



(11) **EP 4 123 242 A8**

(12) **CORRECTED EUROPEAN PATENT APPLICATION**

(15) Correction information:  
**Corrected version no 1 (W1 A1)**  
**Corrections, see**  
**Bibliography INID code(s) 71**

(51) International Patent Classification (IPC):  
**F25B 5/02 (2006.01) F25B 9/00 (2006.01)**  
**F25B 49/02 (2006.01)**

(48) Corrigendum issued on:  
**22.03.2023 Bulletin 2023/12**

(52) Cooperative Patent Classification (CPC):  
**F25B 9/008; F25B 5/02; F25B 49/02;**  
**F25B 2339/041; F25B 2400/13; F25B 2400/23**

(43) Date of publication:  
**25.01.2023 Bulletin 2023/04**

(21) Application number: **22186397.0**

(22) Date of filing: **22.07.2022**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB**  
**GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO**  
**PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA ME**  
Designated Validation States:  
**KH MA MD TN**

(72) Inventors:  
• **WALKER, Jonathan**  
**Brea, CA 92821 (US)**  
• **LIU, Zan**  
**Overland Park, KS 66213 (US)**

(30) Priority: **22.07.2021 US 202163224600 P**

(74) Representative: **Viering, Jentschura & Partner**  
**mbB**  
**Patent- und Rechtsanwälte**  
**Am Brauhaus 8**  
**01099 Dresden (DE)**

(71) Applicant: **SPX Cooling Technologies Inc.**  
**Overland Park, KS 66213 (US)**

(54) **EVAPORATIVELY COOLED REFRIGERATION SYSTEM AND METHOD**

(57) An evaporatively cooled refrigeration system (100) includes a refrigerant, a gas/liquid separator (102), an expansion valve (108) in fluid connection to the gas/liquid separator (102), an evaporator (106) to receive the refrigerant from the expansion valve (108), a compressor (118) configured to compress the refrigerant in fluid connection to the evaporator (106), and a gas cooler (120) in fluid connection to the compressor (118). The gas cooler (120) includes an indirect heat exchanger (140) to convey the refrigerant and facilitate heat from the refrigerant and a spray system (130) to spray an evaporative coolant on the indirect heat exchanger (140). Evaporative cooling provided by the evaporative coolant on the coil is configured to cool the refrigerant below a dry bulb ambient air temperature.

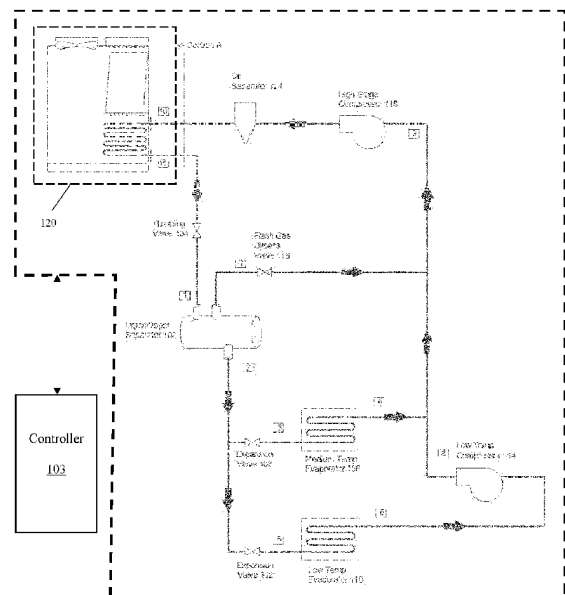


FIG 1A

**EP 4 123 242 A8**