

Title (en)
SEGMENTED HEAT EXCHANGER

Title (de)
SEGMENTIERTER WÄRMETAUSCHER

Title (fr)
ECHANGEUR DE CHALEUR SEGMENTÉ

Publication
EP 4354073 A1 20240417 (EN)

Application
EP 23201793 A 20231005

Priority
US 202217966652 A 20221014

Abstract (en)
A method can comprise dividing a heat exchanger design into a plurality of modules (10), the plurality of modules (10) arranged in a grid, each module in the plurality of modules (10) including: a first fluid conduit (161) defining an inlet (1611), an outlet (1612), and a heat-transfer surface (602), and a first flow direction, and a second fluid conduit (162) defining a second inlet, a second outlet, a second heat-transfer surface, and a second flow direction, the second flow direction different from the first flow direction; and determining a heat-transfer augments arrangement (1161) for the first fluid conduit (161) and the second fluid conduit (162) of each module in the plurality of modules (10) based on a stress threshold of the module (16) in the plurality of modules (10).

IPC 8 full level
F28F 13/14 (2006.01); F28D 7/00 (2006.01); F28D 9/00 (2006.01)

CPC (source: EP US)
F28D 7/0008 (2013.01 - EP); F28D 7/0025 (2013.01 - EP); F28D 9/00 (2013.01 - EP); F28F 13/06 (2013.01 - US); F28F 13/14 (2013.01 - EP); F28F 27/00 (2013.01 - EP); F28D 2021/0026 (2013.01 - US); F28F 19/00 (2013.01 - US); F28F 2200/00 (2013.01 - EP US); F28F 2210/08 (2013.01 - EP); F28F 2215/04 (2013.01 - EP)

Citation (search report)
• [X] US 2016122024 A1 20160505 - ELDER JAMES S [US], et al
• [X] US 10907500 B2 20210202 - WONG EVA [US], et al
• [X] US 10222142 B2 20190305 - ALVAREZ JORGE D [US], et al
• [X] US 2016377350 A1 20161229 - JENSEN JOSEPH [US], et al

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4354073 A1 20240417; US 2024125564 A1 20240418

DOCDB simple family (application)
EP 23201793 A 20231005; US 202217966652 A 20221014