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A theory of parity-invariant dissipative fluids with q-form symmetry is formulated to first order in a derivative expansion. The fluid is anisotropic with symmetry SO(D - 1 - q) x SO(q) and carries dissolved q-dimensional charged objects that couple to a (q + 1)-form background gauge field. The case q = 1 for which the fluid carries string charge is related to magnetohydrodynamics in D = 4 spacetime dimensions. We identify q + 7 parity-even independent transport coefficients at first order in derivatives for q > 1. In particular, compared to the q = 1 case under the assumption of parity and charge conjugation invariance, fluids with q > 1 are characterised by q extra transport coefficients with the physical interpretation of shear viscosity in the SO(q) sector and current resistivities. We discuss certain issues related to the existence of a hydrostatic sector for fluids with higher-form symmetry for any q >= 1. We extend these results in order to include an interface separating different fluid phases and study the dispersion relation of capillary waves finding clear signatures of anisotropy. The formalism developed here can be easily adapted to study hydrodynamics with multiple higher-form symmetries.
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