$d[\eta, k] = d_k^{(n)} + \mathcal{O}^* \left( f_{3n/2-k} \frac{\sqrt{2\pi}}{128} \frac{(\pi a^2/8)^{n/2} 3mu 2^{2k} 3mu \epsilon_4}{\Gamma((3n-2k+1)/2)} \right).$