Technical information

General

General	
Dimensions	166 mm x 106 mm x 56 mm (excluding connectors and feet)
Weight	0.5 kg
Protection class	IP 20
Temperature	Operation 10°C to 60°C, Storage -10°C to 85°C
Power requirements	48 Vdc ± 5%, 48 W max. (Power supply is included)
Safety compliance	EN 61010-1-2010
EMC compliance	Emissions EN61800-3:2018, EN55032 Class B, 3m (As 61800-3:2018, Table 17, Category C1, first environment) Immunities, EN55035, basic electromagnetic environment
Motor driver	
Type	2 phase bipolar stepper motor driver for 4-lead motors
Phase current	Up to 1 A RMS, adjustable in 30 mA steps
Source voltage	67 Vdc maximum 48 Vdc supply is boosted to 67 Vdc. Boost function can be disabled if required.
Resolution	Full, 8, 16, 32, 64, 128, 256 micro-stepping Stops on full step positions only, micro-stepping is used for control of resonance and smoother step transition.
Step frequency	1 Hz to 15 kHz
Protection	Short to ground and phase to phase
Encoder (Where fitted)	

General	
Supported types	Digital incremental and BiSS absolute
Power	5V at 250 mA max. is available to power the encoder, protected by self-resetting fuse.
Connection	Female 26 way high density D-Sub. Encoder connects via adapter cable according to encoder type. Adapter cables for supported encoders are available from AML.
Incremental encoder support	Digital (RS422) incremental encoders having differential A, B and Z signals. Single ended P and Q limits signals are supported. Maximum clock rate 1 MHz.
Absolute encoder support	26 bit BiSS-C (support for other bit depths may be added via firmware update)
Motor temperature measurement	
Type	Selectable PT100 RTD or K-Type thermocouple
Range	-200 °C to 240 °C
Accuracy	±15 °C for thermocouple, ±5 % for RTD
Fault detection	RTD: Open and short-circuit Thermocouple: Open circuit only
Operating modes	
• Remote - Control and configure via USB, Ethernet or Serial • Step, Direction Enable (SDE) -For connection to an external motion controller or PLC • Bake - Programmed cycle to heat the motor while stopped to drive off adsorbed gasses	
Control interfaces	
USB	USB 2.0 Full Speed via USB-C connector Virtual COM port and firmware update interface

Mechanical

All dimensions are in millimetres.