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PROJECT MEMO

MEMO CONCERNS

Documentation of a new PSCAD/EMTDC model for dead-time modelling

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SUMMARY

This memo contains documentation of a new model developed for use in the PSCAD/EMTDC simulation software.

The new model is dedicated for modelling of delayed turn on of switches that are configured for “interpolated pulses”.

The model is typically to be used in analysis of PWM inverters where focus is on the control design. In such cases it will typically be needed to model the dead-time between upper and lower thyristor of one leg. A dead-time interval implies that the turn on is delayed a few microseconds after the turn off of the opposite switch in the leg. The model described in this memo is suited for modelling the turn-on delay, which then needs to be included.

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