

Title (en)  
A pole connector for in-series circuit breakers

Title (de)  
Polverbinder für Reihenschaltung

Title (fr)  
Connecteur polaire pour disjoncteurs en série

Publication  
**EP 2645487 A1 20131002 (EN)**

Application  
**EP 12460013 A 20120329**

Priority  
EP 12460013 A 20120329

Abstract (en)  
The invention relates to a pole connector for in-series circuit breakers, and in particular miniature circuit breakers (MCB) installed alongside each other on a busbar. The connector is made in the form of an aluminum conducting element (1) comprising conducting terminals (3) and cooling ribs (4a) of a length of (Sa) located on the front of the connector. The connector according to the invention has additional cooling ribs (4b) of a length of (Sb) which make a fragment of the conducting element (1), which are located on the rear of the connector and which preferably are grouped in pairs between which a free space (6) is formed to let exhaust gases escape from individual circuit breakers, when the connectors have been mounted on the circuit breaker set. The external surface of the aluminum conducting element (1) with the ribs (4a) and (4b), with the exception of the conducting terminals (3), is covered with an electrically insulating coat (5) made of polyamide material of thermal conductivity exceeding 0.2 W/(m·K) and of dielectric strength of at least 15 kV/mm, or of polyurethane material of thermal conductivity exceeding 0.1 W/(m·K) and of dielectric strength of at least 10 kV/mm, which sticks tightly to the external surface of the conducting element (1).

IPC 8 full level  
**H01R 9/26** (2006.01); **H01H 71/00** (2006.01)

CPC (source: EP)  
**H01H 9/342** (2013.01); **H01H 9/52** (2013.01); **H01H 71/082** (2013.01); **H01H 71/1045** (2013.01); **H01R 9/2675** (2013.01); **H01H 2011/0037** (2013.01)

Citation (search report)  
• [A] US 6666713 B1 20031223 - NORVELLE RONALD D [US]  
• [A] JP 2010259170 A 20101111 - PANASONIC ELEC WORKS CO LTD  
• [A] KR 101055657 B1 20110809 - CYGNUS SYSTEMS INC [KR]  
• [A] EP 2280460 A1 20110202 - ABB RESEARCH LTD [CH]  
• [A] EP 1326262 A1 20030709 - SIEMENS AG [DE]  
• [A] CN 201130238 Y 20081008 - TIANJIN BAILI ELECTRIC CO LTD [CN]

Cited by  
KR20190003249A; CN106463293A; GB2587467A; GB2587467B; GB2545446A; GB2545446B; US11302502B2; US10494119B2; WO2015195192A1; US9536680B2

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

DOCDB simple family (publication)  
**EP 2645487 A1 20131002; EP 2645487 B1 20140924**; ES 2525035 T3 20141216

DOCDB simple family (application)  
**EP 12460013 A 20120329**; ES 12460013 T 20120329