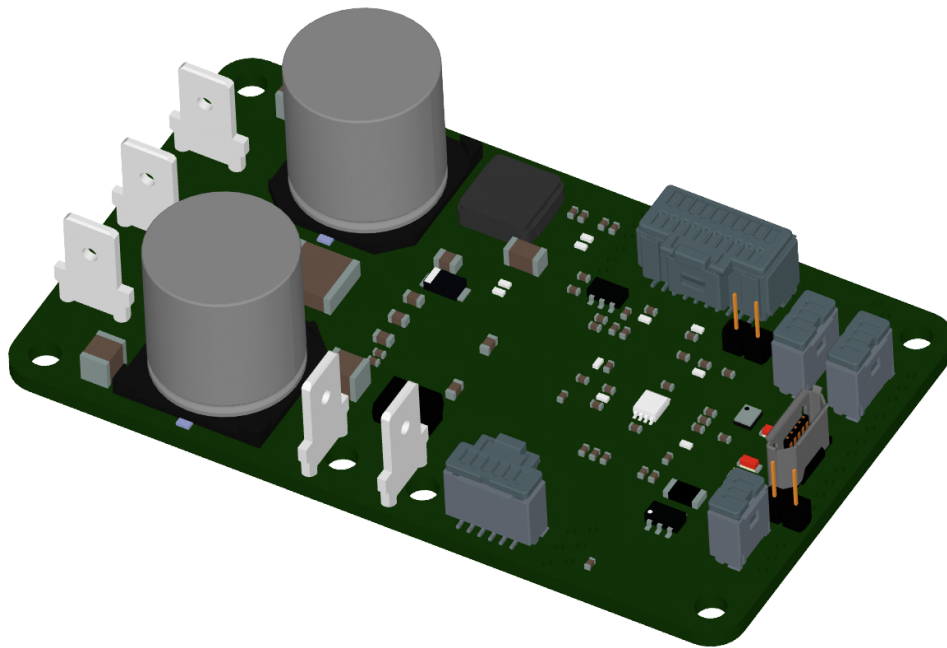
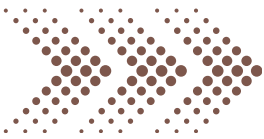


SDR-CB-60R-C SERVO DRIVE SPECIFICATIONS

REVISION C (NOV 2025)



SDR-CB-60R-C

TECH SPECIFICATION



Supported motor types	PMSM, BLDC, Servo, Frameless, Brushed motors
Nominal Current	40 Arms, 60A peak
Input Voltage	8V to 60V DC
Control loop frequency	15 KHz - Position, Velocity and Torque/Current Control operate at the same frequency (1:1:1).
Mode of operations	Servo Control / Position Control Electronic Speed Control (ESC) / Velocity control Electronic Torque Control (ETC) Auto-Configuration/System Identification. Energy Recuperation Brake
Supported algorithms of brushless motor control	Field-Oriented Control (FOC), Sensorless Observer Hall Sensors Observer, D-Q axis Coupling Compensation, Field Weakening, Protections, Notch Filters, Low Pass Filters
Auto configuration (system identification) function	Yes
Hall Sensors input (discrete)	Yes ("single-ended")
Interfaces to absolute position encoders	BISS-C (unidirectional), SSI, SPI, PWM, Quadrature with Index Signal ("single-ended")
Max. resolution of encoder	32 bit
Control Interfaces	CAN bus up to 1 mbit/sec , USB 2.0
GPIO functions	2x Limit Switch inputs 1x Emergency Stop input
Supported operating systems	Windows 11 Windows 10
Tunning software	Yes (Free)
Power consumption when idling	120-180 mA
ADC resolution & Gain	12 bit (25% of the peak current (75Amp))
Operating temperature	-40 to +60 deg c

SDR-CB-60R-C

COMPATIBILITY CRITERIA FOR BRUSHLESS MOTORS

Rule 1: Motor Phase-to-Phase Maximum Current Limit
Nominal current < 60 A

Rule 2: Electrical Time Constant Limit
Verify that $L/R > 0.00018$

Rule 3: Max Speed Limit
 $(\text{RPM}/60) * (\text{Poles}/2) < 1200$ (electrical Hz) for Sensorless motors or direct drive motors with Encoders, or
 $(\text{RPM}/60) * (\text{Poles}/2) < 800$ (electrical Hz), if Hall Sensors are used for motor phase commutation,

Rule 4: Motor Nominal Voltage
The motor's Nominal Voltage must be less than or equal to 60 V DC.
The optimal / most practical voltage limit is 52 V DC.

LAYOUT

