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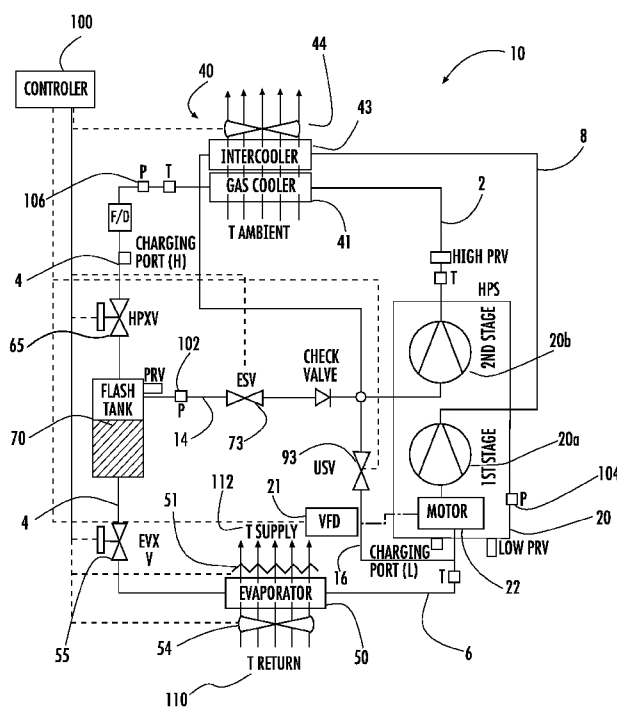
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(54) Title: TEMPERATURE CONTROL LOGIC FOR REFRIGERATION SYSTEM



(57) Abstract: A refrigeration system includes a compressor having a first stage (20a) and a second stage (20b); a motor (22) driving the compressor; a heat rejecting heat exchanger having a fan (44) drawing ambient fluid over the heat rejecting heat exchanger, the heat rejecting heat exchanger including an intercooler (43) and a gas cooler, the intercooler coupled to an outlet of the first stage and the gas cooler (41) coupled to an outlet of the second stage; a flash tank (70) coupled to an outlet of the gas cooler; a primary expansion device (55) coupled to an outlet of the flash tank; a heat absorbing heat exchanger (50) coupled to an outlet of the primary expansion device, an outlet of the heat absorbing heat exchanger coupled to the suction port of the first stage; and a controller (100) for implementing a pulldown mode, a control mode and a staging logic mode.



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