External Surface	Galvanized sheet with electrostatic paint/ Ops. Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint/ Ops. Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint/ Ops. Stainless Steel Cr-Ni 304	
Heating / Cooling System	Direct Air Cooling	Direct Air Cooling	Direct Air Cooling	
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	
Drawers	4 Pcs	3 Pcs	3 Pcs	3 Pcs
Baby Bottle Capacity (Per Drawer)	20 Pcs	20 Pcs	20 Pcs	20 Pcs
Total Baby Bottle Capacity	80 Pcs	60 Pcs	60 Pcs	60 Pcs
Thermal Printer	Optional	Optional	Optional	
PC Connection	USB	USB	USB	
Castor	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	
Temperature Sensor	NTC	NTC	NTC	
Control System	Microprocessor Control	Microprocessor Control	Microprocessor Control	
Voltage	220v-50hz	220v-50hz	220v-50hz	
Cooling Gas	R404a	R134a	R134a	R404a
Power	400 Watt	230 Watt	472 Watt	
Natural Gas	Optional	Optional	Optional	

TOUCH SCREEN FEATURES

• 5.5 inch touch screen

• temperature - time graph

• Encryption system that prevents unauthorized access

• Changing screen color and audible warning in case of alarm

• 10 years data recording on USB.

• Remote access via optional wifi, ethernet or rs232.

• Alarm; low high temperature, open door, power failure alerts.

• Operation error control and warning system (Sensor, compressor, communication)

• There is a remote alarm connection output.

• Instant temperature monitoring with optional wifi, ethernet, and the ability to send e-mail and voice messages over the internet in case of alarm.

BABY BOTTLE WARMERS

EMSAŞ
SINCE 1975 ®
www.emsas-as.com.tr

EBI Serie
6-9-12-24 Pcs
(+37°C)

EMSAŞ

EBI-12
(+37°C)

BABY BOTTLE WARMERS

EBI 12

MODEL	EBI 6	EBI 12	EBI 24
Temperature Range	+20°C / +55°C	+20°C / +55°C	+20°C / +55°C
Set Point	+37°C	+37°C	+37°C
Baby Bottle Capacity	6 Pcs (50ml-120ml)	12 Pcs (50ml-120ml)	24 Pcs (50ml-120ml)
External Dimensions (WxLxH) mm	350x330x200	650x330x200	679x405x200
Rock Wool (mm)	55 mm	55 mm	55 mm
Packaged Dimensions (WxLxH)mm	430x400x280 mm	745x430x280 mm	775x480x310 mm
Gross KG	50 KG	55 KG	60 KG
Heating System	Resistance	Resistance	Resistance
Alarm	-	-	-
Intenal Surface	Aluminum	Aluminum	Aluminum
External Surface	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint	Galvanized sheet with electrostatic paint
Insulation	Rock Wool	Rock Wool	Rock Wool
Control System	Pid	Pid	Pid
Safety Thermostat	(..........+90°C)	(..........+90°C)	(..........+90°C)
Voltage	220v-50hz	220v-50hz	220v-50hz
Timer	+	+	+
Accessory (Syringe Block)	Optional	Optional	Optional
Power	1200 Watt	1200 Watt	2000 Watt

• With the PID control system used in the device, it provides power to the resistance at certain intervals, both saving energy and allowing the temperature of the bottle to be kept stable at the desired set value.

• With the indefinite operating mode in the device, your device can stay at a stable temperature for 24 hours.

• Homogeneous heat distribution is ensured by the silicon resistors and aluminum plate used.

• In case of overheating of the resistances, an external mechanical safety thermostat is used to protect the resistance. In this way, your resistance is protected in case of overheating.

• Microprocessor card is used in the device.

• Optionally, an alarm can be added to the device for the lower and upper limit of the temperature.

• Thanks to the timer on the device, your device can operate and turn itself off for the time you specify.

• Available in our products with a capacity of 6 - 9 - 12 - 24 bottles.

ET Serie
(Rt+5°C / 250°C)

ET 150

• The outer surface of the device is made of galvanized steel, painted with electrostatic paint to protect against rust. The inner surface is produced of stainless steel.

• Works with 195-230 V/50 Hz mains voltage.

• Dry air sterilizers are used as heating, drying and sterilizers.

• With the turbo fan motor, it provides homogenous heat distribution in the device.

• The device offers with a digital control system, the device can be operated from 1 minute to 99.9 hours.

• The device provides the possibility of working without time limit at the required set point with the timeless working mode.

• The curved corners of the device provides easy cleaning to minimize contamination.

• Device has been taken against overheating with safety thermostat which can be adjusted between + 50 / + 300 ° C

• Operating temperature of the device is between 5°C more than ambient temperature and 250°C.

• All medical devices produced by Emsaş A.Ş. are guaranteed for 2 years.

MODEL	ET 150
Temperature Range	Rt+5 / +250°C
Set Point	+250°C
External Dimensions (WxLxH) mm	650x750x950
Internal Dimensions (WxLxH) mm	476x455x565
Volume	148 L
Shelves	2 pcs Shelves
Rock Wool (mm)	60 mm
Packaged Dimensions (WxLxH) mm	650x750x950
Gross KG	70 Kg
Interior Lighting	-
Door Lock	+
Alarm	+
Internal Surface	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint
Heating / Cooling System	Electric Heated Air Circulation
Insulation	Rock Wool
Castor	Ball Joint
Tempreature Sensor	J Type
Control System	Microprocessor Control
Power	1200 Watt
Voltage	220v-50hz

ESB Serie
(Rt+5 °C /+99 °C)

ESB 10

• The device is used to ensure that the chemicals used in laboratories are heated without fire.

• The device ensures that chemical solutions and samples are kept constant at desired temperatures at desired times.

• The device performs melting process with the watery system. Water is constantly circulated in the device. Therefore, homogeneous heat distribution is provided in the device.

• Glass wool is used on the upper part of the device as insulation material.

• Since there is no heater or pump in the chamber, there is no loss in net volume.

• The device provides precise temperature measurement thanks to its microprocessor control.

• Additional safety measures have been taken against overheating with the safety thermostat adjustable between 30 and 90 degrees in the device.

• There is a drainage system for the discharge of excess water in the device.

• The inner chamber is made of monoblock stainless steel with rounded corners to

reduce the risk of contamination of the device.

• The outer surface is stainless steel made of electrostatic painted galvanized sheet.

• The device provides the user the opportunity of programming between 0 and 99.99 hours.

• The device provides wide usage opportunity with its delayed start and indefinite working mode.

• Emsaş A.Ş. All medical devices manufactured by us are guaranteed for 2 years.

MODEL	ESB 10
Temperature Range	Rt+5 / +99°C
Set Point	+45°C
External Dimensions (WxLxH) mm	362x333x410
Internal Dimensions (WxLxH) mm	327x298x199
Volume	20 L
Rock Wool (mm)	17,5 mm
Packaged Dimensions (WxLxH) mm	520x420x530 mm
Gross KG	21 Kg
Interior Lighting	-
Alarm	-
Internal Surface	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint
Heating / Cooling System	Electricity
Insulation	Rock Wool
Castor	Ball Joint
Tempreature Sensor	NTC
Control System	PID
Power	1137 Watt
Voltage	220v-50hz
Amper	5 Amper

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ESI Serie
(-10°C /+80°C)

COOLED INCUBATOR
ESI - 100
(+37°C)

ESI 100

• The outer surface of the device is made of galvanized steel, painted with electrostatic paint to protect against rust. The inner surface is produced of stainless steel.

• Operates between -10/+80°C and it is set to +37°C. • Door of the device is polyurethane pressed block door.

• Inside the device, when the outer door is opened, there is a sight glass to monitor the interior and prevent the loss of temperature inside the device.

• Stainless steel and height-adjustable shelves used in the device.

• The device is designed to grow and reproduce microbiological cultures and cell cultures after their cultivation. Therefore, it can keep the temperature of the interior of the cabinet constant in a wide temperature range between -10°C and + 80°C.

• Equal heat distribution is provided in the cabin with the reinforced fan system in the device.

• The thermostat in the control panel of the device able measure with 0.1 ° C accuracy. There

is a sensor inside the cabinet.

• There is a USB Output which has got 10 years recording memory that provides the transmission of the device temperature information to electronic environment if required.

• A user-friendly digital control panel with a micro processor has been used on the device. This system can keep the data in memory for 30 days.

• There is an accumulator system charged automatically at the control panel of the device. The user able to control from the digital control pannel for 24 hours when the electricity cut off.

• The device has a timer that can be programmed up to 24 hours. The timer works as a countdown. The set timer time starts counting down when the sensor value is equal to the set value, and the device shuts down automatically when the countdown time is over.

• The thermostat at the control panel of the device can make measurements with 0.1 degree sensitivity.

• Uniformity of device is Between -10°C/+15°C, ± 2°C (± 1°C IF REQUESTED),Between +15°C/+40°C, ± 0,4°C After 40°C, ± 0.1 ° C

• While the refrigerator is working the device gives alerts with the visual and audio signal when the lower and upper temperature limits are exceeded, the door of the device is left open, and there is electricity cut off or low voltage problems.

• All medical devices produced by Emsaş A.Ş. are guaranteed for 2 years.

• The cooling system and the insulation system of the device do not contain CFC gas that is harmful for OZONE.

• All of our products are produced in line with the ISO 9001:2015, TSE service place competence certificates. Our produced Blood Bank Refrigerator has CE and UBB certificates and barcode.

OPTIONAL THERMAL PRINTER

MODEL	ESI 100
Temperature Range	-10°C / +80°C
Set Point	+37°C
External Dimensions (WxLxH) mm	600x660x1050
Internal Dimensions Gross (WxLxH) mm	478x498x556
Internal Dimensions Net (WxLxH) mm	478x425x556
Volume	132 L
Inspection Glass	+
Shelves	2 Shelves
Polyurethane (mm)	61 mm
Packaged Dimensions	740x690x1130 mm
Gross KG	115 Kg
Interior Lighting	-
Door Lock	+
Alarm	+
Internal Surface	Stainless Steel Cr-Ni 304
External Surface	Galvanized sheet with electrostatic paint
Heating / Cooling System	Fan System
Insulation	CFC Free - Polyurathane
Castor	2 Braked , 2 Regular, 2 Ball Joint
Temperature Sensor	NTC
Control System	Microprocessor Control
Thermal Printer	Optional
PC Connection	USB
Power	232 Watt
Voltage	220v-50hz
Cooling Gas	R134a
Natural Gas	Optional

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EMI Serie
(Rt+5 °C / +80 °C)

EMI-D 500
(RT+5°C /+80°C)

WARMING CABINET
EMSAŞ
EMI D 500
(RT+5°C/+80°C)

WARMING CABINET
EMSAŞ
EMI D 500
(RT+5°C/+80°C)

• The outer surface of the device has been produced of galvanized sheet with electrostatic paint resistant to rust and the inner surface is produced of chrome nickel sheet. Works with 220V/50 Hz mains voltage.

• Temperature change ability with password.

• Cabinet's door is double coated heat glassed, lockable ad magnetic sealed which allows stocktaking.

• There are plastic covered wire shelves which can be adjusted according to the user's request.

• The cabinet has over-temperature protection as electronic up to 80 degrees, mechanically up to 90 degrees.

• Equal heat distribution is provided by the reinforced fan system in the cabinet.

• There is a filter in the device to prevent the possibility of an external contamination to the air circulation system.

• A fully automatic defrost system is available to maintain the efficiency of the cupboard cooling evaporator.

• Cabinet interior lighting is realized with led lighting.

• A user friendly microprocessor digital control panel is used on the cabinet. This system can store the data for 30 days in the memory and the old records can be followed on the screen.

• There is a USB socket to transfer the cabinet temperature information to the computer when requested. In this way, the 10 year old temperature records can be transferred to the PC in excel format.

• The thermostat in the cabinet control panel can measure with 0.1 degree accuracy.

• Sensor adjustment can be done via electronic card to match external sensor and cabinet grades.

• There is an accumulator system charged automatically at the control panel of the device. This system allows the control panel and thermal printer (if available) to operate for 24 hours when the electricity cutts off.

• When the upper and lower temperature limits are exceeded while the cup board was working, while the door is open, the appliance gives a visual and audible warning signal when an electrical interruption occurs.

• Warming time: 3-7 hours

• As per the request of the user, a thermal printer can be installed at the device. The numerical print out.

of the data recorded with the thermal printer can be taken.

• All medical devices produced by Emsaş A.Ş. are guaranteed for 2 years.

• All our products are produced in line with the ISO 9001:2008, TSE service place competence certificates. The device has CE certificates and barcode.
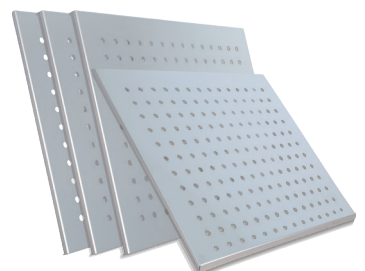
EMI-D 500

OPTIONAL THERMAL PRINTER

OPTIONAL TOUCH SCREEN DISPLAY

STANDARD CHROME SHELVES

EMSAS SINCE 1975 ®
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EMI 50 (Rt+5°C/+80°C)

EMI 80 (Rt+5°C/+80°C)

EMI 150 (Rt+5°C/+80°C)

EMI 250 (Chrome) (Rt+5°C/+80°C)

EMI 350 (Rt+5°C/+80°C)

MODEL	EMI 50	EMI 80	EMI 150	EMI 250	EMI 350	EMI-D 500	
Temperature Range	Rt+5°c / +80°c	Rt+5°c / +80°c	Rt+5°c / +80°c	Rt+5°c / +80°c	Rt+5°c / +80°c	Rt+5°c / +80°c	
Set Point	+50°c	+50°c	+50°c	+50°c	+50°c	+50°c	
External Dimensions (WxLxH) mm	600x695x910	452x653x752	600x660x1446	765x823x900	600x660x2040	765x825x2020	
Internal Dimensions (WxLxH) mm	496x455x496	368x365x420	516x472x797	660x360x900	515x472x1390	666x652x536	
Volume	140 L	100 L	225 L	250 L	388 L	295 L * 2 (for 2 cabinet)	
Polyurethane (mm)	52 mm	50 mm	42,5 mm	42,5 mm	42,5 mm	50 mm	
Packaged Dimensions (WxLxH)mm	680x740x1050x	630x700x950x	680x740x1540	870x930x1030	670x710x2150	850x900x2100	
Gross KG	85 Kg	50 Kg	107 Kg	105 Kg	120 Kg	150 Kg	
Interior Lightening	+	+	+	+	+	+	
Door Lock	+	+	+	+	+	+	
Alarm	+	+	+	+	+	+	
Internal Surface	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	Stainless Steel Cr-Ni 304	
External Surface	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Chrome	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	Galvanized sheet with electrostatic paint Optional / Stainless Steel Cr-Ni 304	
Heating / Cooling System	Fan System	Fan System	Fan System	Fan System	Fan System	Fan System	
Insulation	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	CFC Free - Polyurathane	
Shelves	1 Pcs	1 Pcs	3 Pcs	2 Pcs	5 Pcs	2 Pcs	2 Pcs
Chrome Shelves	Standard	Standard	Standard	Standard	Standard	Standard	
Thermal Printer	Optional	Optional	Optional	Optional	Optional	Optional	
SMS and E-MAIL MODULE	Optional	Optional	Optional	Optional	Optional	Optional	
PC Connection	USB	USB	USB	USB	USB	USB	
Castor	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	2 Braked , 2 Regular	
Temperature Sensor	NTC	NTC	NTC	NTC	NTC	NTC	
Control System	PID	PID	PID	PID	PID	PID	
Voltage	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz	220v-50hz
Power	450 Watt	450 Watt	450 Watt	450 Watt	450 Watt	900 Watt	

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MEDICAL COOLING **&** HEATING SYSTEMS