

BLSD-20MODBUS

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BLDC controller - 24 – 48 V - 20A

- Modbus RTU/ASCII communication
- Speed and position control
- Programmable standalone operation
- Adjustable current limiting
- Suitable for 24–48 VDC BLDC motors



PRODUCT DESCRIPTION

BLSD-20Modbus Brushless DC Motor Controller

The **Smart Motor Devices BLSD-20Modbus** is a compact and intelligent brushless DC motor controller designed for precise speed and position control of 3-phase BLDC motors with Hall sensors. Supporting both standalone operation and networked control via **RS-485 Modbus RTU/ASCII**, the controller is ideal for industrial automation, machine building, robotics, packaging equipment and OEM applications.

The BLSD-20Modbus combines advanced motion control functions with simple configuration, allowing users to regulate speed, acceleration, deceleration, position and motor current limits. Its programmable memory enables custom operating sequences to be stored directly within the controller, reducing PLC requirements and simplifying machine design.

Designed for 24–48 VDC systems and motors up to 20 A continuous current, the BLSD-20Modbus provides overload protection through adjustable current limiting and supports analogue speed control via 0–5 VDC signals or an external potentiometer. Active braking, position holding and emergency stop functionality ensure reliable operation in demanding industrial environments.

Key Features

- For 3-phase BLDC motors with Hall sensors
- RS-485 communication with Modbus RTU and ASCII protocols
- Speed, position and direction control
- Adjustable acceleration and deceleration ramps
- Programmable standalone operation with onboard memory
- Up to 20 A continuous motor current (80 A peak)
- 24–48 VDC supply voltage
- Adjustable motor current limiting for overload protection
- Analogue speed reference via 0–5 VDC or potentiometer
- Active braking and position holding capability
- Compact DIN-rail mountable design

Typical Applications

- Packaging machinery
- Conveyor systems
- Robotics and automated handling
- Textile machinery
- CNC and manufacturing equipment
- Special-purpose machines and OEM automation systems

TECHNICAL DATA

2421_Peak current (A)	30
Brake output	Yes
Change direction of rotation (CW/CCW)	Yes
Current limit adjustable	Yes
Impulse/continuous mode	Yes
Potentiometer adjustable speed	Yes
RS485/Modbus	Yes
Softstart/stop	Yes
Speed settings	Yes
Supplier	Smart Motor Devices
Weight	200 g

