On the growth order of a Stationary mean zero martingale

$$E|\sum_{i=1}^{n} d_i| \leq$$

$$c_1 E\sqrt{\sum_{i=1}^{n} d_i^2} \leq$$

$$c_1 c_2 E\sqrt{\sum_{i=1}^{n} y_i^2} \leq$$

$$c_1 c_2 c_3 E \max_{j=1}^{n} |\sum_{i=1}^{j} y_i| \leq$$

$$2c_1 c_2 c_3 K_y(n) =$$

$$2c_1 c_2 c_3 K_d(n) =$$

Where

$$K_d^{-1}(x) = \frac{x^2}{\int_0^x E|d|1(|d| > u)du}$$