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Hong et al.

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(54) **AUXILIARY POWER UNIT FOR EMERGENCY LIGHT IN CASE OF FIRE OR POWER FAILURE**

(58) **Field of Classification Search**
USPC 315/86-93
See application file for complete search history.

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(56) **References Cited**
U.S. PATENT DOCUMENTS
2008/0191628 A1* 8/2008 Marques H05B 37/04
315/86

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FOREIGN PATENT DOCUMENTS

KR 10-2015-0021637 A 3/2015

* cited by examiner

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(57) **ABSTRACT**

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An APU for an emergency light in case of a fire or power failure includes: a regular power input unit; an emergency power input unit; a changeover switch configured to switch the power input such that the emergency light is automatically turned on by the emergency power in case of a power failure of the regular power; a firefighting power monitoring relay operated by firefighting power when a fire occurs; a firefighting-power-monitoring-relay contact switch configured to connect power from an ATS to the emergency power input unit in connection with the firefighting power monitoring relay; a fire driving unit operated by the power inputted to the emergency power input unit; and an emergency light auto lighting switch configured to connect the emergency light to the regular power input unit, such that the emergency light is automatically turned on.

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(52) **U.S. Cl.**
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4 Claims, 7 Drawing Sheets

