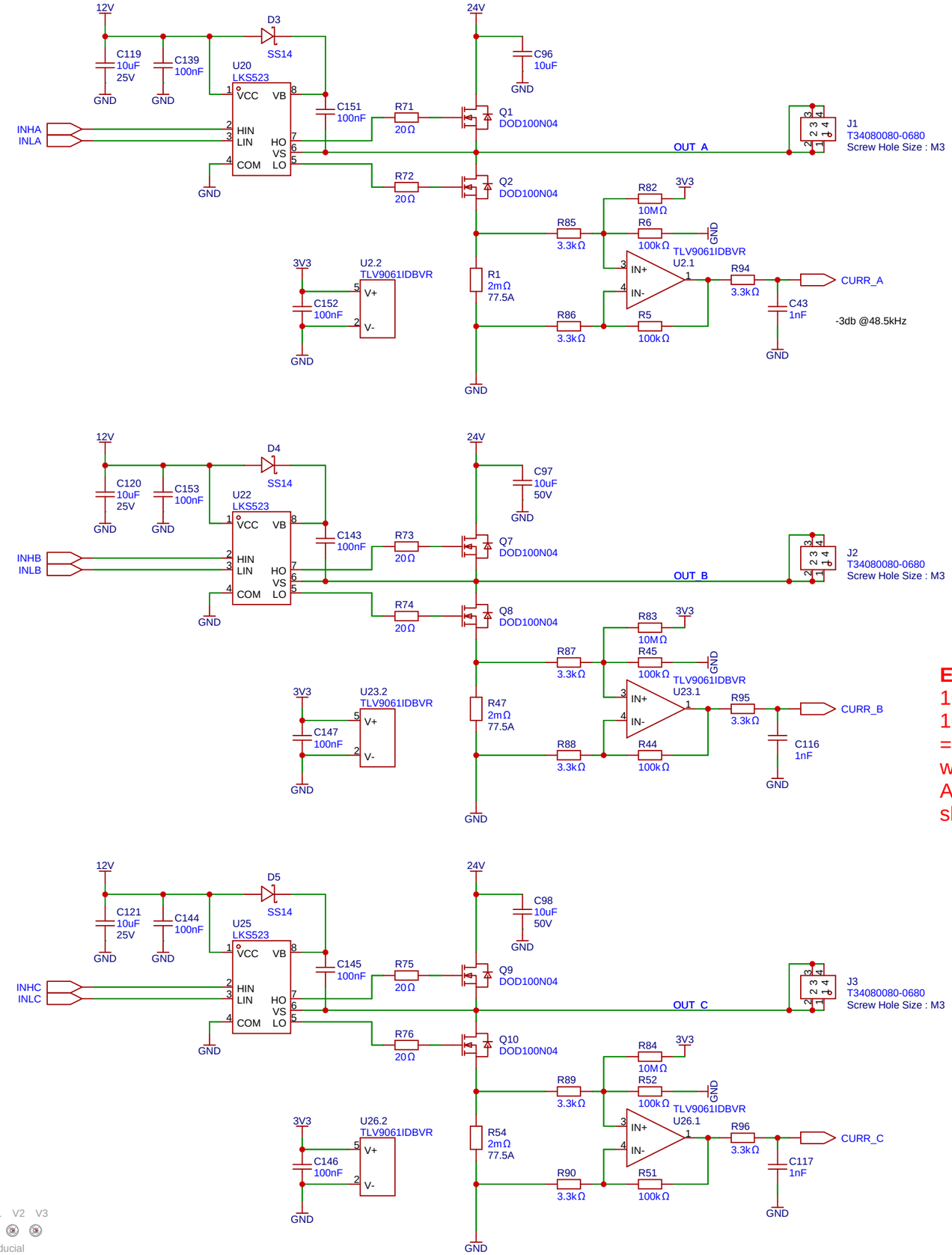
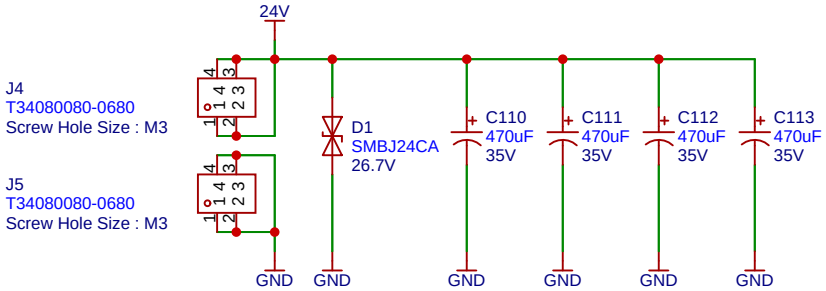


Errata:

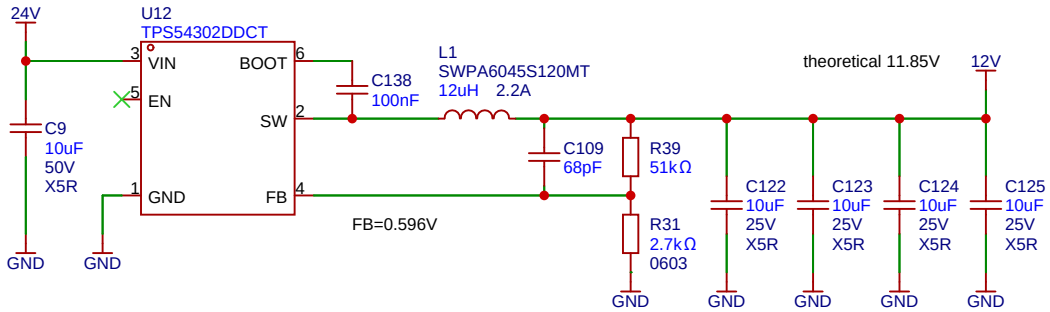
10MOhm (R83) must be 100kOhm
100kOhm on negative side (R44) must be 47kOhm
=> this lets measure negative freewheeling currents
when ARR=0 (timer update, all 3 low side FET ON) take ADC measurement and get full 3 phase current data in one shot.

Schematic	Schematic1	Create at	2025-10-15
		Update at	2025-10-24
Board	Board1	Page	power stage
Drawn		bldc-high-current-2-easyeda	
Reviewed			
		Version	Size / Page 1 Total 3
EasyEDA		V1.0	A4 / EasyEDA.com

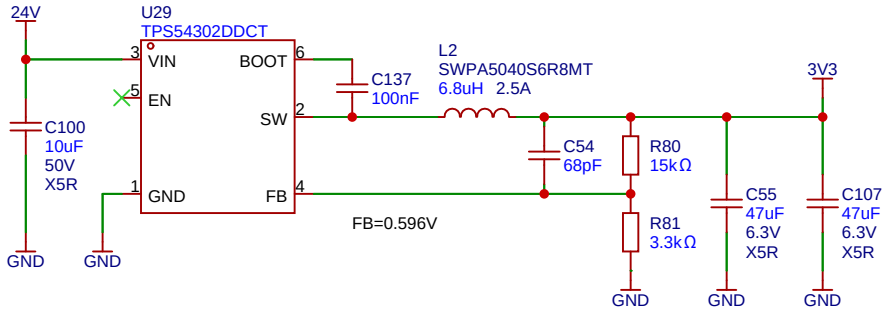
24V
26V max
D1 breaks down at 26.7V DC-DC max out at 28V



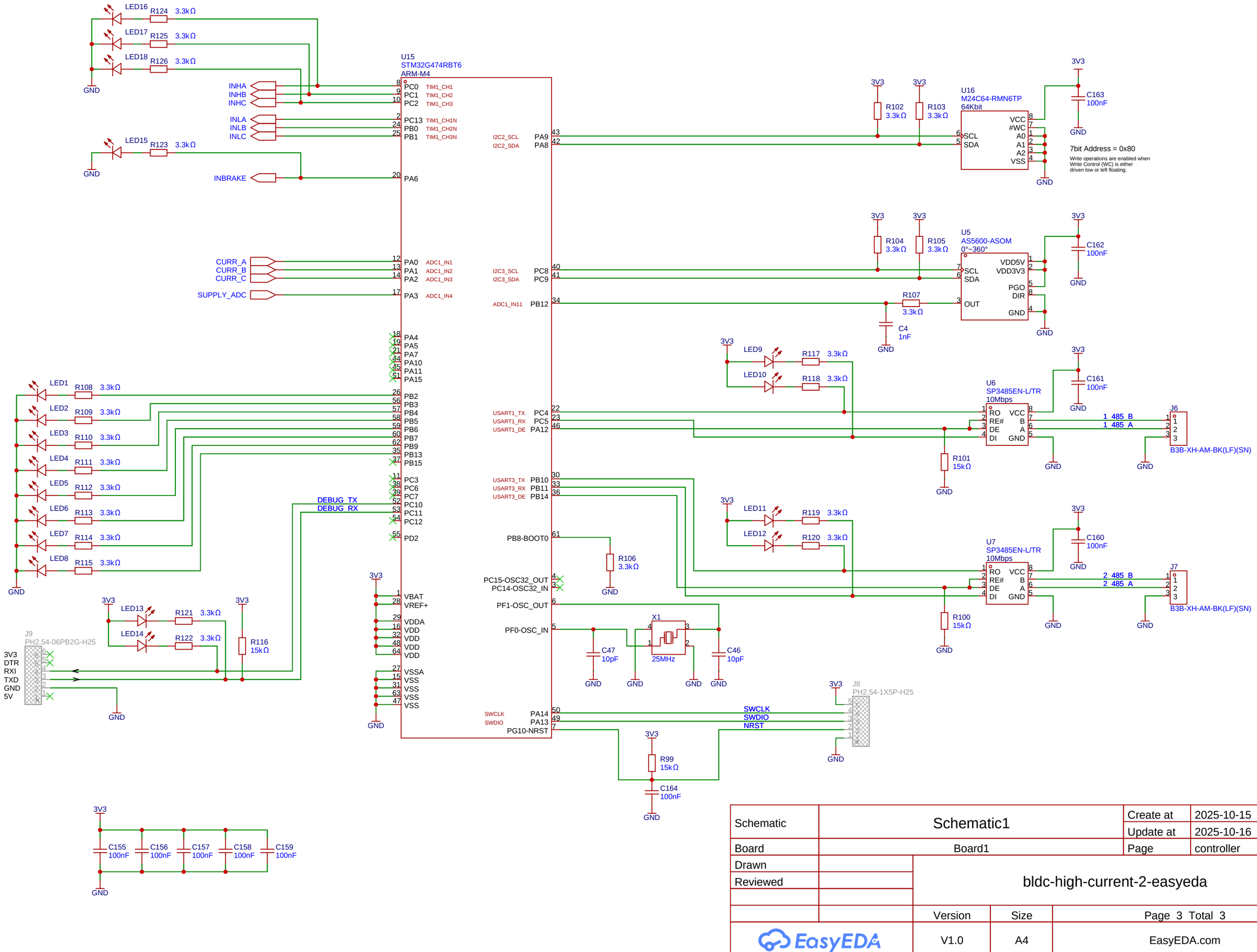
Parameters:
vin = 16 - 28V
iout = 0.35A
uout = 12V
=> 10.8-18.5uH max 500mOhm, 1.9-6A, 680nF in, 45uF out



Parameters:
vin = 16 - 28V
iout = 0.15A
uout = 3.3V
=> 4.6-7.8uH, max 140mOhm, 1.9-6A, 1uF in, 100uF out



Schematic	Schematic1	Create at	2025-10-15
		Update at	2025-10-16
Board	Board1	Page	supply
Drawn		bldc-high-current-2-easyeda	
Reviewed			
		Version	Size	Page 2 Total 3
EasyEDA		V1.0	A4	EasyEDA.com



Schematic	Schematic1	Create at	2025-10-15
		Update at	2025-10-16
Board	Board1	Page	controller
Drawn		bldc-high-current-2-easyeda	
Reviewed			
		Version	Size / Page 3 Total 3
EasyEDA		V1.0	A4 / EasyEDA.com