Steady state:
- at no load there is no estimated slip because $i_{sd}=0$
  → motor runs at syn. speed which is then the rated speed
- at load the slip is estimated and added to the reference speed
  → Syn. speed acc. to the required ref. speed

Dynamics
- sudden load step will force the speed to drop
  → but $i_{sd} \sim T_e$ increases which will increase the estimated slip
  → hence, the syn. speed is adapted after a while (depends on PI controller of the system)
  in order have the reference speed again which is normally not exactly the ref speed but with an error $< 2\%$ (due to non-exact rated values)

2.)
- Rated speed as reference speed
- Rated voltage and rated frequency for calculating the supplied voltage depending on the stator frequency
- Rated active current (hence rated current + power factor) for calculating the estimated slip

(- Rated power in order to calculate rated torque for checking the model)