

Title (en)
Electrical safety grounding system

Title (de)
Elektrisches Sicherheitserdungssystem

Title (fr)
Système de mise à la terre pour la sécurité électrique

Publication
EP 2461643 A1 20120606 (EN)

Application
EP 11191493 A 20111201

Priority
CA 2724165 A 20101202

Abstract (en)

A heating element includes two flexible plastics layers connected in overlying relationship with first and second conductors each running along the element between the layers the side edges with a row of printed conductive strips at right angles to the conductors. A grounding layer comprising a sheet of foil laminated to a carrier is laminated to the heating element. A reinforcing layer in the form of a bitumen anti-fracture membrane is applied on one surface and a reinforcing layer of a fiber reinforced material is applied on the opposite surface for engagement into a tile adhesive layer. A resistor is provided between the grounding layer and the ground terminal of a GFI or similar device for controlling the heating current so as to avoid false triggering of the GFI.

IPC 8 full level
H05B 3/36 (2006.01); **H05B 1/02** (2006.01)

CPC (source: EP)
H05B 1/0272 (2013.01); **H05B 3/36** (2013.01); **H05B 2203/026** (2013.01)

Citation (applicant)

- US 2009266810 A1 20091029 - CHIVERS EDWARD [CA], et al
- WO 2009129595 A1 20091029 - ALTERNATIVE HEATING SYSTEMS IN [CA], et al
- WO 2008063173 A1 20080529 - CARBONIC HEAT CORP [US], et al
- WO 2007008734 A2 20070118 - CARBONIC HEAT CORP [US], et al
- WO 0165891 A2 20010907 - CALORIQUE LTD [US]

Citation (search report)

- [X] EP 1854719 A2 20071114 - GOODRICH CORP [US]
- [X] US 5361183 A 19941101 - WIESE EARL G [CA]
- [A] WO 2005055661 A2 20050616 - IQ MOBIL GMBH [DE], et al
- [A] DE 20321181 U1 20060928 - BEURER GMBH & CO [DE]

Cited by
CN111536007A; USD911038S; US10841980B2; US10925119B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
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