



BACKER
CALESTRO



HEATING SOLUTIONS

FOR WATERBEDS

BACKER CALESCO

EVERYDAY · EVERYWHERE

Our heating products together with our measurement and control devices offer our customers complete solutions. Our engineers will not only suggest solutions, they can also take part in and contribute to your product development by using our advanced technical tools and lab facilities. Our extensive experience and competence as well as our reliable quality and service guarantee your success. Our ambition is to not only be a supplier, but your preferred partner.

Together we can make it happen!

MEMBER OF BACKER-GROUP

Backer develops, produces and sells customized solutions and components for electric heating, measurement and control. The original technology was stainless steel tubular elements. However, the constant growth of the Group, both organically and through acquisitions, has enabled the integration of several new technologies. Today the Group offers a far wider product range, with a vast number of technologies for several industry sectors and a large variety of applications.

PRODUCTION LOCATIONS

- Backer Calesco main office and production in Sweden
- Production facilities in China, Poland & Vietnam
- Sales office/warehouse in the US



Customized solutions

INDUSTRY SECTORS



AUTOMOTIVE



LIFE SCIENCE



RAILWAY



BATTERY



COMFORT



COMMERCIAL EQUIPMENT



HEATING SOLUTIONS FOR WATERBEDS

Our experiences made in automotive, medical and industrial applications have made it possible to develop innovative products with excellent performance also for the waterbed market and has made the waterbed safer and more comfortable. Backer Calesco is the pioneer in waterbed heater business and we have developed and designed waterbed heaters in Sweden since 1984. Our technical experience ensures high quality and long term reliability and we provide a number of different heater configurations for the Waterbed market worldwide. Our heaters distribute heat evenly for maximum sleeping comfort.

Our heaters are flexible, have sensitive heat control and protection against overheating. We deliver waterbed elements for European and US markets. LMF and PTC technologies are innovations made by Backer Calesco to promote maximum safety and peace of mind to our customers.

TECHNOLOGIES

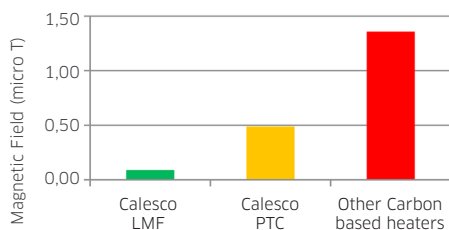
LMF (Low magnetic field)

World Health Organization concludes that despite extensive research, to date there is no evidence to conclude that exposure to low level electromagnetic fields is harmful to human health. That might be the case, but why take the risk? Backer Calesco has made all possible efforts to limit the EMF exposure from the waterbed heaters by a patented technology that minimizes the magnetic field generated by the heater during operation.

The solution was once developed for heaters for surgical tables, where the requirements are extremely strict on electromagnetic interference. The experience and requirements from medical applications has made it possible to make a heater with the lowest possible electromagnetic signature. If you also combine the heater with the Backer Calesco digital controller you can limit the overall EMF exposure by using the timer function to shut the heater of completely during night time. The double pole switch in the controller ensures that no current will pass through the heater while the timer is in off position.



Magnetic Field



PTC (Positive Temperature Coefficient)

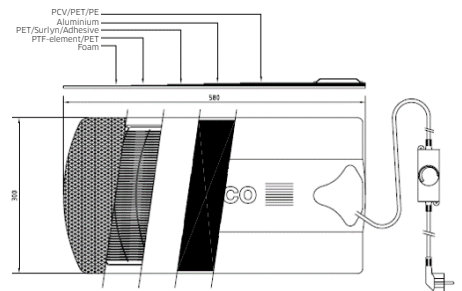
PTC means Positive Temperature coefficient and is a well-known technology often used thanks to its safe and reliable characteristics.

Backer Calesco has developed a system as the first Company in the world for making foil heater with PTC effect for waterbeds.

The Backer Calesco PTC Waterbed heater has many advantages compared to traditional heaters.

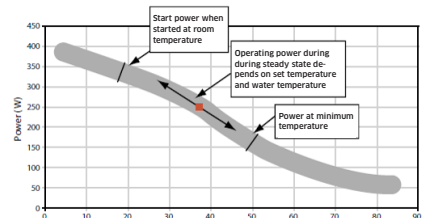
- They have a self-limiting function
- Robust design
- Uniform heating without low power variation
- Insulated bottom side for bottom side for energy efficiency

This all makes the Backer Calesco PTC Waterbed heater a reliable choice for your comfort.



Thanks to the PTC heating element and the insulating foam on the bottom side, the new Calesco waterbed heater is safe, reliable and energy efficient.

Power characteristics of PTC Waterbed Heating Element



Heater temp (°C) (Heater temp is normally 5-15 °C higher than water temp)

LMF TOUCH

LOW MAGNETIC FIELD · TOUCH CONTROLLER

Our technical knowledge from over 30 years of experience within waterbed heat technology now gives you the latest waterbed heater on the market and is built with the same technology developed for medical care. It provides the lowest possible magnetic radiation along with natural safety of a Backer Calesco product. It is a self-limiting, earth shielded heater with a thermal insulated bottom side to minimize heat losses and the patented circuit layout minimized the magnetic field in the bed.

The power consumption for the touchpad control unit is less than 0,5W in standby mode and the modern design will give your waterbed a more up-to-date look together with easier regulation.



Specifications

Power	250W
Power supply	230V, 50 Hz
Power consumption	Less than 0,5W
Heating circuit	Etched copper foil
Overheat protection	Manually resettable protector incorporated in the element
Power density	0.1/cm ² or less
Element insulation	Double electric insulation, (two layer polyester)
Thermostat material	Fire resistant plastic, UL 94HB
Temperature range	20-36°C
Dimensions	580x300x4mm
Weight	0,3 kg

Touch controller



Temperature range	20-36°C
Controller	105x65x22mm
Materials	Flame resistant ABS

CLASSIC PTC

PTC TECHNOLOGIE · CLASSIC CONTROLLER

Thanks to our tested and well known technology we can give you a safe way to sleep effortlessly. Only the required temperature for the desired relaxation during sleep, the classic waterbed heater gives your waterbed a constant pleasant temperature without the concern of overheating.

The Classic controller is an easy to use wheel with the choice of 20-36°C. This controller is made for easy use and has no complicated functions overall. It is controlled by an easy accessible electronic thermostat. With the wheel you can simply choose your temperature, the degrees are displayed on the side. It's designed with a detachable wire for an easy assembly. It is featured with a children's lock for safety.



Specifications

Power	250W
Power supply	230V, 50 Hz
Heating circuit	Carbon
Overheat protection	PTC built in carbon circuit
Power density	0.1/cm ² or less
Element insulation	Double electric insulation, (two layer polyester)
Thermostat material	Fire resistant plastic, UL 94HB
Temperature range	20-36°C
Dimensions	580x300x4mm
Weight	0,3 kg

Classic controller



Temperature range	20-36°C
Controller	165x70x35mm
Materials	Flame resistant ABS

BASIC PTC

PTC TECHNOLOGIE · BASIC CONTROLLER

The Basic waterbed heater is made with PTC technology which ensures long lasting performance without risk of overheating. The basic waterbed heater is available with a basic temperature controller. It's designed as an easy to use wheel and has no complicated functions overall.

Extremely reliable, simple installation and an indicator light that tells you when you can step into your pleasantly warm bed. The small design of the control unit makes the passage through most waterbed frame openings easy. Our unique control system is designed for better comfort and lower energy consumption.



Specifications

Power	250W
Power supply	230V, 50 Hz
Heating circuit	Carbon
Overheat protection	PTC built in carbon circuit
Power density	0.1/cm ² or less
Element insulation	Double electric insulation, (two layer polyester)
Thermostat material	Fire resistant plastic, UL 94HB
Temperature range	20-36°C
Dimensions	580x300x4mm
Weight	0,3 kg

Basic controller



Temperature range	1-7 "Low, Medium, High" (20-36°C)
Controller	100x42x52mm
Materials	Polycarbonate

LMF US MARKET

LOW MAGNETIC FIELD · BASIC CONTROLLER

Our technical knowledge from over 30 years of experience within waterbed heat technology now gives you the latest waterbed heater on the market and is built with the same technology developed for medical care. With our patented circuit design and generous polyester insulation and provides the lowest possible magnetic radiation along with a natural safety of a Backer Calesco product.

The small design of the control unit allows for passage through most waterbed frame openings in an easy way and is designed for both comfort and lower energy consumption. No need for multiple plugs



Specifications

Part no:	WB6403 Softside	WB6405 Hardside
Power	170W	325W
Power supply	110V, 60 Hz	110V, 60 Hz
Heating circuit	Etched copper foil	Etched copper foil
Overheat protection	Automatic cut off safety thermistor	Automatic cut off safety thermistor
Power density	0.1/cm ² or less	0.1/cm ² or less
Element insulation	Double electric insulation, (two layer polyester)	Double electric insulation, (two layer polyester)
Thermostat material	Fire resistant plastic, UL 94HB	Fire resistant plastic, UL 94HB
Temperature range	20-36°C	20-36°C
Dimensions	120x240x4mm	120x240x4mm
Weight	0,3 kg	0,3 kg

Basic controller



Temperature range	1-7 "Low, Medium, High" (20-36°C)
Controller	100x42x52mm
Materials	Polycarbonate



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