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MV et al.(10) **Pub. No.: US 2022/0386507 A1**(43) **Pub. Date: Dec. 1, 2022**(54) **POWER DEVICE AND COOLING PLATE**(71) Applicant: **THERMO KING CORPORATION**,
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7/20945 (2013.01)(57) **ABSTRACT**

According to a first aspect there is disclosed an assembly comprising a power device and a cooling plate which overlies the power device for heat transfer therebetween. The power device comprises a plurality of power switching components including at least a first power switching component and a second power switching component; wherein each of the power switching components is configured to dissipate heat to the cooling plate. The cooling plate comprises a plurality of cooling zones overlying and aligned with the respective power switching components for heat transfer, including first and second cooling zones corresponding to the first and second power switching components; and a flow channel for a cooling flow, extending between an inlet and an outlet through each of the cooling zones; wherein a geometric parameter of the flow channel that at least partly determines heat transfer in a respective cooling zone differs between the first and second cooling zones for improved heat transfer in the first cooling zone relative to the second cooling zone. According to a second aspect, there is disclosed a method for cooling the plurality of power switching components in an assembly in accordance with the first aspect.

