

About Runner Electric

Five reasons why we are your ideal partner

Experienced Manufacturer

Runner Electric has over 30 years of HVAC and motor industry expertise, establishing itself as a trusted manufacturer.

Quality-First Approach

Runner Electric prioritises quality with strict procedures for quality control at every stage of production, ensuring reliable and high-performance products.

Strong R&D Team

Runner Electric invests heavily in research and development, driving innovation and continuous improvement in gas condensing technology.

Customer-Centric Approach

Focuses on delivering high-performance, durable, and efficient solutions tailored to market needs.

Reputation for Excellence

Well-established as a trusted manufacturer, known for its quality-first mindset and precision engineering.



Runner Electric Technology

Product CATALOGUE

EC Radial Blowers



Runner Electric (Huzhou) Co., Ltd

168 Fuyuan Road, Dongqian Subdistrict, Nanxun District,
Huzhou City, Zhejiang Province, China 313009

+86 (0)572 357 8896

info@runnermotors.cn

www.runnermotors.com

Continuous Innovation and Improvement

Our engineering and technical personnel collaborate from the very beginning of development to ensure smooth implementation. Before launching a product, we conduct extensive testing to ensure compliance with legal requirements and customer expectations.

To achieve this, we conduct various types of testing, including:

- Evaluating the impact of designs.
- Conducting raw material inspections.
- Process testing.
- Finished product testing.



Laboratory and Testing Equipment

Climate chambers:

- Environment simulation test from -60°C to 120°C
- Endurance test
- Salt spray test

Durability testing room:

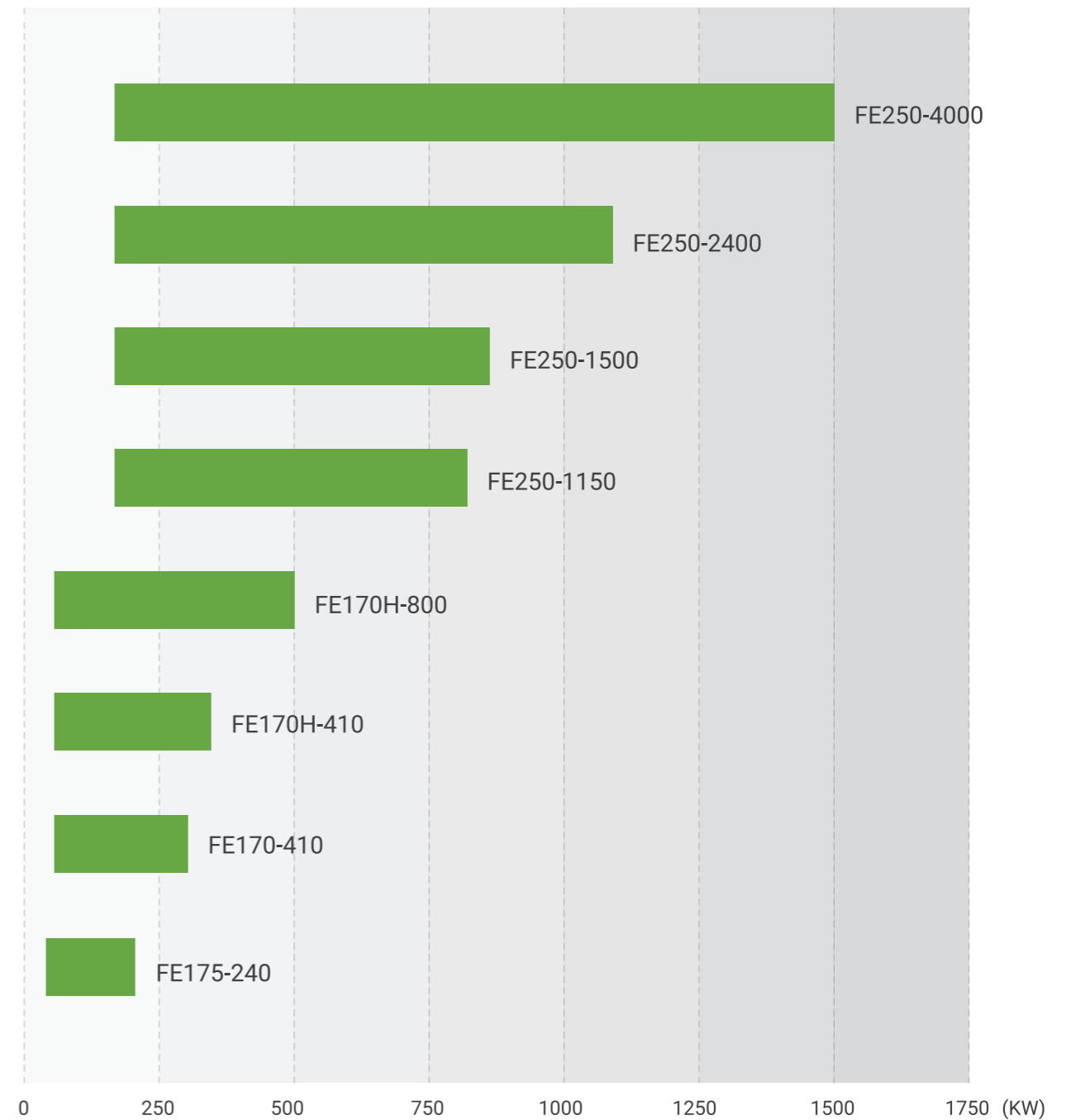
Multiple tests under different conditions are currently being conducted, with dozens of samples tested.



Air performance test platform:

Evaluating air resistance and system circulation efficiency while recording the system's performance.

Heat output range: 200kW ~ 1500kW



+ Drive

- Brushless DC or EC motors with integrated electronics
- Mounting designed to eliminate vibrations and reduce structure-borne noise.

+ Speed output:

- With Integrated Circuit signal output; For motors operating on line voltage, the speed signal output is electrically isolated.
- FE175 blowers have 2 pulses per revolution
- FE170 blowers have 3 pulses per revolution
- FE250-1150/1500 blowers have 3 pulses per revolution
- FE250-2400/4000 blowers have 5 pulses per revolution

+ Degree of protection

- With the motor cover, the degree of protection is IP20.

+ Housing

- Constructed exclusively from die-cast aluminium.
- Achieves the necessary density with a specialised seal for housing halves and the drive shaft conduit.
- Outlet flange adaptable to various designs.

+ Bearings

- Durable, maintenance-free ball bearings sealed on both sides for extended lifespan and seamless performance.
- Equipped with application-specific lubricants for optimal functionality.

+ Impellers

- For model FE175 blowers, impellers made of pentane-resistant plastic: precisely balanced for dynamic stability.
- For Model FE170 and FE250 blowers, impellers constructed from sheet aluminium.

+ Speed controls:

- Controlled using a PWM signal, with an optional 0-10V input.

+ Commutation electronics

- Built into the blower unit and precisely matched to the motor.
- Includes automatic shutdown for blockages and overheating protection per EN 60335.
- Equipped with multiple standard interfaces for seamless burner control integration.
- Designed for minimal EMC emissions and environmental impact.

+ Mounting positions

- Available with a horizontal shaft or a vertical shaft with the motor positioned at the top.
- For vibration-damped motor installation, a flexible element provides additional support to the motor's weight.



Mechanical design

Housing	Aluminium
Impeller	PA6+GF
Motor cover	Plastic
Bearing	MF ball bearings
Insulation class	F
Operating temperature	-25°C ~ 60°C
Mounting	Horizontal or vertical shaft
IP rating	IP20

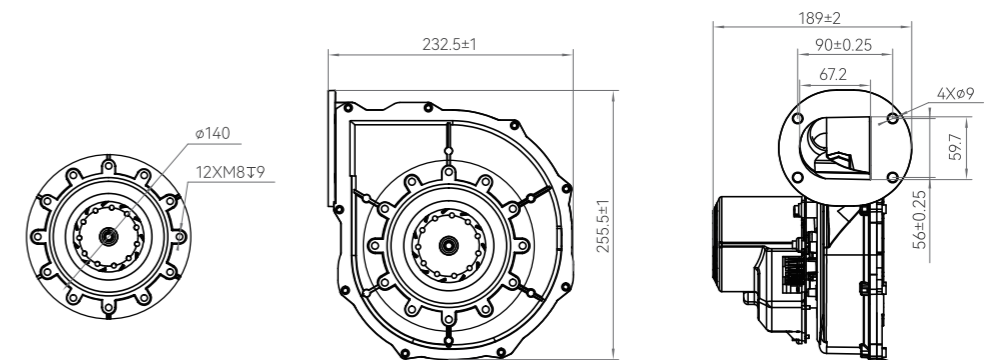
Electrical design

Protection class	Class I
Speed control	PWM
Speed output	2 pulses per revolution
Approval	CE

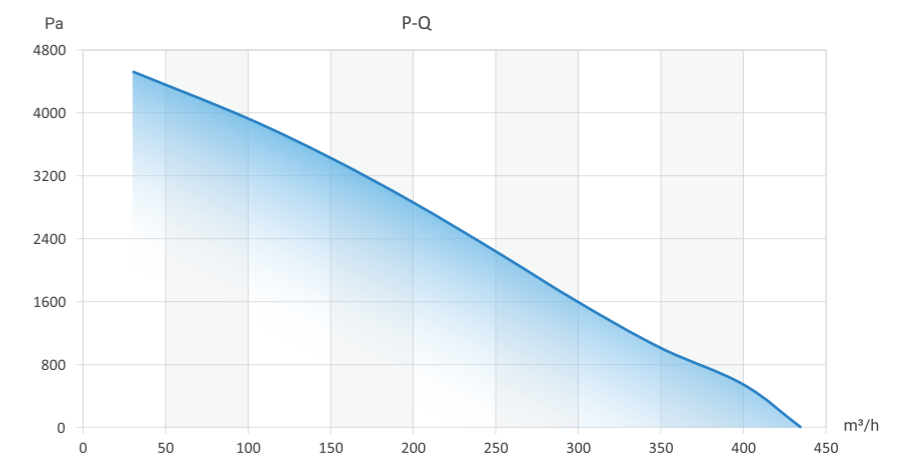
Model	Voltage V	Frequency Hz	Current A	Max. Input Power W	Max. Speed rpm	Max. Air Flow m³/h	Max. Heat output kW	Weight Kg
FE175-240	230	50/60	1.7	240	5600	435	200	3

• Specific conditions

Technical Drawing



Air Flow Curve



EC Radial Blower FE170



Mechanical design

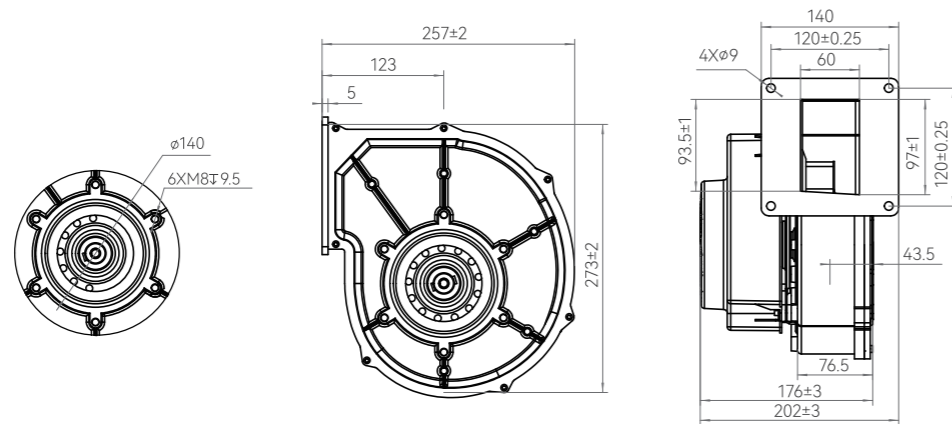
Housing	Aluminium
Impeller	Aluminium-magnesium alloy
Motor cover	Plastic
Bearing	MF ball bearings
Insulation class	F
Operating temperature	-25°C ~ 60°C
Mounting	Horizontal or vertical shaft
IP rating	IP20

Electrical design

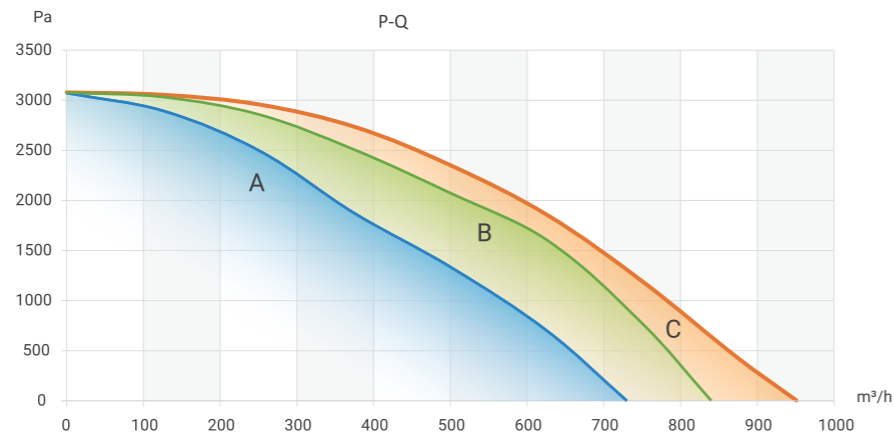
Protection class	Class I
Speed control	PWM
Speed output	3 pulses per revolution
Approval	CE

Curve	Model	Voltage V	Frequency Hz	Current A	Max. Input Power W	Max. Speed rpm	Max. Air Flow m³/h	Max. Heat output kW	Weight Kg
A	FE170-410	230	50/60	1.8	410	6530	730	350	4.7
B	FE170H-410	230	50/60	2.6	550	7000	840	400	4.7
C	FE170H-800	230	50/60	3.5	800	7500	950	500	4.7

Technical Drawing



Air Flow Curve



EC Radial Blower FE250-1150/1500



Mechanical design

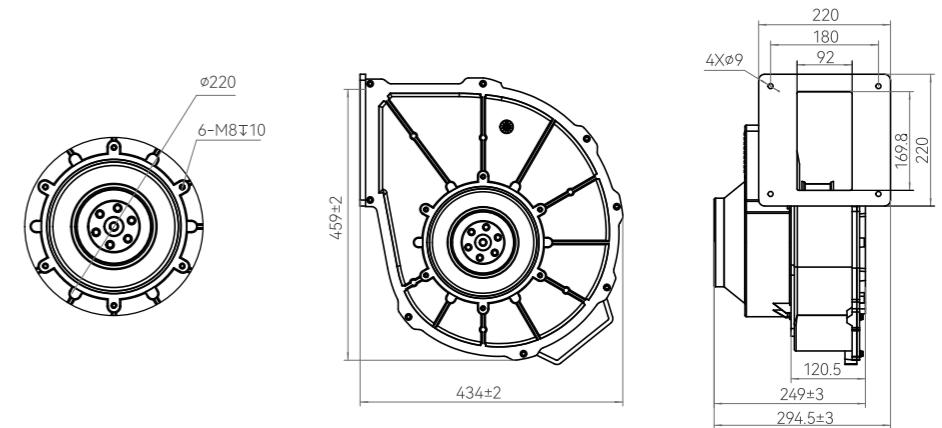
Housing	Aluminium
Impeller	Aluminium-magnesium alloy
Motor cover	Plastic
Bearing	MF ball bearings
Insulation class	F
Operating temperature	-25°C ~ 50°C
Mounting	Horizontal or vertical shaft
IP rating	IP20

Electrical design

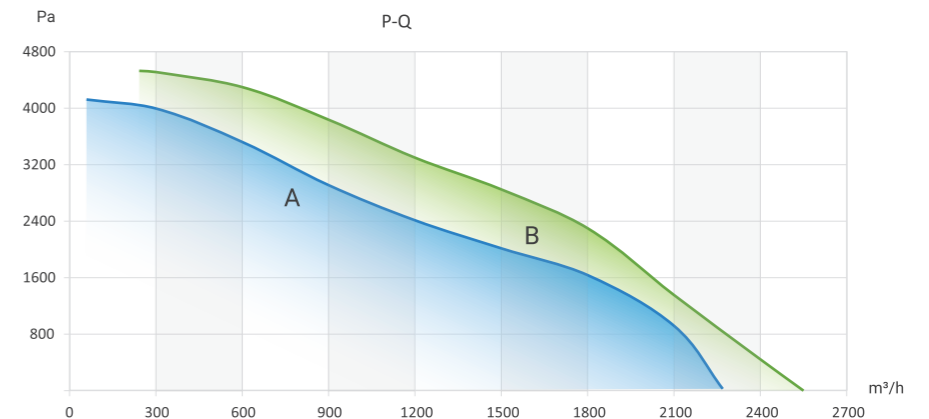
Protection class	Class I
Speed control	PWM
Speed output	3 pulses per revolution
Approval	CE

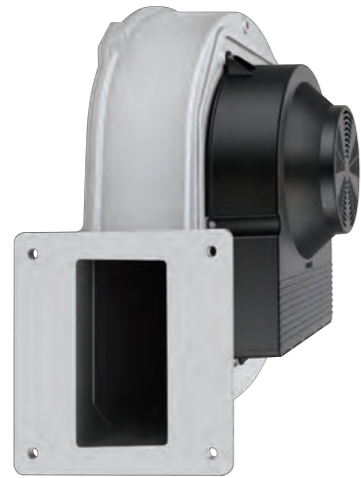
Curve	Model	Voltage V	Frequency Hz	Current A	Max. Input Power W	Max. Speed rpm	Max. Air Flow m³/h	Max. Heat output kW	Weight Kg
A	FE250-1150	230	50/60	5.2	1200	4900	2270	810	13
B	FE250-1500	230	50/60	6.6	1500	5300	2550	870	13

Technical Drawing



Air Flow Curve





Mechanical design

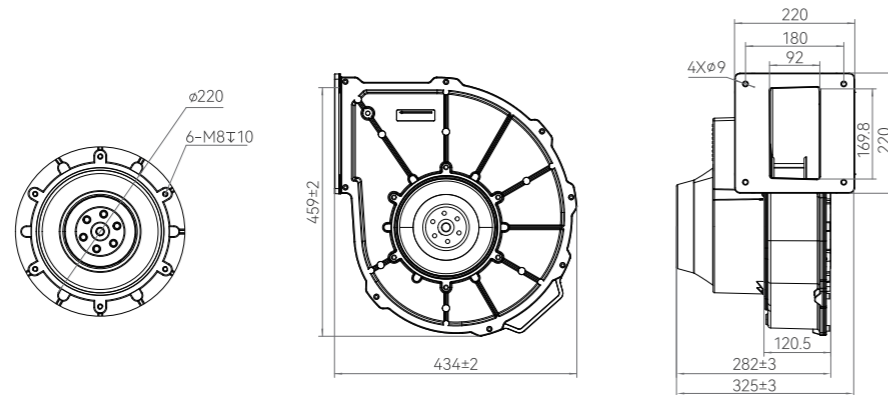
Housing	Aluminium
Impeller	Aluminium-magnesium alloy
Motor cover	Plastic
Bearing	MF ball bearings
Insulation class	B
Operating temperature	-25°C ~ 50°C
Mounting	Horizontal or vertical shaft
IP rating	IP20

Electrical design

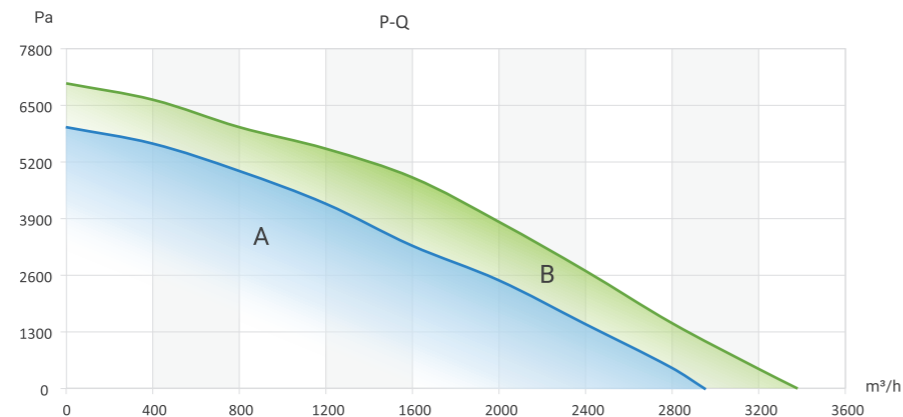
Protection class	Class I
Speed control	PWM
Speed output	5 pulses per revolution
Approval	CE

Curve	Model	Voltage V	Frequency Hz	Current A	Max. Input Power W	Max. Speed rpm	Max. Air Flow m³/h	Max. Heat output kW	Weight Kg
A	FE250-2400	380	50/60	4.7	2500	6400	2960	1100	17.3
B	FE250-4000	380	50/60	6.6	3400	7300	3380	1500	17.3

Technical Drawing

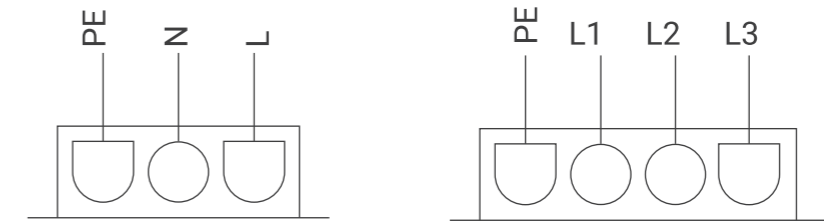


Air Flow Curve



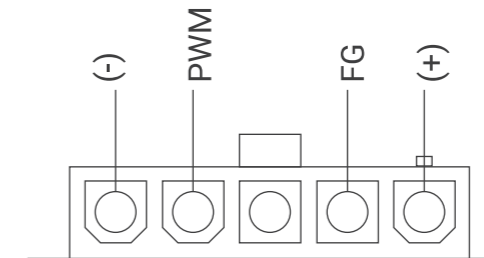
Mains connector

- 3 or 4 pin connector according to RAST 6.35.
- Every REMT radial blower comes with a male connecting cable for the power supply.



Interface connector

- 5-pin pin connector according to RAST 4.2.
- Every REMT radial blower comes with a male connecting cable.

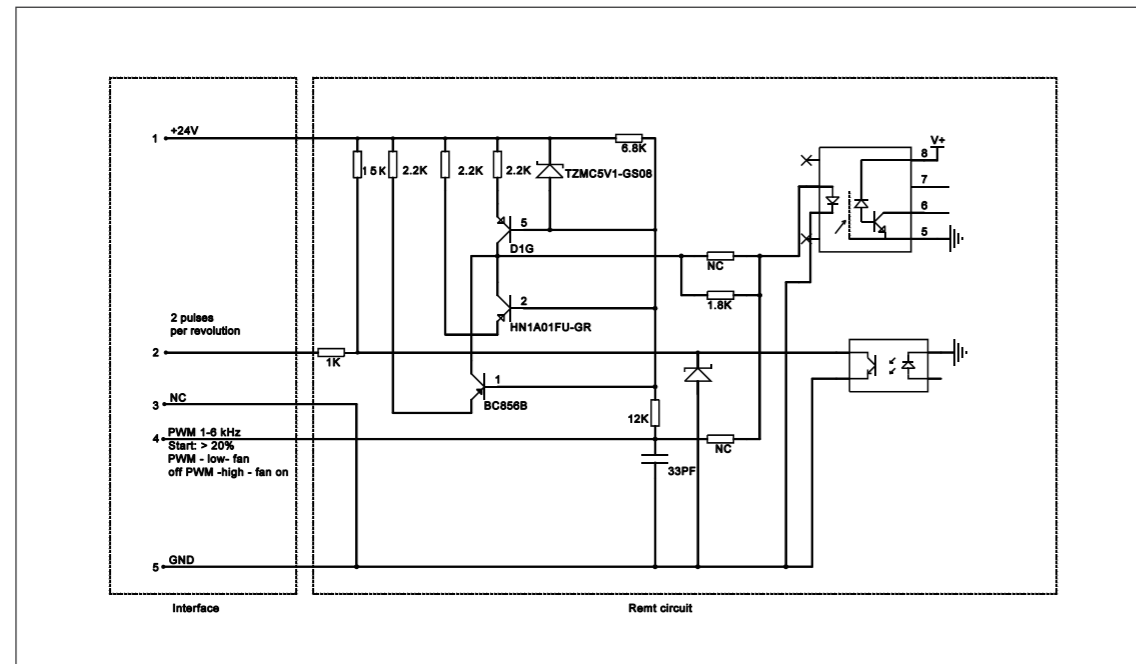


(-)	Power supply - (GND)
PWM	PWM signal input for speed control, frequency range 2-6KHz
FG	Hall sensor OUT: 12VDC Square Wave delete highlighted
(+)	Power supply + : 24±5VDC

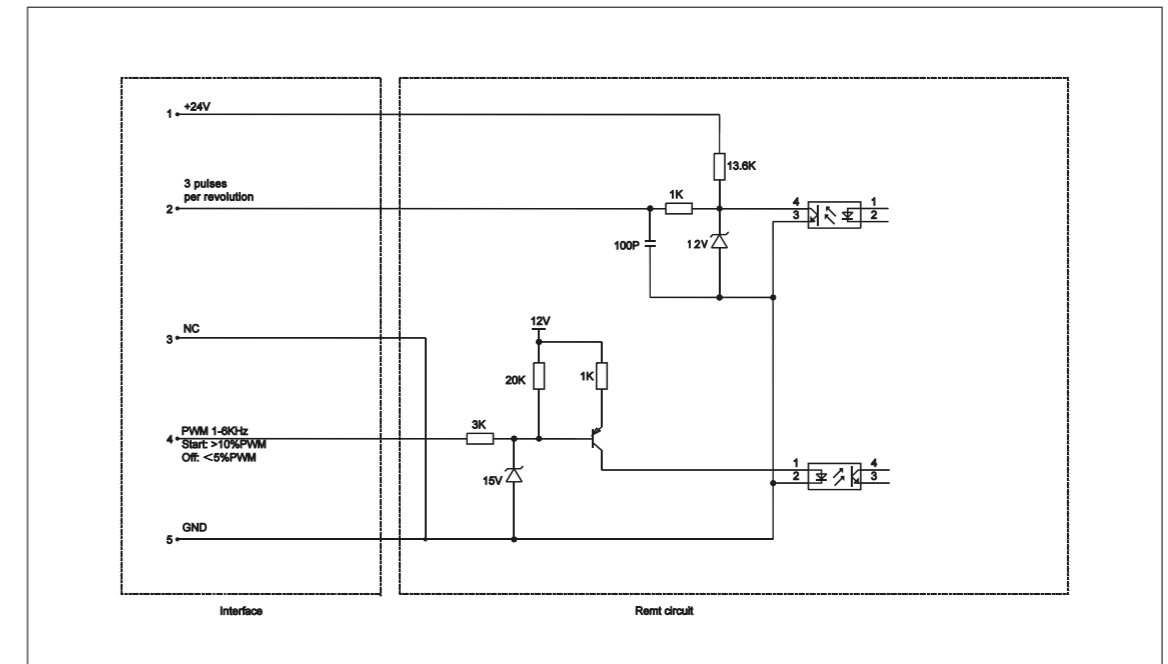


Electrical Interfaces

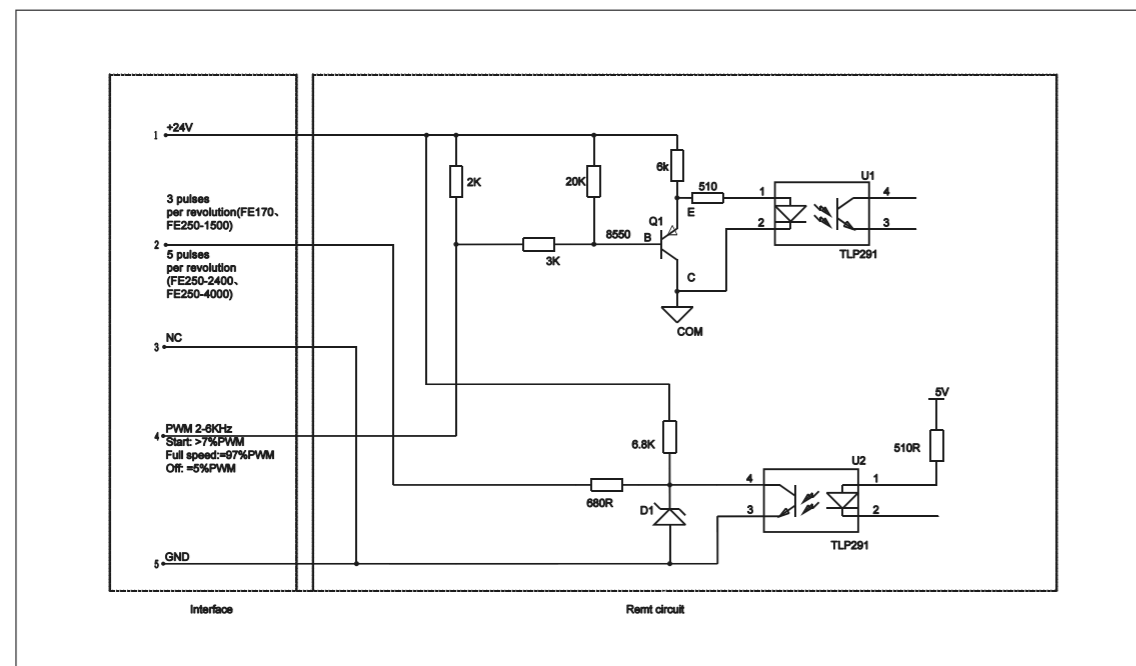
+ FE175-240



+ FE170H-800



+ FE170-410 / FE170H-410 / FE250-2400 / FE250-4000



+ FE250-1150

