

Title (en)
DOUBLE STAGE VALVE ASSEMBLY FOR HYDRAULIC CONTROL OF A PISTON CYLINDER FOR A HIGH OR MIDDLE VOLTAGE SWITCH

Title (de)
ZWEISTUFIGE VENTILANORDNUNG ZUR HYDRAULISCHEN ANSTEUERUNG EINER KOLBEN-ZYLINDERANORDNUNG EINES HOCH-
ODER MITTELSPANNUNGSLEISTUNGSSCHALTERS

Title (fr)
ENSEMBLE DE VANNE DEUX ÉTAGES POUR LE CONTRÔLE HYDRAULIQUE DU VÉRIN D'UN COMMUTATEUR HAUTE OU MOYENNE
TENSION

Publication
EP 3390840 B1 20200101 (DE)

Application
EP 16802110 A 20161130

Priority
• DE 102015121719 A 20151214
• EP 2016079284 W 20161130

Abstract (en)
[origin: WO2017102331A1] A valve arrangement for hydraulic control of a piston-cylinder of a power switch (7) contains a main stage having a first main valve (31) and a second main valve (32), and a pilot stage having at least one pilot valve (3, 4). In order to permit the first main valve (31) to remain securely in the opened state, even in the event of pressure oscillations, the main valve has a total of four control surfaces, of which a second (F5) and a third (F6) control surface operate in a closing manner and a fourth control surface (F7) operates in an opening manner. For this purpose, the second control surface (F5) is connected to the high-pressure line (P), the third control surface (F6) is connected to the low-pressure line (T), and the fourth control surface (F7) is connected to the output-side valve connection (35) of the first main valve (31). The size ratio of the opening control surfaces (F4, F7) to the closing control surfaces (F5, F6) is selected such that in the open condition of the first main valve (31) an opening resulting force is maintained.

IPC 8 full level
F15B 11/00 (2006.01); **F15B 13/043** (2006.01); **H01H 33/34** (2006.01)

CPC (source: EP US)
F15B 11/006 (2013.01 - EP US); **F15B 13/0431** (2013.01 - EP US); **H01H 33/34** (2013.01 - EP US); **F15B 13/0405** (2013.01 - EP US); **F15B 2211/30575** (2013.01 - EP US); **F15B 2211/329** (2013.01 - EP US); **F15B 2211/7052** (2013.01 - EP US)

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

DOCDB simple family (publication)
DE 102015121719 A1 20170614; CN 108603520 A 20180928; CN 108603520 B 20200313; EP 3390840 A1 20181024;
EP 3390840 B1 20200101; US 10830256 B2 20201110; US 2019017521 A1 20190117; WO 2017102331 A1 20170622

DOCDB simple family (application)
DE 102015121719 A 20151214; CN 201680081780 A 20161130; EP 16802110 A 20161130; EP 2016079284 W 20161130;
US 201616062227 A 20161130