

BRINE SOLUTION HEAT EXCHANGE ANALYSIS

Project ID: BR:3324

REQUIREMENTS

Building Type: Apartment

Number of rooms: 6

Area: 400.0

Temperature: 35.0

Water Body: Lake

Distance To Waterbody: 200.0

Water Body Temperature: 30.0

Building Material: Bricks

PIPE TRANSFER ANALYZE

Material: copper

Diameter (mm): 250.0

Length (m): 800.0

Insulation Thickness (mm): 20.0

Pressure (Pa): 1200.0

Heat Transfer Coefficient ($\text{W}/\text{m}^2\text{K}$): 220.0

HEAT EXCHANGE ANALYZE

Q Primary: 746700.0

Q Secondary: 497800.0

BRINE INTAKE ANALYZE

Brine Solution: Magnesium Chloride

Thermal Conductivity ($\text{W}/(\text{m}\cdot\text{K})$): 0.9

Density (kg/m^3): 1050.0

HEAT TESTING ANALYZE

Final Temperature: 479.0