TECHNICAL SPECIFICATIONS

POWER

Control Units: Power Input : 220 V AC - 110 V AC 50 HZ / 60 HZ

W-500D	: 350 Watt 24 Volt AC	W-150T(Large)	: 270 Watt 24 Volt DC (for Adult patient)
W-300	: 350 Watt 24 Volt AC	W-150T(Small)	: 90 Watt 12 Volt DC (for Neonate patient)
W-150	: 150 Watt 24 Volt DC		

TEMPERATURE OUTPUT RANGE

30° C to 40° C (90° F to 104° F) in steps of 0.1° C (Temperature settings up to 42° C can be adjusted upon request). High Temperature Safety Cut Off Point at 42° C (109° F)

TYPE	SIZE	WEIGHT	DESCRIPTION
Control Units:			
W-500D	187x282x87 mm	5,5 kg	Dual Channel
W-300	187x282x87 mm	5,6 kg	Single Channel
W-150	72x104x26 mm	0,8 kg	With Adapter
W-150T (Large)	187x282x87 mm	4,25 kg	With Battery
W-150T(Small)	187x168x87 mm	2 kg	With Battery
Warming Mattresses:			
IM-190MS	190x50x3 cm (with foam)	4 kg	Large size
IM-150MS	150x50x3 cm (with foam)	3,3 kg	Medium size
IM-120MS	120x50x3 cm (with foam)	2,25 kg	Medium size
IM-80MS	80x50x3 cm (with foam)	1,9 kg	Small size
IM-190M	190x50 cm	2,75 kg	Large size
IM-150M	150x50 cm	1,9 kg	Medium size
IM-120M	120x50 cm	1,75 kg	Medium size
IM-80M	80x50 cm	1,25 kg	Small size
Blankets:			
IM-190B	190x100 cm	2,3 kg	Large size
IM-180BAS	180x45 cm	1,1 kg	Arm-Shoulder warming
IM-150BAS	150x45 cm	0,85 kg	Arm-Shoulder warming
IM-180B	180x80 cm	2,0 kg	Large size
IM-150B	150x80 cm	1,6 kg	Medium size
IM-120B	120x80 cm	1,1 kg	Medium size
IM-85DB	85x55 cm (x2)	1,4 kg	Small size
IM-80B	80x70 cm	0,75 kg	Small size

Extension Cable Length: 2 mt **Pad Cable Length:** 1 mt

ALARMS

Power Alarm: Activated if power is cut off or if the power cord is disconnected when the unit is turned on.
Pad Alarm: Activated when the connection between the controller and the mattress is cut off.
In-Op Alarm: Activated in case of a technical problem.
High Temperature Alarm: For Adults and Pediatrics, 42° C is the highest temperature. When the measured temperature reaches this value, the device outputs audible and visual alarms.
High/Low Deviation: If the temperature goes +1,5° C over the set temperature, high deviation alarm is sounded.

COMPLIANCE

EN60601-1 Type BF
EN60601-1-2 Electrical Safety Requirements for medical devices
93/42/EEC Medical Device Directive, Class IIb
2006/95/EC LVD Low-voltage Directive
2004/108/EC EMC Electromagnetic Compatibility
EN 14971 Medical Devices- Application of risk management
EN 980 Symbols used for labelling of Medical Devices
EN 80601-2-35 Requirements for the basic safety and essential performance of Heating Devices

ENVIRONMENTAL

Ambient Temperature (Operating) 15° C - 40° C
Ambient Temperature (Storage) -10° C - 55° C
Relative Humidity %30 - %70

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MEDWARM

For Better Clinical Care

PATIENT WARMING SYSTEMS

Why Should You Choose MEDWARM Patient Warming Systems?

IMPORTANCE OF PATIENT WARMING

Hypothermia is a condition in which body's regular core temperature of 37.0°C drops below the required temperature of 35.0°C for normal metabolism and body functions. The primary causes of perioperative hypothermia include; administration of anesthetic drugs and liquids, enduring cold temperatures maintained in most operating rooms for extended periods of time and the biological inabiliy of neonates and elderly patients protecting their core body temperature under these conditions.

Perioperative hypothermia is associated with an increased rate of negative outcomes such as; wound infections, cardiac disturbance as well as delayed emergence from anesthesia and increased mortality rates due to all outlined above causes.

The good news is that preventing hypothermia can be simple, effective and affordable with **MedWarm Patient Warming Systems**. With its' wide range of mattresses and blankets at various sizes and dimensions, **MedWarm Patient Warming Systems** provide a high number of benefits both to patients and clinical personnel in their fight against hypothermia. According to clinical research, maintaining a normal body temperature (normothermia) has been shown to reduce the risk of complications and costs associated with unintended hypothermia by reducing the rate of post-operative wound infections, decreased likelihood of post-operative myocardial infarction, shortened hospital length of stay and lower mortality rates.

OUR PATIENT WARMING TECHNOLOGY

Our patient warming systems use state of the art technology and the latest developments in carbon fiber materials and microprocessors to avoid hypothermia in **operation rooms, neonatal intensive care departments, maternity wards** as well as **orthopedic departments** and **ambulances** through stabilizing or raising the peripheral temperature of the patient carrying the risk of hypothermia effectively to provide a warm and comfortable environment. Our efficient, professional and safe carbon fiber technology is also X-RAY translucent and can be used throughout operations where X-RAYs are used.

- **ADULT & PEDIATRIC PATIENT WARMING SYSTEMS**
- **NEONATAL PATIENT WARMING SYSTEMS**
- **TRANSPORT PATIENT WARMING SYSTEMS WITH BATTERY**

ADVANTAGES OF OUR PATIENT WARMING SYSTEMS

THE BEST HEATING PERFORMANCE: Our mattresses and blankets can reach 37 C within **5-7 minutes** giving us a great advantage over competing products available in the market as well as providing the clinical personnel flexibility and ease of use during operation. The ability to set and manage the target warming temperature within 0.1'C increments also allows for additional sensitivity. (eg. 36.8°C , 37.3°C, 38.6°C etc.)

HIGH LEVEL SAFETY: Medwarm patient warming systems are installed with a DUAL SAFETY feature. Each system is controlled by two separate micro processors; one available in the control unit and the other on the mattress/blanket card. These two micro processors control the heating system independently This way, even in the remote possibility that one of the micro processors fail, the other micro processor would act as a fail safe and protect the whole system from any kind of overheating. The maximum target temperature is set at 42'C and the heating process is cut off automatically once the real temperature reaches this level. Each mattress and blanket contains up to 8-9 sensors which measure the real temperature at all times on the mattresses/blankets and provide a completely safe temperature management system for all our products. Our portable test devices also provide extensive troubleshooting and testing abilities for our distributors and technical service personnel.

COMFORTABLE AND EASY TO USE: Through the viscoelastic foam used inside the warming mattresses, we prevent decubitus ulcers which may occur on patients with prolonged stay during operations or recovery. Soft and lightweight blankets can easily cover the patient and provide a comfortable warming experience. Carbon fiber material used as the heating element in our mattresses and blankets allows for complete homogenous warming. Our systems work silently with digital LCD displays to adjust/view set and measured temperature values. All these features provide a high level of functionality and ease of use for the clinical personnel.

EASY TO CLEAN: All our products are completely sealed and water proofed against all liquids. They are also easily cleanable. We offer a wide range of **disposable and reusable covers** which are made from light, soft and healthy PU (Polyurethane). Polyurethane is permeable to air and vapor and provides protection against all liquids.

TRANSPORT OPTION WITH BATTERY: Our transport systems can provide warming without requiring a constant power connection on its' own battery for around **3-4 hours**. This unique feature makes our product one of its' kind in the market by playing an important role in saving lives of many injured patients with its' ability to provide warming during patient transfers across hospitals or other long distances. Our transport warming mattresses and blankets provide the ability to warm patients on the spot during hospital transfers or at the site of various accidents on the land or even in the sea by increasing the patients peripheral temperature and avoiding hypothermia and additional complications that come with it.

ENVIRONMENT FRIENDLY:
All our systems operate on low voltage requirements (12 Volts DC – 24 Volts AC) which is cost efficient and technically safe for patients and operators. As our systems are re-usable, the disposable emissions are kept at a minimal level hence protecting the environment.

WIDE VARIETY OF PRODUCTS:
All our mattresses and blankets are available in a wide variety of sizes and dimensions for adults, pediatric patients and neonates to answer all our clients' clinical needs and requirements. Additional accessories such as the control stand, wall hanging unit, IV support bracket and extension cables at various lengths provide extensive flexibility to clinical personnel during operation.

ABILITY TO MONITOR PATIENT'S BODY TEMPERATURE:
Medwarm patient warming systems also provide the option to measure and monitor patient's body temperature during warming.

AFFORDABLE PRICES:
All our products are very well priced and extremely affordable in comparison to other products available in the market.