

Title (en)
REDUCED POWER CONSUMPTION IN AIR CONDITIONERS

Title (de)
REDUZIERTER STROMVERBRAUCH IN KLIMAGERÄTEN

Title (fr)
RÉDUITE CONSOMMATION DE COURANT DANS LE DISPOSITIFS DE CLIMATISATION

Publication
EP 3056830 A1 20160817 (EN)

Application
EP 15465552 A 20151019

Priority
MY PI2015700431 A 20150211

Abstract (en)
The present invention relates to air conditioners with reduced power consumption in standby mode. The Outdoor unit of the air conditioner is provided with a zero crossing circuit 130 connected to a power source from one end and connected to the relay circuit from the other end. The power source of the zero crossing circuit 130 is cut-off by deactivating the RY-AC and RY-PWR during standby mode to reduce power consumption. The air conditioner 100 includes another microprocessor-controlled relay (RY-C) at the outdoor unit 120 connected between a terminal (T1') and a compressor, which is kept "OFF" during standby mode to reduce the power consumption. The air conditioner 100 further includes a low power, high impedance switching transformer connected between a terminal (T2') and the terminal (T1') for reducing a standby current by increasing resistance of the switching transformer that in turn results in reduced power consumption.

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• [X] EP 2803917 A1 20141119 - DAIKIN IND LTD [JP]
• [X] US 2014005836 A1 20140102 - BROKER JOHN F [US], et al
• [X] JP 2010054065 A 20100311 - FUJITSU GENERAL LTD
• [I] EP 2241831 A1 20101020 - MITSUBISHI ELECTRIC CORP [JP]

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