

ABSTRACT**An Air-Cooled Condenser and An Air Conditioning Apparatus**

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In a described embodiment, an air-cooled condenser 300 is disclosed. The condenser 300 comprises a condenser coil arrangement 310 for condensing a refrigerant from a gaseous state to a liquid state; and a plurality of elongate channels 312 for enclosing the condenser coil arrangement, with the plurality of elongate channels being spaced
10 from each other to create air gaps 313 therebetween. The condenser 300 further includes an air intake opening 352 for directing air into the plurality of elongate channels 312 for dissipating heat from the condenser coil arrangement 310 to produce heated air within the plurality of elongate channels 312, and an air discharge outlet 382 for discharging the heated air out of the condenser 300. The condenser 300 also
15 includes a casing 302 for housing the plurality of channels, the casing 302 having a condenser air intake portion 308 for taking in ambient air for flowing through the air gaps 313 and a condenser air outlet portion for releasing the ambient air from the condenser air intake portion 308 out of the condenser 300 for cooling by an evaporator. An air conditioning apparatus incorporating such a condenser and an optimizing device
20 are also disclosed.

(Figure 3)



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