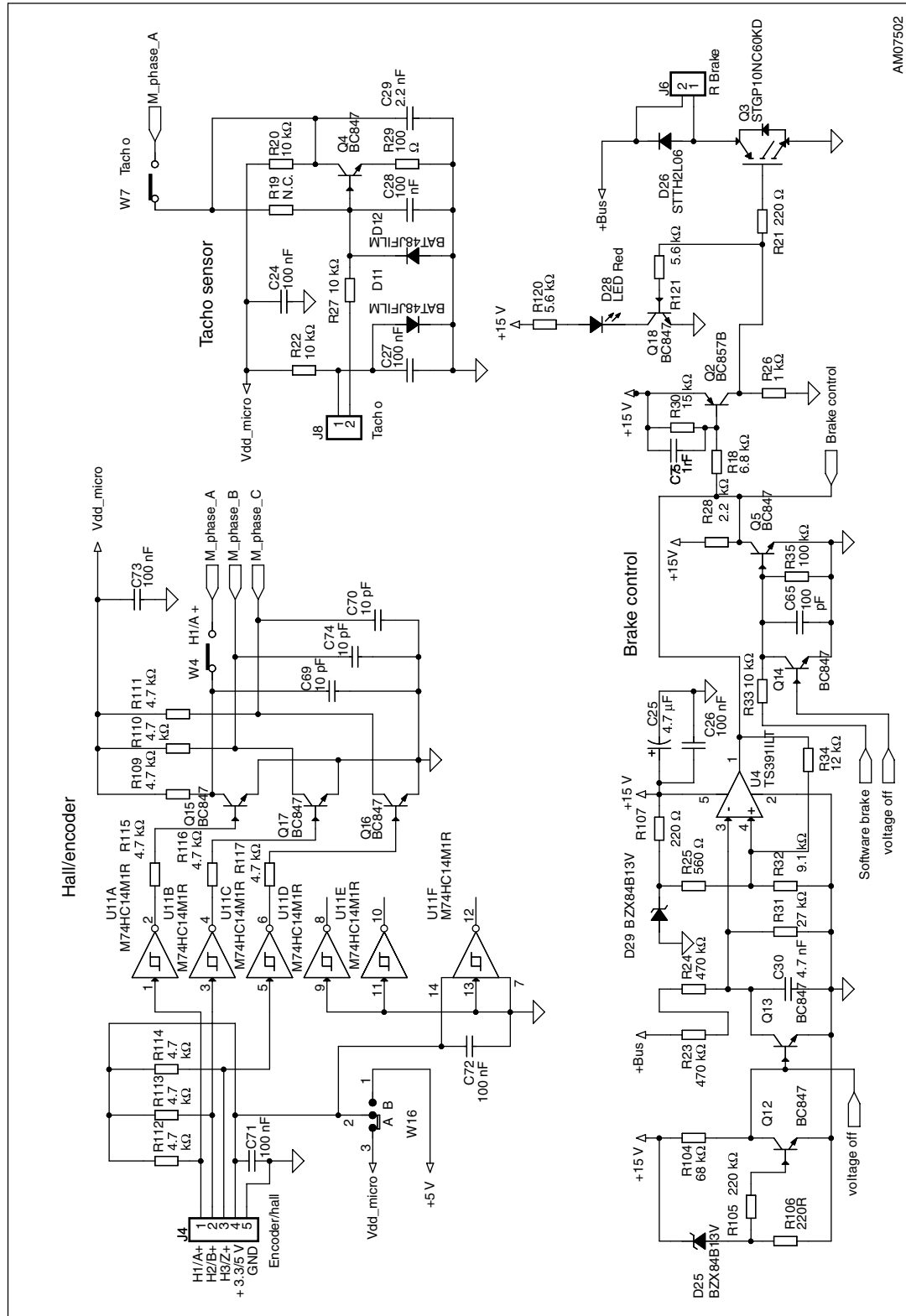


STEVAL-IHM023V2 schematic - part 1



AN07502

[illegible]

Motor output

phase_A
phase_B
phase_C
MOTOR

+15 V ex. supply

+15 VDC
+15 V

+5 V linear

+5 V

NTC bypass

NTC bypass relay

LV DC bus supply

+15 V
35 V max!
+Bus
Viper

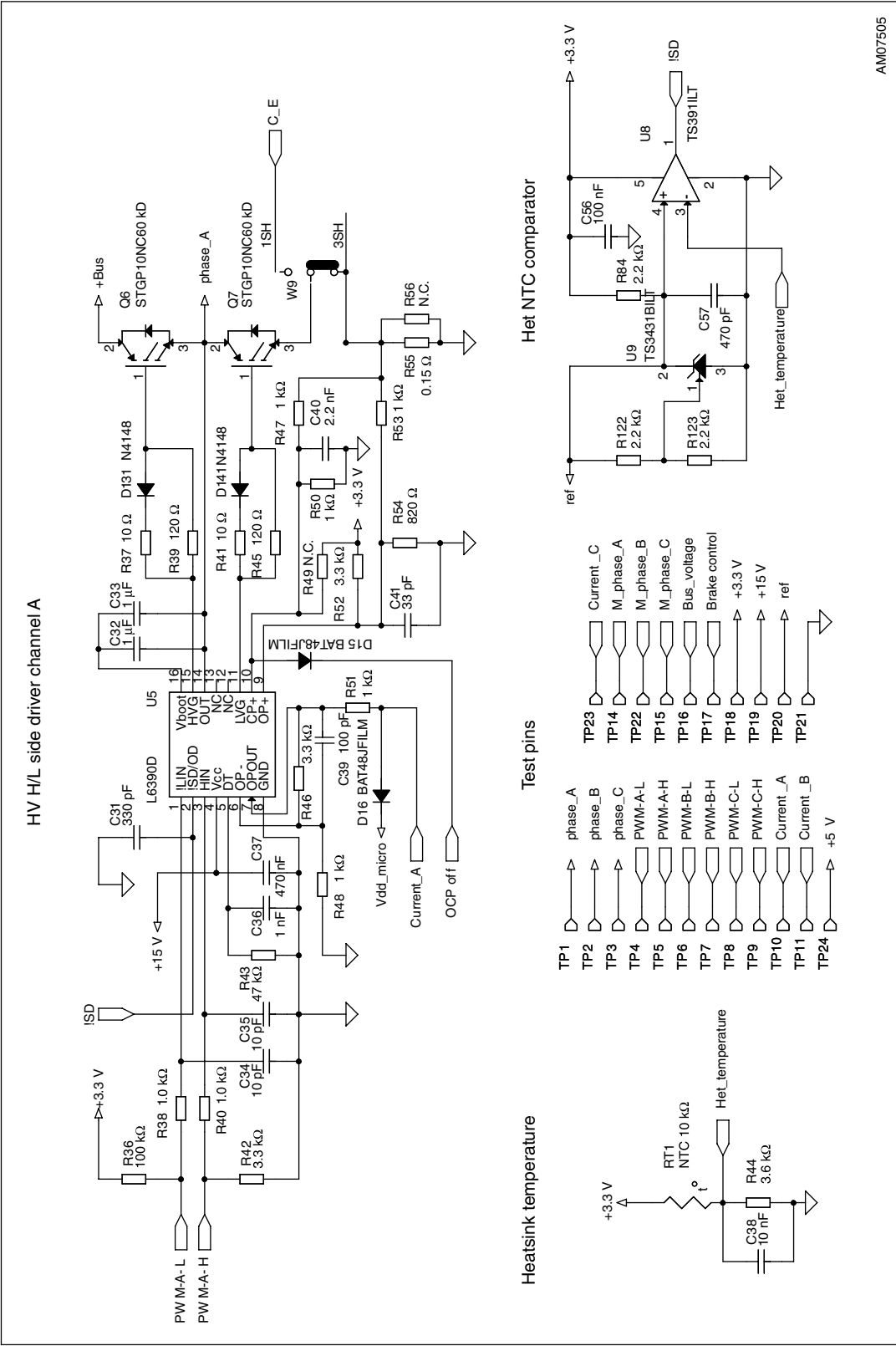
Motor connector

EM_STOP
PWM-A-H
PWM-A-L
PWM-B-H
PWM-B-L
PWM-C-H
PWM-C-L
Current A
Current B
Current C
NTC_bypass_relay
PWM_Vref
M_phase_A
M_phase_B

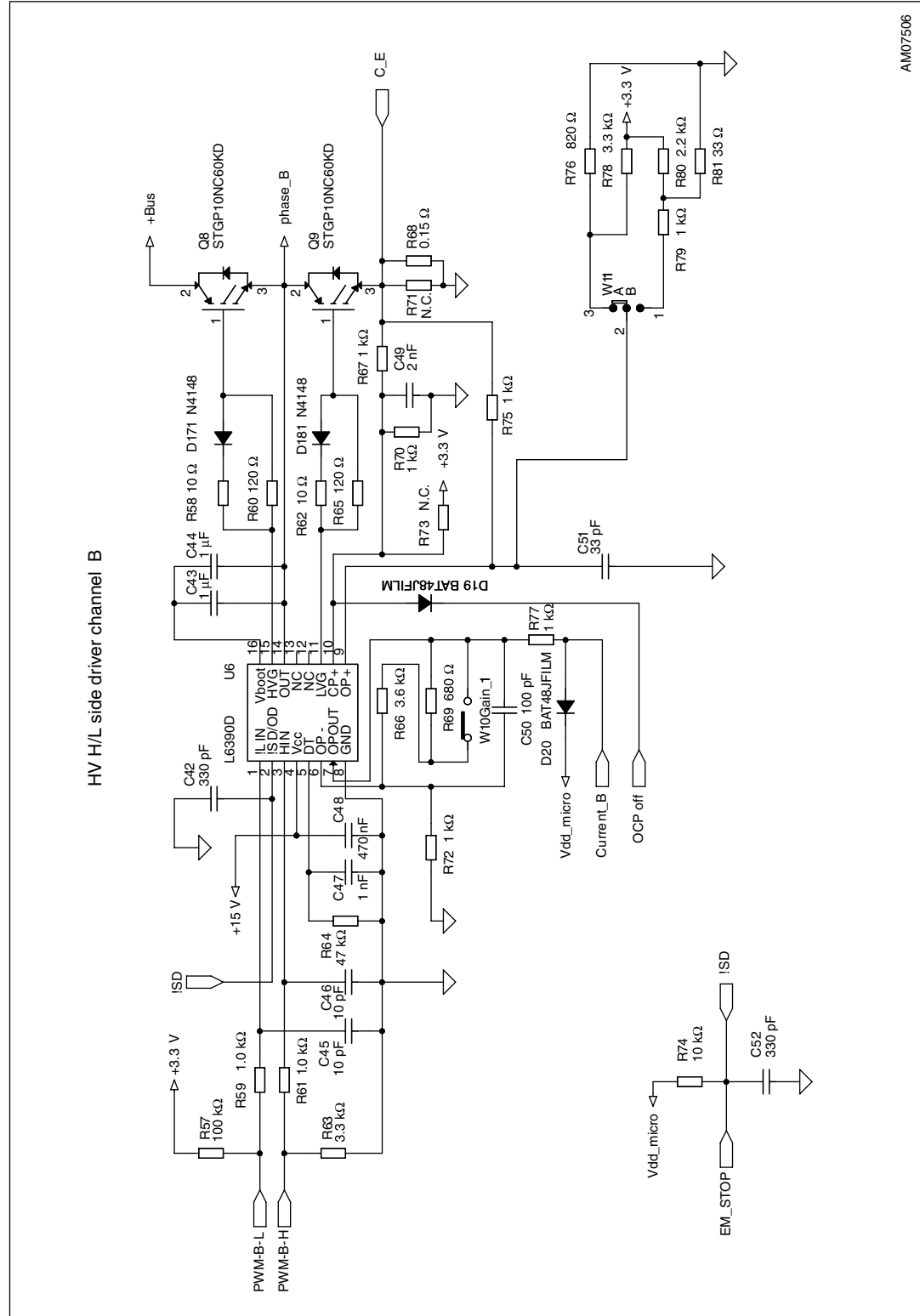
BEMF daughter board

phase_A
phase_B
phase_C
+Bus
+3.3V
Vdd_micro
PWM_Vref

STEVAL- IHM023V2 schematic - part 4



STEVAL- IHM023V2 schematic - part 5



AM07506

HV H/L side driver channel C

The schematic diagram illustrates the HV H/L side driver channel C. It features a central L6390D driver IC (U7) which controls two STGP10NC60KD MOSFETs (Q10 and Q11) through 1N4148 diodes (D21 and D22). The circuit is powered by a +3.3V supply and a +15V supply. Key components include resistors R82, R85, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100, R101, and R102; capacitors C53, C54, C55, C58, C59, C60, C62, C63, C64, and C66; and inductors L6390D and L6390D. The output of the driver is connected to the +Bus and phase_C signals. The circuit also includes a current sense output (Current_C) and an overcurrent protection output (OCP off). The MOSFETs are connected to the +Bus and phase_C signals, and their gates are driven by the L6390D driver. The circuit is designed to drive a load connected to the +Bus and phase_C signals.