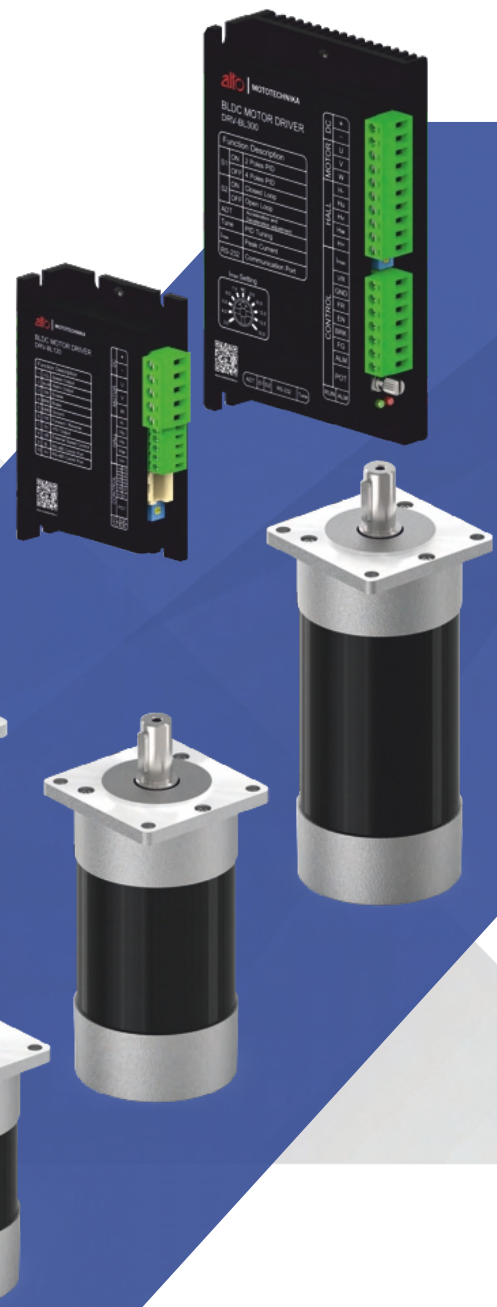




PITSON TRANSMISSION TECHNOLOGIES
Gearing Solutions

EXPERIENCE THE FUTURE OF MOTION

HIGH-PERFORMANCE BLDC MOTOR & CONTROLLERS



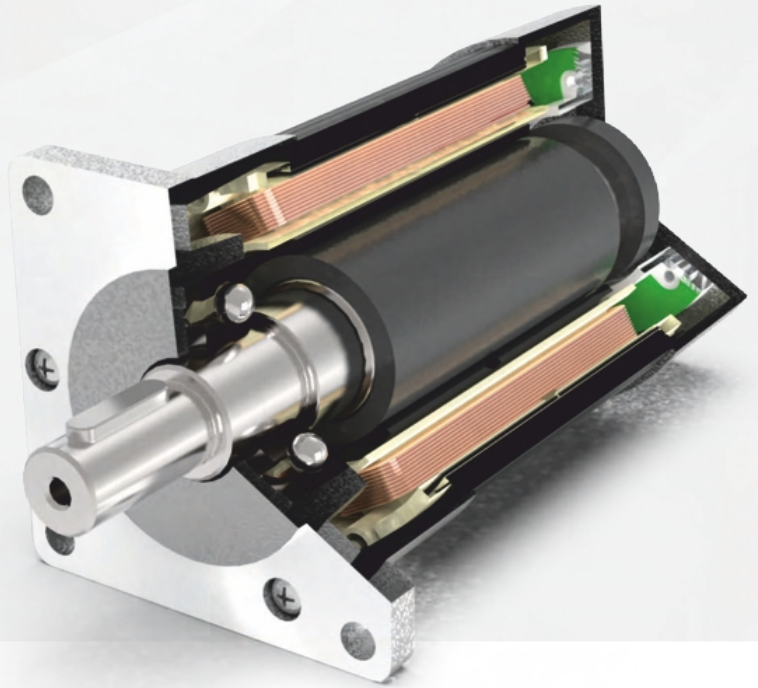


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www.pitsongears.com

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



DRIVER CONTROL FUNCTIONS

Pin	AL57BL01	AL57BL02	AL57BL03	AL57BL04
Length (L) (mm)	68	88	108	120
Resistance (Ω)	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

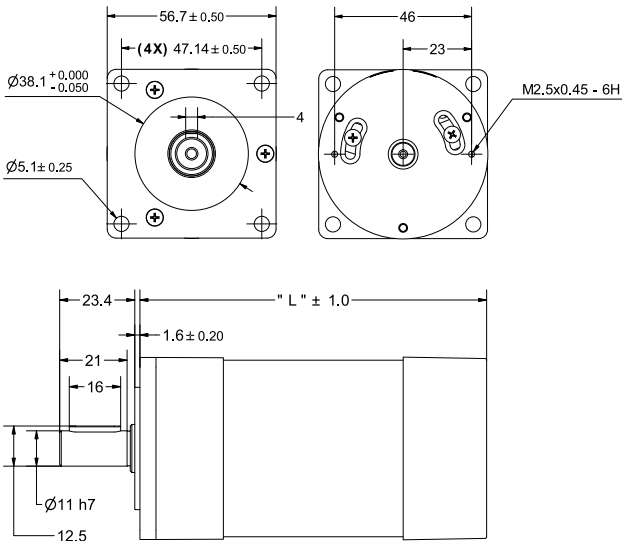
Current (A)	10.2	18	24	32
Torque (Nm)	0.33	0.66	1.0	1.27
Weight (kg)	0.5	0.8	1.0	1.2

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 Ω Min. 500 VDC
Hall Effect Angle	120° electrical Angle
Insulation Class	Class B
Hall Sensor Voltage	5V

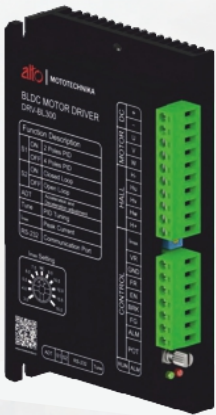
DIMENSIONAL DRAWING



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 Perepheries
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

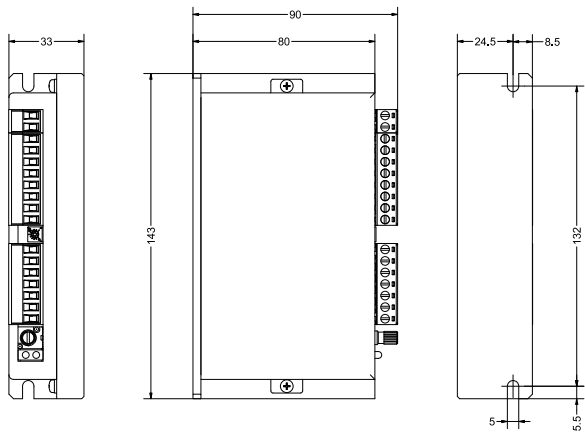
Inbuilt Potentiometer

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

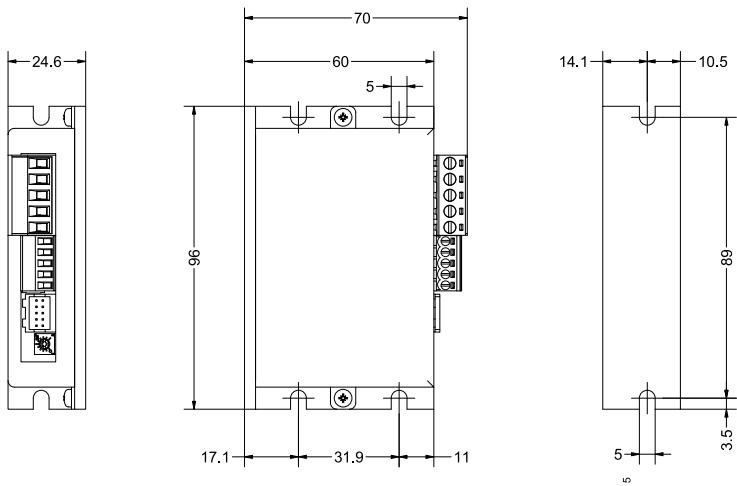
TECHNICAL DATA

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

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

DIMENSIONAL DRAWING





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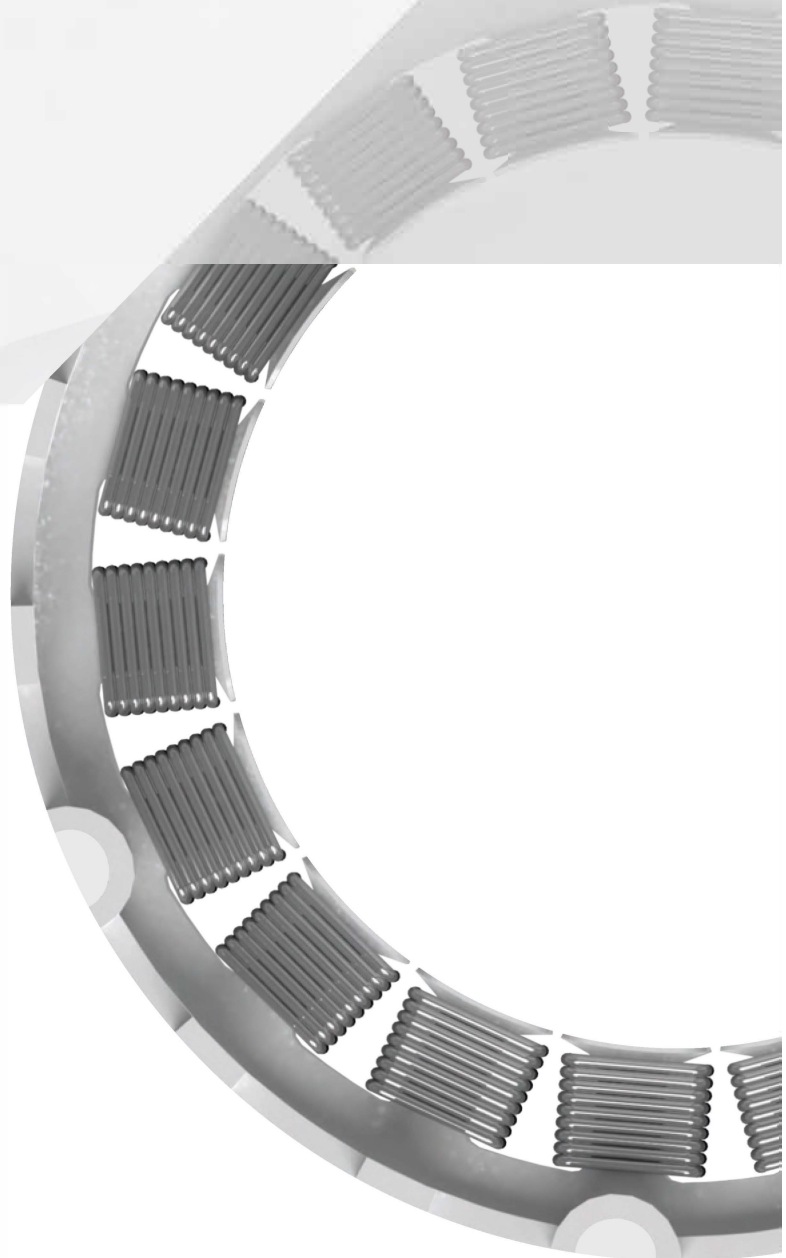
QUALITY ASSURANCE

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

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.





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