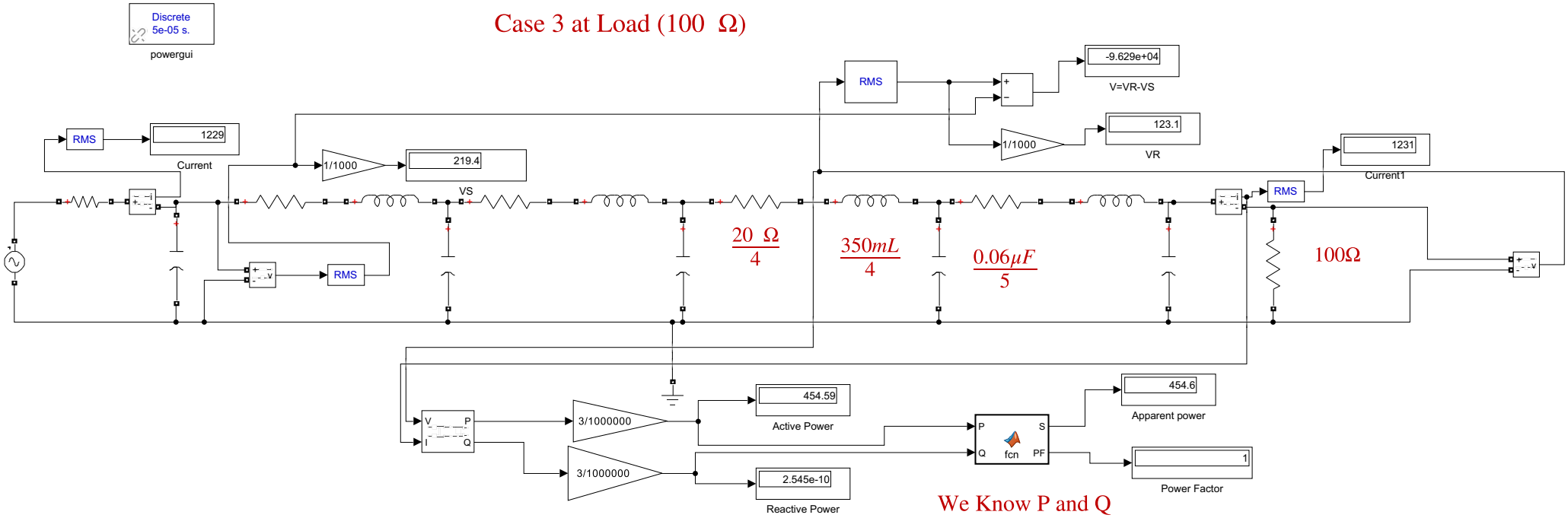
Case 3 at Load (100 Ω)



We Know P and Q

so

$$S = \sqrt{P^2 + Q^2}$$

Power Factor:

$$PF = cos(\phi) = \frac{P}{S}$$