



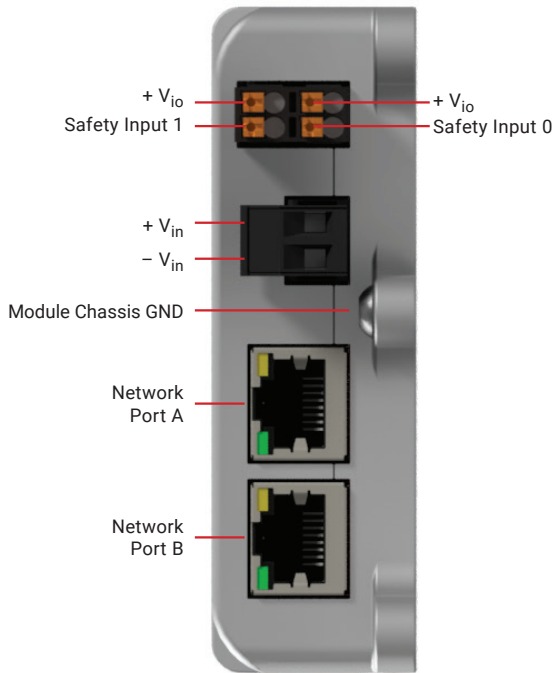
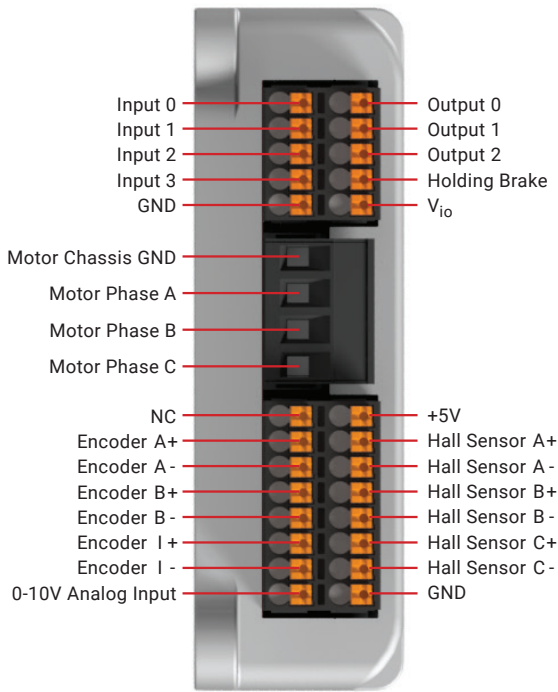
Electrical Input	
Input Voltage (V_{in})	12 - 48 VDC continuous with auto-detection of voltages: <ul style="list-style-type: none"> • 12V +/- 10% • 24V +/- 10% • 36V +/- 10% • 48V +/- 10%
DC Input Full Load Current	12A
DC Input Idle Current	100mA

Motor Output	
Control Methods	<ul style="list-style-type: none"> • Torque • Speed • Position
Acceleration / Deceleration Methods	<ul style="list-style-type: none"> • Linear • Jerk-limited S-curve
Output Duty Cycle	0-100%
PWM Frequency	20KHz
Continuous Rated Motor Current	15A (10.6A RMS)
Peak Motor Current	33A (23.3A RMS)
Converter Efficiency at 100% PWM Output	Up to 97%
Continuous Rated Electrical Output Power	$V_{in} = 12V$ 135W
	$V_{in} = 24V$ 270W
	$V_{in} = 36V$ 405W
	$V_{in} = 48V$ 540W
Intelligent Internal Brake Resistor	8W continuous, 80W peak*

* Check user manual for in-depth description of operation and limitations.

Environmental	
Operating Temperature (Surrounding Air)	-20°C to 55°C
Storage Temperature	-45°C to 85°C
Humidity	0% to 95% non-condensing
Ingress Protection	IP40

Motor Feedback	
Supported Encoder Types	Incremental (A,B) with or w/o index pulse. Differential or single-ended signals.
Supported Hall-Effect Sensor Types	120° differential, single-ended, or open-collector signals.
Encoder / Hall-Effect Sensors Supply Voltage	5.0V +/-5%
Input Voltage Range	-0.5 to 5.5V
Available Supply Current	150mA



I/O	
Connections	4 Digital Inputs (PNP/NPN) 3 Digital Outputs (PNP) 1 Analog Input
I/O Supply DC Voltage (V_{io})	$V_{in} > 24V: V_{io} = 24V$ $V_{in} < 24V: V_{io} = V_{in}$
I/O Supply DC Current	Up to 300 mA
Digital Output Current	125 mA
Input Voltage Range	-0.5 to 30V
Input ON Current	1 to 8 mA
Input OFF Current	0 to 0.1 mA
Analog Input Voltage Range	0-10V
Analog Input Impedance	10-15 k Ω

Holding Brake Output	
Output Voltage	V_{io}
Available Output Current	≤ 1 A
Internal Pullup Resistor	30 k Ω
Off State Leakage Current	≤ 1 mA

Safety Inputs	
Safety Supply DC Voltage	V_{io}
Safety Input Voltage Range	-0.5 to 30V
Safety Input Energize Voltage	10 to 28V
Safety Input De-energize Voltage	< 5V
Safety Functions	STO @ SIL-3* SBC @ SIL-3*
Reaction Time **	≤ 5 msec
Pulse Blanking**	1 msec nominal

* Certification pending
 ** Consult the safety manual for full details on input pulse blanking and reaction times.

