RS PRO, 0206417 BLDC Programmable Motor Controller, Voltage Control, RS-485 Modbus, 24 → 48 V, 20A

RS Stock No.: 0206417

Features

- Programmable motion
- Free software for parameters setting and programming
- Voltage input control
- RS-485 Modbus speed and position control
- Supply voltage 24 to 48 VDC
- Motor overload protection with adjustable current limiting 1 to 20 A
- Programmable discrete inputs
- Soft start and stop settings
- HARD_STOP emergency signal
- Hardware short circuit protection
- Thermal protection

RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

The controller is designed to operate with 3-phase BLDC motors with Hall sensors. The model provides RS-485 Modbus ASCII/RTU communication for programming, setting of operation parameters and state control. BLSD-20Modbus provides speed and position control, motor current limitation, holding possibility.

The controllers have active braking capability and provide four-quadrant control of a DC brushless motor.

The device is controlled via the RS-485 interface, Modbus RTU or ASCII protocol, or by external signals applied to the controller inputs. The controller provides the following functions and capabilities:

- speed and position control of a BLDC motor with Hall sensors;
- speed stabilization of a brushless motor based on Hall sensor data;
- four-quadrant control of a brushless motor;
- speed setting via Modbus or external analog signal;
- assignment of acceleration and deceleration values;
- programming of the motor operation algorithm, start of the user control program by the command via Modbus or automatically when the drive is powered on;
- programming of inputs IN1 and IN2, which can also be used as START/STOP and REVERSE/DIRECTION signals;
- selection of the logic of operation of the input signals IN1 and IN2 (START/STOP and REVERS) – triggering on the front edge or signal level;
- positioning to a given coordinate or a displacement by a given value according to Hall sensors data within the range from – 2,147,483,647 to + 2,147,483,647 Hall sensor switching.

General Specifications

Compatible Motor Type	BLDC (3-phase DC brushless) motors with Hall sensors
Phase	3
Control Input	RS-485 Modbus, Voltage; Potentiometer
Operating Modes	Close-loop speed and position control
Protective Functions	Current limit, overcurrent, excess temperature, under voltage, short circuit
Applications	Industrial automation, robots, package machines

Display	
Status operation indicator	Green and red LED

Electrical Specifications

DC Motors up to	960 W
Supply Voltage	24VDC to 48VDC
Current Rating	Up to 20A
Voltage Rating	24VDC to 48VDC
Maximum Output Voltage	48V
Current limiting setting	1 A to 20 A
Hardware short-circuit protection	30 A
Maximum Speed	20000 rpm
Interface	RS-485

Inputs	
Digital Inputs	3
Functionality Of Digital Inputs	Start/stop, rotation direction, emergency STOP, programmable inputs
Analogue Inputs	1
Functionality Of Analogue Inputs	Speed control 0...5V

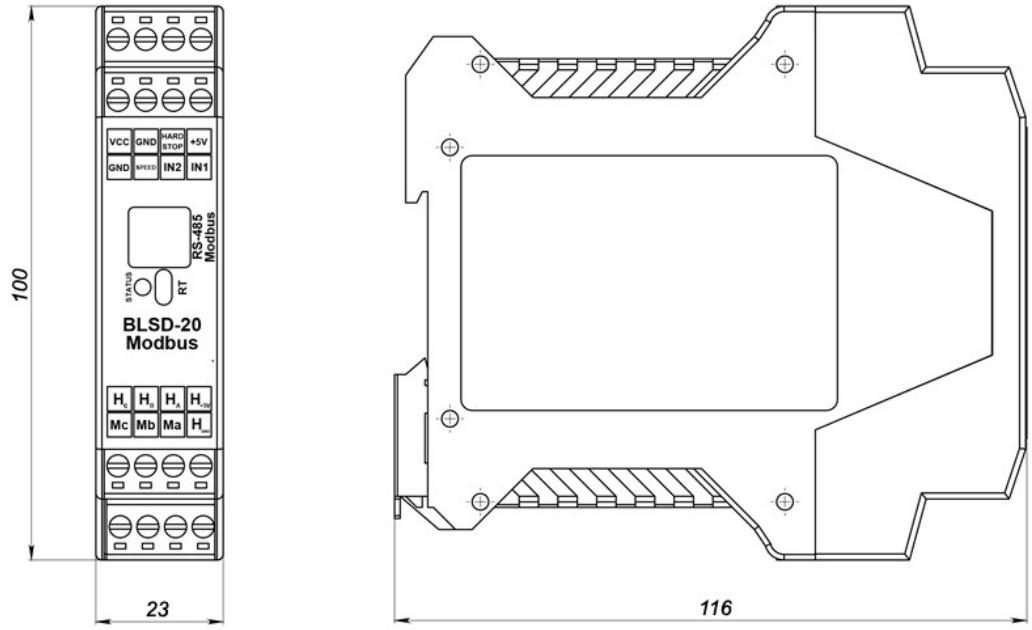
Mechanical Specifications

Mounting Style	DIN-rail Mount
Dimensions	116 mm x 23 mm x 100 mm
Height	100 mm
Width	23 mm
Depth	116 mm
Weight	0.15 kg

Operation Environment Specifications

Operating Temperature Range	0°C to 40°C
Humidity (non-condensing)	up to 90%

Dimensions:



Connection: