

Title (en)
HINGE ARRANGEMENT WITH SCREW MOUNTING SYSTEM

Title (de)
SCHARNIERANORDNUNG MIT SCHRAUBBEFESTIGUNGSSYSTEM

Title (fr)
AGENCEMENT DE CHARNIÈRE DOTÉ DE SYSTÈME DE MONTAGE DE VIS

Publication
EP 4022157 B1 20231025 (EN)

Application
EP 20756800 A 20200807

Priority
• PL 43095419 A 20190826
• EP 2020072277 W 20200807

Abstract (en)
[origin: WO2021037527A1] The invention relates to a hinge arrangement (1), in particular a door or window hinge arrangement, comprising at least two pivotally connected hinge members (2), wherein at least one of said hinge members (2) has a mounting element (22) with at least two mounting orifices (23) and is attached to a thermal insulating profile element (3) of a frame (4) or sash (5) via a screw mounting system (7) including at least two mounting bolts (72) passing through the mounting orifices (23) in the mounting element (22) and through the mounting orifices (35) in the thermal insulating profile element (3), wherein the thermal insulating profile element (3) has at least one metal first box profile (31) and at least one metal second box profile (32) connected via at least one thermal insulating element (33) defining an inner thermal insulating space (34). In order to increase the strength and thermal insulation of the hinge arrangement, simplify its construction and reduce the cost of manufacturing, the screw mounting system (7) comprises at least two rivet nuts (71) fixed in the mounting orifices (35) of the thermal insulating profile element (3) from its axially outer side; at least two plastic locking sleeves (733) provided with seats (731) whose cross-sectional diameter at the outlet is greater than inside said seat (731) and with torque locking means (732), and slid into the mounting orifices (35) of the insulating element (3) from its axially inner side, wherein the mounting bolts (72) are screwed into said rivet nuts (71) and said seats (731) of said locking sleeves (733), in which they tap internal threads as they are screwed.

IPC 8 full level
E05D 5/02 (2006.01)

CPC (source: EP)
E05D 5/023 (2013.01); **E05D 2005/0292** (2013.01); **E05Y 2600/10** (2013.01); **E05Y 2600/62** (2013.01); **E05Y 2600/622** (2013.01); **E05Y 2600/63** (2013.01); **E05Y 2900/132** (2013.01); **E05Y 2900/148** (2013.01); **E06B 2003/26359** (2013.01); **E06B 2003/26361** (2013.01); **E06B 2003/26387** (2013.01)

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

DOCDB simple family (publication)
WO 2021037527 A1 20210304; EP 4022157 A1 20220706; EP 4022157 B1 20231025; PL 4022157 T3 20240311; PL 430954 A1 20210308

DOCDB simple family (application)
EP 2020072277 W 20200807; EP 20756800 A 20200807; PL 20756800 T 20200807; PL 43095419 A 20190826