20.2 WT3P1

Pitch Control Model for Type 3 Wind Generator (for WT3G1 and WT3G2)

This model is located at system bus   #_____   IBUS,

Machine identifier   #_____   ID,

This model uses CONs starting with   #_____   J,

and STATEs starting with   #_____   K.

In blkmdl, this model requires one reserved ICON.

CONs	#	Value	Description
J			T_p, Blade response time constant
J+1			K_{pp}, Proportional gain of PI regulator (pu)
J+2			K_{ip}, Integrator gain of PI regulator (pu)
J+3			K_{pc}, Proportional gain of the compensator (pu)
J+4			K_{ic}, Integrator gain of the compensator (pu)
J+5			TetaMin, Lower pitch angle limit (degrees)
J+6			TetaMax, Upper pitch angle limit (degrees)
J+7			RTetaMax, Upper pitch angle rate limit (degrees/sec)
J+8			P_{MX}, Power reference, pu on MBASE

Note: When a WT operates with a partial output, the DSTATE(K+2) may show INITIAL CONDITION SUSPECT. In this case no actions are needed.

STATEs	#	Description
K		Output lag
K+1		Pitch control
K+2		Pitch compensation

IBUS, 'WT3P1', ID, CON(J) to CON (J+8) /

Pitch Control

Pitch Compensation