

max. 184 m³/h

DC Axial Fans

Series 4200 119 x 119 x 38 mm



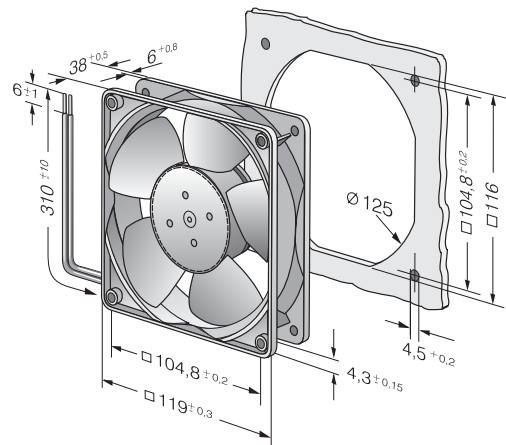
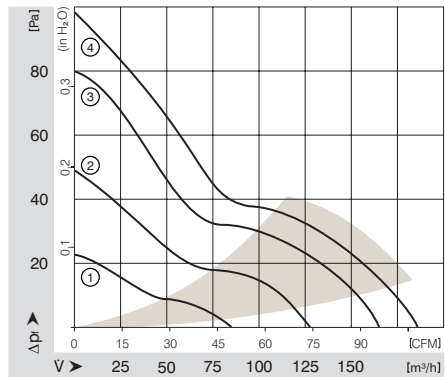
Highlights:

- Ball bearings and sleeve bearings available.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 290 g.

| Nominal Data | Air Flow | | Nominal Voltage | Voltage Range | Noise | Sound Power | Sinter-Sleeve Bearings Ball Bearings | Power Input | Nominal Speed | Temperature Range | Service Life L ₁₀ (40 °C) ebm-papst Standard | Service Life L ₁₀ (T _{max}) ebm-papst Standard | Life expectancy L _{10Δ} (40 °C) | Curve | Specials |
|--------------|-------------------|-------|-----------------|---------------|-------|-------------|---|-------------|---------------|-------------------|--|--|---|------------|----------|
| | m ³ /h | CFM | | | | | | | | | | | | | |
| 4212 L | 86 | 50.6 | 12 | 7...14.5 | 29 | 4.2 | ■ | 1.2 | 1 600 | -20...+75 | 80 000 / 35 000 | 112 500 | 1 | | |
| 4212 M | 127 | 74.7 | 12 | 7...14.5 | 38 | 4.9 | ■ | 2.2 | 2 350 | -20...+75 | 70 000 / 30 000 | 112 500 | 2 | | |
| 4212 | 165 | 97.1 | 12 | 7...14.5 | 45 | 5.6 | ■ | 4.3 | 3 050 | -20...+75 | 62 500 / 27 500 | 122 500 | 3 | /2;/12 | |
| 4212 H | 184 | 108.3 | 12 | 7...14.5 | 49 | 5.9 | ■ | 5.3 | 3 400 | -20...+65 | 60 000 / 32 500 | 115 000 | 4 | /2;/12 | |
| 4214 L | 86 | 50.6 | 24 | 12...28 | 29 | 4.2 | ■ | 1.2 | 1 600 | -20...+75 | 80 000 / 35 000 | 112 500 | 1 | | |
| 4214 G | 165 | 97.1 | 24 | 12...28 | 45 | 5.6 | □ | 4.3 | 3 050 | -20...+75 | 62 500 / 27 500 | 90 000 | 3 | | |
| 4214 | 165 | 97.1 | 24 | 12...28 | 45 | 5.6 | ■ | 4.3 | 3 050 | -20...+75 | 62 500 / 27 500 | 122 500 | 3 | /2;/12;/17 | |
| 4214 H | 184 | 108.3 | 24 | 12...28 | 49 | 5.9 | ■ | 5.3 | 3 400 | -20...+65 | 60 000 / 32 500 | 115 000 | 4 | /2;/12;/39 | |
| 4218 | 165 | 97.1 | 48 | 36...56 | 45 | 5.6 | ■ | 4.3 | 3 050 | -20...+75 | 62 500 / 27 500 | 112 500 | 3 | /2;/12 | |
| 4218 H | 184 | 108.3 | 48 | 36...56 | 49 | 5.9 | ■ | 5.6 | 3 400 | -20...+65 | 60 000 / 32 500 | 115 000 | 4 | /12;/39 | |



ebmpapst

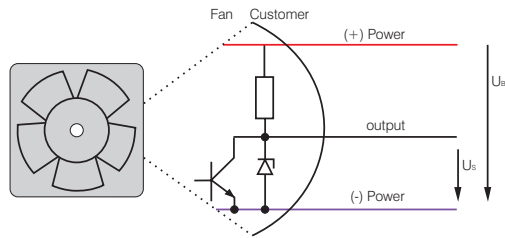


Sensor signal /12



- 2 pulses per revolution / 6 pulses per revolution with TURBOFANS.
- TTL-compatible.
- Integrated pull-up resistor.
- Connection via separate lead.
- The sensor signal also serves as a major comparison variable for setting and maintaining the desired speed for interactive or controlled cooling with one or more interconnected fans.

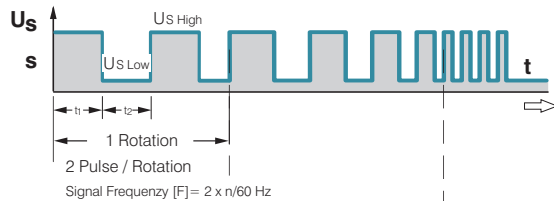
Electrical Connection



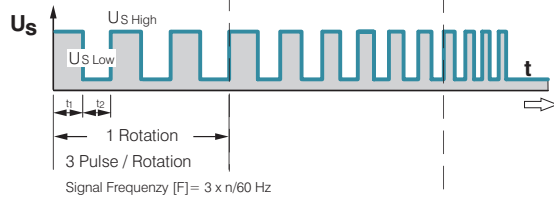
All voltages measured to ground.

Signal output voltage

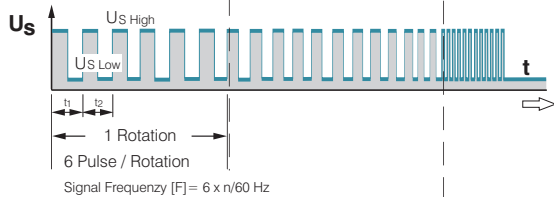
Standard signal for all models (exemptions see below)



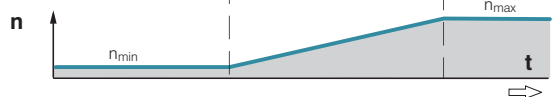
only for 4100 NH7 and NH8



6200 NTD, 6400 TD, DV 6200 TD, DV 6400 TD, RER / RG 160 NTD



Fan Speed



| Signal data | Sensor signal $U_{S,low}$ | Condition: fan | Sensor signal $U_{S,high}$ | Condition: source | Perm. sink current $I_{sink,max}$ | Fan description |
|--------------|------------------------------|----------------|-------------------------------|-------------------|--------------------------------------|-----------------|
| Type | V DC | mA | V DC | mA | mA | Page |
| 614 N/12 GM | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 28 |
| 618 N/12 N | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 28 |
| 8412 N/12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 33 |
| 8312 /12 | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 35 |
| 8314 /12 | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 35 |
| 8314 /12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 35 |
| 8318 /12 HL | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 35 |
| 8318 /12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 35 |
| 3318 /12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 39 |
| 4412 F/12 GM | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 41 |
| 4414 F/12 | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 41 |
| 4418 F/12 | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 41 |
| 4312 /12 M | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 44 |
| 4314 /12 | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 44 |
| 4212 /12 | 0.4 | 1 | 2.5–5.5 | 1 | 1 | 47 |
| 4212 /12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 47 |
| 4214 /12 | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 47 |
| 4214 /12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 47 |
| 4218 /12 | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 47 |
| 4218 /12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 47 |
| 4182 N/12 X | ≤ 0.4 | 1 | 2.5–5.5 | 1 | 1 | 48 |
| 4188 N/12 XM | 0.4 | 1 | 2.5–5.5 | 1 | 1 | 48 |
| 5214 N/12 H | ≤ 0.4 | 1 | 2.5–5.5 | 1 | ≤ 1 | 52 |

Attention:

With these fan options, deviations in regard to temperature range, voltage range and power consumption are possible compared with standard fan data.

Available on request:

- Galvanically separated sensor and signal circuit.
- Varying voltage potentials for power and logic circuit.

| Signal data | Sensor signal $U_{S,Low}$ | Condition: I_{sink} | Sensor signal $U_{S,High}$ | Condition: I_{source} | Perm. sink current $I_{sink,max}$ | Fan description |
|-------------------|------------------------------|-----------------------|-------------------------------|-------------------------|--------------------------------------|-----------------|
| Type | V DC | mA | V DC | mA | mA | Page |
| 5118 N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 54 |
| 7118 N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 56 |
| 7214 N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 57 |
| 6224 N/12 M | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 59 |
| 6224 N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 59 |
| 6248 N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 59 |
| DV 6224 /12 | ≤0.4 | 2 | 4.5–5.25 | 2 | ≤12 | 61 |
| DV 6248 /12 | ≤0.4 | 2 | 4.5–5.25 | 2 | ≤12 | 61 |
| 6424 /12 H | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 63 |
| DV 6424 /12 | ≤0.4 | 2 | 4.5–5.25 | 2 | ≤12 | 65 |
| DV 6448 /12 | ≤0.4 | 2 | 4.5–5.25 | 2 | ≤12 | 65 |
| RG 125-19/12N/12 | ≤0.4 | 1 | 2.5–5.5 | 1 | ≤1 | 78 |
| RG 160-28/12N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤5 | 79 |
| RG 160-28/18N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 79 |
| RER 125-19/12N/12 | ≤0.4 | 1 | 2.5–5.5 | 1 | ≤1 | 83 |
| RER 160-28/12N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤5 | 84 |
| RER 160-28/18N/12 | ≤0.4 | 2 | 2.5–5.5 | 1 | ≤20 | 84 |

Attention:

With these fan options, deviations in regard to temperature range, voltage range and power consumption are possible compared with standard fan data.