

Governor UHRSG

Governor UHRSG Cigre 238 Heat Recovery Steam Generator Model

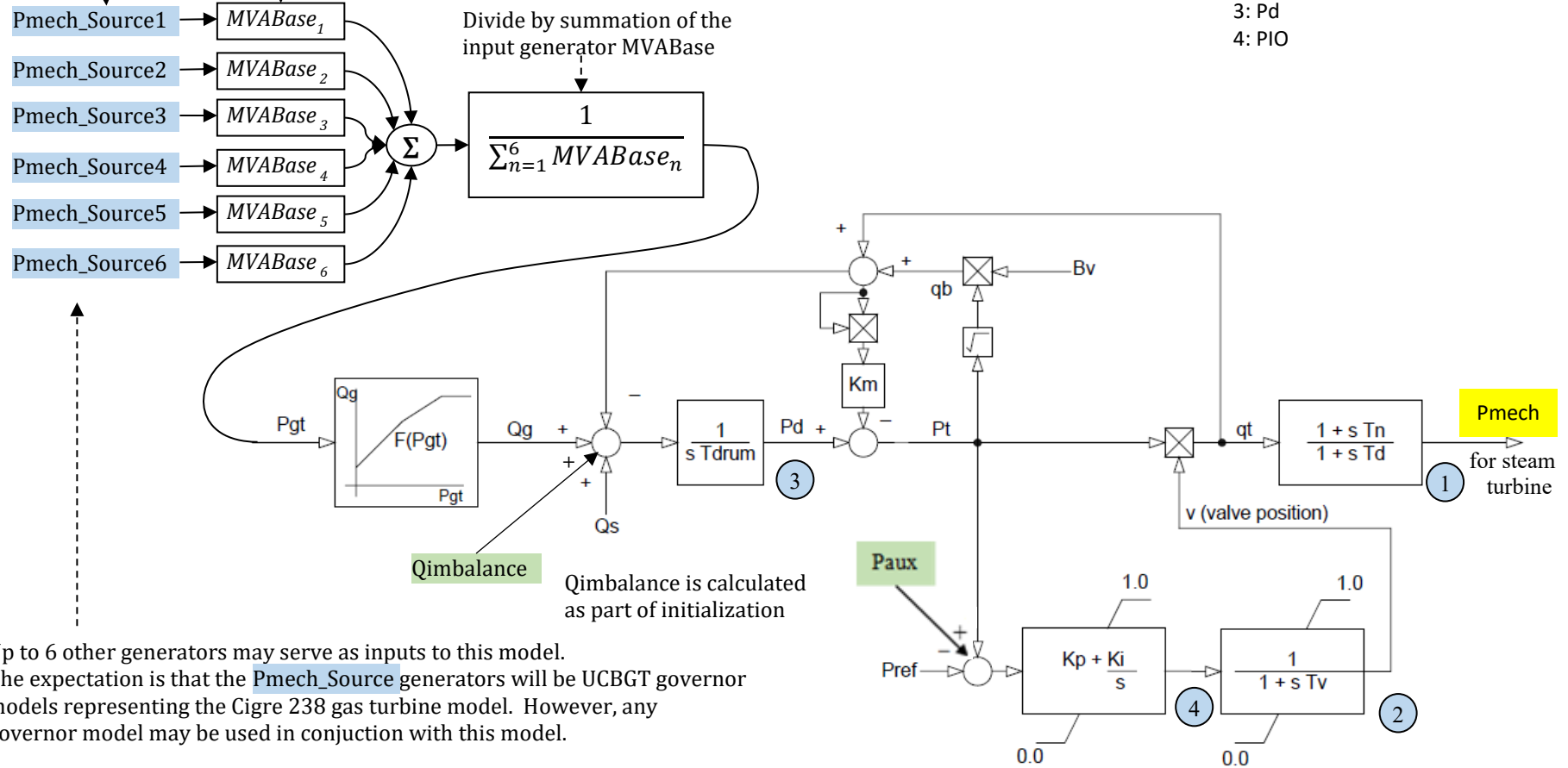
Mechanical Input for up to 6 different source generators (input on that generator's MVABase)

Must Converter to actual MW units

Model originated CIGRE 238 Technical Brochure
"Modeling of Gas Turbines and Steam Turbines in Combined-Cycle Power Plants" from Task Force 25 of Advisory Group 02 of Study Committee 38 in April 2004

States

- 1: Pmech
- 2: Valve
- 3: Pd
- 4: PIO



Parameters:

Pgt1	Power Point #1 for Heat versus gas turbine power function
Qgt1	Heat at Power Point #1 for Heat versus gas turbine power function
Pgt2	Power Point #2 for Heat versus gas turbine power function
Qgt2	Heat at Power Point #2 for Heat versus gas turbine power function
Pgt3	Power Point #3 for Heat versus gas turbine power function
Qgt3	Heat at Power Point #3 for Heat versus gas turbine power function
Pgt4	Power Point #4 for Heat versus gas turbine power function
Qgt4	Heat at Power Point #4 for Heat versus gas turbine power function
Pgt5	Power Point #5 for Heat versus gas turbine power function
Qgt5	Heat at Power Point #5 for Heat versus gas turbine power function
Pgt6	Power Point #6 for Heat versus gas turbine power function
Qgt6	Heat at Power Point #6 for Heat versus gas turbine power function
Pgt7	Power Point #7 for Heat versus gas turbine power function
Qgt7	Heat at Power Point #7 for Heat versus gas turbine power function
Tdrum	Drum time constant
Km	Pressure loss due to flow friction in the boiler tubes
Tv	Actuator time constant for main steam
Kp	Governor proportional gain
Ki	Governor integral gain
Tn	Turbine lead time constant
Td	Turbine lag time constant
Qs	Amount of supplemental firing, in per unit, applied to the boiler; it is to be defined by the user or by the program upon initialization of the model.
Bv	Fixed position of the bypass valve defined by the user to simulate a fixed amount of steam extraction.
Pref	Minimum steam pressure reference
Trate	Turbine rating for the Steam Turbine in MW