$$
\begin{aligned}
\frac{\partial}{\partial t}(\rho_T) + \nabla \cdot (\rho_T \mathbf{V}_T) &= 0 \\
\frac{\partial}{\partial t}(\rho_T \mathbf{V}_T) + \nabla \cdot (\rho_T \mathbf{V}_T \mathbf{V}_T) &= -\nabla \cdot \mathbb{P}_T + \mathbf{J} \times \mathbf{B} + \mathbf{F}_{ext} \\
\frac{\partial \epsilon_T}{\partial t} + \nabla \cdot (\epsilon \mathbf{V}_T)) &= -\nabla \cdot (\mathbf{h}_T) + \mathbb{P}_T : \nabla \mathbf{V}_T \\
&+ \mathbf{E}^{\mathbf{V}_T} \cdot \mathbf{J} + Q_{rad} + H
\end{aligned}
$$