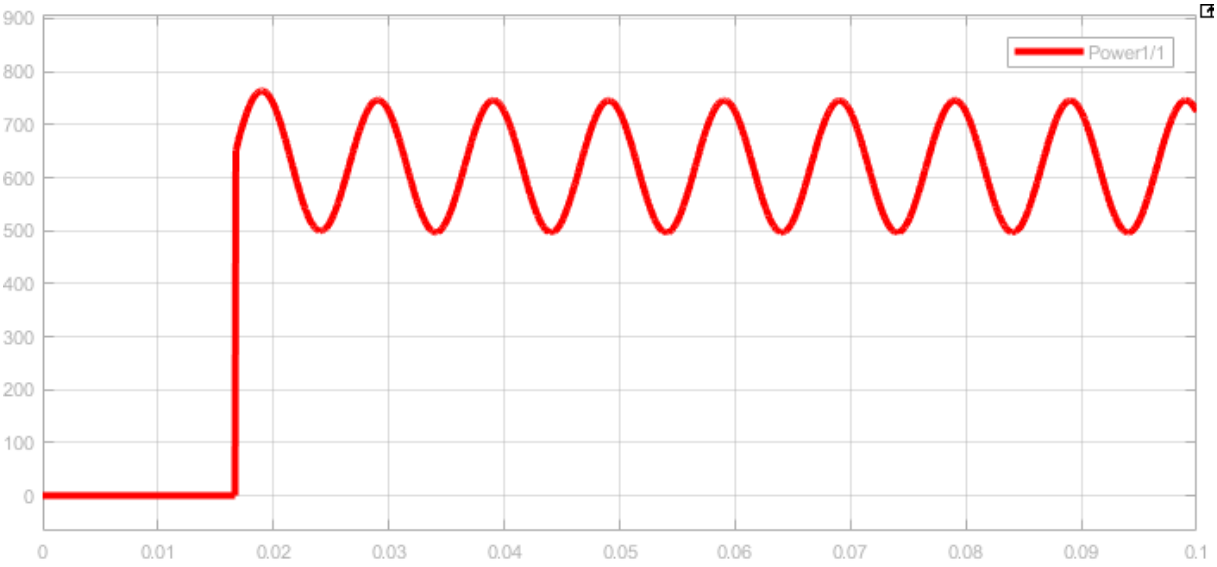
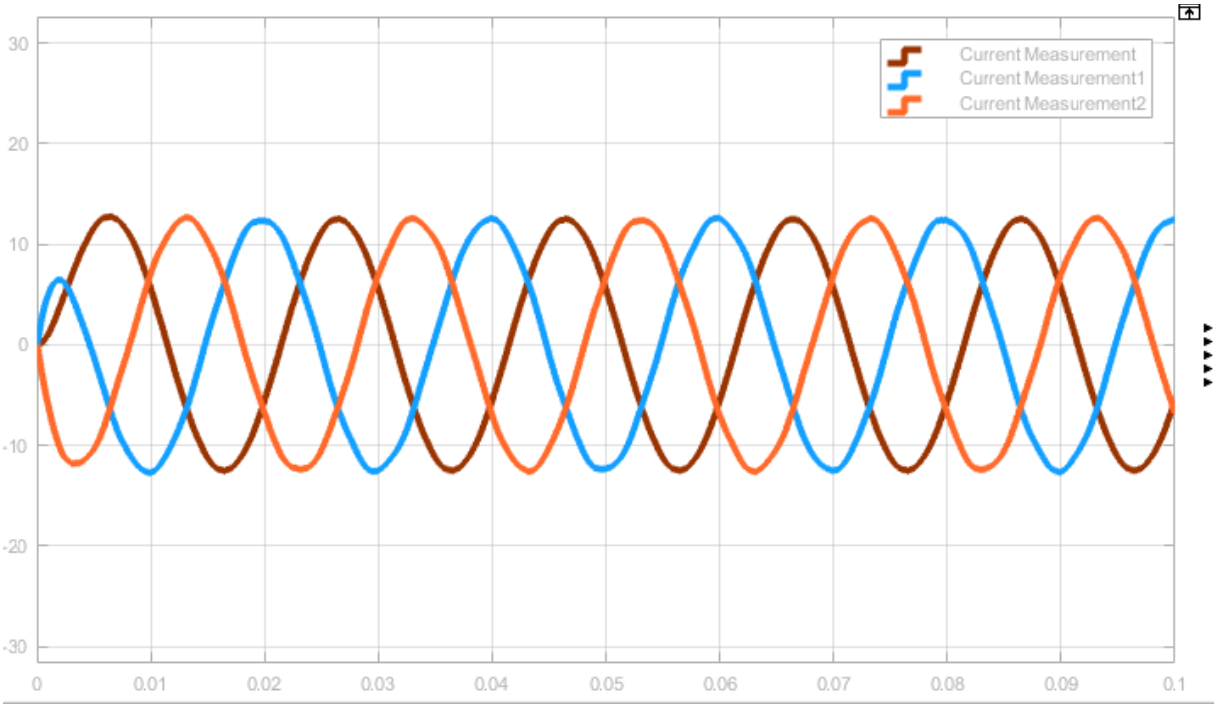
Without Failure

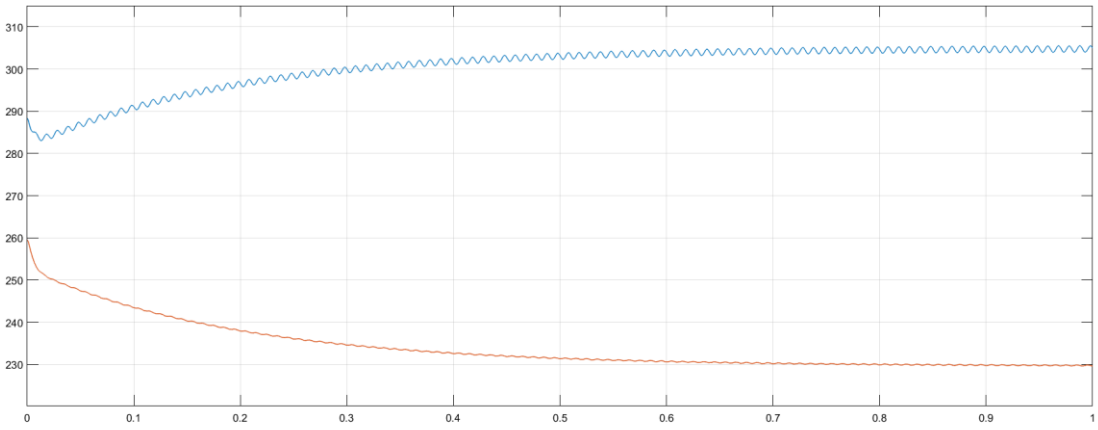




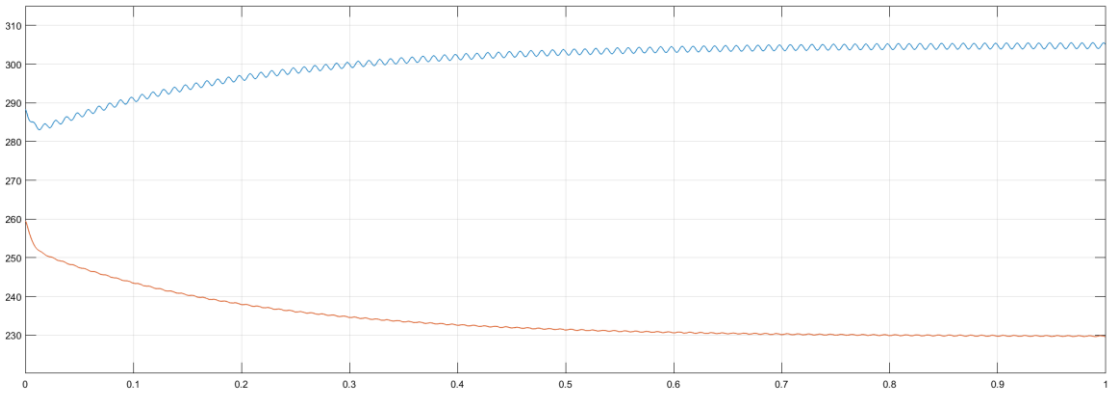
Dc link 266V

Single Transistor Open Circuit Failure

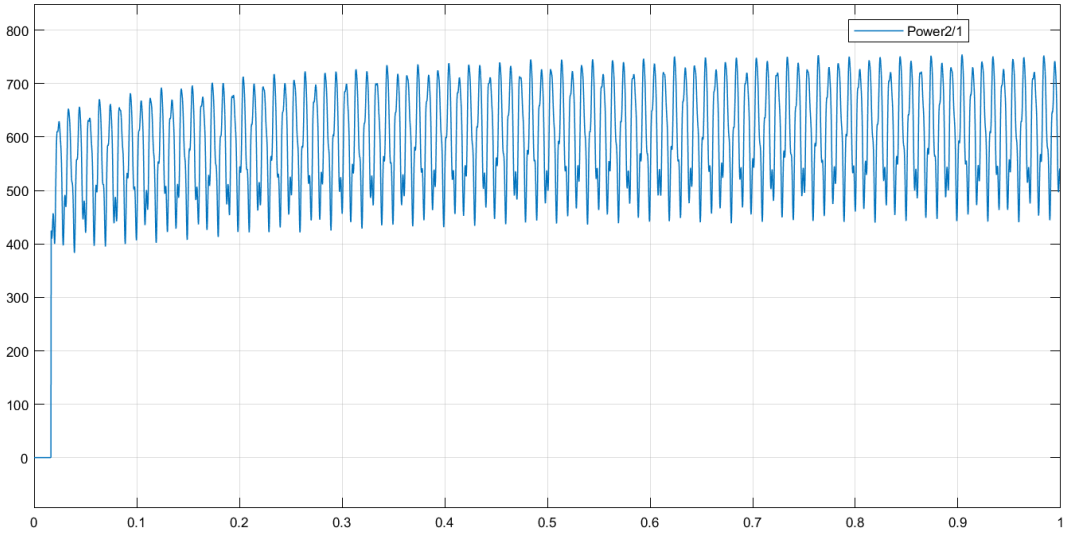
Dc Link Voltages



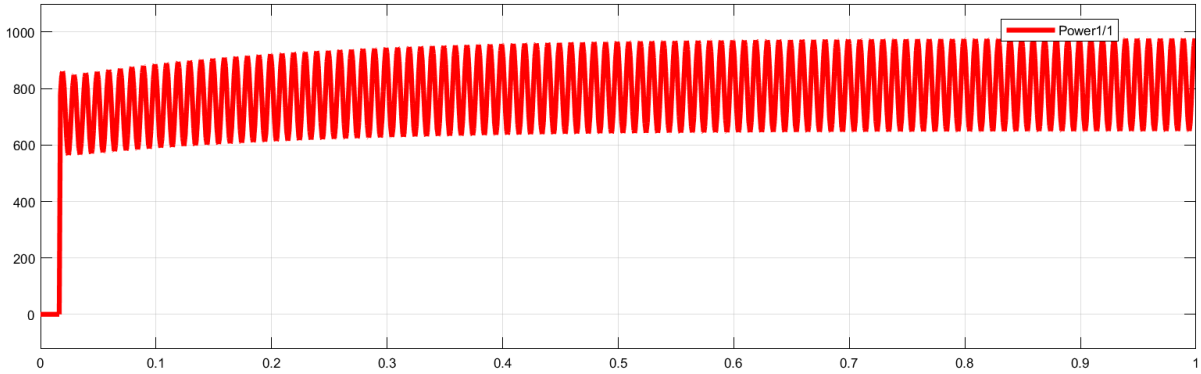
failed phase

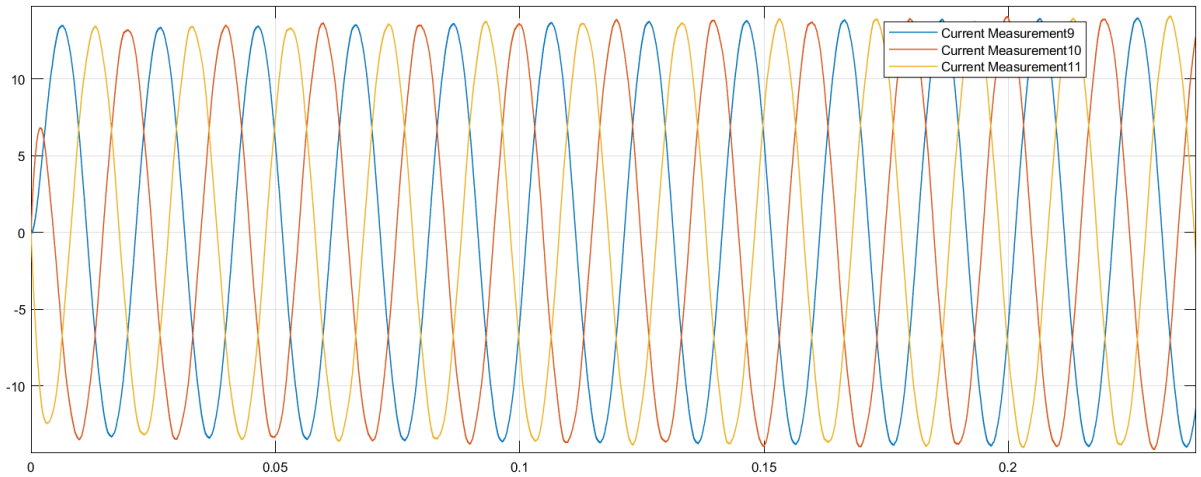


Different phase

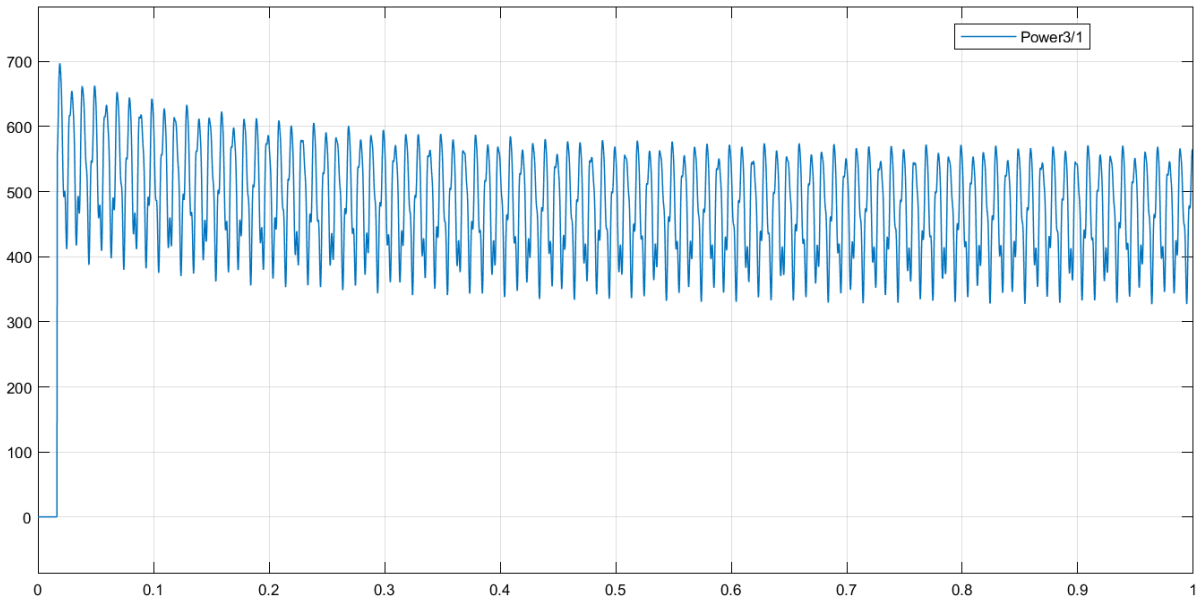


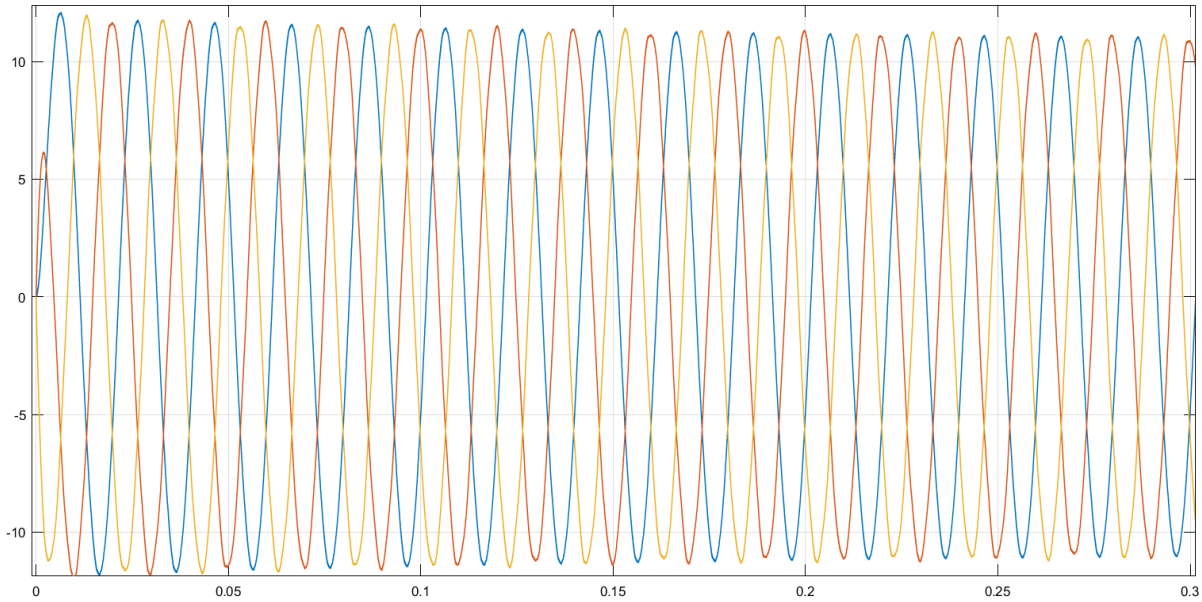
Parallel Inverter





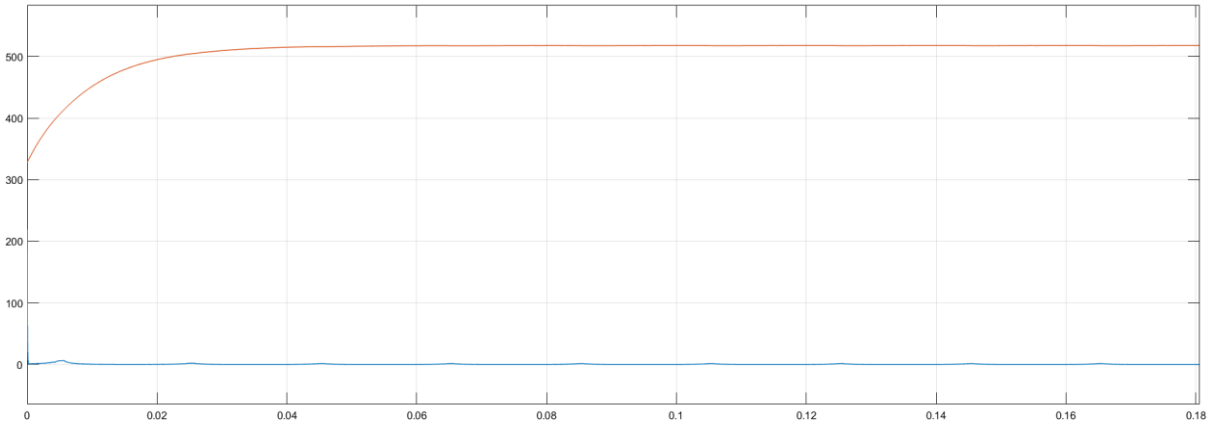
Series Inverter




10
5
0
-5
-10
0
0.05
0.1
0.15
0.2
0.25
0.3

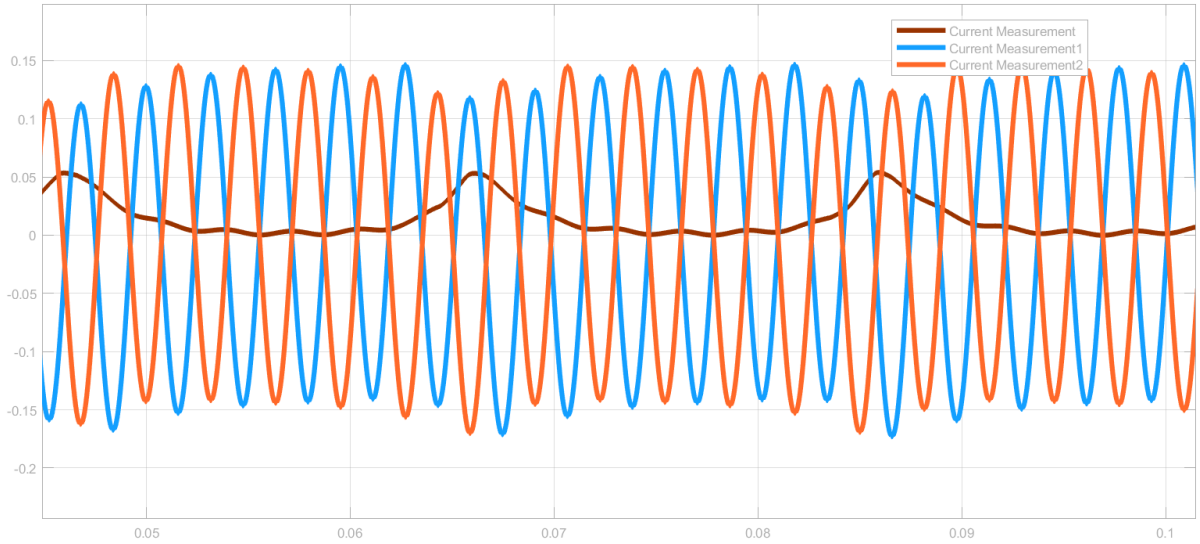
Single Transistor Short Circuit

Dc Link Voltages



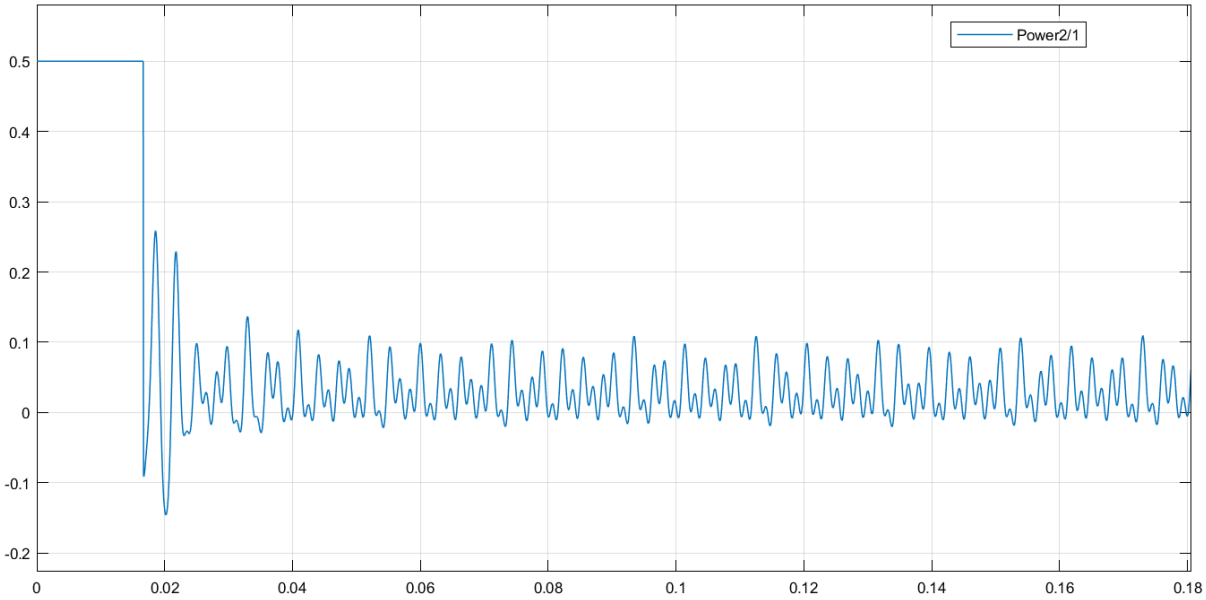
failed phase

dead

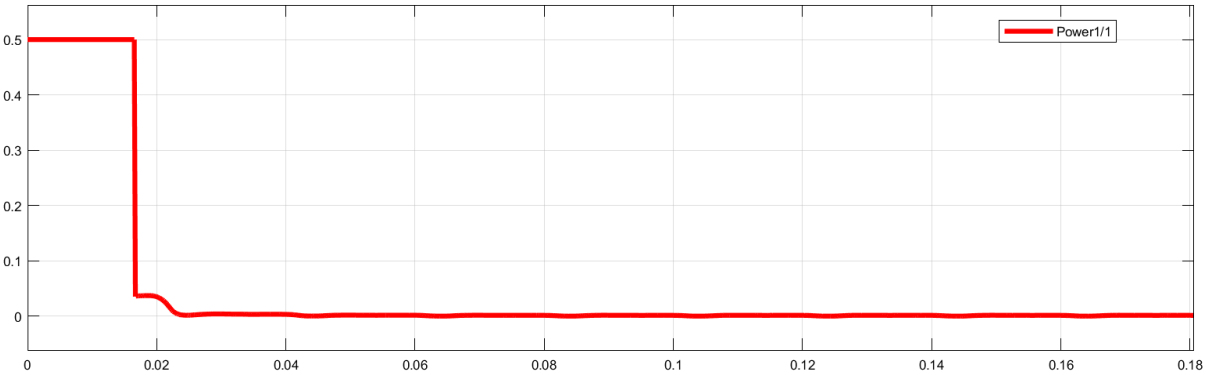


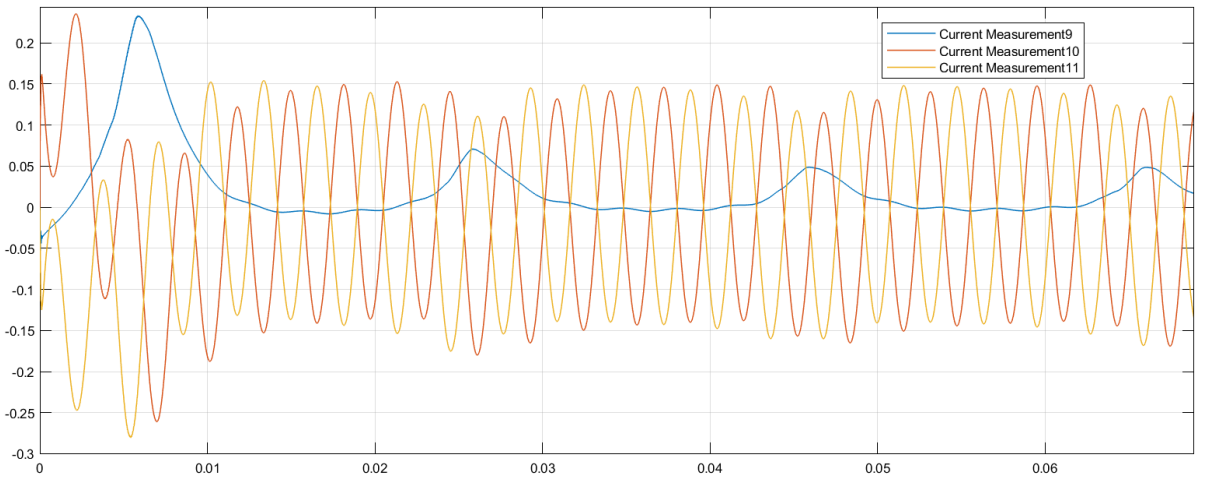
Different phase power

Dead



@Parallel Inverter



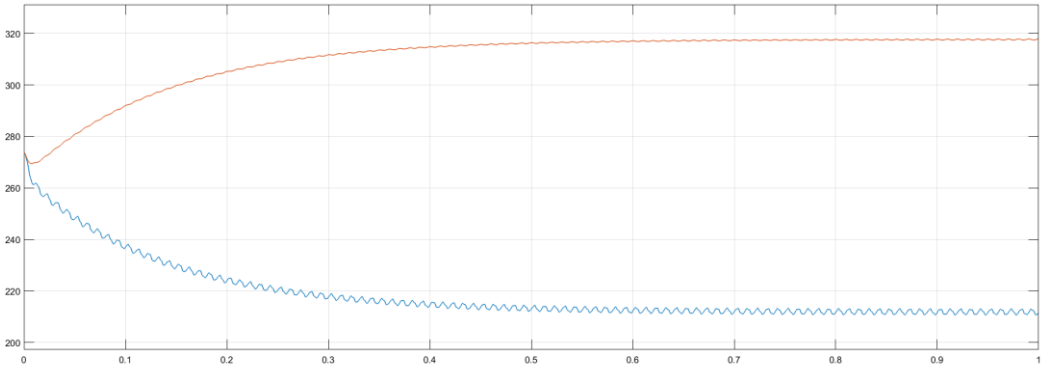


@Series Inverter

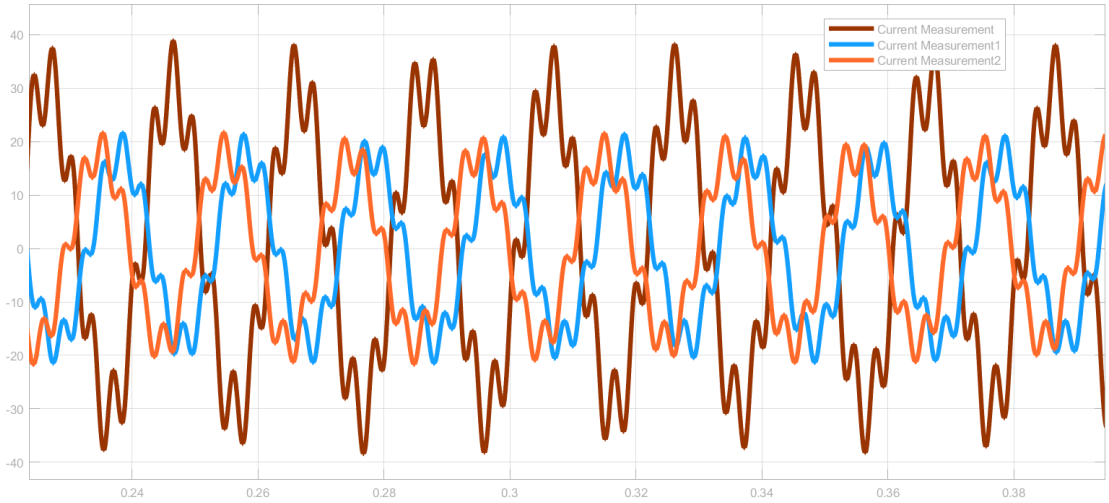
Same with dc link shorted

Single Winding Short Circuit

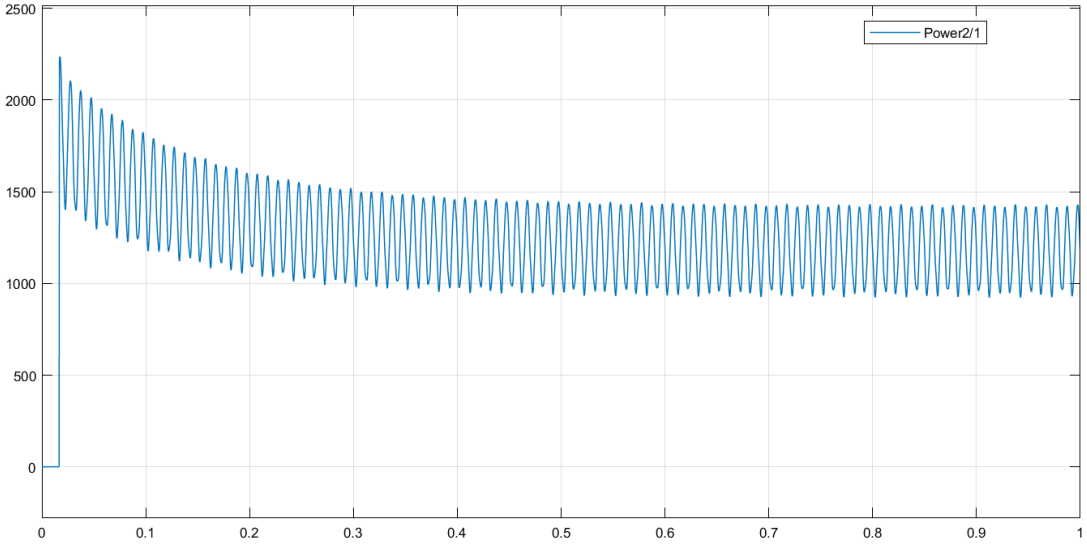
Dc Link Voltages



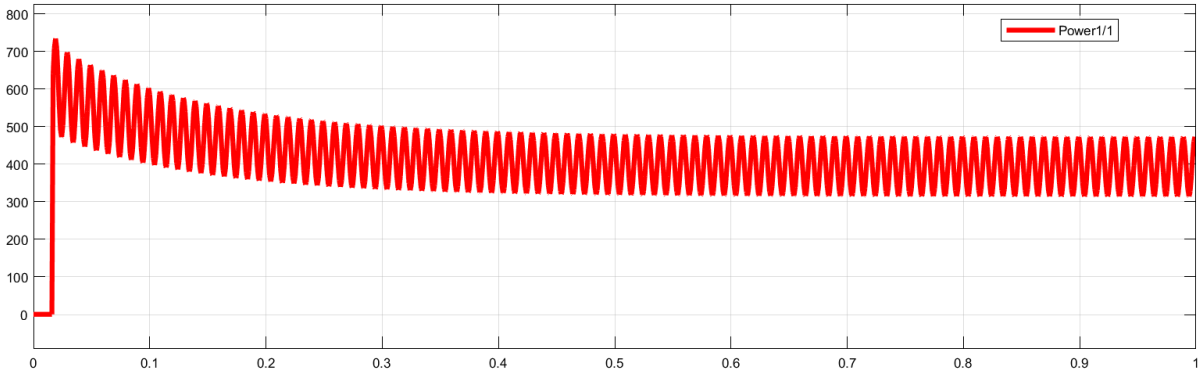
failed phase

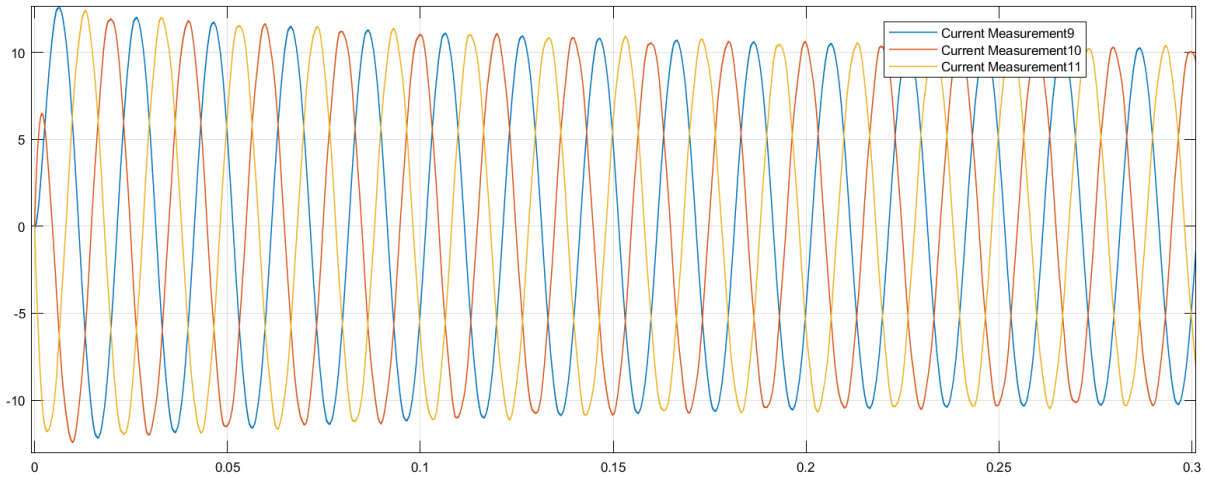


@Different phase

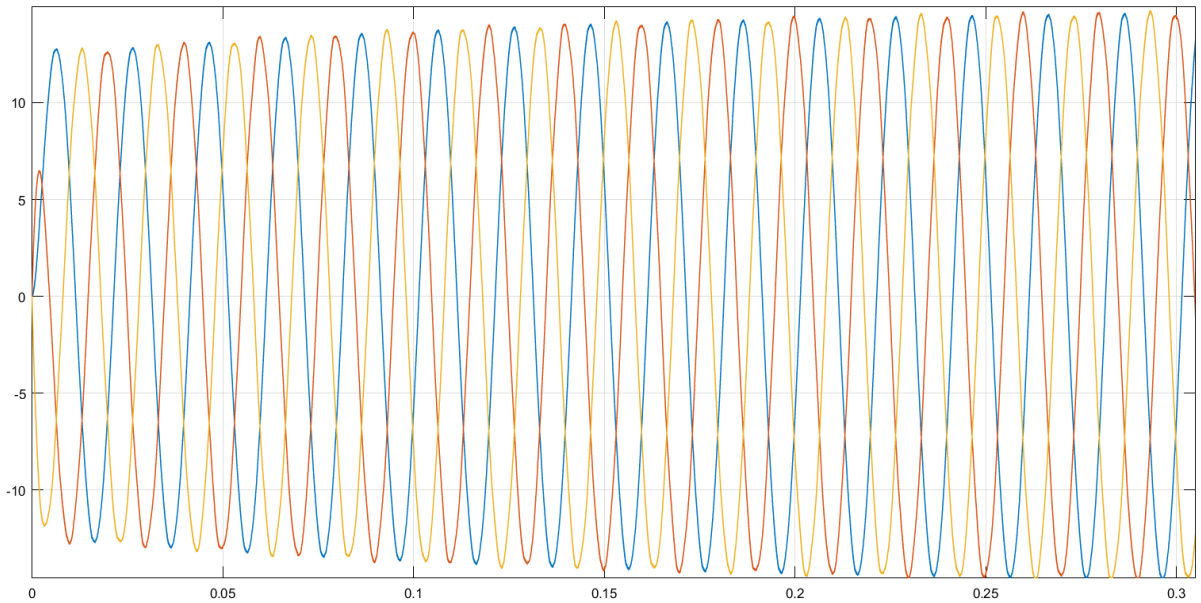


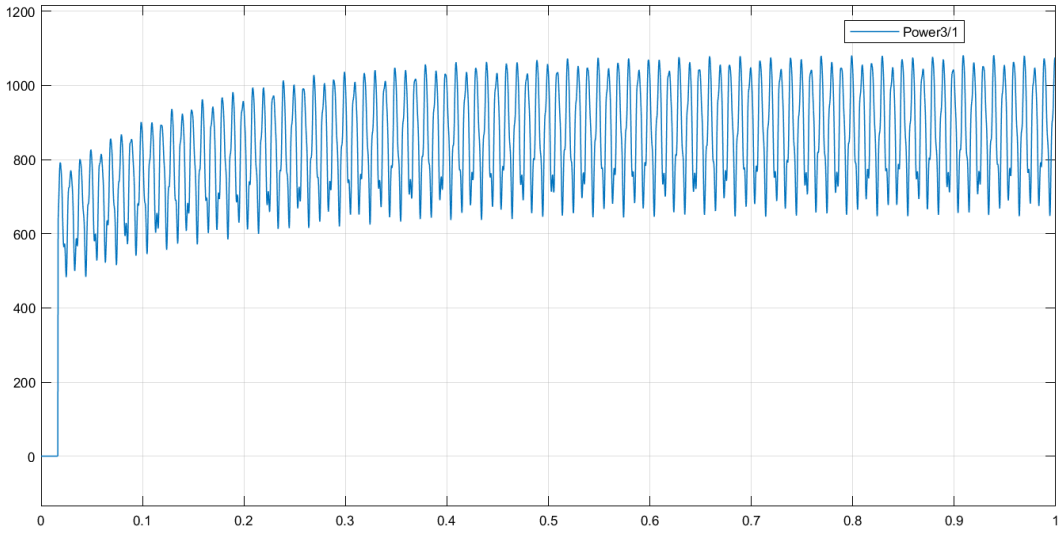
@Parallel Inverter





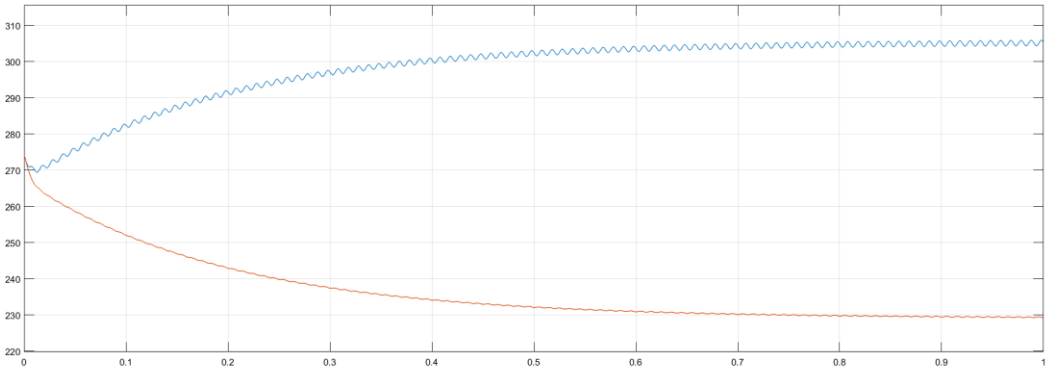
@Series Inverter



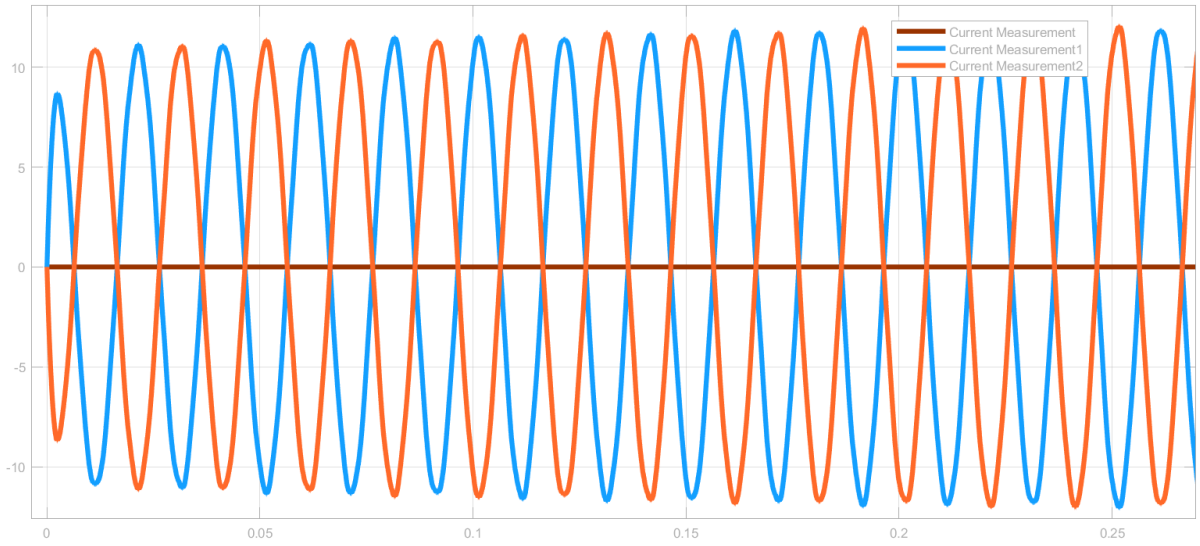


Single Winding Open Circuit

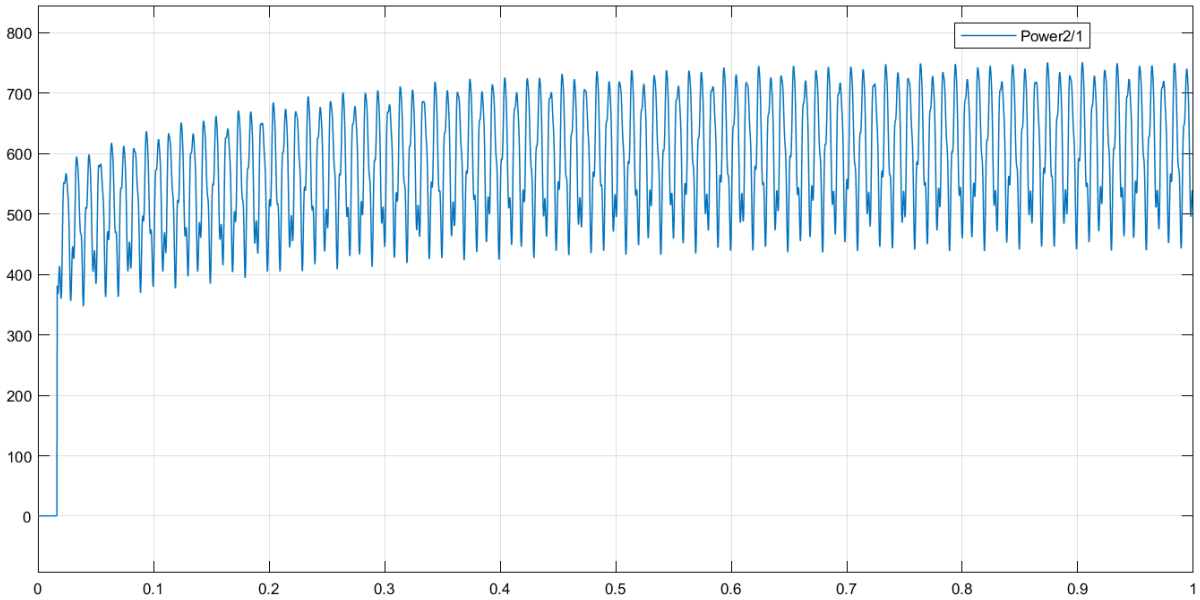
Dc Link Voltages



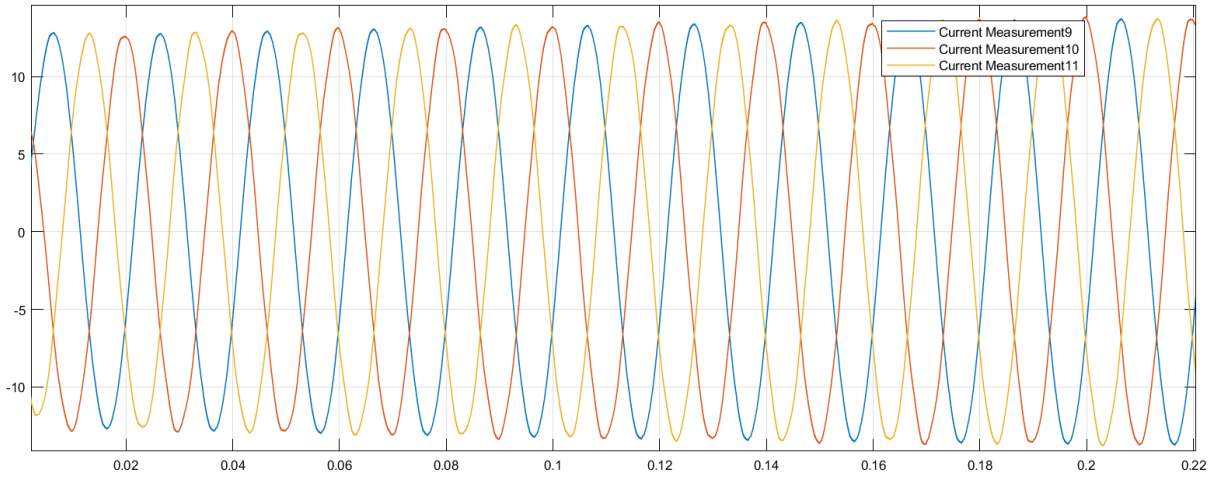
failed phase power

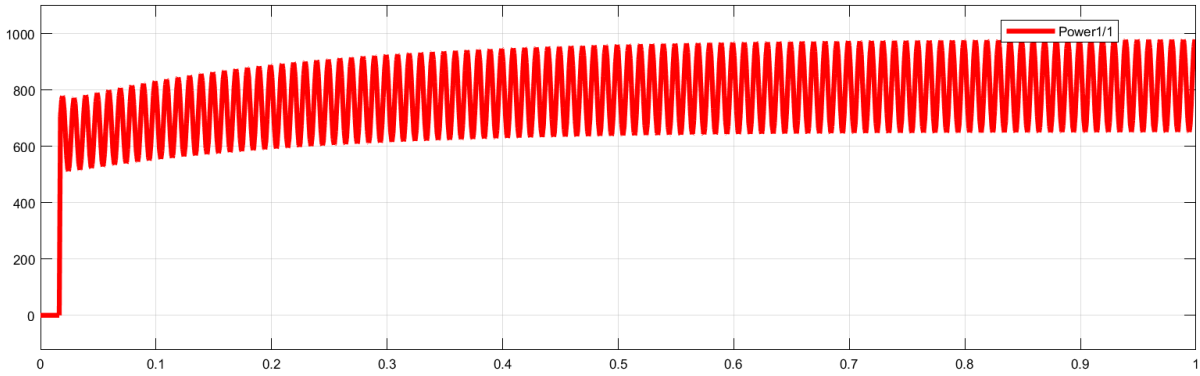


@Different phase power

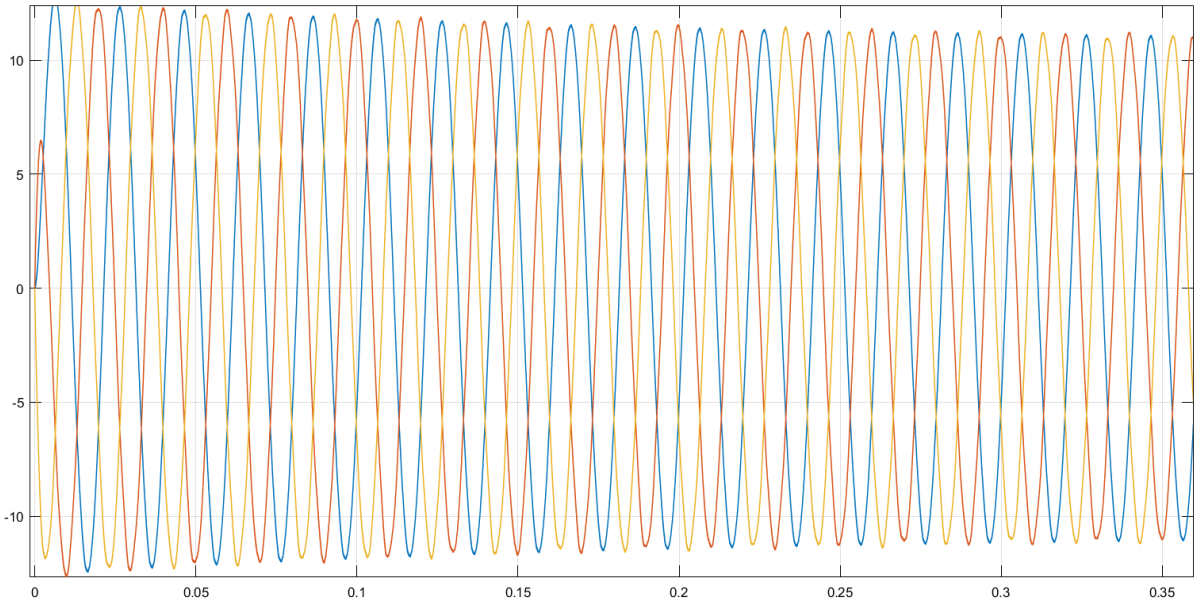


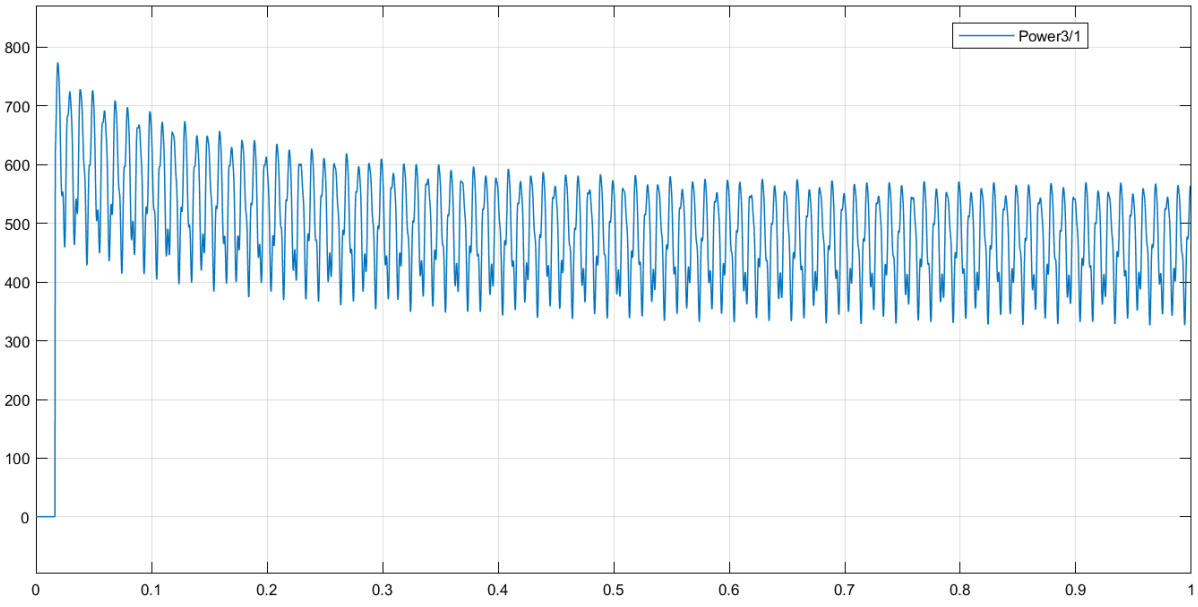
@Parallel Inverter



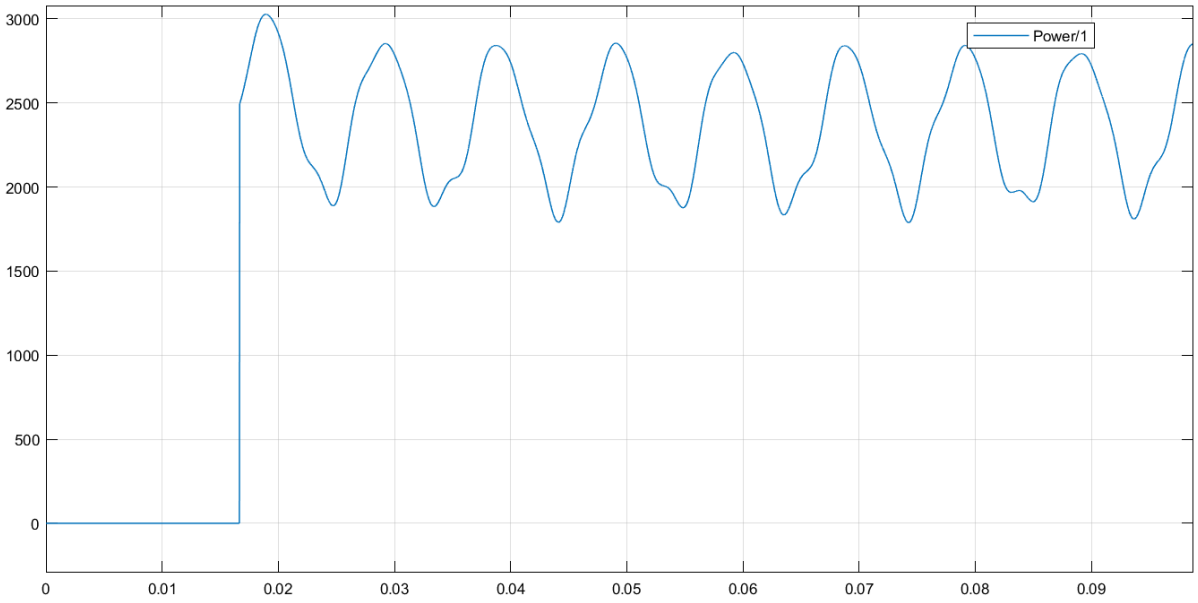


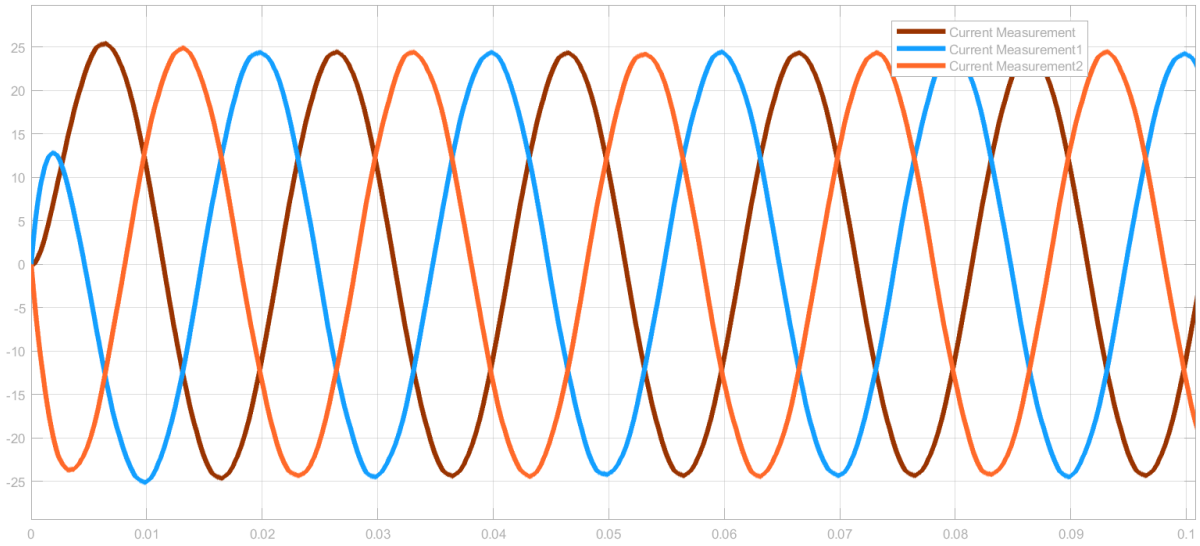
@Series Inverter





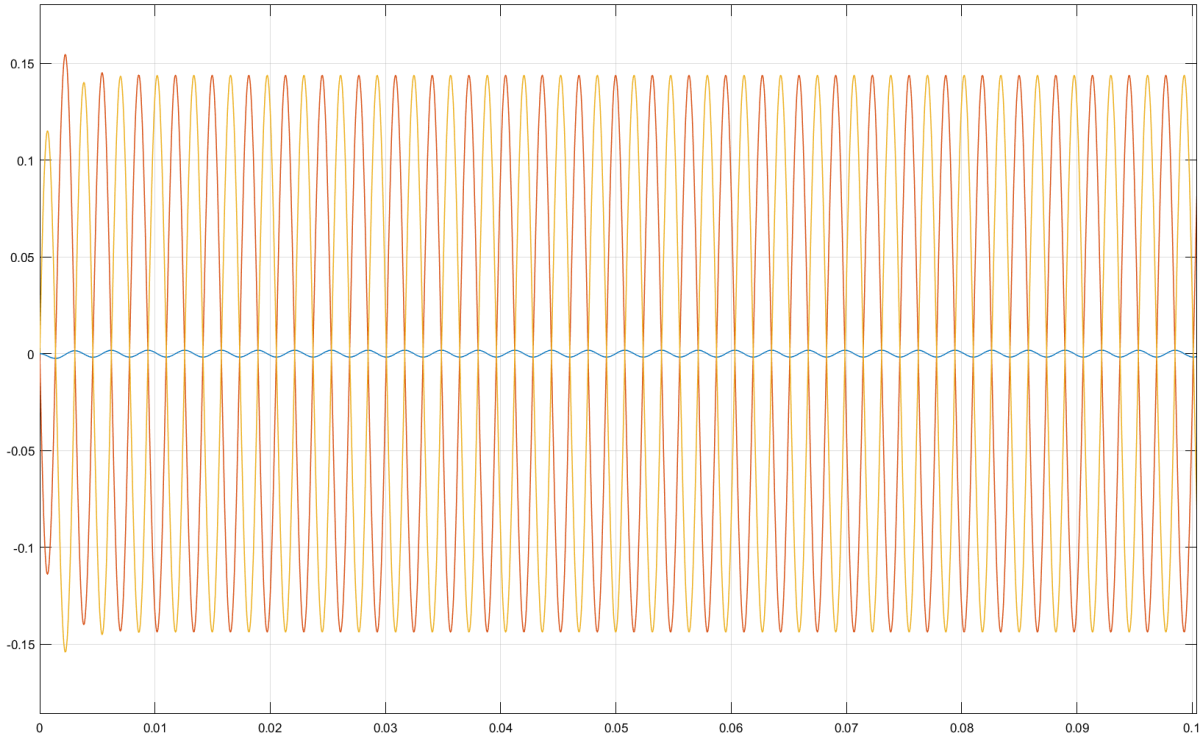
DC Link Short





VlinetolineRMS=362V

Some weird high frequency current @shorted inverters?



Worth Noting: