

Title (en)  
HEAT EXCHANGER

Title (de)  
WÄRMETAUSCHER

Title (fr)  
ÉCHANGEUR DE CHALEUR

Publication  
**EP 3961138 A1 20220302 (EN)**

Application  
**EP 21192980 A 20210825**

Priority  
KR 20200108570 A 20200827

Abstract (en)  
A heat exchanger is disclosed. The heat exchanger of the present disclosure includes a first heat exchanger into or from which a first fluid flows or is discharged, and a second heat exchanger into or from which a second fluid flows or is discharged, the second heat exchanger being adjacent to the first heat exchanger, and the first heat exchanger and the second heat exchanger are rolled together in a roll shape, are alternately disposed in a radial direction, and are in contact with each other.

IPC 8 full level  
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Citation (applicant)  
KR 20080006122 A 20080116 - LG ELECTRONICS INC [KR]

Citation (search report)  
• [X] US 2009114380 A1 20090507 - GRABON MICHEL [FR]  
• [X] JP 2003329375 A 20031119 - DENSO CORP  
• [XA] US 2011271711 A1 20111110 - YOSHIDA KAORI [JP], et al  
• [XA] EP 2390612 A1 20111130 - DAIKIN IND LTD [JP]

Designated contracting state (EPC)  
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