

Title (en)

Assembly for electrical connection, start on and protection of an electric moto-compressor sealed in hermetic metal shell

Title (de)

Anordnung für einen elektrischen Anschluss, Starter und Schutz eines elektrischen Motorenkompressors, der mit einem hermetischen metallischen Gehäuse abgedichtet ist

Title (fr)

Ensemble pour connexion électrique, le démarrage et la protection d'un moto-compresseur scellé dans une coque métallique hermétique

Publication

EP 2053322 A3 20101222 (EN)

Application

EP 08164845 A 20080923

Priority

IT VA20070081 A 20071022

Abstract (en)

[origin: EP2053322A2] An assembly for electrical connection, start up and protection from excessive current absorption and/or overheating of an electrical moto-compressor contained in a sealed metal shell (2) and connectable through electrical pins (5, 6, 7) protruding out of a dielectric pane or fusite (4) integrated in the metal wall of the shell (3), comprises a connection unit and a docking metal bracket (3) adapted to be pre-welded to the shell (2), a dielectric body (1) of plastic material of said connection unit having installed therein a plurality of electrical terminals (m1-m14) for the connection of electrical wires of a power cable and of electrical wires of connection of external or remotely installed electrical components of circuits of the appliance. The connection unit is completely pre-fabricated and comprises a motor start up device (PTC) and a device of protection (OLP) from excessive current absorption and/or overheating of the moto-compressor hosted in recesses of the dielectric body (1) of plastic material. A plurality of electrical connection metal laminae have terminations adapted to constitute an electrical terminal board (m1-m14), plug-on sockets (5f, 6f, 7f) for the connection pins of the fusite and (8f) for a ground connection pin (8) projecting from a surface of the metal bracket (3) parallel to said pins (5, 6, 7) upon docking the connection unit onto it. A dielectric shroud (19) of plastic material has first engagement means (18f) adapted to slidably engage with said body and second engagement means adapted to engage underneath raised and outwardly bent parallel edges (9-12) of the metal bracket for blocking the connection unit onto the docking bracket while allowing sliding displacements of the shroud (19). Guillotine-type cable stopper devices (15, 21) are integrally formed and extend from the slideable shroud. Optionally the slideable dielectric shroud (19) comprises a removable end cap (23) of molded plastic having engagement spikes (24) adapted to slide in and be retained in cooperating channels (24f) formed in the slideable shroud (19) as far as abutting against end surfaces thereof and further having an elastic inner hook (28) adapted to engage itself into a locking recess (14) of the metal bracket (3).

IPC 8 full level

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CPC (source: EP)

F25B 31/02 (2013.01); **F04C 2240/803** (2013.01); **F25B 2400/077** (2013.01); **H01H 61/002** (2013.01)

Citation (search report)

- [A] WO 2006058396 A2 20060608 - BRASIL COMPRESSORES SA [BR], et al
- [A] WO 0247236 A2 20020613 - BRASIL COMPRESSORES SA [BR], et al
- [A] EP 1657733 A1 20060517 - TEXAS INSTR KOREA LTD [KR]
- [A] WO 2006080698 A1 20060803 - TEXAS INSTR KOREA LTD [KR], et al
- [A] WO 2007012961 A1 20070201 - ITW IND COMPONENTS SRL [IT], et al
- [A] EP 1111316 A1 20010627 - MINU SPA [IT]

Cited by

EP4170165A1; EP2549514A3; EP3196461A3; US9025286B2

Designated contracting state (EPC)

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