Main Circuit And Support

U1
DRV10987SPWPR sensorless sinusoidal BLDC driver 6.2-28V 2A, I2C

BRKMOD	BRKMOD	SPEED	SPEED
COM_NC	COM	SW	SW
CPN	CPN	U	U
CPP	CPP	V	V
DIR	DIR	V1P8	V1P8
GND	EP	V3P3	V3P3
FG	FG	VCC	VM
GND	GND	VCP	VCP
SCL	SCL	W	W
SDA	SDA		

VM — C3 100nF 50V X7R — GND

V3P3 — C4 10µF 10V X5R — GND

V1P8 — C5 1µF 50V X5R — GND

Main Circuit And Support

VCP — C6 100nF 50V X7R — VM

CPP — C7 10nF 50V X7R — CPN

V3P3 — R1 4.7k ohm 1% — SDA

V3P3 — R2 4.7k ohm 1% — SCL

Main Circuit And Support

V3P3 — R3 10k ohm 1% — FG

SW — R4 0 ohm — V3P3

Power And Indicators

VM — C1 100µF 35V electrolytic — GND

VM — C2 10µF 50V X5R — GND

DESIGN NOTES

Matching net labels identify connected signals.

Assembly and DNP details are stored with each component.

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PROJECT / DOCUMENT: Drv10987 Sensorless Bldc Driver			STATUS: DESIGN REVIEW
DRAWN BY: ElectroTrical	CHECKED BY: -	DATE: 2026-11-12	REVISION: A
DOCUMENT NUMBER: ET-MD16-SCH-001		FORMAT: A3 / LANDSCAPE	SHEET: 1 of 2

Connectors

J1
Screw terminal 2P 5.0mm 17A (THT)

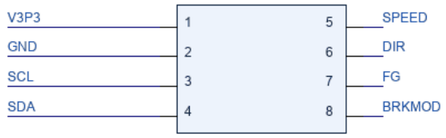


J2
Screw terminal 3P 5.0mm (THT)



J3
DNP

2.54mm male pin header (ship loose)



DESIGN NOTES

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Drv10987 Sensorless Bldc Driver			DESIGN REVIEW
DRAWN BY	CHECKED BY	DATE	REVISION
ElectroTrical	-	2026-11-12	A
DOCUMENT NUMBER		FORMAT	SHEET
ET-MD16-SCH-002		A3 / LANDSCAPE	2 of 2