Title (en)

COMPRESSOR SYSTEM FOR A RAIL VEHICLE AND METHOD FOR OPERATING THE COMPRESSOR SYSTEM WITH SAFE EMERGENCY OPERATION

Title (de)

KOMPRESSORSYSTEM FÜR EIN SCHIENENFAHRZEUGS UND VERFAHREN ZUM BETRIEB DES KOMPRESSORSYSTEMS MIT EINEM SICHEREN NOTLAUFBETRIEB

Title (fr)

SYSTÈME DE COMPRESSEUR DESTINÉ À UN VÉHICULE FERROVIAIRE ET PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER LE SYSTÈME DE COMPRESSEUR DANS UN MODE D'URGENCE FIABLE

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Abstract (en)

[origin: WO2015082432A1] The invention relates to a compressor system for a rail vehicle, comprising a compressor (3), driven by an electrical machine (1) via a drive shaft (2), for producing compressed air for at least one compressed air tank (4), wherein the electrical machine (1) can be activated at least indirectly via a control device (5) for operating the electrical machine (1) at at least one nominal speed (n) between a maximum speed (m) and a minimum speed (i), wherein furthermore at least one pressure sensor (7) for determining the pressure for the control device (5) is disposed in a compressed-air-carrying line (6) downstream of the compressor (3). According to the invention, a final control element (8) for continuously influencing the speed of the electrical machine (1) is disposed between an electrical supply (15) and the electrical machine (1), wherein the final control element (8) can be activated via the control device (5), and wherein a pressure switch (16) for monitoring the pressure in the at least one compressed air tank (4) and for influencing at least the speed of the electrical machine (1) is disposed in the compressed-air-carrying line (6) downstream of the compressor (3). Furthermore, the invention also relates to a method for controlling the compressor system according to the invention, wherein the compressor (3) is operated at a variable speed, assuming any intermediate value between the maximum speed (m) and the minimum speed (i), and wherein the pressure switch (16) monitors the pressure in the at least one compressed air tank (4) and has an indirect influence at least on the speed of the electrical machine (1).

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