

Title (en)
THERMOMAGNETIC PROTECTION DEVICE, THERMAL PROTECTION COMPONENT AND MAGNETIC PROTECTION COMPONENT

Title (de)
THERMOMAGNETISCHE SCHUTZVORRICHTUNG, WÄRMESCHUTZKOMPONENTE UND MAGNETSCHUTZKOMPONENTE

Title (fr)
DISPOSITIF DE PROTECTION THERMOMAGNÉTIQUE, COMPOSANT DE PROTECTION THERMIQUE ET COMPOSANT DE PROTECTION MAGNÉTIQUE

Publication
EP 3291275 A4 20190227 (EN)

Application
EP 16785894 A 20160422

Priority

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- CN 201510209923 A 20150428
- CN 2016079969 W 20160422

Abstract (en)
[origin: EP3291275A1] A thermomagnetic protection apparatus applicable to multi-pole circuit breaker. The thermomagnetic protection apparatus comprises: a housing, a multi-pole protection unit (105), an energy-storing component (106) and an adjustment component (107). The housing comprises an upper shell (101) and a base (112). The multi-pole protection unit is installed inside the housing, and comprises a plurality of thermomagnetic protection devices. Each thermomagnetic protection device corresponds to one pole of the multi-pole circuit breaker. Each thermomagnetic protection device comprises a thermal protection component (102) and a magnetic protection component (103). The multi-pole protection unit comprises a rod (501), and the rod adjusts an air gap of the magnetic protection component. The energy-storing component is installed inside the housing, and engages with the thermal protection component. When an overload current occurs, the energy-storing component is triggered by the thermal protection component and strikes an operation mechanism of the circuit breaker. The adjustment component is mounted on the housing, and engages with the rod and the energy-storing component. The adjustment component adjusts a rated overload current by means of adjusting the distance between the energy-storing component and the thermal protection component, and adjusts a rated transient current by means of adjusting the rod.

IPC 8 full level
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CPC (source: EP)
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Citation (search report)

- [Y] CN 203103245 U 20130731 - ZHEJIANG CHINA ELEC APPLIANCE
- [Y] EP 1077460 A2 20010221 - EATON CORP [US]
- [Y] US 3936780 A 19760203 - HENNEMANN JEAN
- [Y] WO 2015043424 A1 20150402 - SEARI ELECTRIC TECHNOLOGY CO LTD [CN], et al & EP 3051567 A1 20160803 - SEARI ELECTRIC TECHNOLOGY CO LTD [CN], et al
- [Y] US 3950716 A 19760413 - CELLERINI ALBERT R, et al
- [Y] US 3211860 A 19651012 - STEPHENSON JR WILLIAM I, et al
- [Y] US 6407653 B1 20020618 - ZINDLER MARK O [US], et al
- See references of WO 2016173463A1

Cited by
JP2022014948A

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