

Title (en)  
HEAT EXCHANGER AND HEAT EXCHANGE UNIT

Title (de)  
WÄRMETAUSCHER UND WÄRMETAUSCHEINHEIT

Title (fr)  
ÉCHANGEUR DE CHALEUR ET UNITÉ D'ÉCHANGE DE CHALEUR

Publication  
**EP 3992564 A4 20220824 (EN)**

Application  
**EP 20836392 A 20200710**

Priority  
• JP 2019128402 A 20190710  
• JP 2020027038 W 20200710

Abstract (en)  
[origin: EP3992564A1] A heat exchanger (30) includes a plurality of heat transfer tubes (40) and a plurality of fins (45). Each of the fins (45) has a plurality of tube receiving openings (46). The tube receiving openings (46) of the fin (45) constitute an opening row (50). The lowermost one of the tube receiving openings (46) in the opening row (50) is the tube-free opening (47) in which no heat transfer tube (40) is inserted.

IPC 8 full level  
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CPC (source: EP)  
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Citation (search report)  
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• [YA] US 2018094860 A1 20180405 - SAKAMAKI TOMOHIKO [JP], et al  
• [A] US 2017328637 A1 20171116 - PAROLA ANDREA [IT]  
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• See references of WO 2021006336A1

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Designated extension state (EPC)  
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