

Title (en)
Multipole circuit breaker with reduced operating temperature

Title (de)
Mehrpoliger Leistungsschalter mit verminderter Betriebstemperatur

Title (fr)
Disjoncteur multipolaire avec température de fonctionnement réduite

Publication
EP 0702387 A1 19960320 (EN)

Application
EP 95114334 A 19950912

Priority
US 30802994 A 19940916

Abstract (en)
At least one inner pole (132) of a multipole circuit breaker (1) is connected in parallel with another pole (131) to reduce the current through the inner pole, and therefore, lower the operating temperature of the circuit breaker. In circuit breakers having electronic trip units (41), the current transformers (43) providing sensed currents for the poles (13) connected in parallel are connected to the trip unit (41) in parallel. In circuit breakers having thermal-magnetic trip devices (27), the current/time characteristics of the thermal-magnetic devices associated with the poles (13) connected in parallel are set so that they collectively substantially match the current/time characteristics of the other poles. A four pole breaker (1) can be connected in a three conductor distribution system (3) by connecting the two center poles (132,3) in parallel to one conductor (7), and connecting each of the other two poles (131,4) to a different one of the remaining conductors (5,9). One inner pole and the adjacent outer pole can be connected in parallel to one conductor in a two conductor distribution system, with the other inner and outer poles connected in parallel to the other conductor. In the two conductor system, the four pole breaker can be replaced by a three pole breaker having the center pole and one outer pole connected alone in parallel to one conductor and the other outer pole connected to the second conductor. <IMAGE>

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IPC 8 full level
H01H 73/00 (2006.01); **H01H 71/10** (2006.01); **H01H 73/66** (2006.01); **H01H 83/02** (2006.01)

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H01H 71/1045 (2013.01)

Citation (search report)
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• [A] DE 3515158 A1 19861106 - LINDNER GMBH [DE]
• [PA] EP 0670585 A2 19950906 - KOPP HEINRICH AG [DE]
• [A] DE 2101060 B2 19760701

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