Important sets of operators are the energy-momentum tensor $T_{\mu\nu}$, and conserved currents of continuous symmetries J_μ. For CFT2s, the $T_{\mu\nu}$ obey the Virasoro algebra, while the J_μ obey the Kac-Moody algebra: in particular ($z = x + i\tau$)

$$\langle J(z)J(0)\rangle = \frac{k}{z^2}$$

where k is the (integer) central charge.

CFT3s are much more complicated. In momentum space we have

$$\langle J_\mu(p)J_\nu(0)\rangle = -\sigma_\infty |p| \left(\delta_{\mu\nu} - \frac{p_\mu p_\nu}{p^2}\right)$$

where σ_∞ is (almost certainly) an irrational number. From the Kubo formula, we can show that σ_∞ is equal to the *conductivity*, $\sigma(\omega)$, (in units of $e^2/\hbar$) of the CFT3. So the Wilson-Fisher CFT3 (and also the Bose-Hubbard model) has a universal, frequency-independent, conductivity.