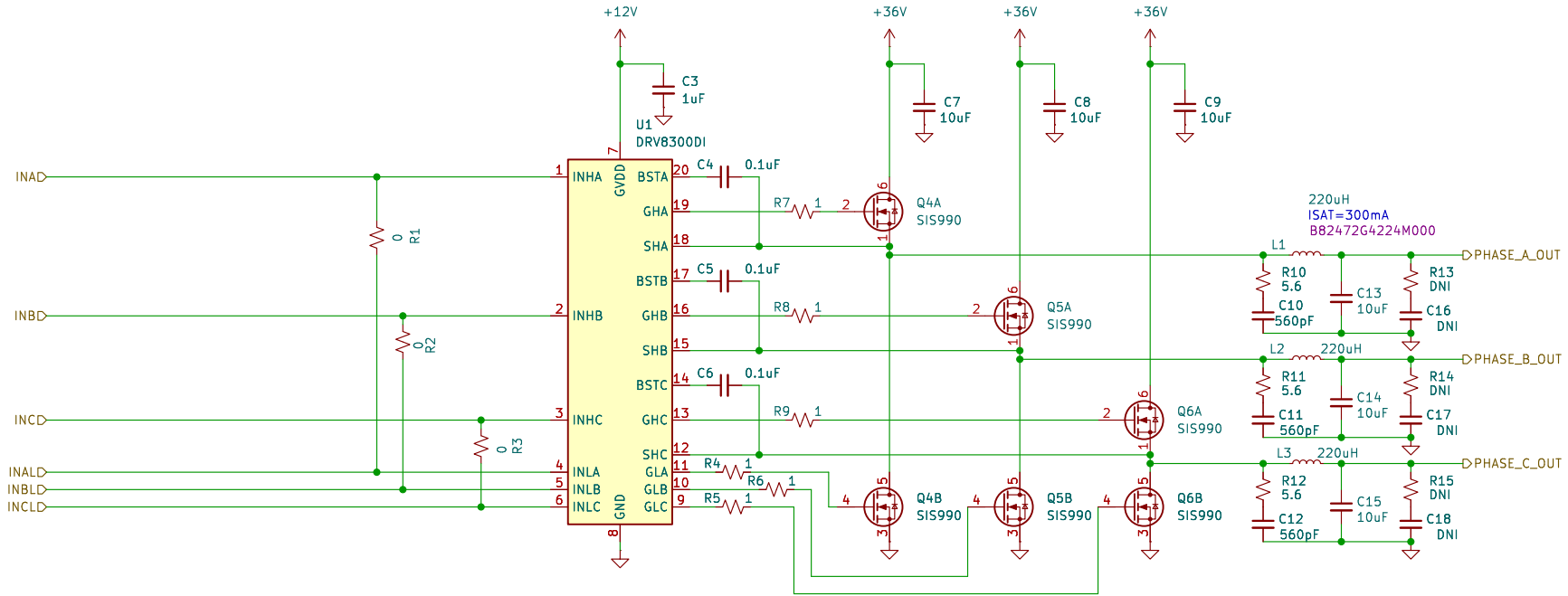


VREF is 2.6 VAC.
 FDAI CT winding: 11.8VAC, is 152 mH and 62 ohms. Current is up to 28 mA, depending on the shaft position.
 If you want to drive a synchro directly, I measure about 25 mA if the shaft is spinning freely. If you hold the synchro shaft so it's generating maximum torque, the current goes up to 600 mA.

$DV_BSTX = VGVDD - VBOOTD - VBSTUV$
 $VGVDD = 12V$
 $VBOOTD = 0.85V$ (DRV8300)
 $VBSTUV = 4.5V$ (DRV8300)
 $DV_BSTX = 6.65V$
 $Qg = 8nC$ (SIS990)
 $fSW = 60KHz$
 $ILBS_TRAN = 220uA$ (DRV8300)
 $Q_{tot} = Qg + ILBS_TRAN / fSW = 8nC + 3.7nC = 11.7nC$
 $Cbst_min = Q_{tot} / DV_BSTX = 1.76nC$



Sheet: /SingleSynchroDriver/
 File: SingleSynchroDriver.kicad_sch

Title:

Size: A4 Date:

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Rev:

Id: 2/2