

NEPLAN Controller Library

The NEPLAN built-in library has an extensive predefined controllers, which make it a handy tool for quick and effective modelling of your system. The predefined regulators are grouped based on the regulator type as listed below (the list is not complete):

EXCITER

AC1	AC1A	AC1C	AC2A	AC2C	AC3A
AC3C	AC4A	AC4C	AC5A	AC5C	AC6A
AC6C	AC7B	AC7C	AC8B	AC8C	AC9C
AC10C	DC1A	DC1C	DC2A	DC2C	DC3A
DC4B	DC4C	ST1A	ST1C	ST2A	ST2C
ST3	ST3A	ST3C	ST4B	ST4C	ST5B
ST5C	ST6B	ST6C	ST7B	ST7C	ST8C
ST9C	ST10C	IEEET1	IEEET2	IEEET3	IEEET4
IEEET5	IEET1A	IEET1B	IEET5A	IEEEX1	IEEEX2
IEEEX2A	IEEEX3	IEEEX4	EXAC1A	EXAC2	EXAC2A
EXAC3	EXAC3A	EXAC4	EXBAS	EXCAC5A	EXCAC6A
EXCAC8B	TYPE 0	TYPE 1	TYPE 4	TYPE 12	TYPE 15
TYPE ST2	TYPE ST3	TYPE W	TYPE WA	TYPE WB	TYPE WC
TYPE WD	TYPE WE	TYPE WF	TYPE WFA	TYPE WG	TYPE WH
TYPE WHA	TYPE WI	TYPE WJ	TYPE WK	TYPE WKA	TYPE WP
TYPE WQ	EXCAVR1	EXCAVR2	EXCAVR3	EXCAVR1	EXCAVR2
EXCAVR3	EXCAVR4	EXCAVR5	EXCAVR7	REXSYS	SCRX
SEXS	BBC1	BBC1 SIMPLE	BBSEX1	BUDCZT	CELIN
EXCANS	EXCELIN2	EXCHU	EXCOEX3 T	EXCSK	EXCST1A
EXELI	EXPIC1	EXST2A	FREADC	PSAT TYPE1	PSAT TYPE2
SIMPLE	SIMPLE CONSTANT GAIN	SIMPLE WITH LIMITS	URST5T	AVR (CONSTANT EFD)	

DISCONTINUOUS EXCITATION

DISCONTINUOUS EXCITATION DEC1A	DISCONTINUOUS EXCITATION DEC2A	DISCONTINUOUS EXCITATION DEC3A
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TURBINE

TG_P	CRCMGV	DEGOV	DEGOV1	GAST	GAST1
GAST2A	GASTWD	GGOV1	GGOV2	GOV21GEQ	GOV22TER
GOV33TGT	GOV34TGF	GOVHYDRO1	GOVHYDRO3	GOVHYDROFRANCIS	GOVHYDROIEEEE2
GOVHYDRO PELTON	GOVSTEAMEU	HYGOV4	HYGOVR	HYTUR	IEEEG1
IEEEG2	IEEEG3	IEESGO	IVOGO	PIDGOV	TGOV1
TGOV2	TGOV3	TGOV5	TYPE 21	TYPE 22	TYPE 23
TYPE 24	TYPE 25	TYPE 3	TYPE DE1	TYPE GT1	TYPE HT1
TYPE HT2	TYPE ST1	TYPE ST2	TYPE ST3	TYPE ST4	TYPE WC
WEHGOV1	WESGOV	STATIC AND TRANSIENT DROOP MODEL	WPIDHY	WSHYDD	WSHYGP

GOVERNOR

GOVERNOR TYPE HYGOV	GOVERNOR TYPE SG1	GOVERNOR TYPE SG2
GOVERNOR TYPE SG3	TYPE SG4	TYPE SG5
TYPE SG6	TYPE SGC	

POWER SYSTEM STABILIZER

CONVENTIONAL PSS	IEE2ST	IEEEST	PSS ELIN2	PSS1	PSS1A
PSS2	PSS2A	PSS2B	PSS2C	PSS3	PSS3B
PSS3C	PSS4B	PSS4C	PSS5	PSS5C	PSS6C
PSS7C	PSSSH	PSSSK	PTIST1	PTIST3	SIMPLE MODEL
ST2CUT	STAB1	STAB2A	STAB3	STAB4	STBSVC

UNDEREXCITERLIMITER

LIMITER MEL PSS	LIMITER MEL	LIMITER MNLEX1	LIMITER MNLEX2	LIMITER MNLEX3	LIMITER UEL
LIMITER UEL1	LIMITER UEL2				

OVEREXCITERLIMITER

FIELD CURRENT LIMITER FCL1	FIELD CURRENT LIMITER FCL2	OVER EXCITATION LIMITER LIM2	OVER EXCITATION LIMITER MAXEX1	OVER EXCITATION LIMITER MAXEX2	OVER EXCITATIO N LIMITER OEL4C
OVER EXCITATION LIMITER OEL5C					

POWER FACTOR AND VAR CONTROLLER

IEEE PF CONTROLLER TYPE1	IEEE VAR CONTROLLER TYPE1	IEEE PF CONTROLLER TYPE2	IEEE VAR CONTROLLER TYPE2	PFVAR COMMON1 TYPE2
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VOLTAGE AND LOAD COMPENSATION

VCOMP IEEE GENI GENJ	VCOMP IEEE TYPE 1	VCOMP IEEE TYPE 2
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STATOR CURRENT LIMITER

STATOR CURRENT LIMITER SCL1

DFIG CONTROLLER

TURBINE CONTROL	PWM ROTOR SIDE CONTROL (P&Q CONTROL)	PWM GRID ROTOR SIDE CONTROL (VDC&Q CONTROL)
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DIRECT DRIVE SYNCHRONOUS GENERATOR

PWM-DDSG (VDC&Q CONTROL)	PWM-DDSG (P&Q CONTROL)
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PHOTOVOLTAIC CONTROLLER

PV_INV_CTRL1	PV_INV_CTRL2	PV_INV_CTRL3	CIRED MODEL
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SVC AND STATCOM CONTROLLER

STATCOM REGULATOR CSTATT	SVC REGULATOR CSVGN1	SVC REGULATOR CSVGN3
SVC REGULATOR CSVGN4	SVC REGULATOR CSVGN5	SVC REGULATOR CSVGN6
SVC REGULATOR SIMPLE		

WIND TURBINE CONTROL (IEC 61400-27-1)

TYPE 1	TYPE 2	TYPE 3	TYPE 4A/4B
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Thyristor Controlled Series Compensator (TCSC)

TCSC_SIMPLE_CTRL1	TCSC_SIMPLE_CTRL2
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HVDC CONTROL

HVDC VOLTAGE SOURCE CONVERTER(VSC) CONTROL

TRANSFORMER TAP CONTROL

CONTINUOUS CONTROL

DISCRET CONTROL