

Title (en)
CIRCUIT BREAKER

Title (de)
SCHUTZSCHALTGERÄT

Title (fr)
DISJONCTEUR

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Abstract (en)
[origin: WO2023052081A1] The invention relates to a circuit breaker for protecting an electric low-voltage circuit, having: - a housing with grid-side connections and load-side connections for the low-voltage circuit; - a mechanical separating contact unit which is connected to an electronic interruption unit in series, wherein - the mechanical separating contact unit is paired with the load-side connections, and the electronic interruption unit is paired with the grid-side connections, - the mechanical separating contact unit can be switched by opening contacts in order to prevent a current flow or by closing the contacts for a current flow in the low-voltage circuit, and - as a result of semiconductor-based switch elements, the electronic interruption unit can be switched to a high-ohmic state of the switch elements in order to prevent a current flow or to a low-ohmic state of the switch elements for a current flow in the low-voltage circuit; - a current sensor unit for ascertaining the level of the current of the low-voltage circuit; and - a control unit which is connected to the current sensor unit, the mechanical separating contact unit, and the electronic interruption unit. A process for preventing a current flow in the low-voltage circuit is initiated if current thresholds and/or current/time thresholds are exceeded, and the mechanical separating contact unit has a position sensor in order to ascertain position information on the closed or open state of the contacts.

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