

Title (en)

A WIRELESS SYSTEM AND METHOD TO GENERATE A THERMAL COMFORT MAP OF A VEHICLE.

Title (de)

DRAHTLOSES SYSTEM UND VERFAHREN ZUR ERZEUGUNG EINER KARTE DES THERMISCHEN KOMFORTS EINES FAHRZEUGS

Title (fr)

SYSTÈME ET PROCÉDÉ SANS FIL DESTINÉS À GÉNÉRER UNE CARTE DE CONFORT THERMIQUE D'UN VÉHICULE

Publication

**EP 3994540 A4 20230816 (EN)**

Application

**EP 20836476 A 20200701**

Priority

- IN 201941027045 A 20190705
- IN 2020050569 W 20200701

Abstract (en)

[origin: WO2021005617A1] A wireless system (100) to generate a thermal comfort map of a vehicle (102) comprising a plurality of high precision sensor devices (104) and data acquisition device (106). The sensor devices (104) are configured to measure a plurality of parameters such as air temperature, air velocity, relative humidity, globe temperature, surface temperature, surface heat flux, solar radiation and net radiation simultaneously. Preferably, at least one of the sensor devices (104) is embedded in a windshield of the vehicle (102). The data acquisition device comprising a transceiver unit (114), a storage unit (116) and an analysis unit (118). The data acquisition device is configured to calculate data including mean radiant temperature, operative temperature, equivalent temperature, Predicted Mean Vote (PMV) and Predicted Percentage of Dissatisfied (PPD) based on the parameters and generate the thermal comfort map of the vehicle (102) based on the data calculated and the parameters measured.

IPC 8 full level

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CPC (source: EP KR)

**B60H 1/0073** (2019.05 - EP KR); **B60H 1/00742** (2013.01 - EP); **B60H 1/00771** (2013.01 - EP KR); **B60H 1/00792** (2013.01 - KR); **B60H 1/00807** (2013.01 - EP); **G05D 23/1932** (2013.01 - EP KR); **B60H 1/0075** (2013.01 - EP KR); **B60H 1/00807** (2013.01 - KR)

Citation (search report)

- [Y] WO 2017173222 A1 20171005 - GENTHERM INC [US]
- [Y] FR 2728514 A1 19960628 - VALEO THERMIQUE HABITACLE [FR]
- [Y] US 2017341485 A1 20171130 - YONEDA AKI [JP], et al
- [A] LAHLOU A ET AL: "A Dynamic Programming Approach for Thermal Comfort Control in Electric Vehicles", 2018 IEEE VEHICLE POWER AND PROPULSION CONFERENCE (VPPC), IEEE, 27 August 2018 (2018-08-27), pages 1 - 6, XP033495830, DOI: 10.1109/VPPC.2018.8604983

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Designated validation state (EPC)

MA

DOCDB simple family (publication)

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DOCDB simple family (application)

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