

CSL3

BLDC controller for I/O-based applications

The CSL3 motor controller / drive provides a cost-effective solution for brushless DC motors with a maximum rated current of 3 A and a rated power of up to 72 W. In addition to precise speed control, it also supports positioning through Hall sensors. Parameterization is done through Plug & Drive Studio. With pre-programmed control modes, the motor can operate in either Profile-Velocity or Profile-Position mode, selectable via digital inputs.

Versatile use

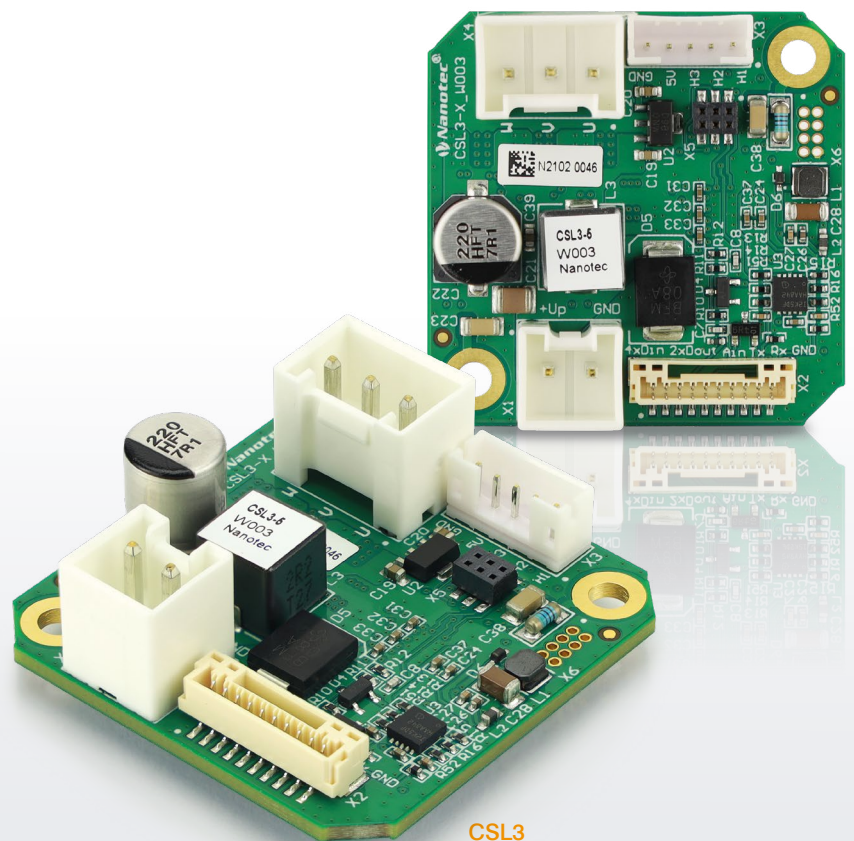
This compact controller / drive measures just 40 x 40 mm and can be combined with many BLDC motors from Nanotec. To save even more space, it can be directly mounted onto a NEMA 17 motor. Its small size and high functionality make the CSL3 suitable for a wide range of applications.

High Performance

Smooth operation is ensured by the CSL3's 4-quadrant control and sinusoidal commutation. This allows for efficient control of torque and speed while minimizing losses.

Individual configuration

The analog input can be used to set target speed and torque limit, as well as monitor other relevant process variables. Additionally, the flexible configuration of digital outputs allows connection to external systems for status reports, alarms, or the control of additional devices.



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Technical data

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Operating voltage	10 – 30 V
Rated current (RMS)	3 A
Peak current (RMS)	9 A (max. 5 s)
Digital inputs	4 (CSL3-5: 5 V, CSL3-24: 24 V)
Analog inputs (0 – 10 V)	1 (12-bit resolution)
Digital outputs	2 (high-side switch)
Protective circuit	Under- and overvoltage detection, overtemperature protection
Configuration interface	UART 3.3 V via RS232-USB Converter Protocol Modbus RTU
Control modes	<ul style="list-style-type: none">Profile Velocity with target speed via digital inputs / analog inputs / supply voltageProfile Position with target position via digital inputsHoming on block
Dimensions	40 x 40 mm



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