The objective of this study was to gain knowledge on the nutrient composition of *Macrotermes subhylanus*, *Pseudacanthotermes militaris*, *Macrotermes bellicosus* and *Pseudacanthotermes spiniger* termite species consumed in western Kenya. Proximate, iron, zinc, calcium and fatty acid composition were analysed in order to ascertain their potential in food-based strategies to improve nutritional health. The fat content was 44.82–47.31 g/100 g, protein 33.51–39.74 g/100 g, available carbohydrate 0.72–8.73 g/100 g, iron 53.33–115.97 mg/100 g and zinc 7.10–12.86 mg/100 g. The level of unsaturated fatty acids was 50.54–67.83%, while n-6:n-3 ratio ranged between 5.80:1.00 and 57.70:1.00, signifying potential nutritional and public health significance. The termites may be exploited to provide high-quality diets especially in the developing countries, which have been plagued by iron and zinc deficiencies as well as poor supply of dietary polyunsaturated fatty acid sources.