US009410727B1

(12) **United States Patent**
Boyko

(10) **Patent No.: US 9,410,727 B1**
(45) **Date of Patent: Aug. 9, 2016**

(54) **SYSTEMS AND METHODS FOR DEFROSTING AN EVAPORATOR IN A REFRIGERATION SYSTEM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 822 days.

(21) Appl. No.: **13/560,242**

(22) Filed: **Jul. 27, 2012**

(51) **Int. Cl.**

F25B 41/00	(2006.01)
F25B 47/00	(2006.01)
F25B 47/02	(2006.01)
F25B 45/00	(2006.01)
F25B 21/04	(2006.01)
F25B 21/00	(2006.01)

(52) **U.S. Cl.**
CPC ***F25B 47/006*** (2013.01); ***F25B 47/02*** (2013.01); *F25B 21/00* (2013.01); *F25B 21/04* (2013.01); *F25B 45/00* (2013.01); *F25B 2339/044* (2013.01); *F25B 2400/16* (2013.01)

(58) **Field of Classification Search**
CPC F25B 47/02; F25B 2400/16; F25B 2339/044; F25B 45/00; F25B 47/006; F25D 21/04; F25D 21/00
USPC 62/277, 509, 174, 80, 81
See application file for complete search history.

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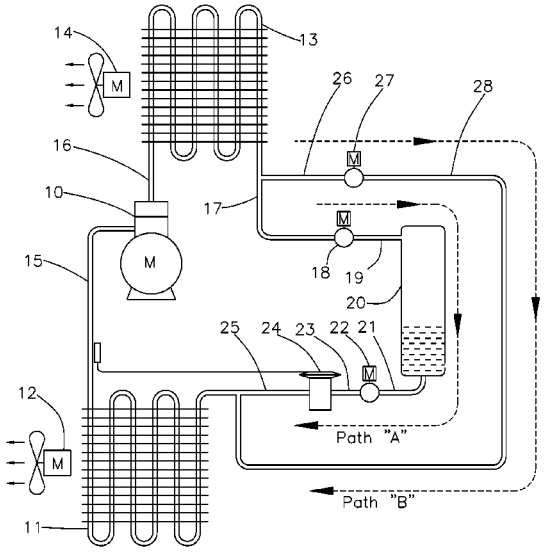
(57) **ABSTRACT**

A gas defrosting method is disclosed which provides a distinct two-step process for defrosting a frosted evaporator. In deliberate fashion, the method assures that only refrigerant vapor returns to the compressor and thereby protects the compressor from damage due to receiving liquid refrigerant. The method optimizes the heat transfer process by maintaining full refrigerant flow through the condenser and by controlling the vapor in a nearly saturated state, high density state. In addition, the method strives to minimize the compressor power expended during the defrosting process.

16 Claims, 1 Drawing Sheet