Abstract. We sat that a simple graph G is Seidel integral if its Seidel spectrum consists entirely of integers. We here describe the Seidel integral graphs which belong the class $\alpha K_a \cup \beta K_b$. In particular, we demonstrate that if $\alpha K_a \cup \beta K_b$ is Seidel integral with $\mu_1^* = 2ab + 1$ then it belongs to the class of Seidel integral graphs

$$tm\, K_{sn-1} \cup (2s - t)n\, K_{sm-1}\,,$$

where $m, n \in \mathbb{N}$ and $n > m$, $t < 2s$ such that $(s, t) = 1$.