

EC BRUSHLESS MOTOR



EC BRUSHLESS MOTOR APPLICATIONS

Due to their high efficiency are often used into applications that requires low power consumption combined to high performance. Many versions are available to meet various application requirements: ventilators, fan heaters, blowers, convectors, air-cleaners, humidifiers, cooker hoods, etc.

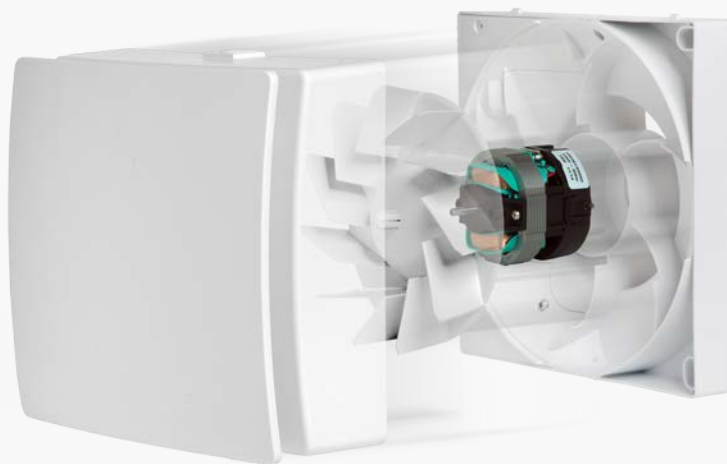
It is suitable applied on ventilation units for kitchens, utility rooms, bathrooms and toilets.

Perfect in appliances for the air exchange in residential or industrial ventilation also in very humid environments.

VENTILATION UNIT WITH REAR FIXING EC BRUSHLESS MOTOR



VENTILATION UNIT WITH REAR FIXING EC BRUSHLESS MOTOR



FAN COIL BLDC MOTOR





EC BRUSHLESS MOTOR

Series of low power EC Brushless Motors characterized by high electromagnetic efficiency and low noise.

Plug and play with traditional induction motor diameter 58.

Equipped with integrated electronic control board, which in addition to motor control (direction of rotation, speed selection) allows the integration of various customer's functions, such as power-on delay / post-ventilation timers, humidity sensor management / flow / presence, linear speed control (0-10V input).

Each firmware is customized according to customer requirements.



EXTREMELY SILENT
LOW ENERGY CONSUMPTION
HIGH PERFORMANCE

Motors available
in Ø 58

Voltage from
12VAC/VDC
to 240VAC/VDC,
Cable length and
terminals on request

Class of insulation
according to IEC 85
cl.F or H



available on request

Available in the
following versions:
Performance and
Performance Plus

- **Flange fixing shaft support
with screws or rivet on request**

- **Direction of rotation
and number of speed can be chosen**

- **Shaft Ø 4 mm length
and terminal finishing on request**

- **Shaft support with bearings**

- **Fixing holes threaded M4**



OPTIONALS



Shaft can be smooth,
milled or with grooves
with length on demand



Brass bearings
or ball bearings

Fuse

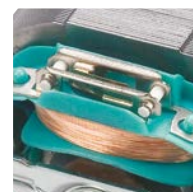


Stack height from
12 to 35 mm

Thermostat



Motors protected by motor impedance
or thermal protected by fuse or thermostat
(autoreset or PTC)

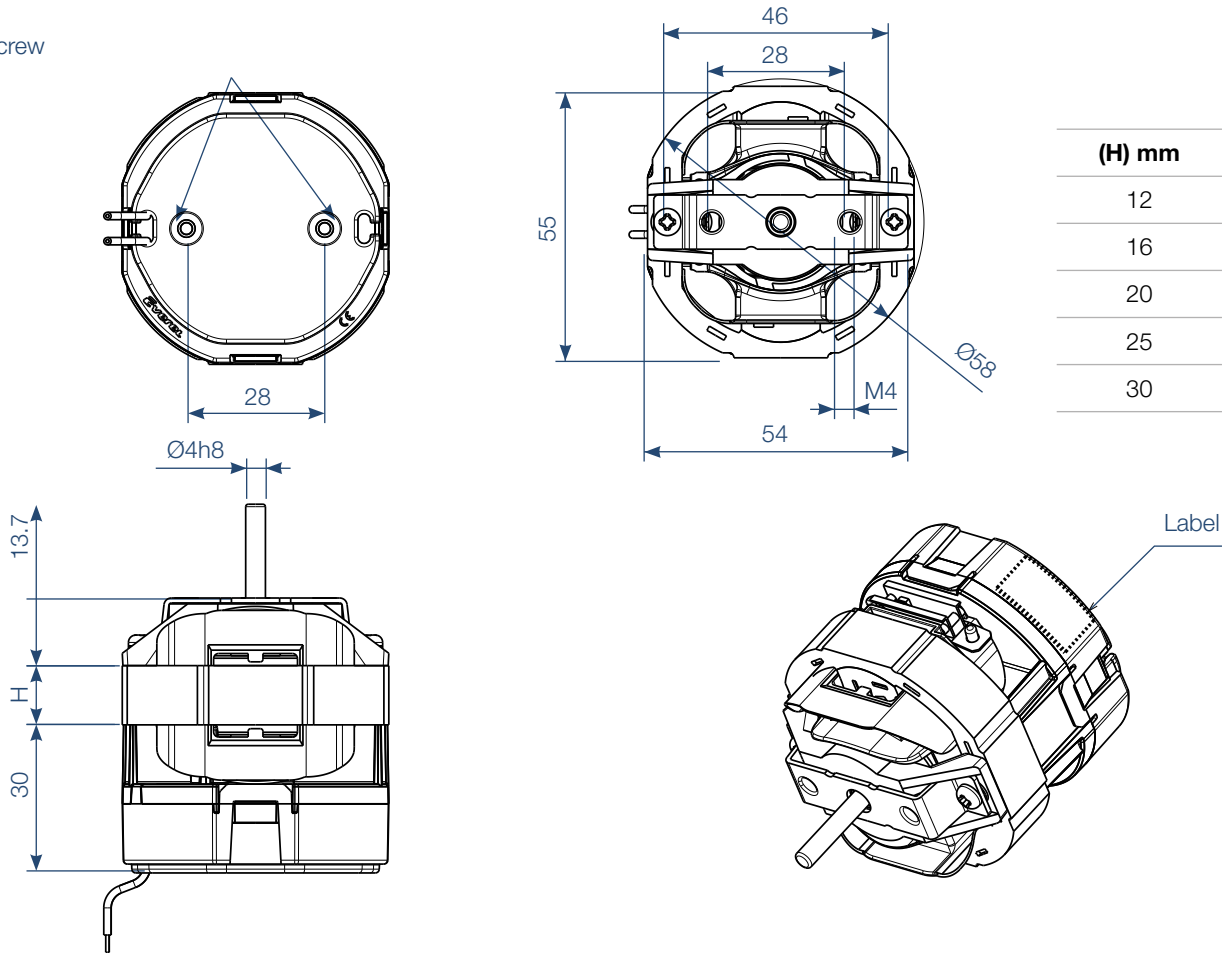


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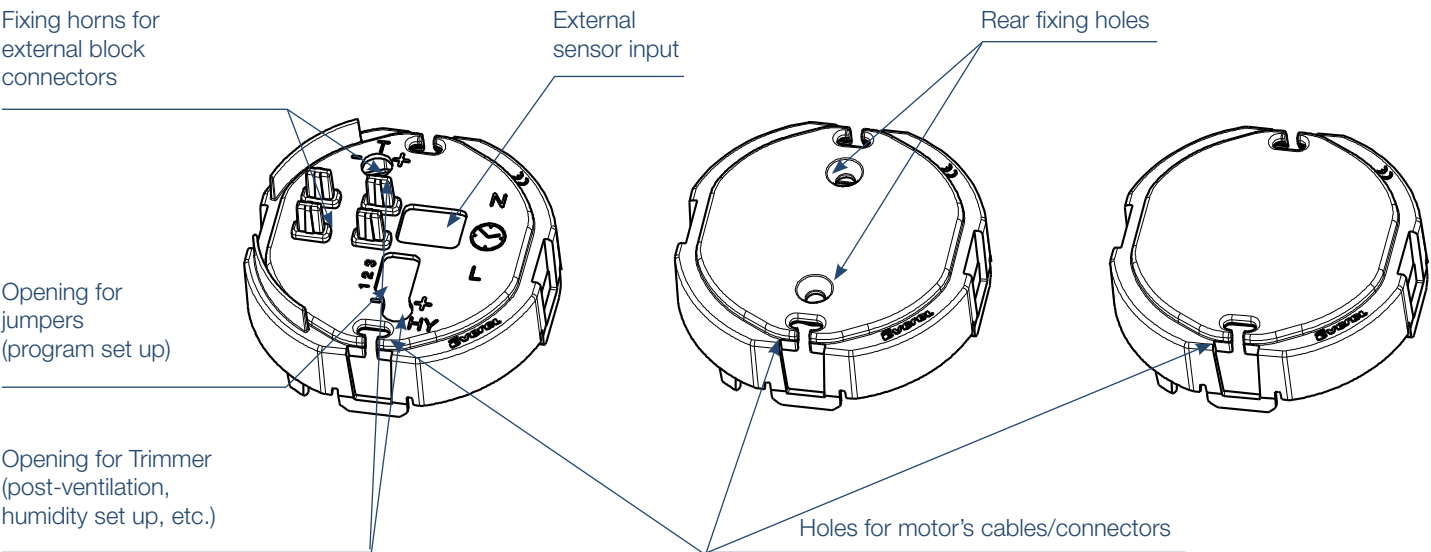
DRAWINGS & DIMENSIONS

DRAWINGS

Fixing instruction:
use self-threading screw
Ø 2,9 x 12+18
Screw torque
100 cNm



COVERS



* Custom covers available on demand

EC BRUSHLESS MOTOR

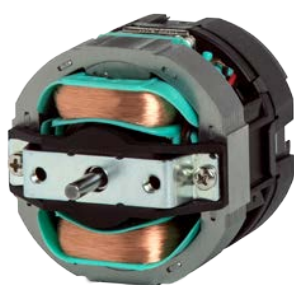
DATA SHEET AND PERFORMANCE

Both versions integrate more advanced electronics, they allow the control of motor speed.

GENERAL FEATURES

- Integrated electronics
- Power supply 230 VAC / 1 / 50-60
- Same dimensions and cut-out of standard motors (diameter 58 mm)

PERFORMANCE



RATED VOLTAGE	230 VAC (-15%; +10%) 12 VAC
INSULATION CLASS	F
RATED MECHANICAL POWER	1,2 W
RATED ELECTRIC POWER	4,0 W
MOTOR EFFICIENCY	20%
WITHSTAND VOLTAGE	1250 VAC
TORQUE DIRECTION	CW / CCW
NUMBER OF POLES	2
DRIVE	Half bridge
MAX SPEED	3.000 rpm (in compliance with the fan load)
PROTECTION	Thermostat 100 °C
OPERATING TEMPERATURE	0 °C / +40 °C
NOTE	Shaft lenght: on request Wires color: on request

Stack height (H) mm	Power absorption W	Shaft Power W
12	4,5 ... 15	0,8 ... 2,7
16	6,5 ... 20	1,2 ... 3,6
20	7,5 ... 25	1,4 ... 4,5
25	8,5 ... 30	1,6 ... 5,4
30	9,5 ... 40	1,7 ... 7,2
35	10,5 ... 50	1,9 ... 9



Integrated electronic
and power supply board

Installation from
electronic side available



EXTREMELY SILENT
LOW ENERGY CONSUMPTION
HIGH PERFORMANCE



P.P. 230 VAC
5 WATT

NEW PCB FOR EC BRUSHLESS MOTOR PERFORMANCE VERSION

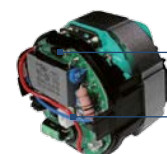
- 25% of Efficiency improvement
- More silent
- 230 VAC 50Hz 5 WATT

PERFORMANCE PLUS



RATED VOLTAGE	230 VAC (-15%; +10%) 12 VAC
INSULATION CLASS	F
RATED MECHANICAL POWER	1,75 W
RATED ELECTRIC POWER	5,0 W
MOTOR EFFICIENCY	35%
WITHSTAND VOLTAGE	1250 VAC
TORQUE DIRECTION	CW / CCW
NUMBER OF POLES	2
DRIVE	Full bridge
MAX SPEED	3.000 rpm (in compliance with the fan load)
PROTECTION	Thermostat 100 °C
OPERATING TEMPERATURE	0 °C / +40 °C
NOTE	Shaft lenght: on request Wires color: on request

Stack height (H) mm	Power absorption W	Shaft Power W
12	4 ... 15	1,4 ... 5,3
16	5 ... 20	1,8 ... 7
20	6 ... 25	2,1 ... 8,8
25	7 ... 30	2,5 ... 10,5
30	8 ... 40	2,8 ... 14
35	9 ... 50	3,2 ... 17,5



Timer management

Humidity sensor connector
Speed control
Presence sensor connection



EXTREMELY SILENT
LOW ENERGY CONSUMPTION
HIGH PERFORMANCE



P.P. 230 VAC
15WATT



P.P. 12 VAC
15 WATT

P.P. 230 VAC / 12 VAC 15 WATT

- PCB is in the back
- The driver has an opto-isolated input to set-up some specific features (e.g. 5V, 0V, ...) or directly a PWM
- Application with rear fixing



P.P. 12 VAC
5 WATT



P.P. 230 VAC
5 WATT

P.P. 230 VAC / 12 VAC 5 WATT

- Maximum Power and front fixing and front fixing (on the shaft side)
- PCB on the back to set optional features (speed, humidity sensor, timer, delays, ...)

- Headquarters
- Production Site
- Sales Network
- Branch Office

Dreefs

Everel Romania

Everel Group

Everel Asia Pacific

www.everel.eu

Everel Group S.p.A.

[Headquarters]
Via Cavour, 9
37067 Valeggio sul Mincio (VR) - Italy
tel. +39 045 6313711
fax +39 045 6313730

Dreefs GmbH

Ernst-Dreefs-Straße 7
96364 Marktrodach - Germany
tel. +49 9261 9610
fax +49 9261 961248

Everel Romania Srl

Calea Timisorii 109
Lipova - Arad - Romania
tel. +40 257 563087
fax +40 257 563086

Everel Asia Pacific Co., Ltd

Room 1005, 10th Floor,
Far East Finance Centre,
16 Harcourt Road, Hong Kong

www.everel.eu

