

# BRINE SOLUTION HEAT EXCHANGE ANALYSIS

**Project ID: BR:2514**

## REQUIREMENTS

Building Type: Apartment

Number of rooms: 3

Area: 223.0773

Temperature: 24.0

Water Body: Lake

Distance To Waterbody: 50.0

Water Body Temperature: 25.0

Building Material: Concrete

## PIPE TRANSFER ANALYZE

Material: stainless steel

Diameter (mm): 300.0

Length (m): 111.53865

Insulation Thickness (mm): 30.0

Pressure (Pa): 1500.0

Heat Transfer Coefficient ( $\text{W}/\text{m}^2\text{K}$ ): 250.0

## HEAT EXCHANGE ANALYZE

Q Primary: 746700.0

Q Secondary: 497800.0

## BRINE INTAKE ANALYZE

Brine Solution: Magnesium Chloride

Thermal Conductivity ( $\text{W}/(\text{m}\cdot\text{K})$ ): 0.5

Density ( $\text{kg}/\text{m}^3$ ): 1150.0

## HEAT TESTING ANALYZE

Final Temperature: 363.0