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mmax=10e-3; Ti=50; Mw=100; Vst=1; Tsat=150;
Psatop=XSteam('pSat_T',150); % sat pressure at 150 C
hi=XSteam('h_pT',Psatop,Ti)*1000; %enthalpi inlet
hsatst=XSteam('hV_T',Tsat)*1000; %enthalpi steam out
Pelecmax=(hsatst-hi)*mmax; % Power frem elec.
Rmin=(Psatop-1)/mmax^2; % R is between Rmin and infinity
for j=1:100;
    Tsatarray(j)=j+99;
    hdotsat(j)=XSteam('hL_T',j+99)*1000;
    hdotdotsat(j)=XSteam('hV_T',j+99)*1000;
    rhodotdotsat(j)=XSteam('rhoV_T',j+99);
    drhodT(j)=f(j+99);
end;
figure(1), [hAx,hLine1,hLine2] = plotyy(Tsatarray,hdotsat,Tsatarray,hdotdotsat)
xlabel('Saturation temperature')
ylabel(hAx(1),'Saturated water enthalpy')
ylabel(hAx(2),'Saturated steam enthalpy')
figure(2), plot(Tsatarray,rhodotdotsat), xlabel('Saturation temperature')
ylabel('Density [kg/m3]')
figure(3), plot(Tsatarray,drhodT), xlabel('Saturation temperature')
ylabel('d rho/ dT')

f = @(x) ((XSteam('rhoV_T',x)-XSteam('rhoV_T',x-0.1))/0.1); % An anonymous function

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