PSpice Model
Intelligent Power Module
MITSUBISHI ELECTRIC Corporation
PSS75SA2FT

Model Information

Model A macro model
Call Name MDC_PSS75SA2FT_PS

Pin Assign 1:UP 2:NC_1 3:VP1_1 4:VUFB 5:NC_2 6:VUFS 7:VP 8:NC_3 9:VP1_2 10:VVFB 11:NC_4 12:VVFS 13:WP 14:VP1_3 15:VPC 16:VWFB 17:NC_5 18:VWFS 19:VSC 20:NC_6 21:VN1 22:VNC 23:VOT 24:CIN 25:CFO 26:FO 27:UN 28:VN 29:WN 30:NC_7 31:NC_8 32:NC_9 33:NC_10 34:NW 35:NV 36:NU 37:W 38:V 39:U 40:P 41:NC_11 42:NC_12

File List Model Library MDC_PSS75SA2FT_PS01.lib
Model Report MDC_PSS75SA2FT_PS.pdf(this file)

Verified Simulator Version PSpice version 17.2-2016

Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- ●Date/Version 2020.2
- ●Product name PSS75SA2FT
- ●Company name MITSUBISHI ELECTRIC Corporation

[Characteristics listed]

- ●Characteristics Switching time(P-side)
  Switching time(N-side)
  UVLO(P-side)
  UVLO(N-side)
  Three-phase AC output(reference data)

Simulation Condition

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

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Model Functions Table

Functions	Implemented
Collector-emitter saturation voltage	○
FWD forward voltage drop	○
Switching time	○
UVLO(P-side)	○
UVLO(N-side)	○
Input ON / OFF threshold voltage	○

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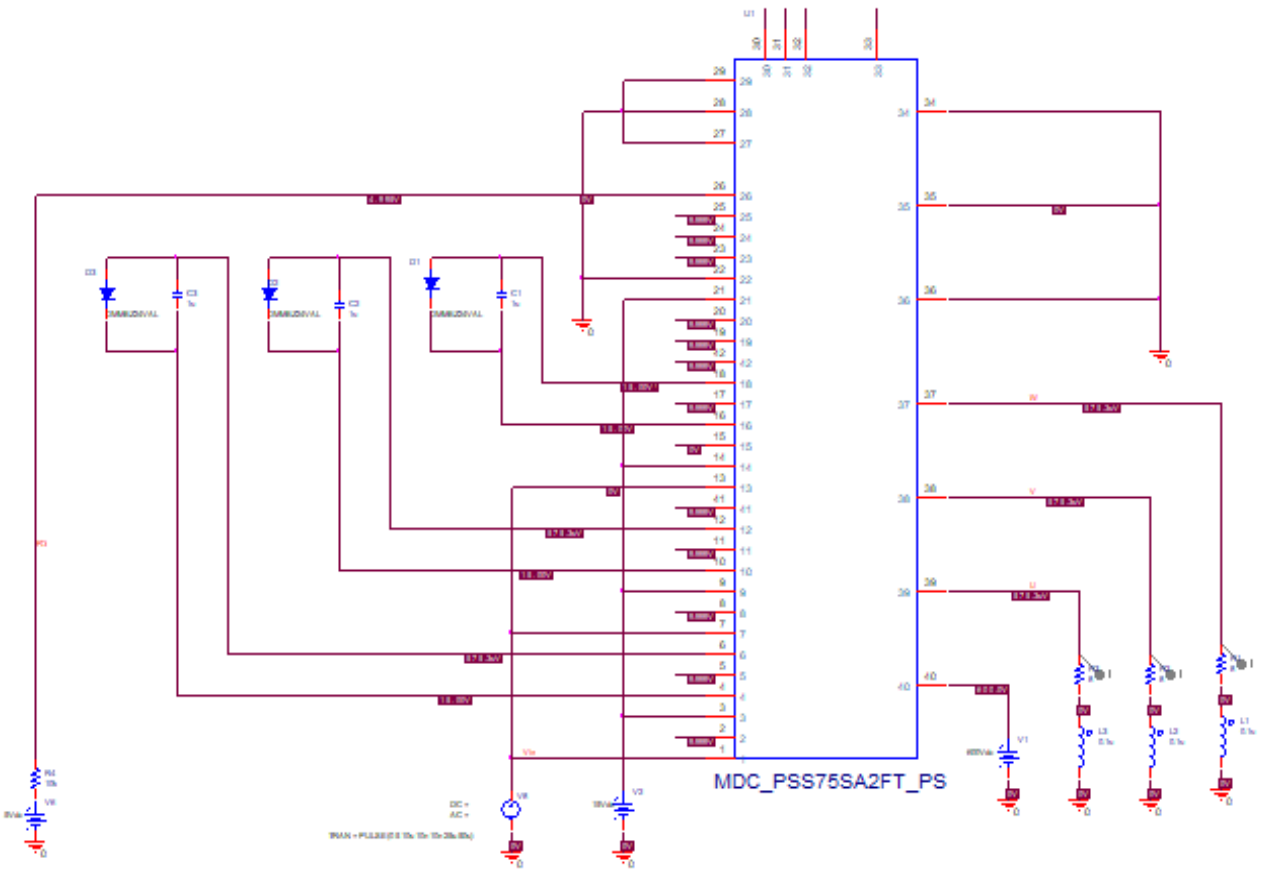
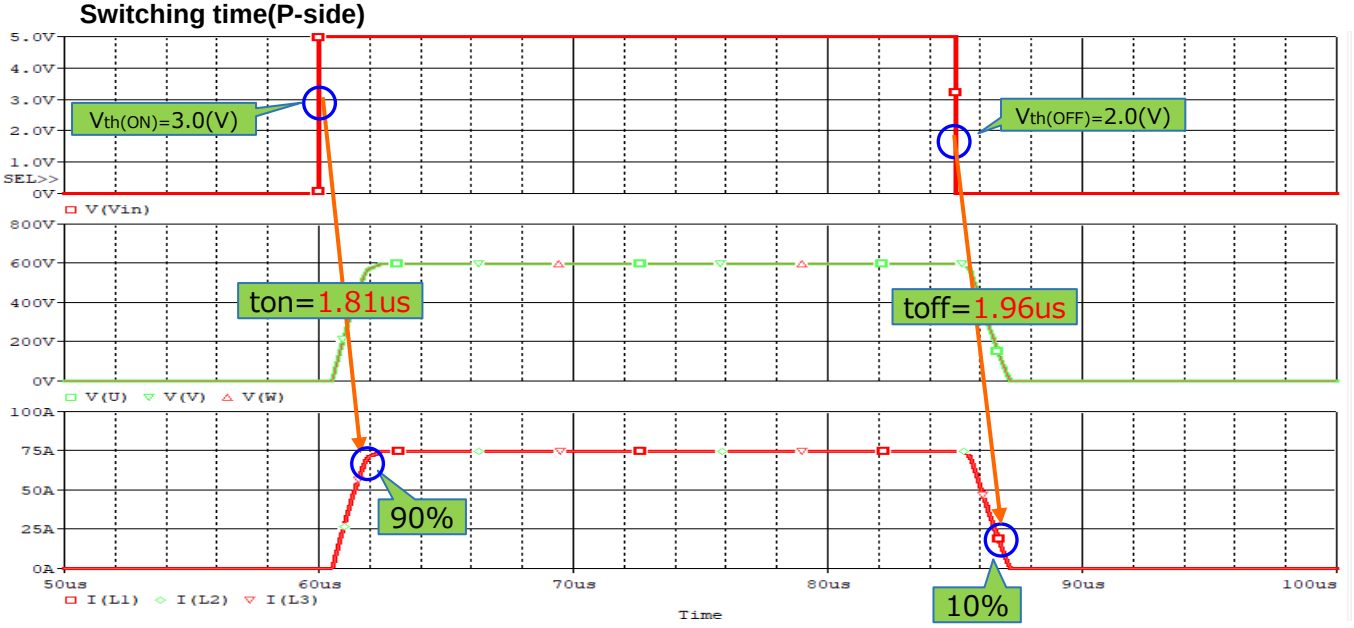
Switching time(P-side) Testbench



Simulation results are following.
Explanatory notes — : simulated

Switching time(P-side)



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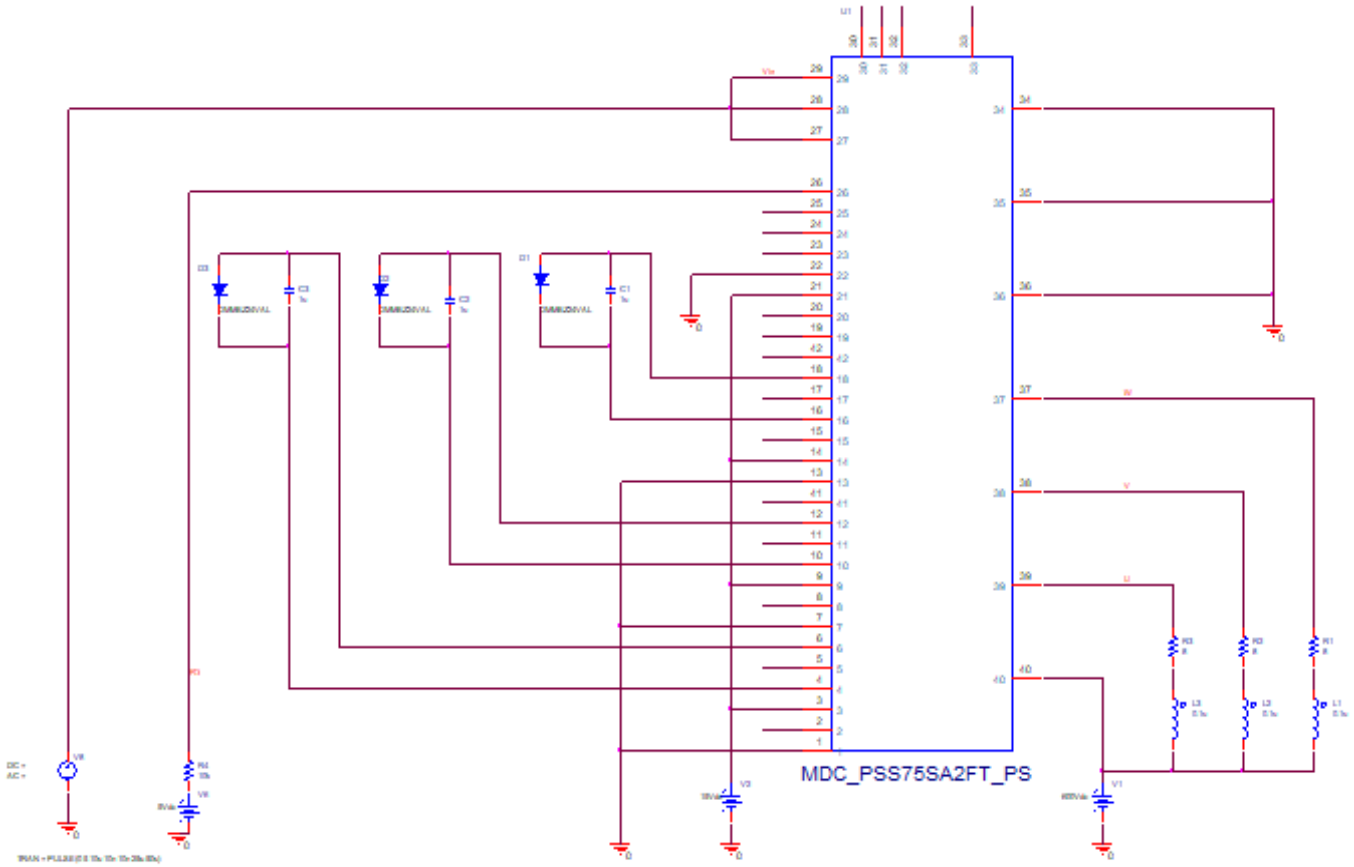
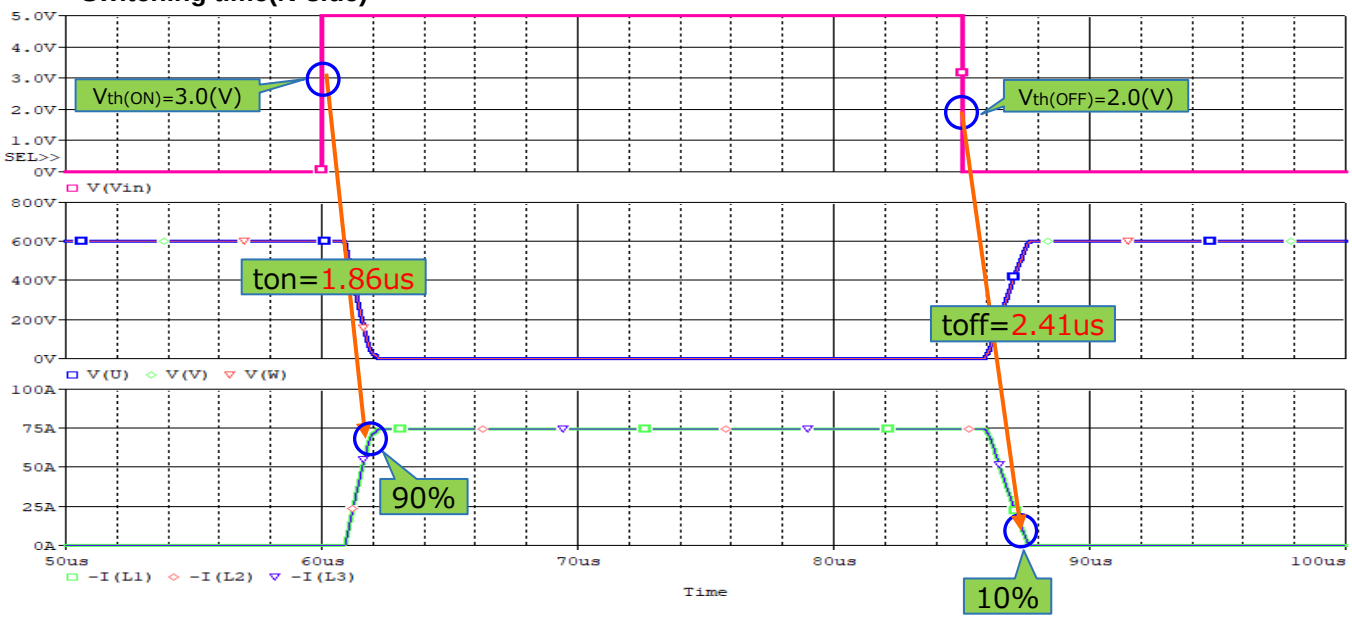
Switching time(N-side) Testbench



Simulation results are following.
Explanatory notes — : simulated

Switching time(N-side)



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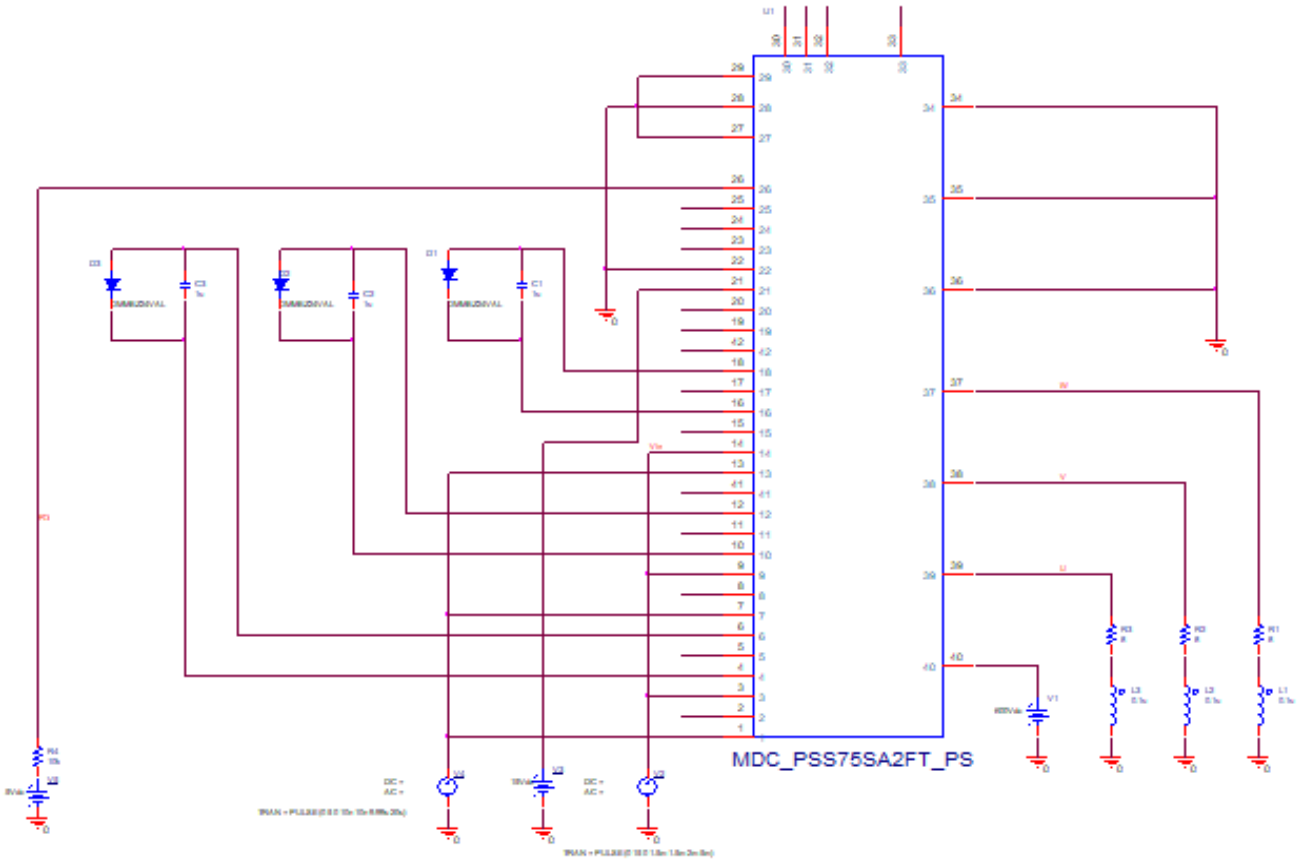
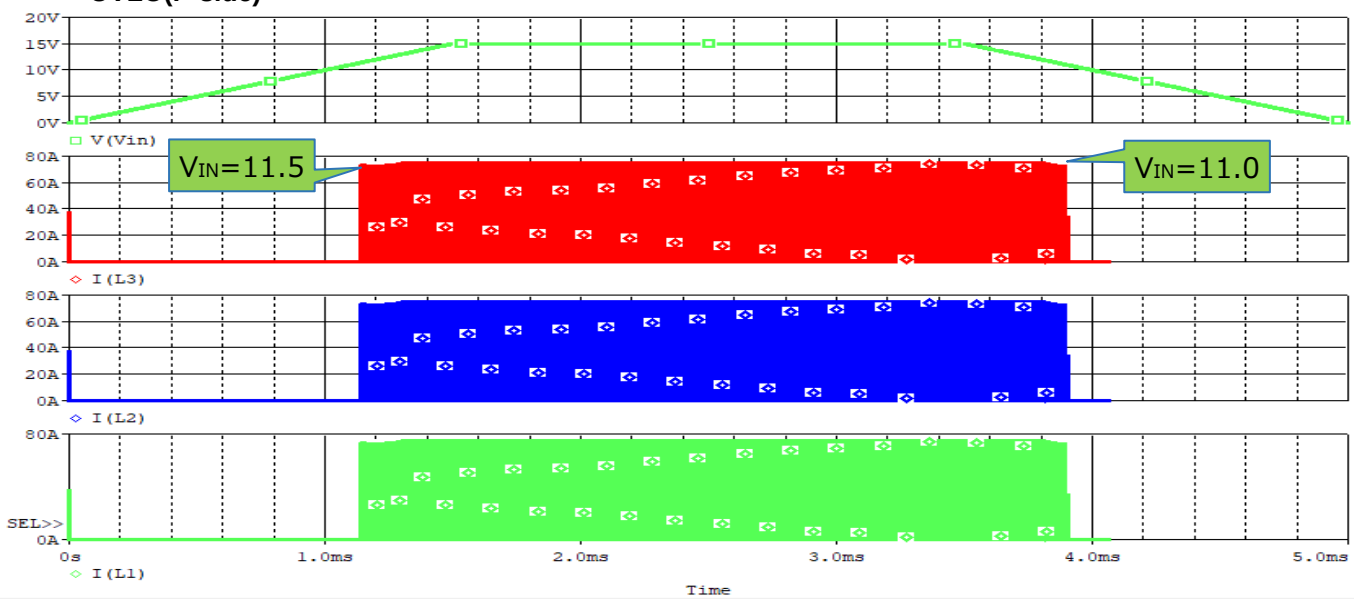
UVLO(P-side) Testbench



Simulation results are following.
Explanatory notes — : simulated

UVLO(P-side)



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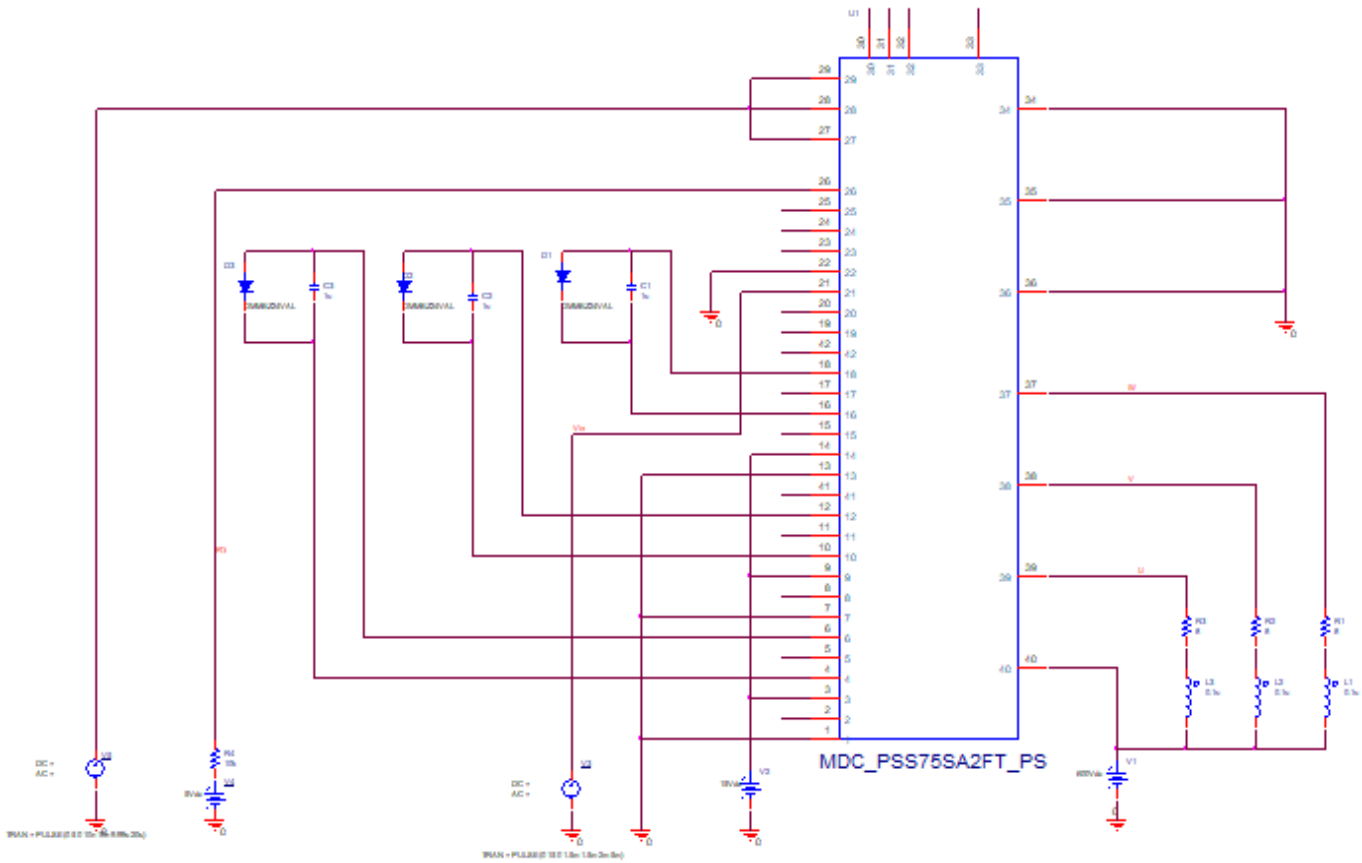
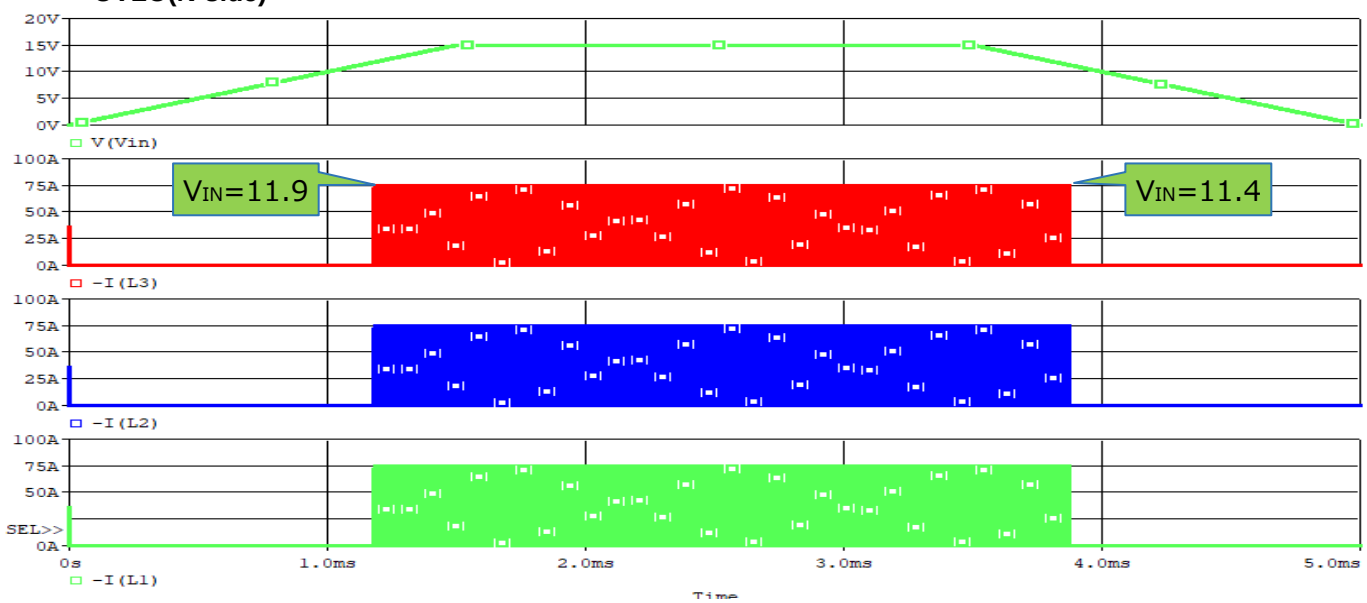
UVLO(N-side) Testbench



Simulation results are following.
Explanatory notes — : simulated

UVLO(N-side)



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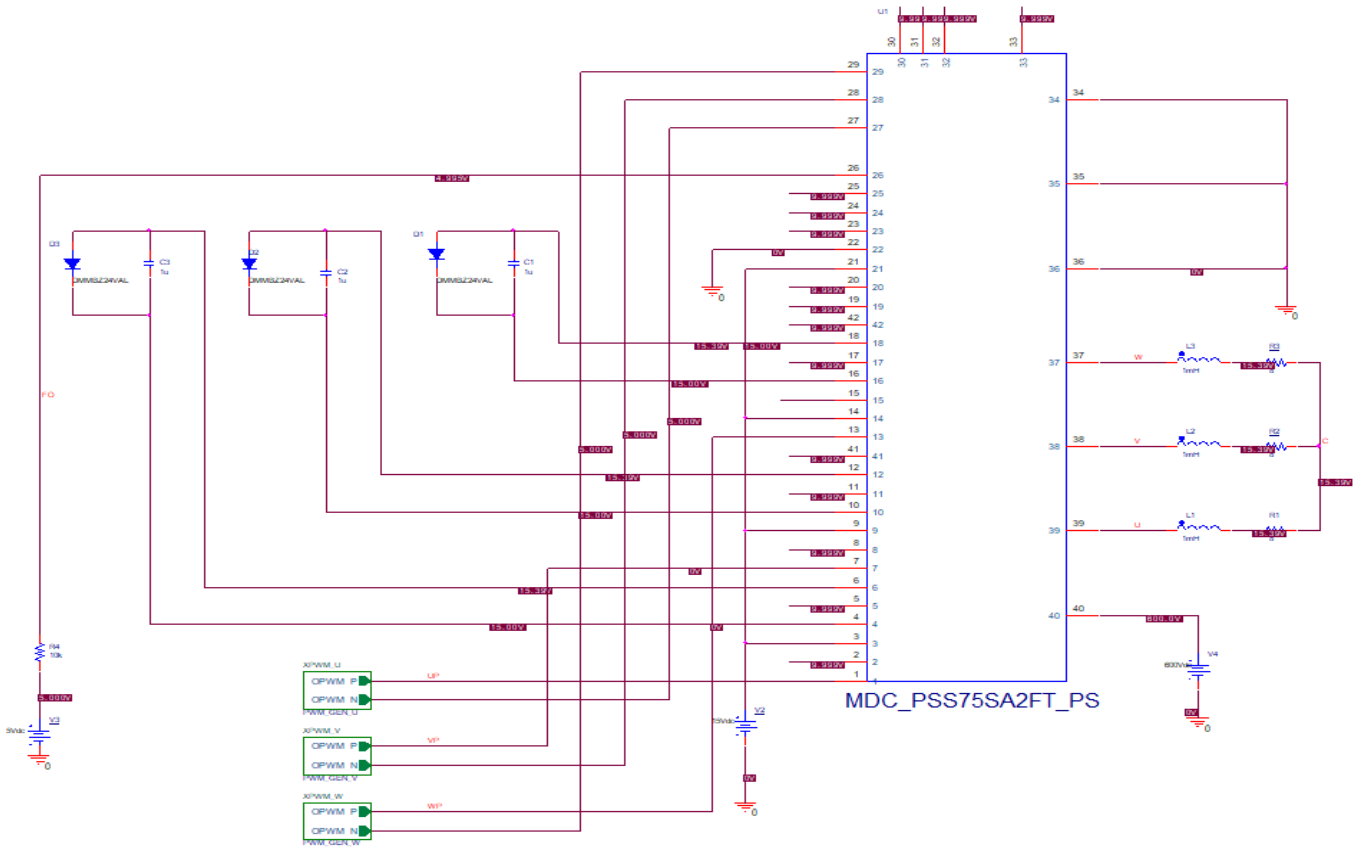
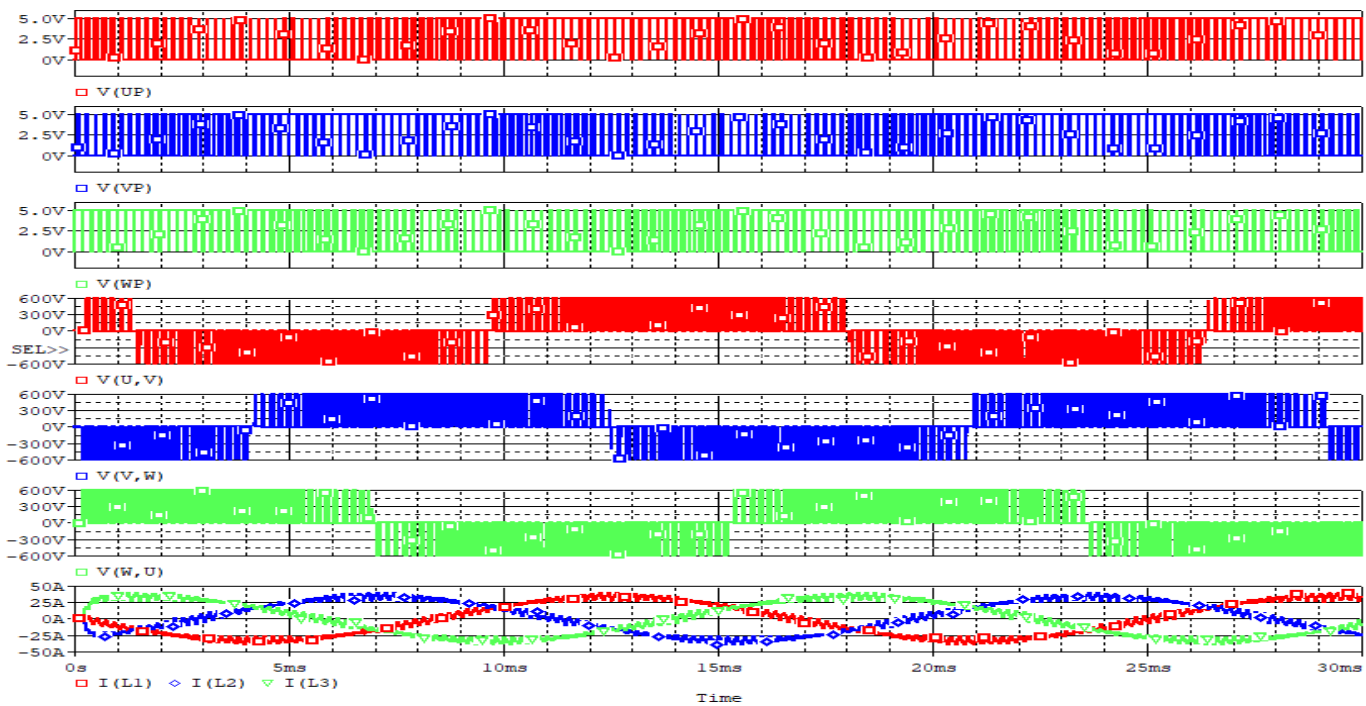
Three-phase AC output (reference data) Testbench



Three-phase AC output (reference data)



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