

GM1200PFV2 Series

Low Voltage Axial Flow Fans



Miniature, 'Ultraslim'



Features:

- 25, 30, and 35mm ultra slim fans.
- Ideally suited for precision cooling.
- Patented single-coil brushless 8 pole motor design.
- Locked rotor protection.
- Low power consumption.
- Fitted with precision ball bearings.

Characteristics:

Motor design	: Patented single-coil DC brushless 8 pole motor design.
Insulation resistance	: More than 500M Ω between internal stator and lead wire(+) measured at DC 500V.
Dielectric strength	: Applied AC 500V for one minute or AC 600V for 2 seconds between housing and lead wire(+).
Noise level	: Measured in a semi-anechoic chamber with background noise level below 15db(A). The fan is running in free air with the microphone at a distance of one meter from the fan intake.
Input power, current and speed	: Measured after continuous 10 minute operation at rated voltage in clean air, and at ambient temperature of 25°C.
Tolerance	: \pm 15% on rated power and current.
Air performance	: Measured by a double chamber. The values are recorded when the fan speed has stabilized at rated voltage.

Specifications:

Rated voltage	: 12V dc.
Operating voltage range	: 4.5 ~ 13.8V dc.
Starting voltage	: 4.5V dc (25°C Power On/Off).
Rated power	: 0.5 watts.
Direction of rotation	: Counter-clockwise viewed from front of fan blade.
Operating temperature	: -10 to +70°C.
Storage temperature	: -40 to +70°C.
Bearing system	: Vapo bearing system.
Vibration	: Vibration of acceleration 1.5G and frequency 5~50~5Hz is applied in all 3 directions (X, Y, Z), in cycles of 1 minute each, for a total vibration time of 30 minutes.

GM1202PFV2-8.GN:

Rated speed	: 10,000RPM \pm 30%.
Air delivery	: 3.0CFM.
Static pressure	: 0.18 inch-H ₂ O.
Rated current	: 38mA.
Noise level	: 16db(A).



GM1200PFV2 Series

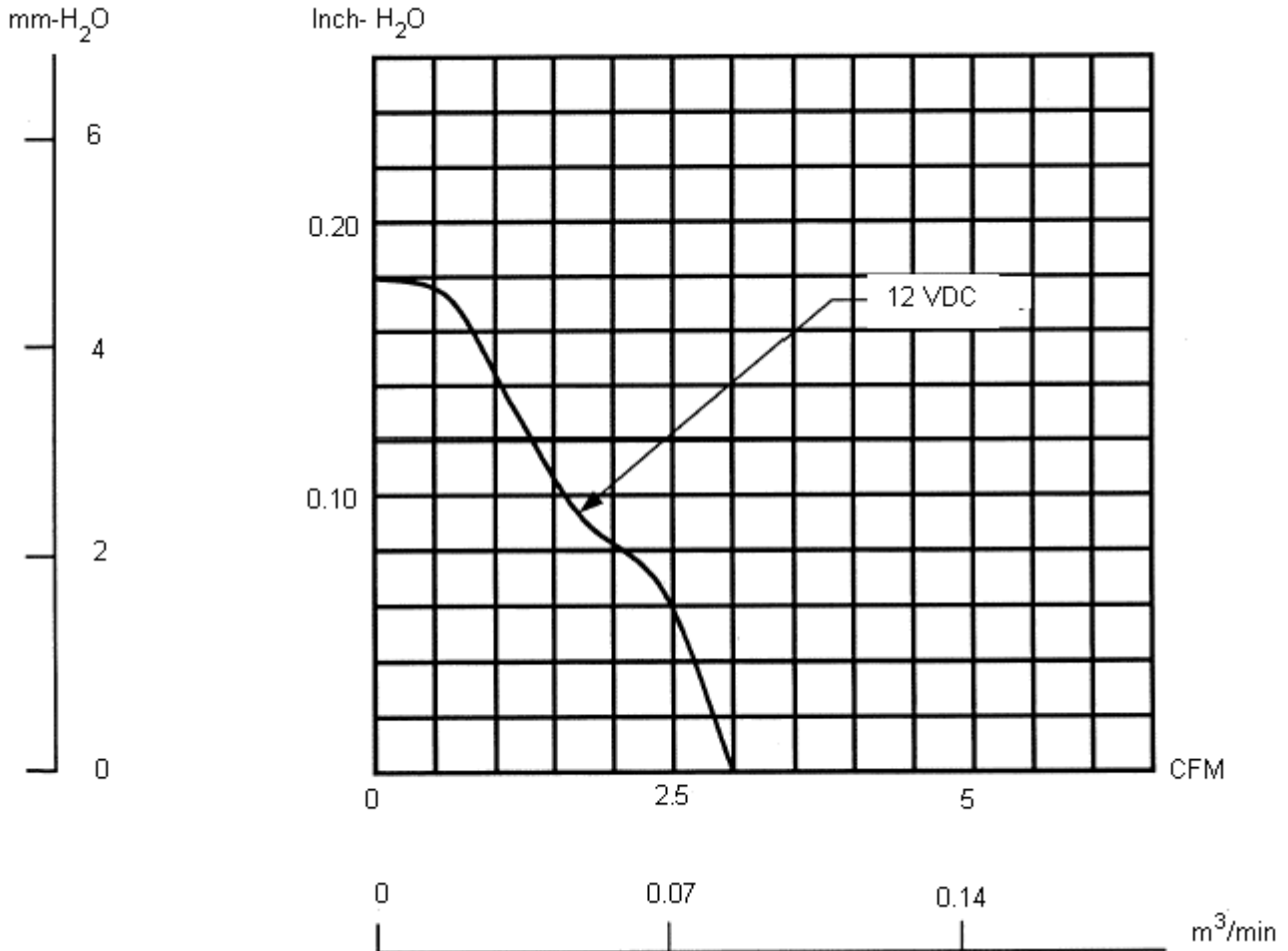
Low Voltage Axial Flow Fans



Performance Curves

Static Pressure

GM1202PFV2-8.GN



Material:

Frame	: Thermoplastic PBT.
Impeller	: Thermoplastic PBT.
Bobbin	: Thermoplastic PBT.
Lead Wire	: 28AWG, +Red, -Black.



GM1200PFV2 Series

Low Voltage Axial Flow Fans



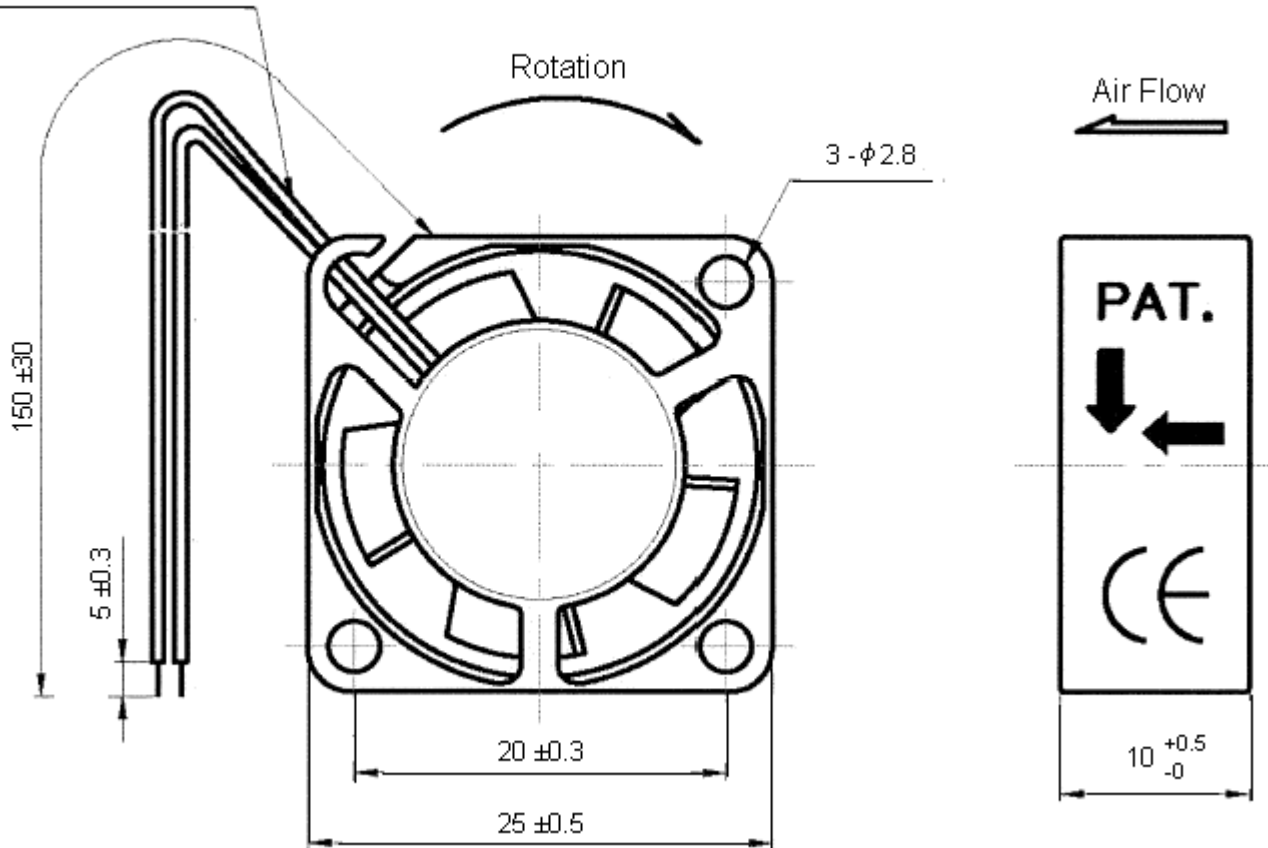
Dimensions

GM1202PFV2-8.GN

28AWG

+: RED

-: Black



Air flow direction : Toward label side.

Best mounting direction : Any orientation.

Specifications:

GM1203PFV2-8.GN:

Rated speed	: 8000RPM $\pm 30\%$.
Air delivery	: 4.6CFM.
Static pressure	: 0.12 inch-H ₂ O.
Rated current	: 42mA.
Noise level	: 20db(A).



GM1200PFV2 Series

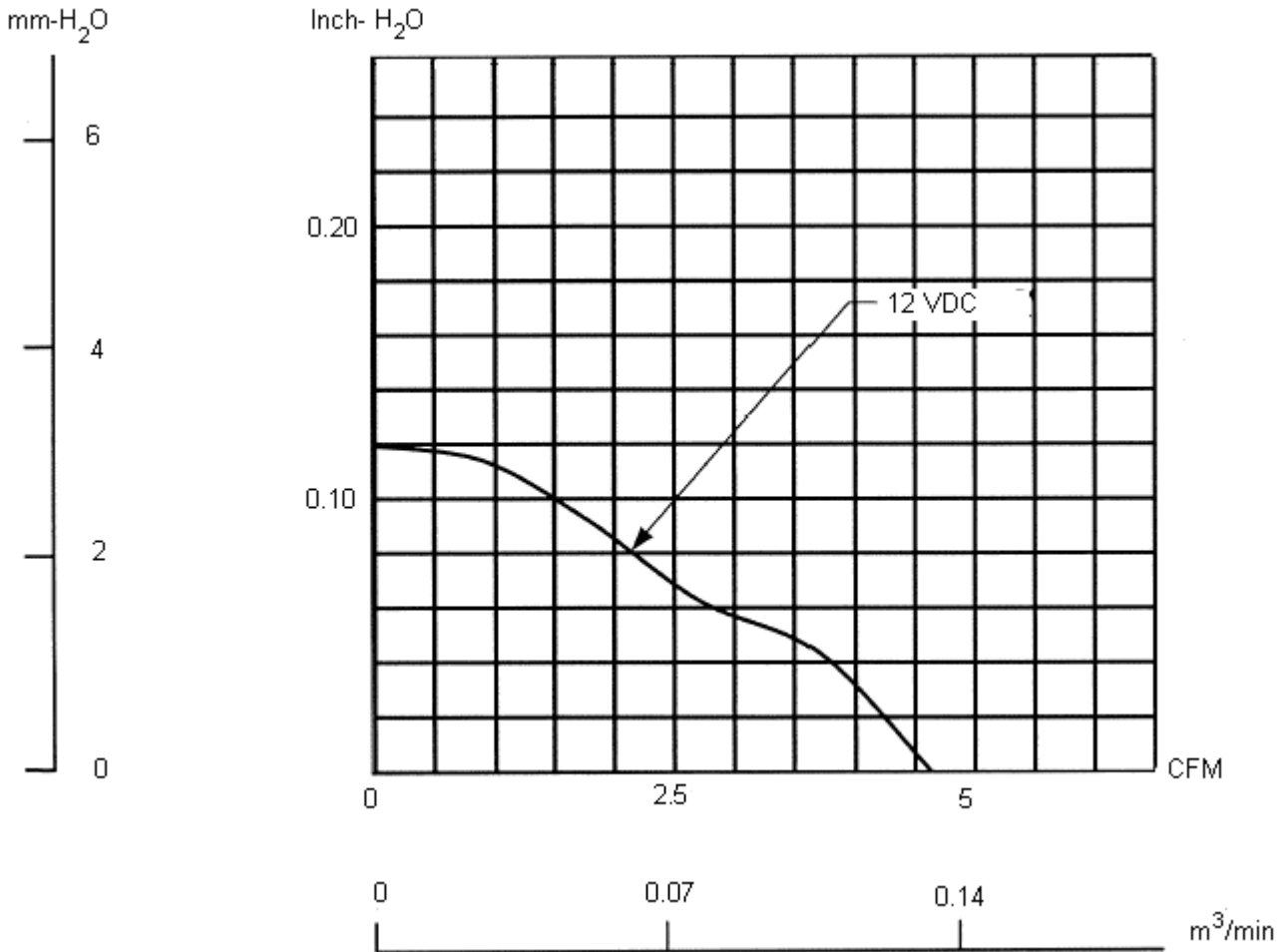
Low Voltage Axial Flow Fans



Performance Curves

Static Pressure

GM1203PFV2-8.GN



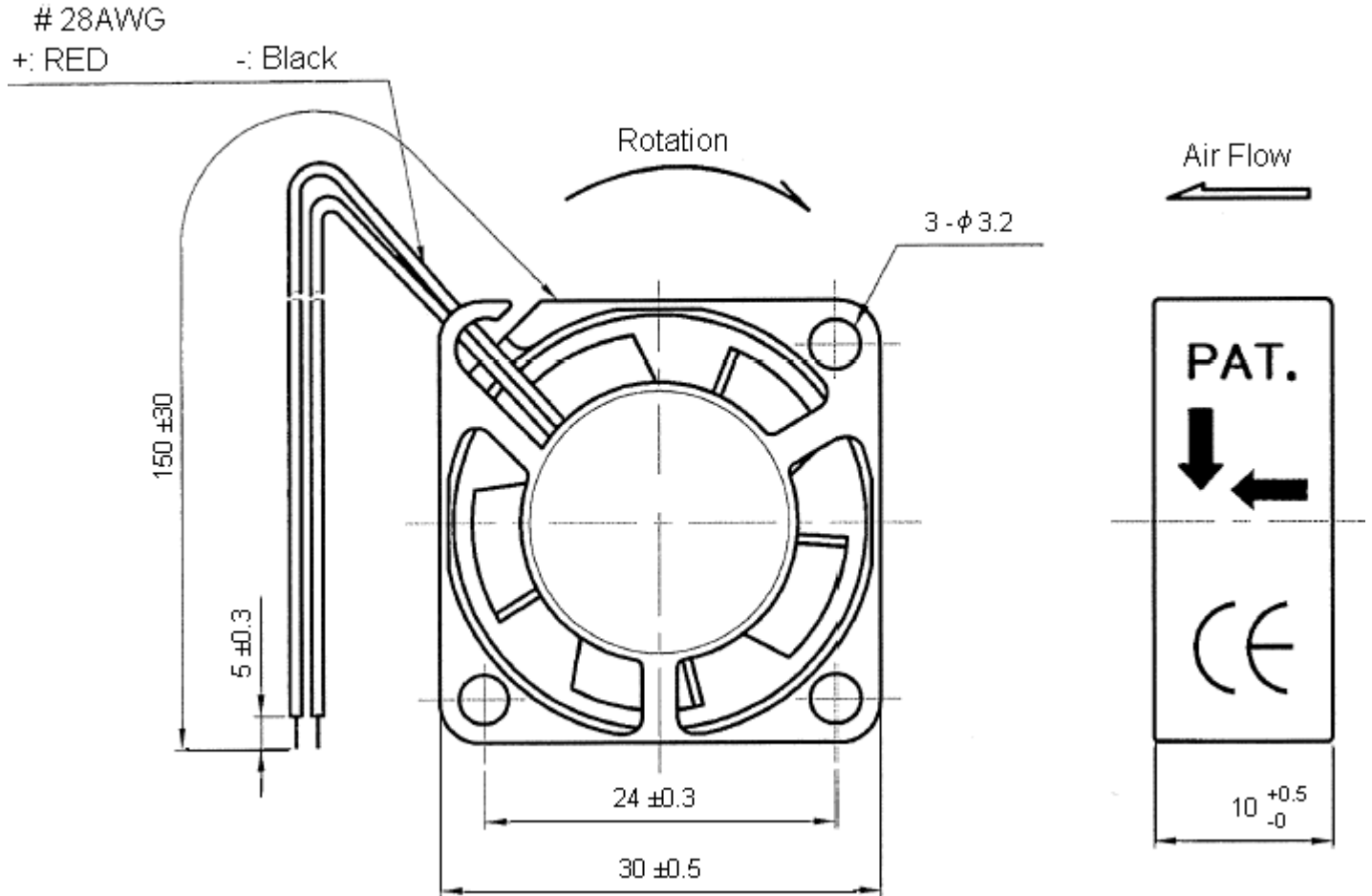
GM1200PFV2 Series

Low Voltage Axial Flow Fans



Dimensions

GM1203PFV2-8.GN



Air flow direction : Toward label side.
Best mounting direction : Any orientation.

Specifications:

GM1235PFV2-8.GN:

Rated speed	: 7500RPM \pm 30%.
Air delivery	: 6.5CFM.
Static pressure	: 0.12 inch-H ₂ O.
Rated current	: 43mA.
Noise level	: 22db(A).



GM1200PFV2 Series

Low Voltage Axial Flow Fans



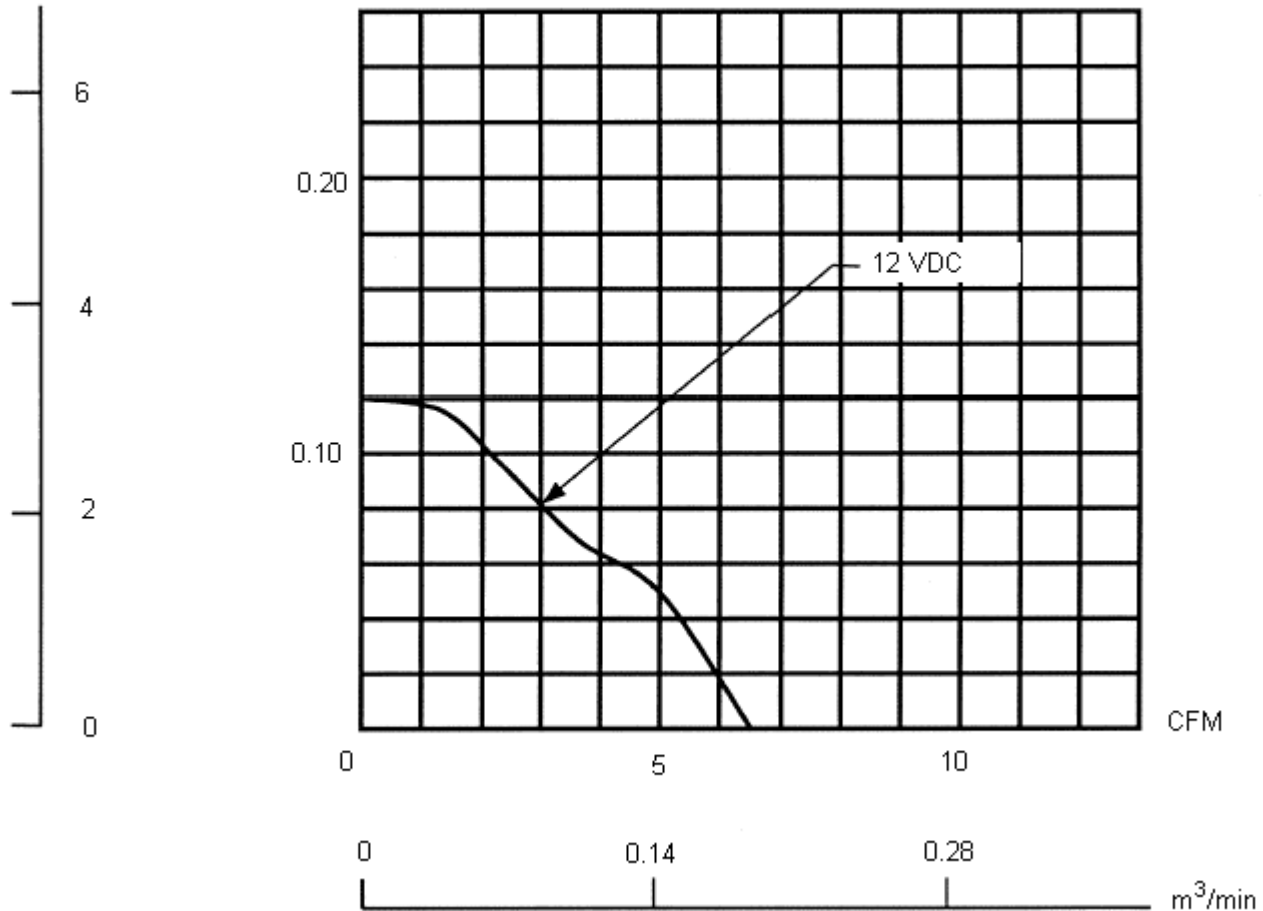
Performance Curves

Static Pressure

GM1235PFV2-8.GN

mm-H₂O

Inch- H₂O



GM1200PFV2 Series

Low Voltage Axial Flow Fans



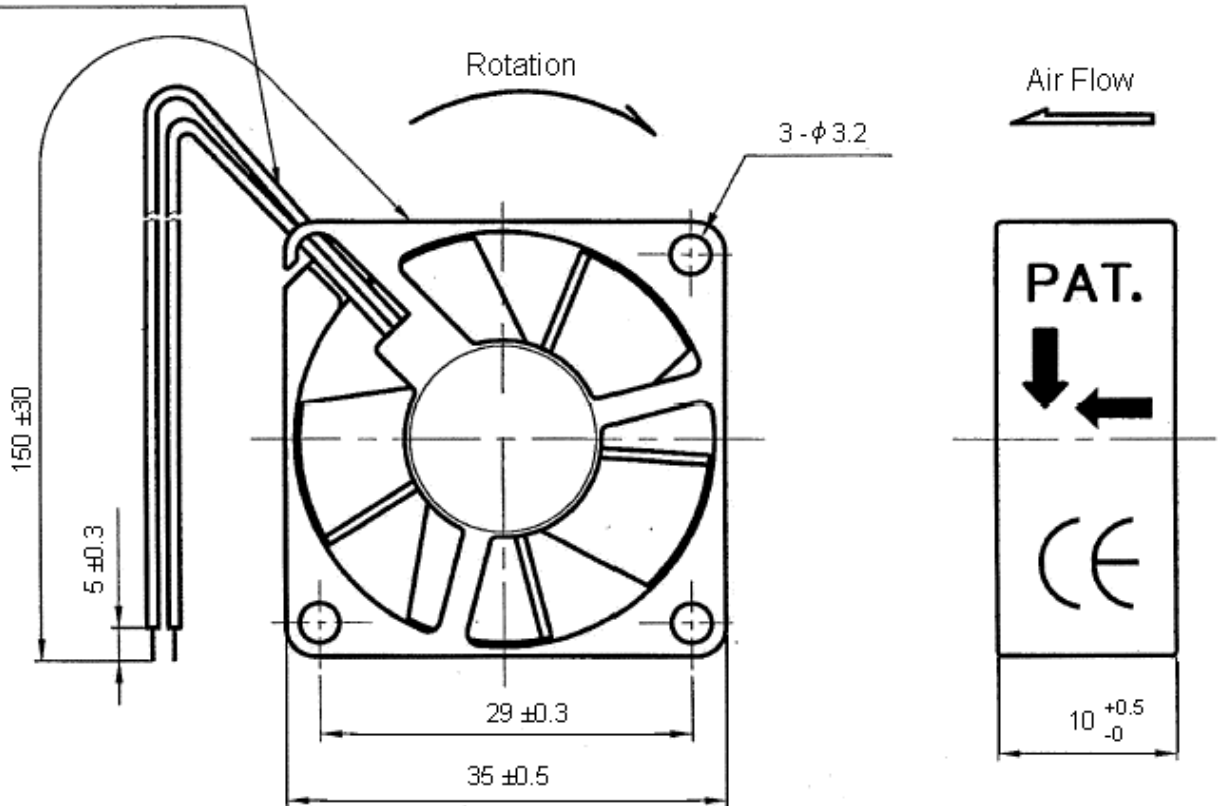
Dimensions

GM1235PFV2-8.GN

28AWG

+: RED

-: Black



Notes:

Safety:

1. There is no thermo-protector installed in this product, such as thermo-fuse, or current-fuse, or thermo-protector. There may be smoking, ignition, or electric shock by insulation degradation in cases of motor lock, motor lead short circuit, overload, over voltage, and/or other failure. Please add the protection circuit to your product.
2. There is no reverse-connection prevention diode of VDC (+) and GND (-) installed in this product. Therefore, if VDC (+) and GND (-) are reverse connected, it may cause smoking, ignition, and/or destruction, although these conditions may not manifest immediately. We recommended that a protection device be installed on your product when there is possibility of reverse connection.
3. Please verify that this product is being installed and used in compliance with all safety standards.
4. Please handle and install this product carefully. Hitting and dropping this product this may cause damage.
5. Please donot damage this product including coil and lead wires while installing or wiring. There may be smoking or fire.

Other:

1. When building your device, please examine thoroughly any variation of EMC, temperature rise, life data, quality, etc. of this product by shock/drop/vibration testing, etc. If there are any problems or accidents in connection with this product, it should be mutually discussed and examined.
2. Fan holders or bearings may be damaged if touched with fingers or other objects. Additionally, static electricity (ESD) may cause damage the internal circuits. Please handle this product carefully.



GM1200PFV2 Series

Low Voltage Axial Flow Fans



- Other:**
3. Please avoid operating this product in poisonous material (organic silicon, cyanogens, formalin, phenol, etc.) or corrosive gas environments (H₂S, SO₂, NO₂, Cl₂, etc).
 4. Improper mounting may cause harsh resonance, vibration, and noise. Please mount securely.
 5. Safety is a top priority. Please furnish guard accessories to prevent injury to personnel.
 6. Unless otherwise noted, all tests are conducted at 25°C ambient temperature and 65% relative humidity.
 7. Always ensure that fans are stored according to the storage temperatures specified. Donot store in a high humidity environment. If the fans are stored for more than 6 months, with functional testing recommended before use.
 8. This reserves the right to use components with equivalent specifications from multiple sources.

Specification Table

Voltage (V dc ±15%)	Power (Watts)	Air Flow	ltrs	Noise (dBA at 1m)	Dimension			Part Number
		cu ft/min	ltrs/sec		H	W	D	
12	0.5	3.0	0.9	16	25	25	10	GM1202PFV2-8.GN
12		4.6	1.4	20	30	30	10	GM1203PFV2-8.GN
12		6.5	2.1	22	35	35	10	GM1235PFV2-8.GN

Dimensions : Millimetres (Unless Specified)



GM1200PFV2 Series

Low Voltage Axial Flow Fans



Notes:

International Sales Offices:



AUSTRALIA – Farnell InOne
Tel No: ++ 61 2 9645 8888
Fax No: ++ 61 2 9644 7898



FINLAND – Farnell InOne
Tel No: ++ 358 9 560 7780
Fax No: ++ 358 9 345 5411



NETHERLANDS – Farnell InOne
Tel No: ++ 31 30 241 7373
Fax No: ++ 31 30 241 7333



SWITZERLAND – Farnell InOne
Tel No: ++ 41 1 204 64 64
Fax No: ++ 41 1 204 64 54



AUSTRIA – Farnell InOne
Tel No: ++ 43 662 2180 680
Fax No: ++ 43 662 2180 670



FRANCE – Farnell InOne
Tel No: ++ 33 474 68 99 99
Fax No: ++ 33 474 68 99 90



NEW ZEALAND – Farnell InOne
Tel No: ++ 64 9 357 0646
Fax No: ++ 64 9 357 0656



UK – Farnell InOne
Tel No: ++ 44 8701 200 200
Fax No: ++ 44 8701 200 201



BELGIUM – Farnell InOne
Tel No: ++ 32 3 475 2810
Fax No: ++ 32 3 227 3648



GERMANY – Farnell InOne
Tel No: ++ 49 89 61 39 39 39
Fax No: ++ 49 89 613 59 01



NORWAY – Farnell InOne
Tel No: ++ 45 44 53 66 66
Fax No: ++ 45 44 53 66 02



UK – BuckHickman InOne
++ 44 8450 510 150
++ 44 8450 510 130



BRAZIL – Farnell-Newark InOne
Tel No: ++ 55 11 4066 9400
Fax No: ++ 55 11 4066 9410



HONG KONG – Farnell-Newark InOne
Tel No: ++ 852 2268 9888
Fax No: ++ 852 2268 9899



PORTUGAL – Farnell InOne
Tel No: ++ 34 93 475 8804
Fax No: ++ 34 93 474 5288



UK – CPC
++ 44 8701 202 530
++ 44 8701 202 531



CHINA – Farnell-Newark InOne
Tel No: ++86 10 6238 5152
Fax No: ++86 10 6238 5022



IRELAND – Farnell InOne
Tel No: ++ 353 1 830 9277
Fax No: ++ 353 1 830 9016



SINGAPORE – Farnell-Newark InOne
Tel No: ++ 65 6788 0200
Fax No: ++ 65 6788 0300



EXPORT – Farnell InOne
Tel No: ++ 44 8701 200 208
Fax No: ++ 44 8701 200 209

For enquiries from all other markets



DENMARK – Farnell InOne
Tel No: ++ 45 44 53 66 44
Fax No: ++ 45 44 53 66 06



ITALY – Farnell InOne
Tel No: ++ 39 02 93 995 200
Fax No: ++ 39 02 93 995 300



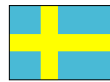
SPAIN – Farnell InOne
Tel No: ++ 34 93 475 8805
Fax No: ++ 34 93 474 5107



ESTONIA – Farnell InOne
Tel No: ++ 358 9 560 7780
Fax No: ++ 358 9 345 5411



MALAYSIA – Farnell-Newark InOne
Tel No: ++ 60 3 7873 8000
Fax No: ++ 60 3 7873 7000



SWEDEN – Farnell InOne
Tel No: ++ 46 8 730 50 00
Fax No: ++ 46 8 83 52 62

<http://www.farnellinone.com>

<http://www.buckhickmaninone.com>

<http://www.cpc.co.uk>

Disclaimer This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2004.

