



CL 1400

High Performance Motor Controllers



Overview



From rugged terrain to commercial platforms, the CL-Series controllers deliver powerful torque, rock-solid stability, and smart integration. Built on robust VESC-based firmware, they support sensed, sensorless, resolver, and magnetic encoders—offering precise control for high-load electric vehicles across a broad voltage range.

Designed for demanding OEM and builder use, the CL1400 includes intelligent DC-DC power, a user-friendly GUI, and field-tested durability—making it the smart choice for heavy-duty, high-torque EV builds and industrial mobility.

Key Features



4-quadrant operation



Multiple speed modes



Variable regenerative braking



Cruise modes (ADC/PPM)



Traction control



Hill assist



Adjustable protection logic



Multiple control modes

Supported Applications



Full-Size
Dirt Bike



Full-Size ATV



Golf Cart



3-Wheeler



Mini Tractor



Small EV
Four-Wheeler



Pit Bike



Electric Boat
/ Pods



Electric Scooter



DIY EV Projects



Mini Winch



RC Aircraft

Technical Specifications



Electrical, Environmental & Functional

Parameter	CL1400
Voltage	36 to 126V
Battery Current	700A
Phase Current	1400A
ERPM	150k
Operating Temperature	-25°C to 75°C
IP Rating	IP67
Motor Support	BLDC, FOC (Sine), Sensorless
Temperature Sensor	NTC and PTC
Position Sensor	SIN-COS, ABI, HALL, AS5047, AS5048A, Sensorless
Operation Modes	Sensored & Sensorless
Switching Frequency	40 kHz

Technical Specifications



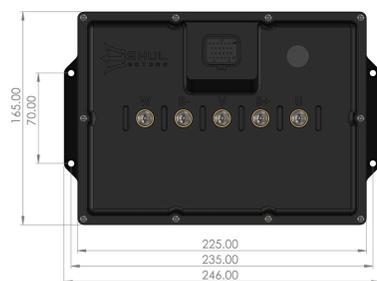
Physical, Interface & Performance

Parameter	CL1400
Max Encoder Resolution	8192
Efficiency	Up to 99%
Communication	USB, CAN, UART, BT
Dimensions	246 × 165 × 82
Weight	4.73 kg
Cooling Method	120 mm Fan Mount / Passive / Liquid Cooling
Power Terminals	14mm Circular Busbar
Analog Inputs	2 (ADC1, ADC2)
Digital Inputs	SIN-COS, ABI, Hall, AS5047/48A
Digital Output	AUX 1
12V Power Supply	12V 5A onboard

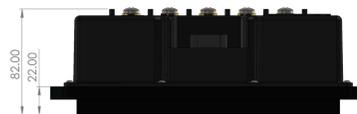
MECHANICAL DRAWINGS



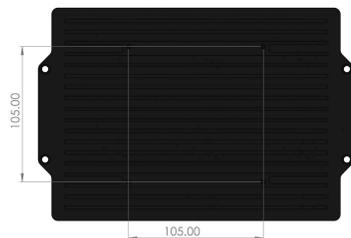
CL1400 MOTOR CONTROLLER — DIMENSIONAL SPECIFICATIONS



Top View



Side View



Bottom View



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Primary Dimensions

Length	246 mm
Width	165 mm
Height	82 mm

Mounting Specifications

Mount Spacing	105 mm
PCB Clearance	225 mm
Terminal Span	235 mm



Thank You

For OEM & Bulk Orders, Contact Our Team



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