

Title (en)  
MULTI-LOOP PLATE HEAT EXCHANGER

Title (de)  
PLATTENWÄRMETAUSCHER MIT MEHREREN SCHLEIFEN

Title (fr)  
ÉCHANGEUR DE CHALEUR À PLAQUES À MULTIPLES BOUCLES

Publication  
**EP 3904816 A1 20211103 (EN)**

Application  
**EP 19906570 A 20191203**

Priority  
• CN 201811632290 A 20181228  
• CN 2019122699 W 20191203

Abstract (en)  
Disclosed is a multi-loop plate heat exchanger, comprising: a plurality of heat exchange plates arranged in a stacked manner; heat exchange channels formed between adjacent heat exchange plates in the plurality of heat exchange plates; and port channels extending through the heat exchange plates and respectively used for inflow and outflow of a heat exchange medium, at least one of the port channels comprising at least two fluid channels which are separated from each other and used for inflow or outflow of at least two of multiple loops of refrigerant. The at least two fluid channels share one of the port channels, and the at least two fluid channels are arranged side by side in the radial direction of the port channel.

IPC 8 full level  
**F28F 3/08** (2006.01)

CPC (source: CN EP US)  
**F28D 9/005** (2013.01 - EP); **F28D 9/0093** (2013.01 - CN EP US); **F28F 3/08** (2013.01 - CN US); **F28F 9/0202** (2013.01 - CN US); **F28F 9/0265** (2013.01 - EP); **F28F 9/0273** (2013.01 - EP); **F28D 2021/0068** (2013.01 - EP US)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3904816 A1 20211103**; **EP 3904816 A4 20220914**; CN 111380386 A 20200707; CN 111380386 B 20210827; US 2022099381 A1 20220331; WO 2020134907 A1 20200702

DOCDB simple family (application)  
**EP 19906570 A 20191203**; CN 201811632290 A 20181228; CN 2019122699 W 20191203; US 201917418065 A 20191203