Title (en)

FLEXIBLE HANGING TYPE MODULE BUILDING STRUCTURE

Title (de)

FLEXIBLE HÄNGEMODULBAUSTRUKTUR

Title (fr)

STRUCTURE DE CONSTRUCTION DE MODULE DE TYPE À SUSPENSION FLEXIBLE

Publication

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Application

EP 17833220 A 20170330

Priority

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Abstract (en)

[origin: EP3379002A1] The invention discloses a flexibly suspended modular building structure, which comprises a vertical core tube structure. A conversion story is arranged at the upper end of the core tube structure, multiple modules with certain spaces reserved therebetween are hung below the conversion layer, the modules adjacent in the vertical direction are connected through a set of hanging rod members, the upper end of each hanging rod member is pin-connected to a ceiling beam located in the upper module, the lower end of each hanging rod member is pin-connected to a ceiling beam located in the lower module, the hanging rod member arranged on the uppermost module is pin-connected to the transfer story, and dampers are connected between floors of all the modules and the core tube structure. By means of suspension shock absorption technology, the horizontal loads inputted by the modules to the core tube structure are remarkably reduced, and the material consumption of the core tube structure is saved. The module building allows inter-story drift of secondary structure, prevents non-structural elements from damage, and extends the limit value of inter-story drift between modules, thus improving the energy dissipation and shock absorption efficiency. By introducing a limiting buffer device, relative displacement between the modules is controlled, and collision is avoided.

IPC 8 full level

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