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NOMENCLATURE

| | |
|-------|-------------------------------|
| C_p | Specific heat, $W/(kg K)$ |
| d | Diameter, m |
| v | velocity, m/s |
| L | Tube length/ latent heat, m |

| | |
|-----------|---|
| \dot{m} | mass flow rate, Kg/s |
| h | Convective heat transfer Coefficient, $W/(m^2 K)$ |
| S | Surface, m^2 |
| T | Temperature, $^{\circ}C$ |
| R | Resistance, $m^2 K/W$ |
| r | Radius, m |
| P_i | Perimeter, m |
| P | Pressure, Pa |
| Nu | Nusselt number, - |
| Re | Renolds number, - |
| Pr | Prandlt number, - |

Greeks symbols

| | |
|-----------|--------------------------------|
| λ | Thermal conductivity $W/(mK)$ |
| ρ | Density, kg/m^3 |
| ξ | Singular loss ratio of load, - |
| Λ | Linear loss ratio of load, - |

Subscripts

| | |
|----------|--|
| o | Outlet |
| th | Thermal |
| e | External |
| i | Internal |
| t | Tube |
| lin | Linear |
| sin | Singular |
| io | Inlet and outlet of the heat exchanger |
| m | Mean |
| w | Water |
| s | Soil |
| t | Total |
| Δ | Difference |
| in | inlet |

Abbreviations

| | |
|--------|----------------------------------|
| DCT | Dry Cooling Tower |
| $EWHE$ | Earth-water heat exchanger |
| $SACM$ | Solar Adsorption Cooling Machine |