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(54) Title: REFRIGERANT VAPOR COMPRESSION SYSTEM WITH DUAL ECONOMIZER CIRCUITS

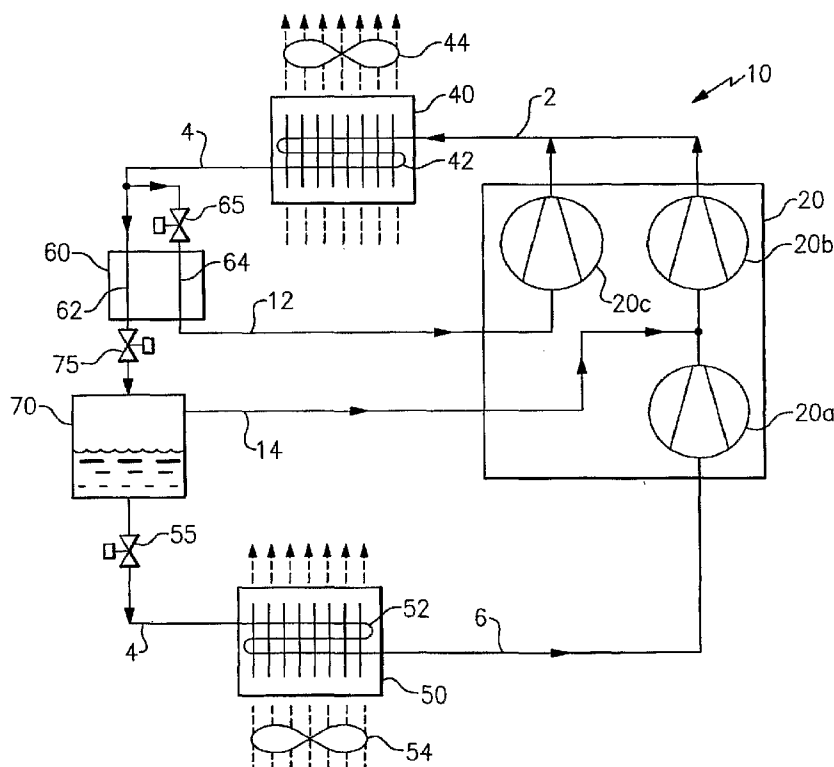


FIG.1

(57) Abstract: A refrigerant vapor compression system includes a flash tank economizer and a refrigerant-to-refrigerant heat exchanger economizer disposed in series refrigerant flow relationship in the refrigerant circuit intermediate a refrigerant heat rejection heat exchanger and a refrigerant heat absorption heat exchanger. A primary expansion valve disposed in the refrigerant circuit in operative association with and upstream of the refrigerant heat absorption heat exchanger and an economizer expansion valve disposed in the refrigerant circuit in operative association and upstream of the flash tank economizer provide a two-step expansion process for expanding refrigerant passing through the refrigerant circuit from the refrigerant heat rejection heat exchanger to the refrigerant heat absorption heat exchanger.