

Title (en)
Electric heating apparatus with waterproof mechanism

Title (de)
Elektrische Heizvorrichtung mit wasserdichtem Mechanismus

Title (fr)
Appareil de chauffage électrique avec mécanisme imperméable à l'eau

Publication
EP 2731400 A1 20140514 (EN)

Application
EP 12007655 A 20121112

Priority
EP 12007655 A 20121112

Abstract (en)
An electric heating apparatus with a waterproof mechanism (1) includes a hollow tube (10), a positive temperature coefficient (PTC) heating module (20) and a waterproof glue (30). The hollow tube (10) has a closed end (11) and an open end (12); the PTC heating module (20) has a pair of electrode plates (22), a PTC heating unit (21) included between the pair of electrode plates (22) and a conductive terminal (24) coupled to each electrode plate (11), and the pair of electrode plates (22) and the PTC heating unit (21) are passed into the hollow tube (10) from the open end (12); the waterproof glue (30) is filled to seal the open end (12), and each conductive terminal (24) is exposed from the waterproof glue (30); so that the waterproof glue (30) sealing the open end (12) of the hollow tube (10) can prevent water vapor from entering into the hollow tube (10).

IPC 8 full level
H05B 3/04 (2006.01)

CPC (source: EP)
H05B 3/04 (2013.01); **H05B 3/50** (2013.01); **H05B 2203/02** (2013.01); **H05B 2203/023** (2013.01)

Citation (search report)
• [XY] US 2008173637 A1 20080724 - TAGUCHI KOSHIRO [JP]
• [X] US 7034259 B1 20060425 - LOKAR RAYMOND [US], et al
• [YA] EP 2190256 A1 20100526 - BEHR FRANCE ROUFFACH SAS [FR]
• [X] EP 2393336 A1 20111207 - BEHR FRANCE ROUFFACH S A R L [FR]
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Cited by
WO2017081225A1; DE102016110023A1; FR3136141A1; WO2023227627A1

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

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BA ME

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