

Title (en)  
HEAT EXCHANGER AND HEAT PUMP USING SAME

Title (de)  
WÄRMETAUSCHER UND WÄRMEPUMPE DAMIT

Title (fr)  
ECHANGEUR DE CHALEUR ET POMPE À CHALEUR UTILISANT CET ÉCHANGEUR

Publication  
**EP 2735832 A4 20150408 (EN)**

Application  
**EP 12818246 A 20120720**

Priority  
• JP 2011160927 A 20110722  
• JP 2012004636 W 20120720

Abstract (en)  
[origin: EP2735832A1] A heat exchanger 100 includes a plurality of heat exchange segments 10. Each of the heat exchange segments 10 is composed of an inner tube assembly 26 including two inner tubes 24, and an outer tube 28. A gap width G represented by a difference (( $\varnothing_{in} / 2$ ) -  $\varnothing_{out}$ ) between a half of an inner diameter  $\varnothing_{in}$  of the outer tube 28 and an outer diameter  $\varnothing_{out}$  of the inner tube 24 satisfies  $0 < G \leq 0.8$  (unit: mm). A path number N indicating the number of the heat exchange segments 10 and the inner diameter  $\varnothing_{in}$  (unit: mm) of the outer tube 28 satisfy one of relationships (1) to (5) below. (1)  $N = 4$  and  $8.20 \leq \varnothing_{in} \leq 9.50$  (2)  $N = 5$  and  $7.58 \leq \varnothing_{in} \leq 8.90$  (3)  $N = 6$  and  $7.14 \leq \varnothing_{in} \leq 8.50$  (4)  $N = 7$  and  $6.78 \leq \varnothing_{in} \leq 8.20$  (5)  $N = 8$  and  $6.52 \leq \varnothing_{in} \leq 7.90$

IPC 8 full level  
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CPC (source: EP)  
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Citation (search report)  
• [Y] JP 2011085274 A 20110428 - PANASONIC CORP  
• [Y] WO 2010151390 A2 20101229 - CARRIER CORP [US], et al  
• [Y] JP 2004360974 A 20041224 - MATSUSHITA ELECTRIC IND CO LTD  
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• See references of WO 2013014899A1

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