$$P_3(s) = \frac{1}{s^2(s+3)} \rightarrow F(s) = \frac{K'}{s^2(s+3)} \rightarrow f(s,K') = s^2(s+3) + K'$$

N.B. $p_1 = p_2 = 0$; $p_3 = -3$

$n = 3$, $m = 0 \Rightarrow n - m = 3$ rami all'∞ (3 positivi e 3 negativi)

Centro asintoti: $\sigma_a = \frac{1}{n-m}\left(\sum_{j=1}^{n} p_j - \sum_{i=1}^{m} z_i\right) = \frac{1}{3}(-3) = -1$

Punti singolari: $\sum_{j=1}^{n} \frac{1}{s-p_j} - \sum_{i=1}^{m} \frac{1}{s-z_i} = 0 \Rightarrow \frac{1}{s+3} + \frac{1}{s} + \frac{1}{s} = 0$

$\frac{1}{s+3} + \frac{2}{s} = 0 \qquad \frac{s+2s+6}{s(s+3)} = 0 \qquad +3s+6 = 0 \Rightarrow \boxed{s = -2}$