

Title (en)
CIRCUIT BREAKER

Title (de)
SCHUTZSCHALTGERÄT

Title (fr)
DISJONCTEUR

Publication
EP 4367701 A1 20240515 (DE)

Application
EP 22783311 A 20220912

Priority
• DE 102021210814 A 20210928
• EP 2022075250 W 20220912

Abstract (en)
[origin: WO2023052108A1] 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 operated using a handle such that an opening function of contacts can be switched in order to prevent a current flow or a closing function of contacts can be switched 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 handle sensor in order to ascertain position information of the handle.

IPC 8 full level
H01H 9/54 (2006.01); **H01H 71/04** (2006.01); **H01H 71/12** (2006.01); **H01H 83/00** (2006.01)

CPC (source: EP)
H01H 9/547 (2013.01); **H01H 9/548** (2013.01); **H01H 71/04** (2013.01); **H01H 71/128** (2013.01); **H01H 83/00** (2013.01); **H01H 2071/048** (2013.01)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 102021210814 A1 20230330; CN 118043923 A 20240514; EP 4367701 A1 20240515; WO 2023052108 A1 20230406

DOCDB simple family (application)
DE 102021210814 A 20210928; CN 202280065330 A 20220912; EP 2022075250 W 20220912; EP 22783311 A 20220912