

Title (en)
Control device for thermal installations

Title (de)
Steuergerät für wärmetechnische Anlagen

Title (fr)
Appareil de commande pour installations thermiques

Publication
EP 1081431 A3 20030115 (DE)

Application
EP 00115606 A 20000720

Priority
DE 19941022 A 19990828

Abstract (en)
[origin: US6507468B1] A controller has two shunt lines connected in parallel with safety relays. For testing their switching capability, the safety relays are reversed to their idle positions and the change in voltage is monitored on their idle contacts. If voltage is missing, an error signal is issued. During the test, the parallel shunt line is closed so that the safety power line is not interrupted. Switching amplifiers having a response and action time which is a fraction of the preset response time of the safety relays control the safety relays. For testing the electrical control, the drives of the safety relays are switched to currentless and the change in voltage is monitored on the drives. If the change in voltage is inadequate, an error signal is issued. The safety relays remain in their operating positions during the test.

IPC 1-7
F22B 37/42; **F22B 37/46**

IPC 8 full level
F22B 35/00 (2006.01); **F22B 37/42** (2006.01); **F22B 37/46** (2006.01); **H01H 47/00** (2006.01)

CPC (source: EP US)
F22B 37/42 (2013.01 - EP US); **F22B 37/46** (2013.01 - EP US); **H01H 47/004** (2013.01 - EP US)

Citation (search report)
• [A] FR 1229825 A 19600909 - DAMPFERZEUGER VEB
• [A] US 5739504 A 19980414 - LYONS RICHARD A [US], et al
• [A] US 2849990 A 19580902 - TONGRET STEWART R
• [A] GB 1084518 A 19670927 - EDWIN DANKS & COMPANY OLDBURY

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
US 6507468 B1 20030114; AT E407329 T1 20080915; BR 0003849 A 20010403; CZ 20003128 A3 20010411; CZ 298673 B6 20071219; DE 19941022 A1 20010301; DE 50015338 D1 20081016; EP 1081431 A2 20010307; EP 1081431 A3 20030115; EP 1081431 B1 20080903; HU 0002871 D0 20000928; HU 226341 B1 20080929; HU P0002871 A2 20010928; HU P0002871 A3 20050128; NO 20004267 D0 20000825; NO 20004267 L 20010301; NO 334583 B1 20140414; PL 195007 B1 20070731; PL 342181 A1 20010312

DOCDB simple family (application)
US 60494200 A 20000627; AT 00115606 T 20000720; BR 0003849 A 20000828; CZ 20003128 A 20000825; DE 19941022 A 19990828; DE 50015338 T 20000720; EP 00115606 A 20000720; HU P0002871 A 20000724; NO 20004267 A 20000825; PL 34218100 A 20000825