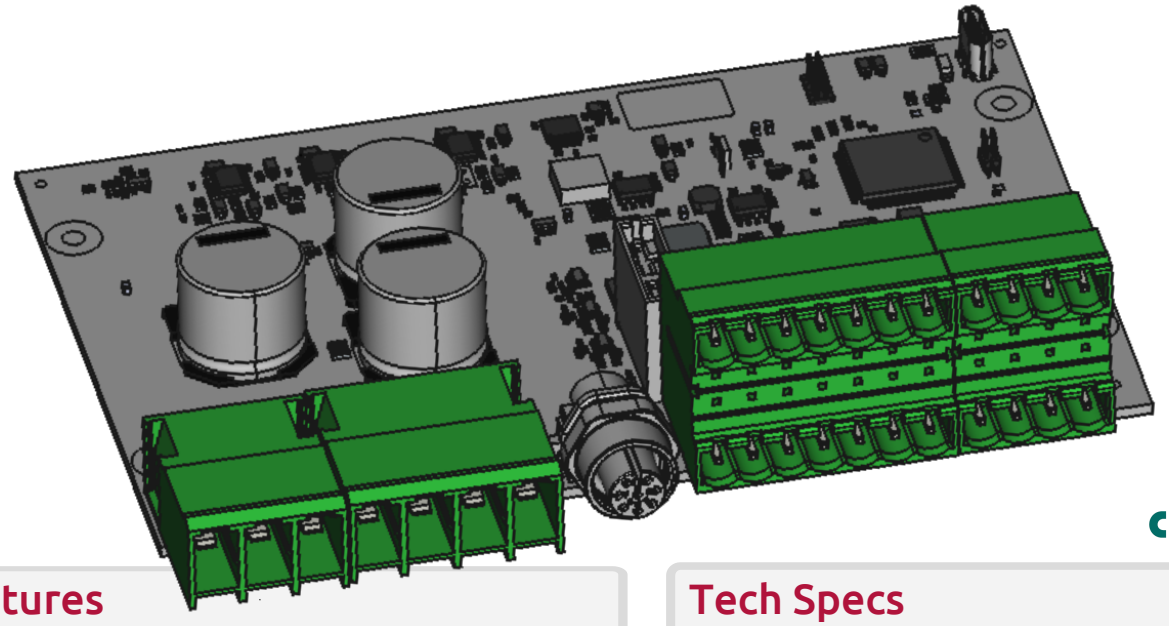
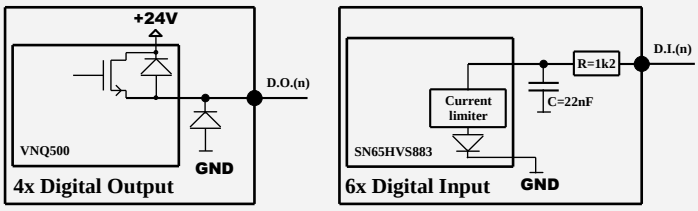
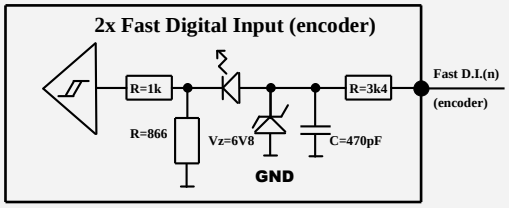


Features

- Industrial grade motor driver powered at 48Vdc
- Current is limited internally to prevent any damage
- Power logic protected with fuse (automotive, blade)
- Communicates with any industrial computer board or PLC via CANopen with master/slave role selectable
- 6 digital inputs
- 4 high speed digital outputs
- 2 high speed digital inputs capable of reading 1 encoder
- Drives any motor using feedbacks provided by Hall sensors
- BLE communiction ready
- It's easy to set it up and tunevia DeviceManager software

Input/Output topology





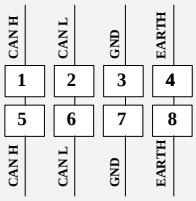
Tech Specs

Logic Power supply	Derived from 48V Power Bus
Processor	XMC4700-F100X1536
CPU	ARM Cortex M4 @ 144MHz
Memory	1536 MB internal flash + 1 MB configuration serial flash
RAM	276KB SRAM
CAN Ports	1 CANopen channel (with dipswitch role selection)
USB Ports	1 USB 2.0 type C
Bluetooth	BLE 5.4
I/O Power Supply	Common with logic power supply
H Speed Dig IN(3.3us RC)	2 @ 24V
Digital IN (4.7us RC)	6 @ 24V 2,5mA
H Speed Dig OUT	4 @ 24V 400mA PNP
Encoder 1	24V input (SA,SB)
Encoder 2	3 Hall inputs (5V, dedicated supply output)
Motor type	BLDC
Power Bus Voltage	48Vdc ± 10%
Motor Current	90A (120A peak)
Current limiter	Software limiter
Current Loop Control	20kHz
Power Area Temperature	Dedicated temperature sensor on PCB
Hardware Watchdog	220us
I2t	Irms current
Reverse polarity	Logic circuit, diode
Storage C°	-40 to +85 °C
Operating C°	0 to +45 °C
Humidity	0 to 95%, non condensing
Size (mm)	107,9 x142,5x38,0
Weight (g)	167
Case	Open frame board
Heatsink	Small anodized aluminum heatsink (external heatsink needed)
Heatsink temperature	NTC sensor

CSMC13-1 42AE03 “BLDC Motor Control, Device CAN/Bluetooth”

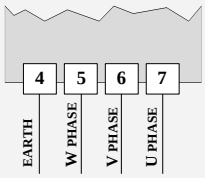
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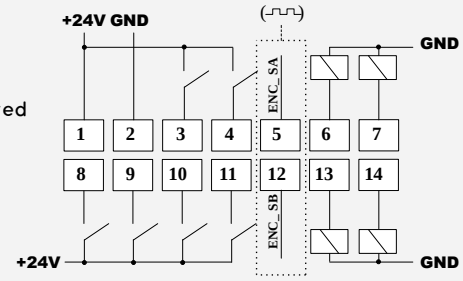
X4

Motor connection



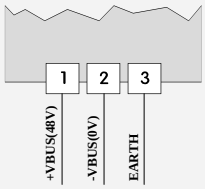
X2

+24V is provided by the board, internally generated

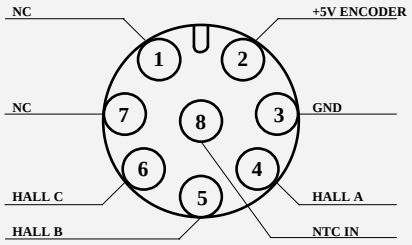


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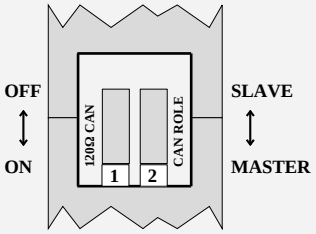
Power input

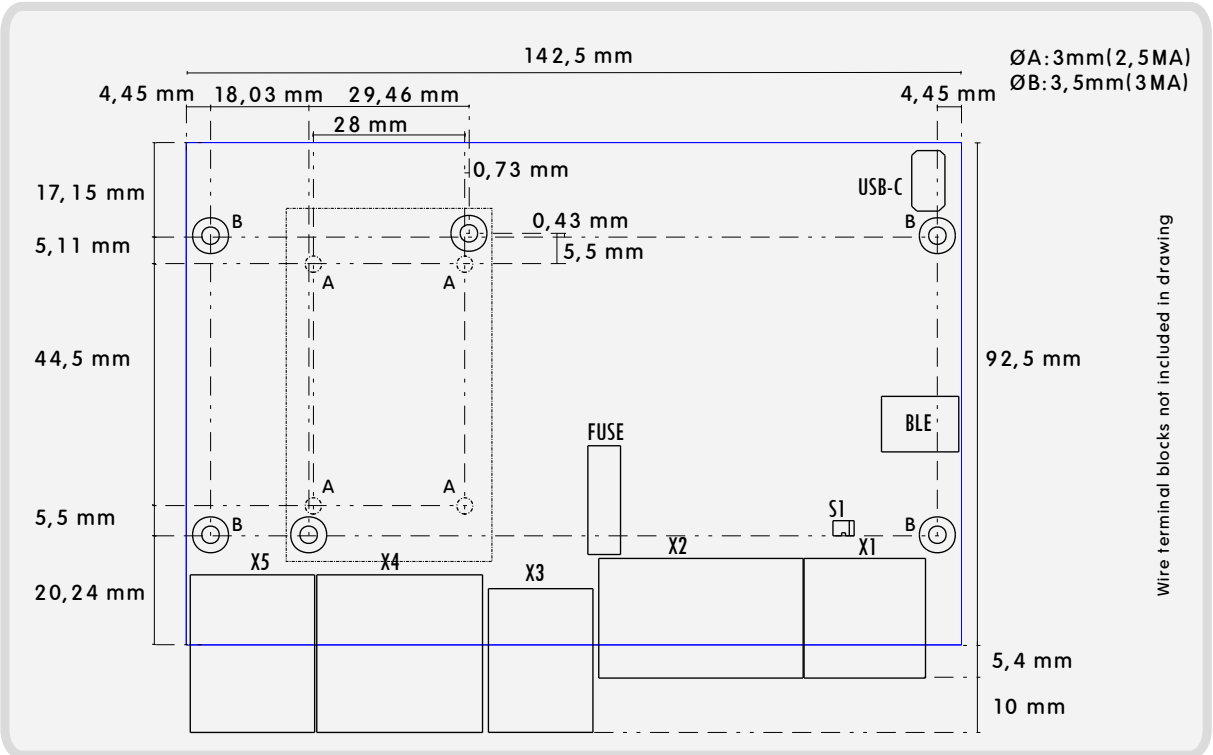


X3



S1





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