

Title (en)
Heat blanket at high density power

Title (de)
Wärmedecke mit Leistung hoher Dichte

Title (fr)
Couverture chauffée à puissance de haute densité

Publication
EP 2661150 A1 20131106 (EN)

Application
EP 13002328 A 20130430

Priority
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Abstract (en)
The present invention relates to a heat blanket that comprises a power supply control unit and an operating unit, wherein said power supply control unit is electrically connectable on one side to an alternating current electric supply and on the other side it is electrically connectable, through an interconnection cable comprising two conductors only, to said operating unit that comprises a foldable sheet and a heating element distributed inside the sheet, the heat blanket being characterized in that said control unit contains means for supplying such heating element with alternating voltage having first and second polarities separately managed, wherein a first polarity is managed by an electro-mechanical switch placed in series with a diode-type semiconductor, while the second polarity is managed by a switching element that is controlled by an electronic circuit. The heat blanket of the invention also comprises a temperature measuring device to measure the internal temperature of the power supply control unit, whereby a) such an electronic circuit determines if it has to supply or not the switching element for a predetermined time period of rapid heating (TPH time) in order to provide said alternating voltage second polarity to said heating element, and b) the power supply control unit is able to modify the duration of such a predetermined time period of rapid heating TPH time. The present invention further relates to a method for supplying such a heat blanket. By this way the heat blanket of the invention is able to rapidly heat a bed, for example by increasing the temperature from 15 °C to 30 °C in only about ten minutes, by using a simple electric circuit.

IPC 8 full level
H05B 1/02 (2006.01)

CPC (source: EP)
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Citation (applicant)
• EP 0910227 A2 19990421 - IMETEC SPA [IT]
• EP 1331836 A2 20030730 - BEURER GMBH & CO [DE]
• US 2006289463 A1 20061228 - KIL JONG-JIN [KR]
• GB 2086676 A 19820512 - SUNBEAM CORP

Citation (search report)
• [I] EP 0910227 A2 19990421 - IMETEC SPA [IT]
• [I] EP 1331836 A2 20030730 - BEURER GMBH & CO [DE]
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