

Abstract

The application provides a heat exchange system that includes a cooling heat exchange unit configured to receive intake air and cool and dehumidify the intake air, a heating heat exchange unit located downstream of the cooling heat exchange unit and configured to heat the air output from the cooling heat exchange unit, and a water-to-water heat exchange unit. The water-to-water heat exchange unit is connected with the cooling heat exchange unit and the heating heat exchange unit and configured to receive aqueous solutions output from the cooling heat exchange unit and the heating heat exchange unit, cool the aqueous solution output from the cooling heat exchange unit and supply the aqueous solution having been cooled to the cooling heat exchange unit, and heat the aqueous solution output from the heating heat exchange unit and supply the aqueous solution having been heated to the heating heat exchange unit.

FIG. 3