The integral operators of Carleman play an important role in the spectral theory of selfadjoint operators and made the object of several works such as those of G. I. Targonski [Proc. Amer. Math. Soc. 18 (1967)(3)], V. B. Korotkov [Sib. Math. J. 11 (1970)(1)], and J. Weidmann [Manuscripta Math. (1970)(2)]. In the present paper, we study a certain class of these operators in the Hilbert space $L^2(X,\mu)$. Precisely, we give necessary and sufficient conditions so that they possess equal deficiency indices. Such operators find their applications in the theory of random variable approximation.