Thermonet code nomenclature

Variables should consistently be named using a combination of variable names and suffixes below. For instance the density of the fluid (brine) is rho\_f. An additional suffix is used to discriminate heating from cooling modes e.g. G\_BHE\_H and G\_BHE\_C are the G functions for the BHEs in heating and cooling mode respectively.

Variables

c specific heat [J/kg K]  
d outer diameter of x [m]  
D distance [m]  
dpdL pressure drop per meter [Pa/m]  
l thermal conductivity [W/m K]  
L length e.g. of pipes [m]  
mu dynamic viscosity [Pa s]  
N Number of… [-]  
nu kinematic viscosity [m2/s]

P thermal ground load [W]  
Q flow rate [m3/s]  
r outer radius of x [m]  
rho density [kg/m3]  
rhoc volumetric heat capacity [J/m3 K]  
ri inner radius [m]  
R thermal resistance [m K/W]  
s\_BHE Shank spacing [m] Could use s\_HHE for distance between pipes  
SFRP ??  
T temperature [K] or [°C]  
v flow velocity [m/s]  
z depth coordinate [m]

suffixes:

b borehole   
BHE Borehole heat exchanger  
f fluid (brine)  
g grout  
HHE Horisontal heat exchanger  
p pipe  
s soil  
ss also soil - but average over BHEs  
t target