# EC axial fans mains-powered

## S series, Ø 990



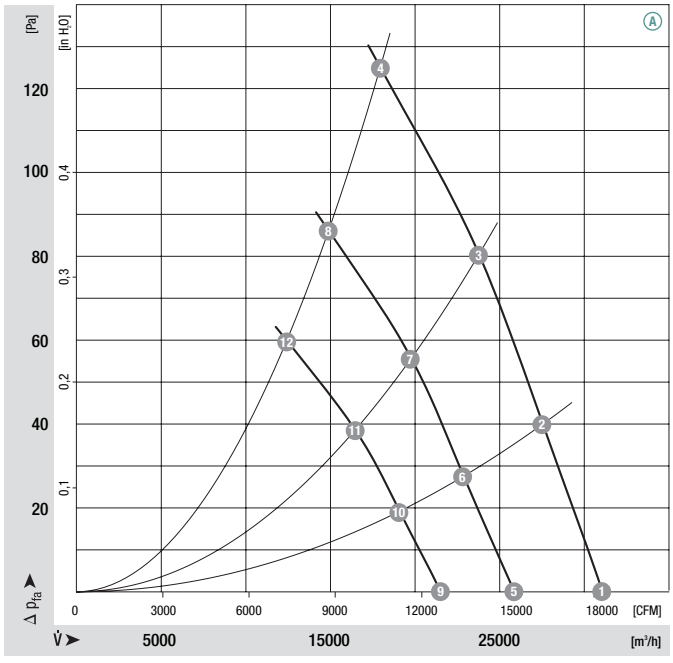
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
  Wall ring: Sheet steel, pre-galvanised and coated in black plastic
  Blades: Die-cast aluminium
  Rotor: Cast-in with PA plastic
  Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 7
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input (1) | Max. current draw (1) | Max. operative range | Perm. amb. temp. | Electr. connection |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Motor** | | | **VAC** | **Hz** | **rpm** | **kW** | **A** | **Pa** | **°C** | p. 428 |
| ***3G 990** | M3G 150-IF | | Ⓐ | 3~ 200-240 | 50/60 | 650 | 1.50 | 4.80 | 120 | -25 to +60 | M) |
| ***3G 990** | M3G 150-IF | | Ⓑ | 3~ 380-480 | 50/60 | 650 | 1.50 | 2.60 | 120 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

## Curves

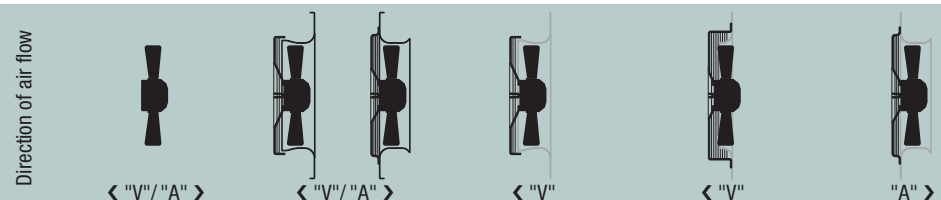



| | n [rpm] | $P_1$ [kW] | I [A] | $Lp_A$ [dB(A)] | $\eta_{tL}$ [%] |
|---|---|---|---|---|---|
| Ⓐ 1 | 650 | 1.02 | 3.60 | 75 | — |
| Ⓐ 2 | 650 | 1.21 | 4.00 | 76 | 72 |
| Ⓐ 3 | 650 | 1.32 | 4.40 | 76 | 70 |
| Ⓐ 4 | 650 | 1.44 | 4.60 | 75 | 57 |
| Ⓐ 5 | 540 | 0.60 | 2.20 | 70 | — |
| Ⓐ 6 | 540 | 0.71 | 2.60 | 71 | 72 |
| Ⓐ 7 | 540 | 0.78 | 2.80 | 71 | 70 |
| Ⓐ 8 | 540 | 0.84 | 3.00 | 70 | 57 |
| Ⓐ 9 | 450 | 0.36 | 1.40 | 65 | — |
| Ⓐ 10 | 450 | 0.42 | 1.60 | 66 | 72 |
| Ⓐ 11 | 450 | 0.46 | 1.80 | 66 | 70 |
| Ⓐ 12 | 450 | 0.50 | 1.80 | 65 | 57 |



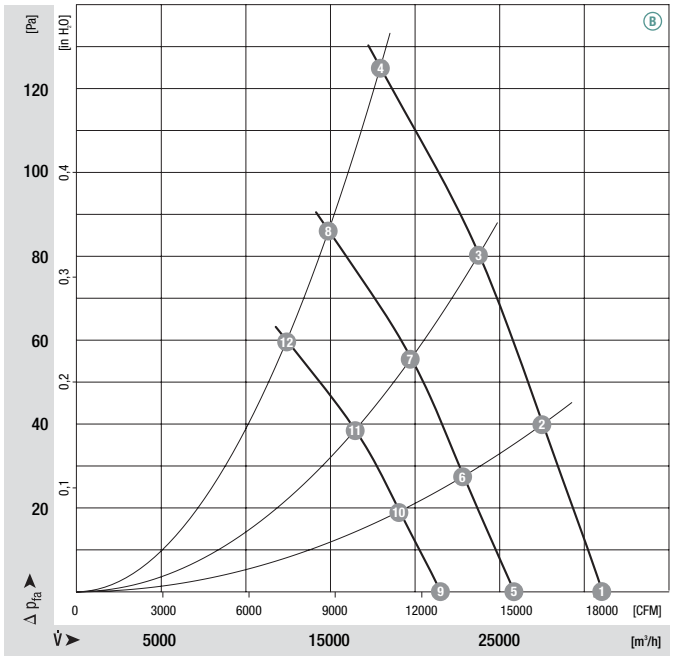
ebmpapst

- **Technical features:**
  - PFC (passive)
  - Integrated PID controller
  - Control input 0-10 VDC / PWM
  - Input for sensor 0-10 V or 4-20 mA
  - Slave output 0-10 V max. 3 mA
  - Output 20 VDC (±20 %) max. 50 mA
  - Output 10 VDC (+10 %) max. 10 mA
  - RS485 ebmBUS
  - Alarm relay
  - Line undervoltage / phase failure detection
  - Motor current limitation
  - Over-temperature protected electronics / motor
  - Locked rotor protection
  - Soft start
- **EMC:** Interference emission acc. to EN 61000-6-3
  Interference immunity acc. to EN 61000-6-2
  Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST; Ⓑ also VDE




| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle |
|---|---|---|---|---|---|
| "V" | A3G 990-AD11 -13 | W3G 990-CD11 -13 | S3G 990-BD11 -13 | — | — |
| "A" | A3G 990-AD11 -14 | W3G 990-CD11 -14 | — | — | S3G 990-CD11 -14 |
| "V" | A3G 990-AD05 -03 | W3G 990-CD05 -03 | S3G 990-BD05 -03 | — | — |
| "A" | A3G 990-AD05 -04 | W3G 990-CD05 -04 | — | — | S3G 990-CD05 -04 |

## Curves




| | n [rpm] | $P_1$ [kW] | I [A] | $Lp_A$ [dB(A)] | $\eta_{tL}$ [%] |
|---|---|---|---|---|---|
| Ⓑ 1 | 650 | 1.02 | 1.80 | 75 | — |
| Ⓑ 2 | 650 | 1.21 | 2.00 | 76 | 72 |
| Ⓑ 3 | 650 | 1.32 | 2.20 | 76 | 70 |
| Ⓑ 4 | 650 | 1.44 | 2.30 | 75 | 57 |
| Ⓑ 5 | 540 | 0.60 | 1.10 | 70 | — |
| Ⓑ 6 | 540 | 0.71 | 1.30 | 71 | 72 |
| Ⓑ 7 | 540 | 0.78 | 1.40 | 71 | 70 |
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Drawings p. 298 f.
Electr. connection p. 428