

BRINE SOLUTION HEAT EXCHANGE ANALYSIS

Project ID: BR:8275

REQUIREMENTS

Building Type: Apartment

Number of rooms: 3

Area: 500.0

Temperature: 25.0

Water Body: Lake

Distance To Waterbody: 1000.0

Water Body Temperature: 30.0

Building Material: Concrete

PIPE TRANSFER ANALYZE

Material: copper

Diameter (mm): 250.0

Length (m): 5000.0

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: 715680.0

Q Secondary: 477120.0

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: 350.0