

Title (en)
ELECTRIC STEAM GENERATOR

Title (de)
ELEKTRISCHER DAMPFERZEUGER

Title (fr)
GÉNÉRATEUR DE VAPEUR ÉLECTRIQUE

Publication
EP 3675598 A4 20210519 (EN)

Application
EP 17922300 A 20170929

Priority
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• RU 2017000721 W 20170929

Abstract (en)
[origin: EP3675598A1] The invention represents an electrical-to-thermal energy conversion and heat exchange maintenance device and can be used during heating up liquids e.g., in systems of heating and hot steam-water supply systems of industrial and residential facilities, and in other cases requiring heat-up and vaporization of fluids. The electric steam generator includes flat ferromagnetic core with rods to create a closed magnetic field inside them. The primary windings represent coils on rods, and are electrically insulated from them. The total tubular secondary winding is insulated within the magnetic field and embraces all the rods of the ferromagnetic core so that each rod is wrapped with several closed turns. Tube turns located in the intertube space are electrically-parallelly inextricably externally interconnected in the tube center plane parallel to the magnetic induction vector of the rods. On the intertube space periphery there is at least one distant cylindrical element installed between the secondary tubular winding turns and externally inextricably connected with turns in centerplane of tubes parallel to magnetic induction vector of the rods. The invention enables improvement of reliability and steam production performance of the steam generator.

IPC 8 full level
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CPC (source: EP RU)
F22B 1/281 (2013.01 - EP); **H05B 6/10** (2013.01 - RU); **H05B 6/108** (2013.01 - EP)

Citation (search report)
• [I] RU 2226046 C2 20040320
• [A] RU 2138137 C1 19990920 - KARMANOV EVGENIJ DMITRIEVICH, et al
• [AD] US 1999446 A 19350430 - DELANO JAMES K
• [AD] RU 2263418 C2 20051027
• See also references of WO 2019039960A1

Designated contracting state (EPC)
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