

Title (en)
MODULAR CONSTRUCTION SYSTEM

Title (de)
MODULARES KONSTRUKTIONSSYSTEM

Title (fr)
SYSTÈME DE CONSTRUCTION MODULAIRE

Publication
EP 2738316 A1 20140604 (EN)

Application
EP 12818452 A 20120323

Priority
• ES 20110088 A 20110728
• ES 2012070199 W 20120323

Abstract (en)
The invention is in the field of construction of modular buildings for residential, hotel, educational, or hospital use. The precast concrete modules comprising the building consist of three basic parts: 1 - Base: It is the floor of each module. It has four corner castings at the bottom. 2 - Box: It is the ceiling, the walls and the façade of each module. It has four corner castings at the top. 3 - Corridor: It is made up of a slab of equal width as the base and variable length according to regulations and/or building design requirements. The base and the box are joined, forming a single rigid, monolithic piece. For this purpose, there are reinforcing bars in the base that will overlap the reinforcing bars of the box, thus giving continuity to the bars and ensuring the strength of the concrete at the joint between base and box. A building is made up of different modules placed directly on top of each other and side by side. Neoprene bands are used to ensure a uniform contact between adjacent modules and to prevent the contact of concrete elements of different modules. The stability of the resulting building against unlikely situations is ensured by two types of pieces: stackers and turnbuckles. Like the corner castings, these pieces are inherited from the system for transport of containers used in cargo ships. In the case of a residential building, the grouping of modules gives rise to an apartment, and the grouping of apartments, plus the vertical communication modules (staircase and elevator modules) gives rise to a building.

IPC 8 full level
E04B 1/348 (2006.01)

CPC (source: EP)
E04B 1/34823 (2013.01); **E04B 2001/34892** (2013.01)

Citation (search report)
See references of WO 2013014305A1

Cited by
NO340745B1; CN108798084A; US10280608B2; US11130625B2

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)
EP 2738316 A1 20140604

DOCDB simple family (application)
EP 12818452 A 20120323