

Title (en)  
Circuit breaker

Title (de)  
Schutzschalter

Title (fr)  
Disjoncteur

Publication  
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Application  
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Priority  
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Abstract (en)  
[origin: EP0978858A2] It is an object of the present invention to provide a circuit breaker excellent in safety by electrically insulating the trip unit from the main circuit, and capable of performing a proper wiping of the movable contact carrier, resulting in reduction of electrical resistance at the contacts. Further, a circuit breaker excellent in workability in assembling processes is also provided. In the circuit breaker of the present invention, a housing means (22) contains a main circuit (100) including a power supply side stationary contact carrier (1) with a stationary contact (2), a movable contact carrier (4) with a power supply side movable contact (3) and a load side movable contact (5), and a load side stationary contact carrier (7) with a load side stationary contact (6). The housing means is made of insulating material and disposed in the casing (40) also made of insulating material. The circuit breaker includes a make-and-break mechanism (30), a tripping mechanism (50). The tripping mechanism (50) is unitedly connected to the load side stationary contact carrier (7) and to the load side terminal (7c) therebetween. The tripping means (50) includes a converting mechanism (51) for converting electromagnetic force to mechanical force for tripping, which is supported on the housing means (22) and is electrically insulated from the main circuit (100). The make-and-break mechanism (30) is mounted on the housing means (22) and is electrically insulated from the main circuit (100). <IMAGE>

IPC 8 full level  
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CPC (source: EP)  
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Citation (search report)  
• [Y] DD 142621 A1 19800702 - AMFT DIETRICH, et al  
• [Y] US 4614851 A 19860930 - THEISEN PETER J [US], et al  
• [Y] EP 0788128 A2 19970806 - HITACHI LTD [JP]  
• [Y] FR 2682531 A1 19930416 - MERLIN GERIN [FR]

Cited by  
EP2472537A1; US8497752B2; GB2431047A; GB2431047B; ES2313829A1; US7538644B2

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