

Title (en)
WATER HEAT EXCHANGER AND GAS COOLER

Title (de)
WASSERWÄRMETAUSCHER UND GASKÜHLER

Title (fr)
ÉCHANGEUR DE CHALEUR À EAU ET REFROIDISSEUR DE GAZ

Publication
EP 3581868 A1 20191218 (EN)

Application
EP 19179799 A 20190612

Priority
JP 2018114765 A 20180615

Abstract (en)
A water heat exchanger (90) is provided with a header (1) including a tubular header main body (11) extending in a direction of a first axis (A1) and through which water flows toward a first side in the direction of the first axis (A1); and a tubular heat transfer pipe (2) which is installed on the header main body (11) so as to be inserted from an outer peripheral surface of the header main body (11) into the header (1), and which extends along a second axis (A2) inclined so as to approach a second side in the direction of the first axis (A1) as it goes further from the outer peripheral surface of the header main body (11) outward.

IPC 8 full level
F28D 1/053 (2006.01)

CPC (source: EP)
F28D 1/053 (2013.01); **F28F 2210/00** (2013.01)

Citation (applicant)
JP 2012021682 A 20120202 - MITSUBISHI ELECTRIC CORP

Citation (search report)

- [XAYI] CN 107990758 A 20180504 - GREE ELECTRIC APPLIANCES INC ZHUHAI
- [XAYI] JP 2006242458 A 20060914 - DENSO CORP
- [X] US 2016091231 A1 20160331 - ISHIKAWA MASANORI [JP], et al
- [X] WO 2008105760 A2 20080904 - CARRIER CORP [US], et al
- [X] US 4815296 A 19890328 - AMIR NADAV [IL]
- [X] GB 853265 A 19601102 - EGON RUNTE
- [Y] EP 3009767 A1 20160420 - MITSUBISHI ELECTRIC CORP [JP]
- [Y] WO 2018025391 A1 20180208 - MITSUBISHI ELECTRIC CORP [JP]

Cited by
CN114111118A

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 3581868 A1 20191218; JP 2019219079 A 20191226; JP 7199842 B2 20230106

DOCDB simple family (application)
EP 19179799 A 20190612; JP 2018114765 A 20180615