In this study that was conducted during the vegetation period of 2016, determination to morphological characteristics and volatile components in volatile components in the leaves and flowers of Phlomis x termessi P.H. Davis were aimed. For determining to volatile components leaves and flowers were collected from Göynük-Antalya in three different periods that were pre-flowering, flowering and post-flowering periods and volatile components were determined through SPME (solid-phase microextraction method) analysis. 57 different volatile components were identified from P. x termessi, while it was also found that the rate of volatile components was higher during the flowering period, and ?-pinene, limonene, ?-caryophyllene and germacrene-D were found to be the main components. Furthermore, with a view to measuring the morphological features of P. x termessi, width-height of 50 leaf samples and the length of leaf stalks were measured; while the calyx height of 50 calyces samples collected, the length of calyx teeth, bracteole length and the length of corolla were measured and the mean values were calculated. As result of morphological characteristics, means of leaf length, leaf width, petiole, calyx, calyx teeth, bracteole and corolla were measured as 4.55±1.65, 1.78±0.89, 2.56±1.55, 1.17±0.18, 0.35±0.11, 1.31±0.40 and 2.04±0.30 respectively.