

Title (en)

Timepiece having an electrical energy generator

Title (de)

Zeitmessgerät mit Generator zur Erzeugung elektrischer Energie

Title (fr)

Pièce d'horlogerie comportant une génératrice d'énergie électrique

Publication

EP 1014230 B1 20091209 (FR)

Application

EP 98123823 A 19981215

Priority

EP 98123823 A 19981215

Abstract (en)

[origin: EP1014230A1] The time piece includes: - a mechanical energy source (2); - hour displays (6) mechanically linked to the mechanical energy source (2); - an electrical energy generator (3) also linked mechanically to the mechanical energy source (2) and arranged to produce at its two output terminals (3a,3b) an alternating voltage (Ug); - a rectifier circuit (5), connected to the output terminals of the electrical generator (3), which produces at its output terminals (5a,5b) a continuous voltage (Ua) from the alternating voltage (Ug), and; - a servo circuit (7), fed from the continuous voltage (Ua), which regulates the rotational speed of the electrical generator (3) to a speed (Vc) determined by precise indication of the current time. This servo circuit (7) has reference systems (71,72) driven by a quartz crystal (8). The time piece also includes a thermal compensation circuit (9) linked to the servo circuit (7) and fed from the continuous voltage source (Ua). This thermal compensation circuit is designed to adjust the reference systems (71,72) of the servo circuit (7) so as to compensate for the influence of temperature on the quartz crystal.

IPC 8 full level

G04C 10/00 (2006.01); **G04G 3/04** (2006.01); **G04G 19/08** (2006.01)

CPC (source: EP)

G04C 10/00 (2013.01); **G04G 19/08** (2013.01)

Cited by

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Designated contracting state (EPC)

CH DE FR GB IT LI

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EP 1014230 A1 20000628; **EP 1014230 B1 20091209**; DE 69841366 D1 20100121; HK 1029186 A1 20010323

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