

Title (en)
Tubular heating element.

Title (de)
Rohrheizkörper.

Title (fr)
Élément chauffant tubulaire.

Publication
EP 0318895 B1 19950830 (DE)

Application
EP 88119802 A 19881128

Priority
DE 8715851 U 19871130

Abstract (en)
[origin: US5020128A] A tubular electric resistance heater includes a tubular sheath enclosing an electric heater coil. As protective overheat safety device is provided at an end of the sheath and includes an electrically conductive tube disposed in a cavity in the end of the sheath and having a closed end electrically connected to the heater coil. A rod-shaped member made of a thermally deformable material extends through the tube from the closed end and projects out of the other end of the tube into activating engagement with a normally closed switch located externally of the tubular sheath and electrically connected in series with the tube and thereby the heater coil. Excessive heater coil temperatures cause the rod-shaped member to deform and actuate the switch to its open position to deenergize the heater coil. The rod-shaped member may be made to a memory-alloy or a plastic which changes its structure, e.g., shrinks, or melts at a certain temperature.

IPC 1-7
H05B 3/48; **H05B 1/02**

IPC 8 full level
H01H 37/76 (2006.01); **H05B 1/02** (2006.01); **H05B 3/48** (2006.01); **H01H 37/32** (2006.01); **H01H 37/36** (2006.01); **H01H 37/54** (2006.01)

CPC (source: EP US)
H01H 37/48 (2013.01 - EP US); **H01H 37/761** (2013.01 - EP US); **H05B 1/0205** (2013.01 - EP US); **H05B 3/48** (2013.01 - EP US); **H01H 37/323** (2013.01 - EP US); **H01H 37/36** (2013.01 - EP US); **H01H 37/54** (2013.01 - EP US); **H01H 2037/762** (2013.01 - EP US)

Citation (examination)

- DE 7639786 U1 19780608
- GB 1076494 A 19670719 - YEDA RES & DEV
- US 2908793 A 19591013 - ALOI ANTHONY J
- DE 1391537 U
- AT 308258 B 19730625 - BLECKMANN & CO
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EP2768277A4; CN109429385A; DE29707829U1; EP0456216A3; FR2681496A1

Designated contracting state (EPC)
AT CH DE FR GB IT LI SE

DOCDB simple family (publication)
US 5020128 A 19910528; AT E127309 T1 19950915; DE 3854378 D1 19951005; DE 8715851 U1 19880218; EP 0318895 A2 19890607; EP 0318895 A3 19900808; EP 0318895 B1 19950830; EP 0613325 A2 19940831; EP 0613325 A3 19941123

DOCDB simple family (application)
US 27811488 A 19881130; AT 88119802 T 19881128; DE 3854378 T 19881128; DE 8715851 U 19871130; EP 88119802 A 19881128; EP 94108393 A 19881128