

Title (en)

Air circuit breaker, breaking spring of air circuit breaker and connection method thereof

Title (de)

Luftschalter, Ausschaltfeder für den Luftschalter und Verbindungsverfahren dafür

Title (fr)

Disjoncteur à air, ressort d'ouverture du disjoncteur et méthode de raccordement correspondant

Publication

**EP 1914772 A1 20080423 (EN)**

Application

**EP 07019930 A 20071011**

Priority

KR 20060027977 U 20061017

Abstract (en)

An air circuit breaker, a breaking spring of the air circuit breaker, and its connection method are disclosed. The air circuit breaker includes: a cam (22); a driving lever (24) connected with the cam and rotated; a closing spring (25) compressed by the driving lever (24); a plurality of links (29,34,35) that transfer a driving force generated when the closing spring is stretched; a switching shaft (3) connected with one or the links by a connection shaft (36) and rotated according to movement of the link; and a breaking spring (37) having a fixing hole (52,72) with one side opened at one end portion (51,70) thereof, so as to be fixed to the connection shaft (36) perpendicularly in an axial line direction of the connection shaft. A space for assembling does not need to be formed at an end portion of the connection shaft, obtaining a compact structure. In addition, a tool can be simplified, an installation can be facilitated, an assembling time can be shortened, and a fabrication cost can be reduced.

IPC 8 full level

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CPC (source: EP KR)

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Citation (search report)

- [X] US 6144002 A 20001107 - COUDERT PATRICK [FR], et al
- [X] EP 0696039 A1 19960207 - SCHNEIDER ELECTRIC SA [FR]
- [A] US 5181069 A 19930119 - OLEKSINSKI JOHN A [US], et al
- [A] FR 2663152 A1 19911213 - MERLIN GERIN [FR]

Cited by

CN102290294A; US2014190939A1; US9123491B2

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