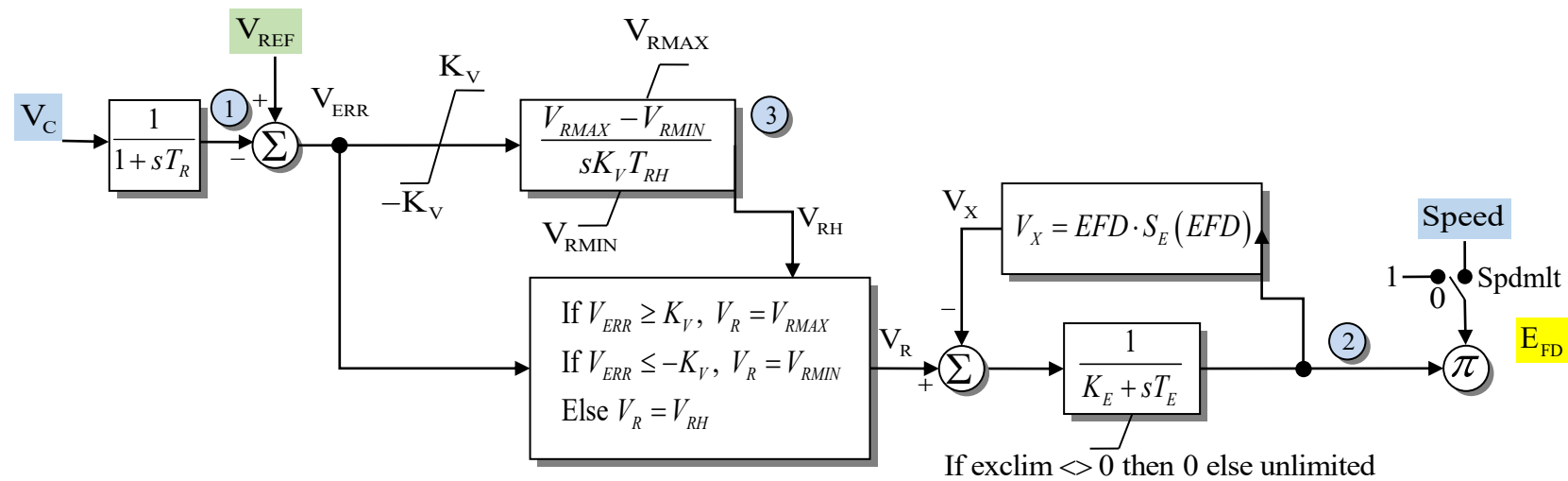


Exciter DC3A and ESDC3A

Exciter DC3A *IEEE 421.5 2005 DC3A Excitation System Model*



States

- 1 - E_{FD}
- 2 - Sensed V_t
- 3 - V_{RH}

DC3A model supported by PSSE
 ESDC3A model supported by PSLF

Parameters for DC3A:

Tr	Filter time constant, sec.
Kv	Voltage error threshold min/max control action, p.u. (> 0.)
VrMax	Maximum control element output, p.u.
VrMin	Minimum control element output, p.u.
Trh	Rheostat full range travel time, sec. (> 0.)
Te	Exciter field time constant, sec. (> 0.)
Ke	Exciter field resistance line slope margin p.u.
Vemin	Exciter minimum limit
E1	Field voltage value, 1
SE1	Saturation factor at E1
E2	Field voltage value, 2
SE2	Saturation factor at E2

Parameters for ESDC3A:

Tr	Filter time constant, sec.
Trh	Rheostat full range travel time, sec. (> 0.)
Kv	Voltage error threshold min/max control action, p.u. (> 0.)
Vrmax	Maximum control element output, p.u.
Vrmin	Minimum control element output, p.u.
Te	Exciter field time constant, sec. (> 0.)
Ke	Exciter field resistance line slope margin p.u.
E1	Field voltage value, 1
SE1	Saturation factor at E1
E2	Field voltage value, 2
SE2	Saturation factor at E2
Spdmlt	If = 1, multiply output (Efd) by generator speed
exclim	If not 0, apply lower limit of 0. to exciter output