

## Model Features and Limitations

### A. Features that have been modelled

1. Control Modes (PH/EN, PWM, Independent Half-Bridge)
2. Configurable Slew Rate
3. Integrated Current Sense
4. Configurable Current Regulation
5. Proportional Load Current Output on IPROPI pin
6. UVLO, Logic Level, Tri-level logic
7. Protection and diagnostic features with configurable fault reaction (latched or retry)
  - a. Load diagnostics in the off-state
  - b. Voltage monitoring on supply VM
  - c. Over current protection
  - d. Over temperature protection
  - e. Fault indication on nFAULT pin
8. Current IVMQ and IVMS in Sleep and Standby state
9. Temperature dependency on RDSON of integrated Power FETs
10. Cycle skipping in ENPH/PWM mode

### B. Model Limitations and Features that haven't been modelled

1. Spread Spectrum clocking for low EMI
2. EC parameters from Table 7.5.8 [AI\_ERR, AI\_ERR\_M, OffsetIPROPI, BWIPROPI]

### C. Model Parameter(s)

1. Temp\_Amb: Sets the ambient temperature from -40C to 125C