

MOLDED CASE CIRCUIT BREAKER AND MOVING CONDUCTOR ASSEMBLY THEREFOR

ABSTRACT OF THE DISCLOSURE

A molded case circuit breaker (1) has a moving conductor assembly (21) which includes a modular carrier assembly (33) incorporating a plurality of spring biased contact cam members (71) each of which engages contact pressure lobes (129) on a pair of contact arm laminations (27m, 27a) to provide contact pressure. In response to the magnetic repulsion forces generated by a short circuit, the springs (73) compress allowing the cam members (71) to pivot and side step the contact pressure lobes (129) so that the contact arm (27) blows-open with little resistance. The cam members (71) and springs (73) are preassembled in a transverse channel (45) in the carrier body (43) and laterally retained in place by side plates (47) for easier pivotal attachment of the contact arm laminations (27m, 27a) to the lobes (57) on the side plates (47). The side plate lobes (57) raise the contact arm (27) relative to the mass of the carrier (33) to reduce eddy current heating and provide a positive off indication for welded contacts by restricting movement of lower toggle links (67) of the operating mechanism (37) which are coplanar with the side plates (47). A modular crossbar (35) includes molded bearings (79) engaged by or made integral with hexagonal metal shaft (75, 141) sections which extend into hex openings (77) in the carrier bodies (43) of adjacent poles.

(Fig. 1)