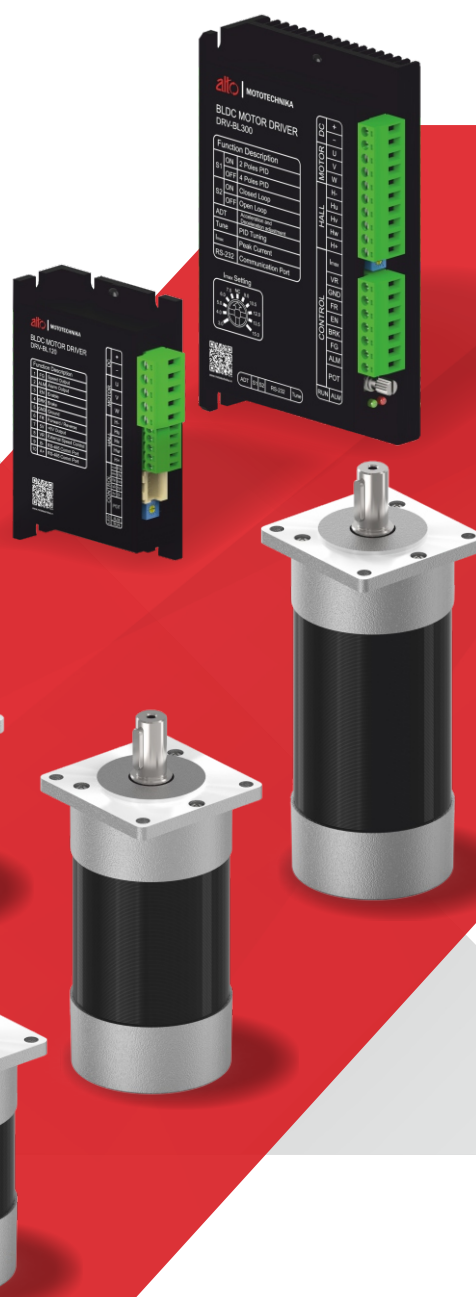




EXPERIENCE THE FUTURE OF MOTION  
**HIGH-PERFORMANCE  
BLDC MOTORS & CONTROLLERS**





Mototechnika is a dynamic and innovative company that has established itself as a leading name in the AC Induction motor industry since 1996, with its brand name Alto becoming synonymous with quality, reliability, and excellence. Their future-oriented approach has led them to design and manufacture some of the most advanced Brushless DC Motors (BLDC), which are among the best in the market today. Mototechnika uses state-of-the-art equipment and techniques to ensure that every motor they produce is of the highest quality, and their team of experts are always available to provide customized solutions that precisely match their client's needs. Their motors are also lightweight and compact, making them easy to install in a wide range of applications across industries such as automotive, industrial automation, robotics, medical and more. With their expertise and resources, Mototechnika has the ability to deliver custom solutions that exceed industry standards.

**TOP-OF-THE-LINE MANUFACTURING EQUIPMENT**

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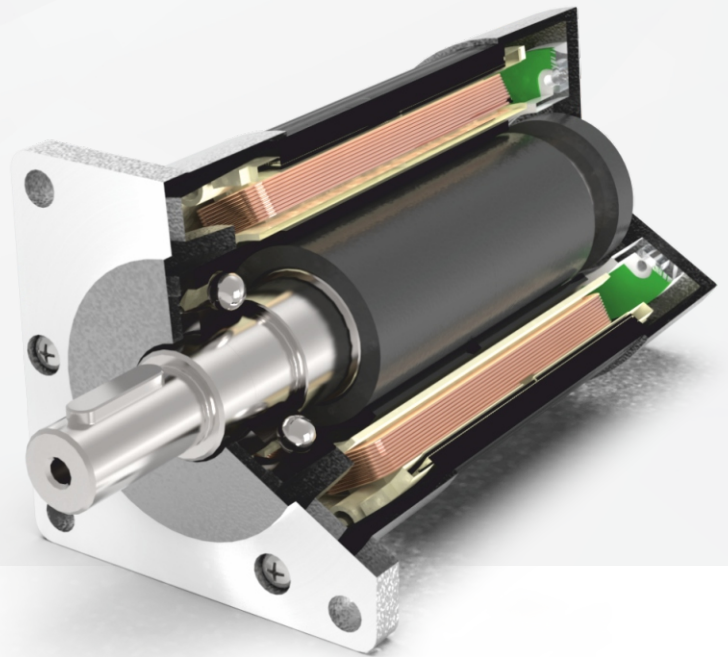
**LATEST QUALITY CONTROL EQUIPMENT**

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**HIGHLY-SKILLED PERSONNEL**

## WHY BRUSHLESS DC MOTORS ?

Discover the cutting-edge technology of Brushless DC (BLDC) motors. Utilizing electronic commutation, these motors overcome the drawbacks of conventional brushed motors. They're versatile, well-suited for a broad range of applications, from medical equipment to industrial machinery and consumer electronics. Offering precision, longevity, and consistent performance, BLDC motors are setting new benchmarks in diverse fields.



### Compact design

Minimal Footprint, maximum power



### High efficiency

Exceptional efficiency for substantial savings



### Low noise and vibration

Virtually silent with minimal vibration.



### Wide speed range

Broad speed capabilities for a range of operations.



### Constant torque operation

Consistent torque across various speeds and loads.



### Long life span

Durable and long-lasting performance.



### Lower operating temperature

Reduced heat generation for improved efficiency and longevity.



### Fan-less design

Efficient cooling without a fan resulting in better performance



## Range of BLDC MOTORS: AL57



AL57BL01

AL57BL02

AL57BL03

AL57BL04

### DRIVER CONTROL FUNCTIONS

Pin	AL57BL01	AL57BL02	AL57BL03	AL57BL04
Length (L) (mm)	68	88	108	120
Resistance ( $\Omega$ )	1.63	0.58	0.45	0.35
Inductance (mH)	4.4	2	1.5	0.95
Back Emf (Vrms/kRPM)	3	3	3	3
Nominal Voltage (V)	24	24	24	24

#### No-Load Specs

Speed (RPM)	5700	5700	5700	5700
Current (A)	0.45	0.6	0.68	0.8

#### Rated Specs

Speed (RPM)	4000	4000	4000	4000
Current (A)	2.7	5.5	7.5	10.6
Output Power (W)	46	90	140	180
Torque (Nm)	0.11	0.22	0.33	0.44

#### Peak Specs

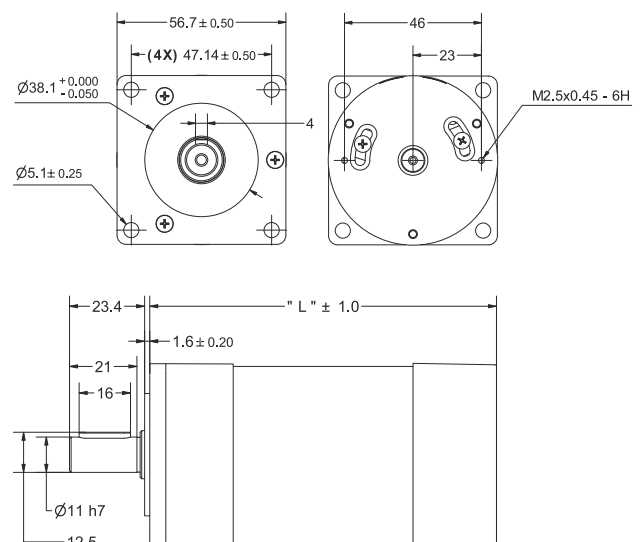
Current (A)	10.2	18	24	32
Torque (Nm)	0.33	0.66	1.0	1.27
Weight (kg)	0.5	0.8	1.0	1.2

Customized speed and voltage configurations available on request.

### TECHNICAL FEATURES

Phase	3
Number of Poles	4
Frame Size	57 mm
NEMA Size	24
Rated Voltage	24V/36V/48V
Rated Speed	4000 RPM
Maximum Speed	5700 RPM
IP Rating	40
Ambient Operating Temperature	-15 to 80 deg C
Storage Temperature	-15 to 100 deg C
Direction	Bi-directional
Dielectric Strength	500V for 1 minute
Insulation Resistance	100 $\Omega$ Min. 500 VDC
Hall Effect Angle	120° electrical Angle
Insulation Class	Class B
Hall Sensor Voltage	5V

### DIMENSIONAL DRAWING

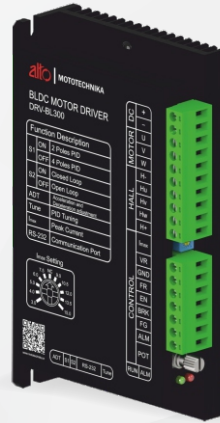




# BLDC CONTROLLER: DRV-BL300

## Features

- Supports Sensored BLDC motor for better response at lower speed
- Supports both open and closed loop function
- PID speed control
- Over current, Over voltage, Over heat protection
- Motor Stall Detection
- Supports RS-232 communication protocol
- Motor speed feedback
- Adjustable acceleration and de-acceleration



## DRIVER CONTROL FUNCTIONS

Pin	Function	Remark
F/R	Direction	Clockwise - HIGH, Anti-Clockwise - LOW
EN	Enable	Disable - HIGH, Enable - LOW
BRK	Brake	Brake - HIGH, Run - LOW
SV	External Speed Control	Analog voltage 0-5V / PWM Speed Control 1kHz-10kHz
RV	Speed Control (Inbuilt)	Inbuilt Potentiometer for Speed Control
Speed	Speed Feedback	Output
Alarm	Alarm Feedback	Output
CP-IN	RS232 Communication	Communication port for various Peripherals
LED's	Driver Status	Indicates various state of Driver

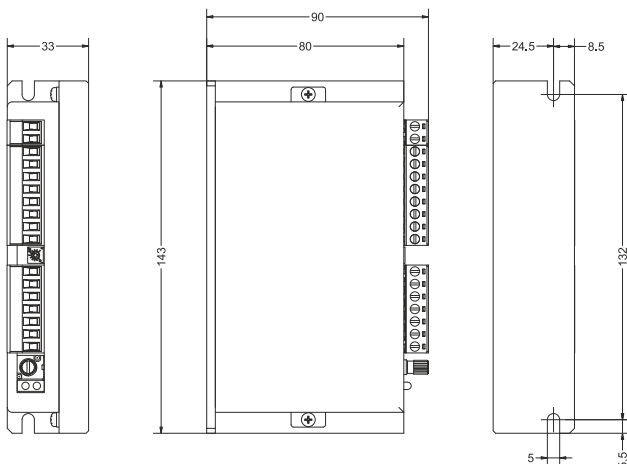
## TECHNICAL DATA

Parameter	Value	Unit
Supply Voltage	18-50	VDC
Output Current	0-35	A
Speed Range	0-2000	RPM
Control Signal Voltage	5	V
Hall Sensor Voltage	4.5-5.5	V
Hall Sensor Current	20	mA

## SPEED CONTROL OPTION

- Inbuilt Potentiometer
- External Potentiometer
- PWM Speed Control
- External Analog Input

## DIMENSIONAL DRAWING



# BLDC CONTROLLER: DRV-BL120

## Features

- ☑ Supports Sensored BLDC motor for better response at lower speed
- ☑ Supports both open and closed loop function
- ☑ Over Current, Over Voltage, Over heat Protection
- ☑ Motor Stall Detection
- ☑ Supports Modbus (RS-485) Communication Protocol
- ☑ Motor Speed Feedback
- ☑ Adjustable Accelation and Deacceleration



## DRIVER CONTROL FUNCTIONS

Pin	Function	Remark
F/R	Direction	Clockwise - HIGH, Anti-Clockwise - LOW
EN	Enable	Disable - HIGH, Enable - LOW
BRK	Brake	Brake - HIGH, Run - LOW
SV	External Speed Control	Analog voltage 0-5V / PWM Speed Control 1kHz-20kHz
RV	Speed Control (Inbuilt)	Inbuilt Potentiometer for Speed Control
PG	Speed Feedback	Output
ALM	Alarm Feedback	Output
A+, B-	Modbus (RS-485) Communication Port	Communication port for various Perepheries
LED's	Driver Status	Indicates various state of Driver

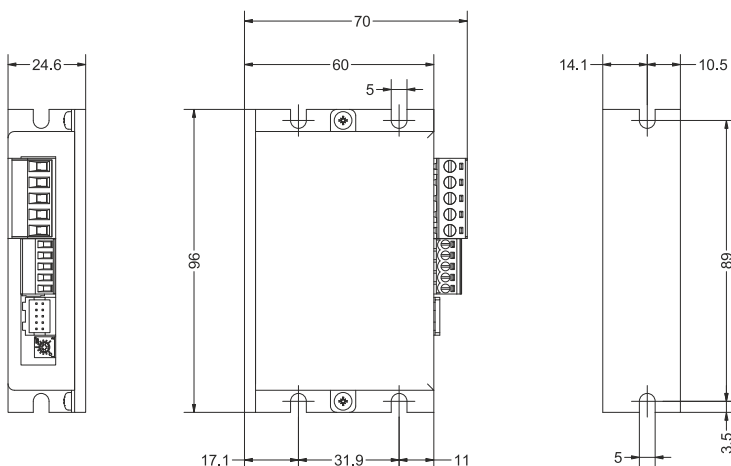
## TECHNICAL DATA

Parameter	Value	Unit
Supply Voltage	10-60	VDC
Output Current	1-15	A
Speed Range	100-30000	RPM
Control Signal Voltage	5	V
Hall Sensor Voltage	4.5-5.5	V
Hall Sensor Current	20	mA

## SPEED CONTROL OPTION

- Inbuilt Potentiometer
- External Potentiometer
- PWM Speed Control
- External Analog Input

## DIMENSIONAL DRAWING





## QUALITY ASSURANCE

We maintain a strict policy of eliminating any rejection after every process to improve speed, efficiency and reduce cost.

We test each and every motor manufactured on our auto test panel to the best quality standard so that we can maintain 0% rejection rate at customer end.

### STRINGENT TESTING

### ROBUST PROCESS AUDIT

### CONTINUOUS MONITORING

### HIGH QUALITY COMPONENTS

### COMPLIANT WITH MAJOR INTERNATIONAL STANDARDS

## **BEST BLDC MOTORS & CONTROLLERS FOR YOUR PROJECT**

Get in touch with us today.



Committed to delivering  
**EXCEPTIONAL QUALITY**  
and **EXCEEDING INDUSTRY EXPECTATION**

- Better Material
- Consistent Quality
- Excellent Performance

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