

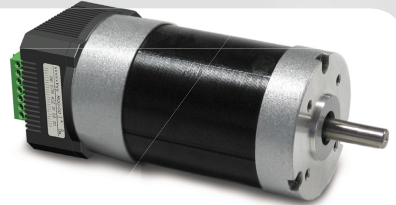
Installation instructions

Refer to installation use and maintenance manual for more information.



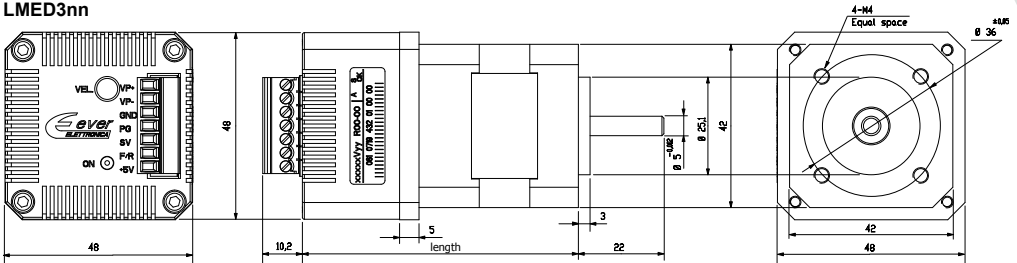
Brushless DC motor with integrated drive technical data

- DC power supply : 24Vdc LMED3 , 36Vdc LMED5;
- Rated torque : 0,062 ± 0,44Nm (4000rpm);
- Digital input: 5Vdc F/R rotation direction;
- Digital output: PG (TTL 24pulses/turn);
- Analog input: SV (voltage speed reference 0-5Vdc);
- Visualizations : Status Led (Green or Red)
- Dimensions and weight : refer to figure;
- Protection degree : IP20 ;
- Working temperature 5°C + 40°C ; Storage temperature -25°C + 55°C ;
- Humidity : 5% + 85% not condensing;

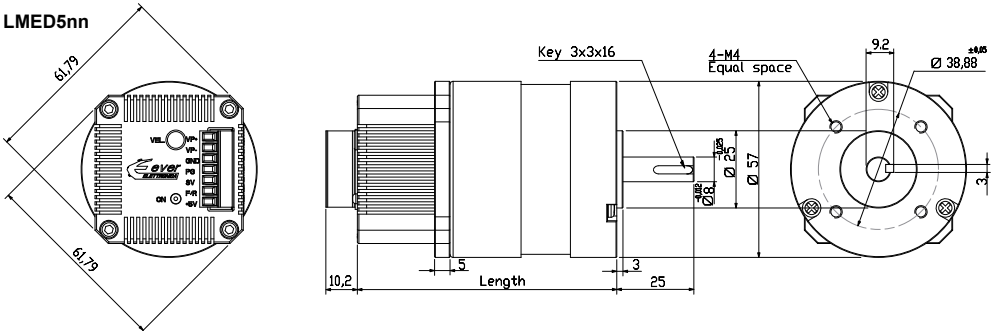


Mechanical data

LMED3nn



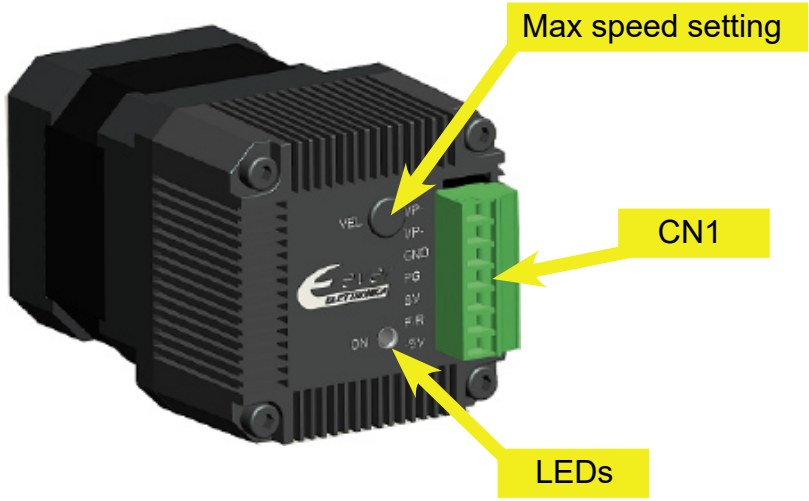
LMED5nn



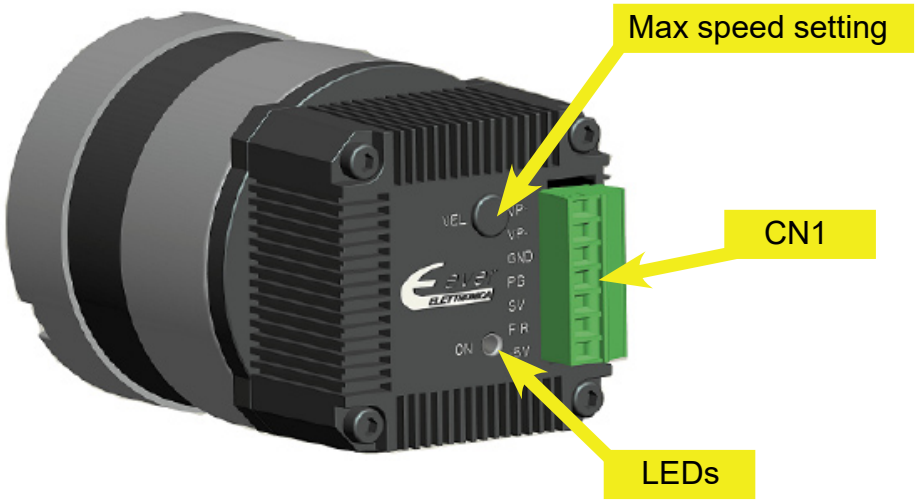
Model code	Rated Torque (Nm)	Peak Torque (Nm)	Power (Watt)	Length (mm)	Weight (Kg)
LMED3B1	0.06	0.19	26	71	0.9
LMED3C1	0.13	0.38	52	91	1.05
LMED3D1	0.19	0.56.	78	111	1.25
LMED3E1	0.25	0.75	104	130	1.4
LMED5B1	0.11	0.39	46	84	1
LMED5C1	0.22	0.63	92	104	1.25
LMED5D1	0.32	0.61	134	124	1.5
LMED5E1	0.44	0.63	184	144	2

Connections

LMED3nn

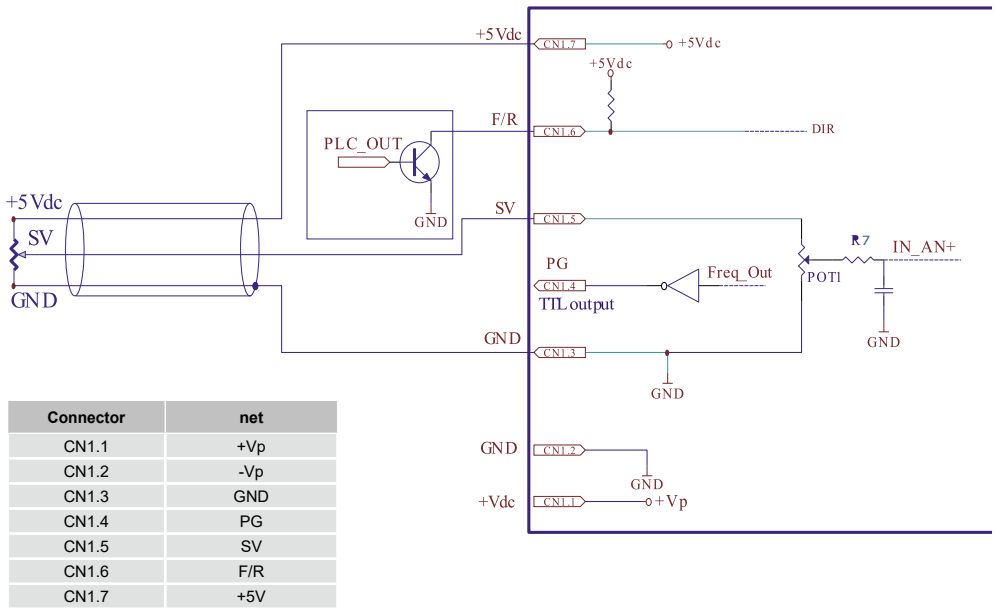


LMED5nn



Connector	Power supply and BLDC motor control	
CN1.1	+ Vp	Power voltage input
CN1.2	- Vp	Negative voltage power input
CN1.3	GND	System ground connection
CN1.4	PG	Output (TTL) speed reference 24 pulses/turn
CN1.5	SV	Voltage/Speed reference 0+5Vdc
CN1.6	F/R	Rotation direction (High=CW)
CN1.7	+5V	5 Volt output

Connection diagram



Status led

Green Led indicates the correct Power ON of the drive and the correct working status.

Red Led indicates that the drive is in FAULT condition (overvoltage or overtemperature)

- Overvoltage : $V_p > 38,7V_{dc}$
- Overtemperature : temperature of the drive is $> 75^{\circ}C$

If all leds are OFF then the drive is POWER OFF.

⚠ *Make sure that the motor doesn't stall. If it happens then shut down immediately the power supply and check the mechanics.*
N.B. : It's possible to control the speed rotation of the motor with the PG output of the drive.

Max speed setting

With the Trimmer it's possible to change the maximum speed of the drive. The factory value is 2000rpm.

To change the maximum speed setting remove the caps and rotate carefully clockwise the Trimmer with a small screwdriver.

Mating connectors

Connector	Description	Order code
CN1	7 position, pitch 3.5mm., plug connector PHOENIX CONTACT p# MC 1,5/7-ST-3,5	1840418

Cables section

Function	Cable	
	Minimum	Maximum
Motor control	0.14 mm ² (AWG25)	1.5 mm ² (AWG15)

Verify the installation

- Check all connections : Power supply and control logics.
- Make sure that all settings are correct for the application.
- Make sure that the characteristics of the DC power supply are appropriate for the drive.
- If possible, remove the load from the rotor of the motor to avoid wrong movements and eventual damages.
- Supply power and make sure that the green led is ON. If it is OFF, shut down immediately and check if all connections are correct.
- Execute a movement and verify if the rotation direction is the desired one.
- Disconnect the power supply, fix the motor to the load and check the full functionality.

Analysis of malfunctions

When one of the following situations occurs, please check:

DEFECT	CAUSE	ACTION
The external fuse on the power supply of the drive is burned.	Can be caused due to a wrong connection of the power supply.	Connect the power supply correctly and replace the fuse.

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