

[Document Name] Abstract

An air conditioning system for appropriately
controlling the air conditioning capacity by preventing
occurrence of cavitation of a refrigerant pump and a
5 method of operating the system are provided.

It includes an evaporator for vaporizing a
refrigerant by exchanging heat with air in a room to be
air-conditioned, a condenser for liquefying a refrigerant
gas vaporized by the evaporator, a refrigerant pump for
10 feeding a refrigerant liquid liquefied by the condenser to
the evaporator, a refrigerant liquid tank disposed between
the condenser and the refrigerant pump to temporarily
store the refrigerant liquid liquefied by the condenser,
first cold water piping for supplying cold water generated
15 from a heat source machine to the condenser, second cold
water piping for supplying the cold water generated from
the heat source machine to the refrigerant liquid tank, a
refrigerant liquid temperature sensor for measuring a
temperature of the refrigerant liquid in the refrigerant
20 liquid tank and a control unit for controlling to supply
the cold water desired for condensation of the refrigerant
gas to the condenser.