

Title (en)  
ROOF WINDOW WITH IMPROVED SPRING ASSEMBLY

Title (de)  
DACHFENSTER MIT VERBESSERTER FEDERANORDNUNG

Title (fr)  
FENÊTRE DE TOIT AVEC ENSEMBLE RESSORT AMÉLIORÉ

Publication  
**EP 3714116 B1 20210908 (EN)**

Application  
**EP 18812048 A 20181126**

Priority  
• DK PA201770887 A 20171124  
• DK 2018050310 W 20181126

Abstract (en)  
[origin: WO2019101279A1] In the roof window intended for installation in an inclined roof surface, the lifting device (10) includes a lifting arm (14) inserted between the primary frame (1) and the at least one secondary frame (2, 3) of the roof window. The lifting arm (14) has a first end (12) rotatably connected with a sledge system (30) slidably connected with the primary frame (1) in a sledge guidance (16) and a second end (13) rotatably connected with the at least one secondary frame (3). The lifting device (10) furthermore includes a spring assembly (20) configured to be coupled to the sledge system (30) and in turn the first end (12) of the lifting arm (14) by means of a coupling mechanism, such that the spring assembly (20) is able to assume an uncoupled condition and a coupled condition relative to the sledge system (30). In turn, the spring assembly comprises a main spring system (29) and a buffer spring system (28) inserted between the main spring system (29) and the lifting device (10). According to the invention, the buffer spring system (28) comprises an outer spring (281) and an inner spring (282) of substantially identical pre-defined lengths.

IPC 8 full level  
**E04D 13/035** (2006.01); **E05D 15/40** (2006.01); **E05F 1/10** (2006.01)

CPC (source: DK EP)  
**E04D 13/03** (2013.01 - DK); **E04D 13/0354** (2013.01 - EP); **E04D 13/0357** (2013.01 - EP); **E05D 15/406** (2013.01 - EP); **E05F 1/08** (2013.01 - DK); **E05F 1/1058** (2013.01 - EP); **E05F 1/1075** (2013.01 - EP); **E05Y 2201/214** (2013.01 - EP); **E05Y 2201/414** (2013.01 - EP); **E05Y 2201/624** (2013.01 - EP); **E05Y 2600/522** (2013.01 - EP); **E05Y 2600/528** (2013.01 - EP); **E05Y 2900/152** (2013.01 - EP)

Cited by  
EP4407133A1

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 2019101279 A1 20190531**; CN 111373106 A 20200703; CN 111373106 B 20210706; DK 180218 B1 20200820; DK 201770887 A1 20190612; DK 201770887 A9 20200831; EP 3714116 A1 20200930; EP 3714116 B1 20210908; ES 2895371 T3 20220221; HU E056557 T2 20220228; PL 3714116 T3 20220131

DOCDB simple family (application)  
**DK 2018050310 W 20181126**; CN 201880075491 A 20181126; DK PA201770887 A 20171124; EP 18812048 A 20181126; ES 18812048 T 20181126; HU E18812048 A 20181126; PL 18812048 T 20181126