**Simplest model:**

**----- DC Link Current -----**

Freq: 0, Mag: 7.41715, Phase: 90

Freq: 9850, Mag: 2.04873, Phase: 160.013

Freq: 10150, Mag: 2.07225, Phase: 6.93578

Freq: 20000, Mag: 5.08512, Phase: 262.307

Freq: 29850, Mag: 0.385236, Phase: -1.3057

Freq: 30150, Mag: 0.456438, Phase: 145.906

**----- Capacitor Current -----**

Freq: 9850, Mag: 2.38207, Phase: 23.6785

Freq: 10150, Mag: 2.41259, Phase: 148.051

Freq: 20000, Mag: 4.17611, Phase: 82.773

Freq: 29850, Mag: 1.02632, Phase: 263.302

Freq: 30150, Mag: 1.05317, Phase: 255.117

**----- DC Link Voltage -----**

Freq: 0, Mag: 268.916, Phase: 90

Freq: 9850, Mag: 0.855043, Phase: -66.321

Freq: 10150, Mag: 0.84039, Phase: 58.0503

Freq: 20000, Mag: 0.73753, Phase: -7.22691

Freq: 29850, Mag: 0.121244, Phase: 173.302

Freq: 30150, Mag: 0.123171, Phase: 165.117

**ESR, ESL:** Introduce large ripples in very high frequency (due to inaccuracy of the switching model).

This produce larger ripple on the DC link voltage. Other parameters do not change (current etc.)

**Paralel – ESR and ESL:**

----- DC Link Current - M1 -----

Freq: 0, Mag: 7.41024, Phase: 90

Freq: 9850, Mag: 2.38232, Phase: 203.555

Freq: 10150, Mag: 2.41282, Phase: -32.0224

Freq: 20000, Mag: 4.1747, Phase: 262.723

Freq: 29850, Mag: 1.02606, Phase: 83.2496

Freq: 30150, Mag: 1.05291, Phase: 75.1045

----- DC Link Current - M2 -----

Freq: 0, Mag: 7.41029, Phase: 90

Freq: 9850, Mag: 2.38233, Phase: 203.555

Freq: 10150, Mag: 2.41283, Phase: -32.0226

Freq: 20000, Mag: 4.17471, Phase: 262.723

Freq: 29850, Mag: 1.02607, Phase: 83.2494

Freq: 30150, Mag: 1.05292, Phase: 75.1047

----- Capacitor Current - M1 -----

Freq: 9850, Mag: 2.38227, Phase: 23.7088

Freq: 10150, Mag: 2.41277, Phase: 148.127

Freq: 20000, Mag: 4.17463, Phase: 82.7985

Freq: 29850, Mag: 1.02605, Phase: 263.3

Freq: 30150, Mag: 1.05289, Phase: 255.155

----- Capacitor Current - M2 -----

Freq: 9850, Mag: 2.38227, Phase: 23.7088

Freq: 10150, Mag: 2.41277, Phase: 148.127

Freq: 20000, Mag: 4.17463, Phase: 82.7985

Freq: 29850, Mag: 1.02605, Phase: 263.3

Freq: 30150, Mag: 1.05289, Phase: 255.155

----- DC Link Voltage -----

Freq: 0, Mag: 268.857, Phase: 90

Freq: 50, Mag: 0.838786, Phase: 174.173

Freq: 150, Mag: 0.440946, Phase: 170.357

Freq: 250, Mag: 0.16771, Phase: 265.435

Freq: 300, Mag: 0.891609, Phase: 1.04886

Freq: 350, Mag: 0.304207, Phase: -59.4514

Freq: 400, Mag: 0.317106, Phase: -20.7139

Freq: 550, Mag: 0.340163, Phase: 90.0217

Freq: 650, Mag: 0.190824, Phase: 247.812

Freq: 900, Mag: 0.183908, Phase: 177.053

Freq: 1200, Mag: 0.215912, Phase: 1.9881

Freq: 1800, Mag: 0.139018, Phase: 185.739

Freq: 9850, Mag: 2.56447, Phase: -65.9167

Freq: 10150, Mag: 2.52043, Phase: 58.5128

Freq: 20000, Mag: 2.20866, Phase: -6.43979

Freq: 29850, Mag: 0.362492, Phase: 174.441

Freq: 30150, Mag: 0.368229, Phase: 166.307

**Paralel – No ESR and No ESL:**

----- DC Link Current - M1 -----

Freq: 0, Mag: 7.41071, Phase: 90

Freq: 9850, Mag: 2.38271, Phase: 203.559

Freq: 10150, Mag: 2.41324, Phase: -32.0278

Freq: 20000, Mag: 4.17499, Phase: 262.723

Freq: 29850, Mag: 1.02623, Phase: 83.2483

Freq: 30150, Mag: 1.05306, Phase: 75.1056

----- DC Link Current - M2 -----

Freq: 0, Mag: 7.41001, Phase: 90

Freq: 9850, Mag: 2.38245, Phase: 203.558

Freq: 10150, Mag: 2.41298, Phase: -32.0268

Freq: 20000, Mag: 4.17457, Phase: 262.723

Freq: 29850, Mag: 1.02609, Phase: 83.2485

Freq: 30150, Mag: 1.05292, Phase: 75.1054

----- Capacitor Current - M1 -----

Freq: 9850, Mag: 2.38257, Phase: 23.7123

Freq: 10150, Mag: 2.4131, Phase: 148.122

Freq: 20000, Mag: 4.17478, Phase: 82.7989

Freq: 29850, Mag: 1.02616, Phase: 263.299

Freq: 30150, Mag: 1.05299, Phase: 255.156

----- Capacitor Current - M2 -----

Freq: 9850, Mag: 2.38257, Phase: 23.7123

Freq: 10150, Mag: 2.4131, Phase: 148.122

Freq: 20000, Mag: 4.17478, Phase: 82.7989

Freq: 29850, Mag: 1.02616, Phase: 263.299

Freq: 30150, Mag: 1.05299, Phase: 255.156

----- DC Link Voltage -----

Freq: 0, Mag: 268.817, Phase: 90

Freq: 50, Mag: 0.826363, Phase: 174.306

Freq: 150, Mag: 0.448372, Phase: 170.209

Freq: 250, Mag: 0.160547, Phase: 266.669

Freq: 300, Mag: 0.921978, Phase: -1.53293

Freq: 350, Mag: 0.304564, Phase: -60.1478

Freq: 400, Mag: 0.317601, Phase: -20.9037

Freq: 550, Mag: 0.340824, Phase: 89.7087

Freq: 650, Mag: 0.190514, Phase: 247.925

Freq: 900, Mag: 0.184454, Phase: 176.953

Freq: 1200, Mag: 0.21606, Phase: 1.12351

Freq: 1800, Mag: 0.139119, Phase: 185.899

Freq: 9850, Mag: 2.56566, Phase: -66.2878

Freq: 10150, Mag: 2.52169, Phase: 58.1225

Freq: 20000, Mag: 2.21187, Phase: -7.2011

Freq: 29850, Mag: 0.363685, Phase: 173.299

Freq: 30150, Mag: 0.369459, Phase: 165.156