

EC centrifugal fans and modules

backward curved, 3-D, Ø 310



- **Material:** Support bracket: Steel, coated in black
Support plate: Sheet aluminium, spacer profiles: Aluminium
Impeller: Sheet aluminium, laser-welded
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 54
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on top; rotor on bottom on request
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

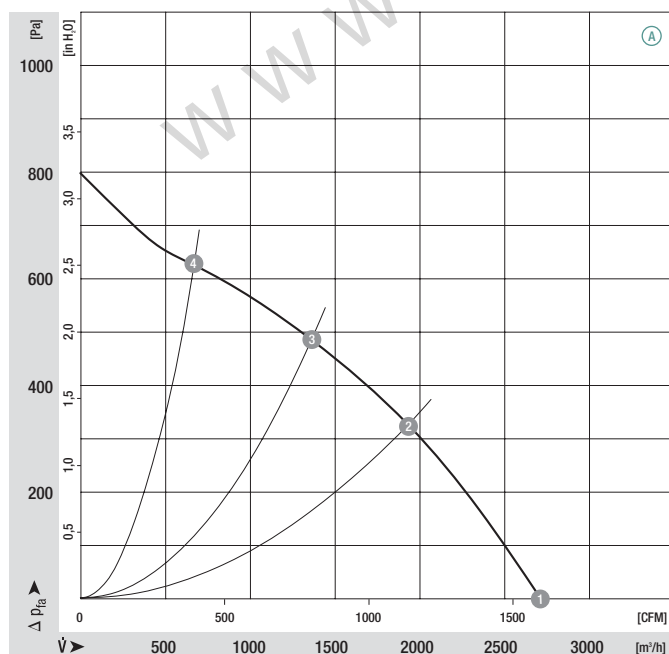
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed/rpm	Max. power input ⁽¹⁾	Max. current draw ⁽¹⁾	Perm. amb. temp.	Electr. connection
*3G 310	M3G 084-DF	Ⓐ	1~ 100-130	50/60	2300	350	4.20	-25 to +60	p. 605

subject to alterations

(1) Nominal data in operating point with maximum load and 115 VAC

Curves (established with long inlet nozzle)



	n [rpm]	P ₁ [W]	I [A]	Lp _A [dB(A)]	η _{IL} [%]
Ⓐ 1	2300	262	3.30	75	—
Ⓐ 2	2190	338	4.10	69	64
Ⓐ 3	2180	350	4.20	71	67
Ⓐ 4	2260	307	3.70	70	52

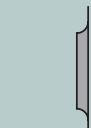
- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 61800-5-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for
- Output 10 VDC max. 1.1 mA
- Alarm relay
- Over-temperature protected electronics / motor



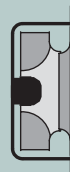
Mass of centrifugal fan



Inlet nozzle (long)



Inlet nozzle (short)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan

kg

Inlet nozzle (long)

Inlet nozzle (short)

Centrifugal module w. support bracket

kg

Centrifugal module with support plate

kg

R3G 310-AJ23 -81

4.4

31050-2-4013

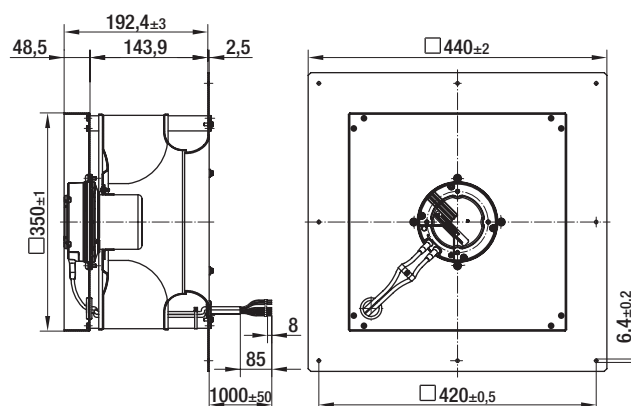
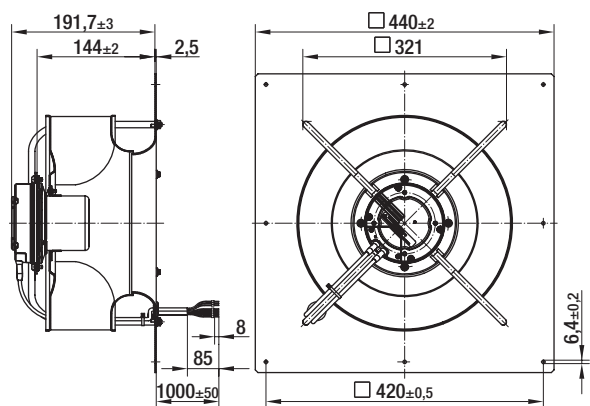
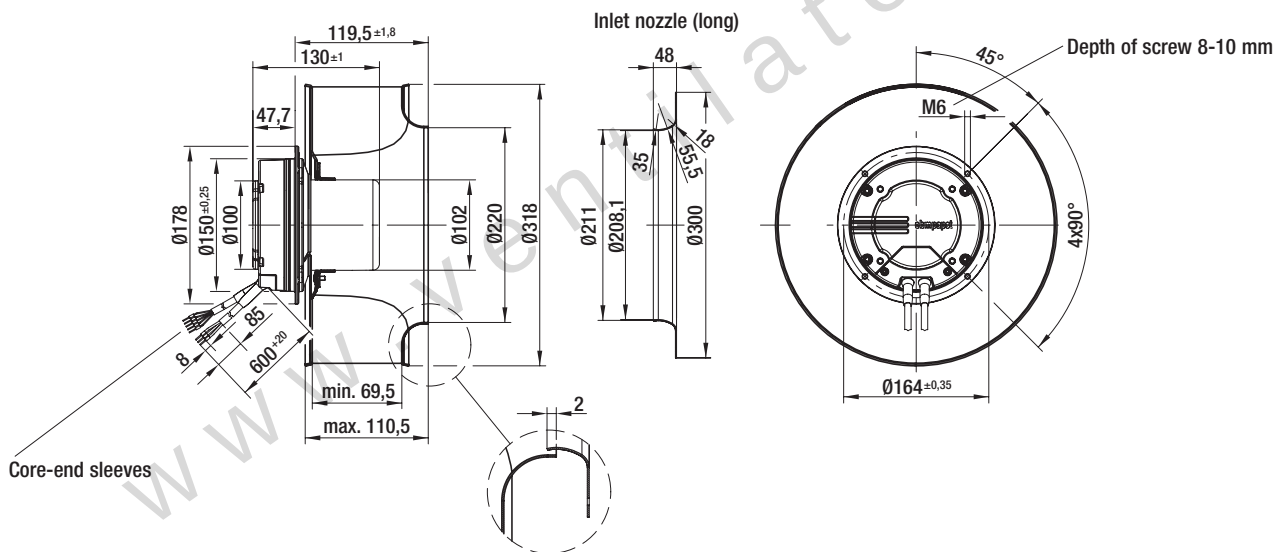
31051-2-4013

K3G 310-AJ23 -82

7.3

K3G 310-AJ23 -81

7.0



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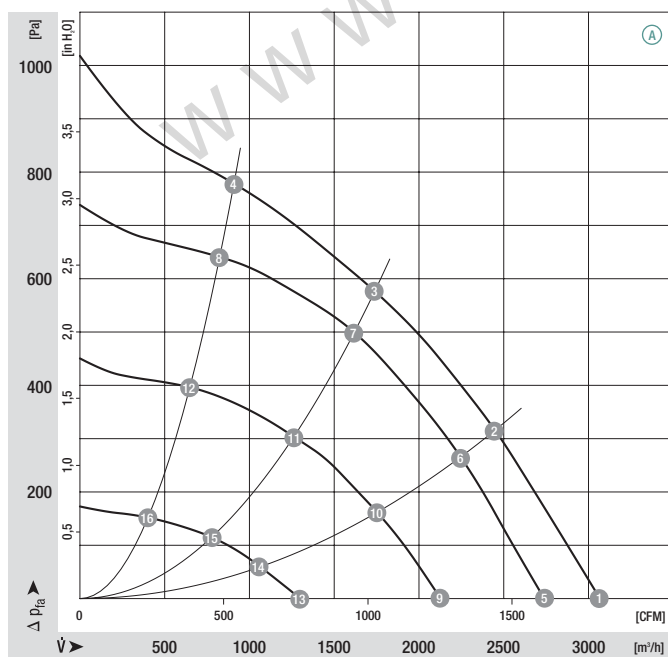
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed/rpm	Max. power input ⁽¹⁾	Max. current draw ⁽¹⁾	Perm. amb. temp.	Electr. connection
			VAC	Hz	rpm	W	A	°C	p. 605
*3G 310	M3G 084-DF	Ⓐ	1~ 200-277	50/60	2590	505	3.10	-25 to +60	K1)

subject to alterations

(1) Nominal data in operating point with maximum load and 230 VAC

Curves (established with long inlet nozzle)



	n [rpm]	P ₁ [W]	I [A]	L _{pA} [dB(A)]	η _{IL} [%]
Ⓐ 1	2590	380	2.30	78	—
Ⓐ 2	2500	470	2.80	74	63
Ⓐ 3	2470	505	3.00	73	67
Ⓐ 4	2530	460	2.70	74	52
Ⓐ 5	2320	274	1.60	75	—
Ⓐ 6	2320	370	2.20	71	63
Ⓐ 7	2320	410	2.40	71	67
Ⓐ 8	2320	362	2.10	71	52
Ⓐ 9	1810	137	0.90	69	—
Ⓐ 10	1810	175	1.10	65	63
Ⓐ 11	1810	198	1.20	64	67
Ⓐ 12	1810	180	1.10	64	52
Ⓐ 13	1110	42	0.30	55	—
Ⓐ 14	1110	54	0.40	52	63
Ⓐ 15	1110	57	0.40	52	67
Ⓐ 16	1110	54	0.40	52	52

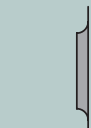
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Interference immunity acc. to EN 61000-6-2
Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 61800-5-1, CE
- **Approvals:** UL, CSA; VDE, CCC, GOST are applied for
- Output 10 VDC max. 1.1 mA
- Alarm relay
- Over-temperature protected electronics / motor



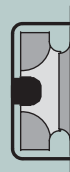
Mass of centrifugal fan



Inlet nozzle (long)



Inlet nozzle (short)

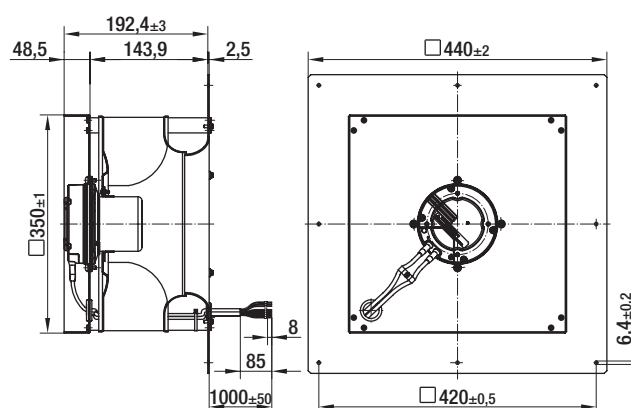
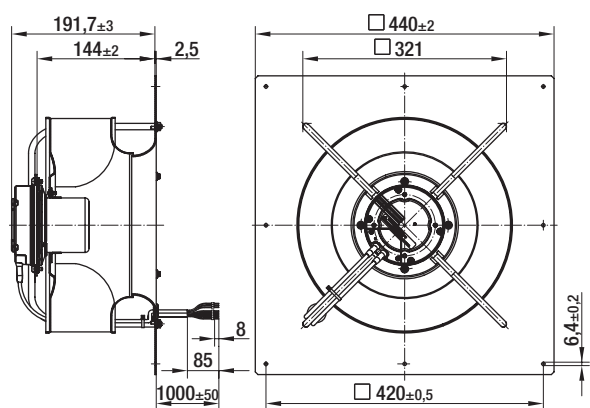
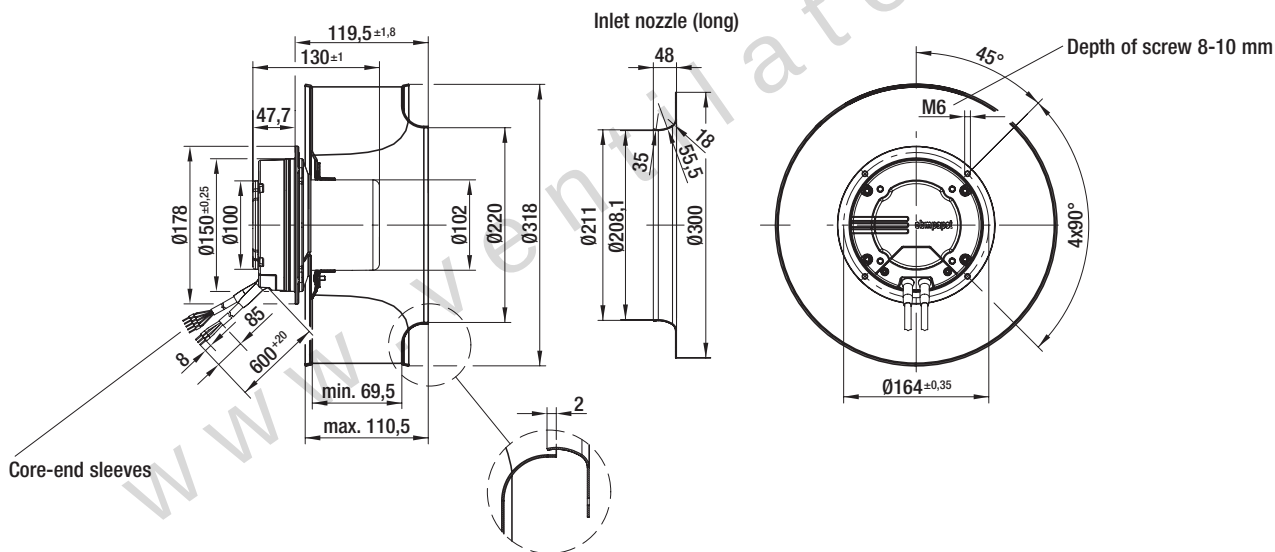


Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan	kg	Inlet nozzle (long)	Inlet nozzle (short)	Centrifugal module w. support bracket	kg	Centrifugal module with support plate	kg
R3G 310-AJ40 -71	4.4	31050-2-4013	31051-2-4013	K3G 310-AJ40 -72	7.3	K3G 310-AJ40 -71	7.0



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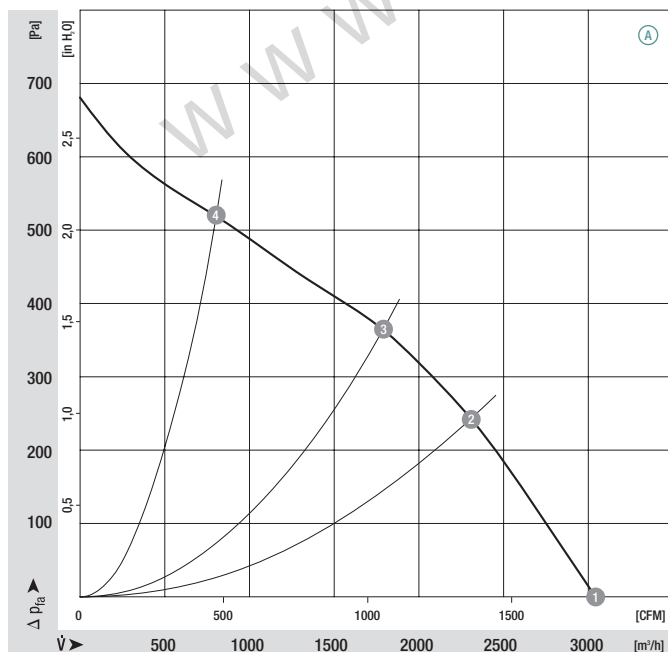
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*3G 310	M3G 084-DF	A	1~ 100-130	50/60	2080	350	4.20	-25 to +60	p. 605

subject to alterations

(1) Nominal data in operating point with maximum load and 115 VAC

Curves (established with long inlet nozzle)



	n [rpm]	P ₁ [W]	I [A]	Lp _A [dB(A)]	η _{IL} [%]
A 1	2080	274	3.40	71	—
A 2	1980	338	4.10	68	63
A 3	1950	350	4.20	66	67
A 4	2035	301	3.70	69	52

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- Over-temperature protected electronics / motor



Mass of centrifugal fan



Inlet nozzle (long)



Inlet nozzle (short)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan

kg

Inlet nozzle (long)

Inlet nozzle (short)

Centrifugal module w. support bracket

kg

Centrifugal module with support plate

kg

R3G 310-AI01 -81

4.5

31050-2-4013

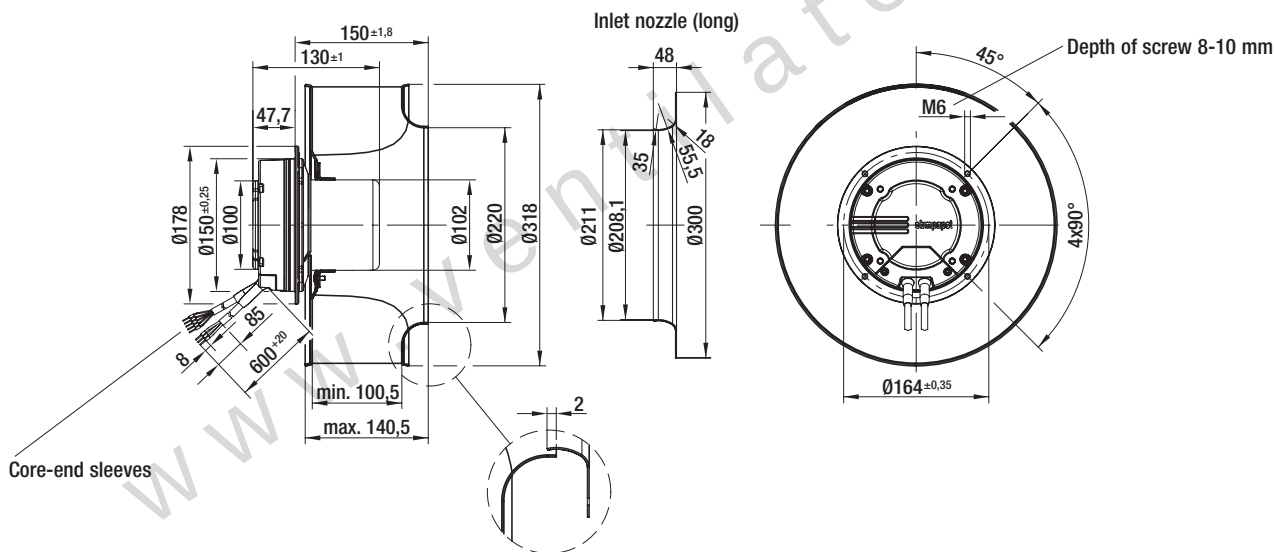
31051-2-4013

K3G 310-AI01 -82

7.6

K3G 310-AI01 -81

7.1



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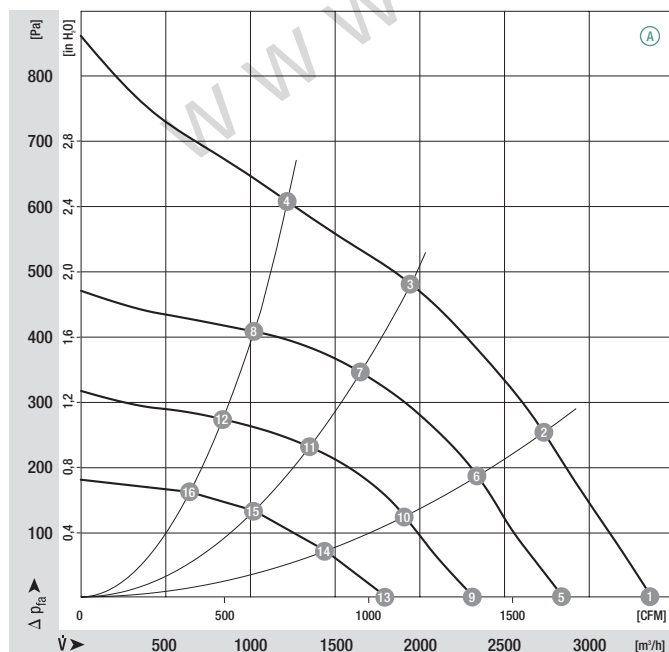
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*3G 310	M3G 084-DF	Ⓐ	1~ 200-277	50/60	2300	480	3.10	-25 to +60	p. 605

subject to alterations

(1) Nominal data in operating point with maximum load and 230 VAC

Curves (established with long inlet nozzle)

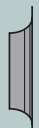


	n [rpm]	P ₁ [W]	I [A]	Lp _A [dB(A)]	η _{IL} [%]
Ⓐ 1	2300	370	2.35	75	—
Ⓐ 2	2215	445	2.85	71	62
Ⓐ 3	2170	480	3.10	68	67
Ⓐ 4	2220	448	2.85	70	56
Ⓐ 5	1900	210	1.30	69	—
Ⓐ 6	1900	284	1.70	66	62
Ⓐ 7	1900	312	1.80	63	67
Ⓐ 8	1900	278	1.70	66	56
Ⓐ 9	1560	124	0.80	63	—
Ⓐ 10	1560	158	1.00	61	62
Ⓐ 11	1560	175	1.10	57	67
Ⓐ 12	1560	158	1.00	61	56
Ⓐ 13	1200	57	0.40	56	—
Ⓐ 14	1200	73	0.50	54	62
Ⓐ 15	1200	80	0.50	53	67
Ⓐ 16	1200	70	0.50	53	56

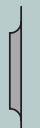
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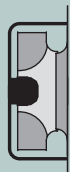
Mass of centrifugal fan



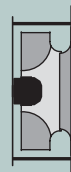
Inlet nozzle (long)



Inlet nozzle (short)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan

kg

Inlet nozzle (long)

Inlet nozzle (short)

Centrifugal module w. support bracket

kg

Centrifugal module with support plate

kg

R3G 310-AI39 -71

4.5

31050-2-4013

31051-2-4013

K3G 310-AI39 -72

7.6

K3G 310-AI39 -71

7.1

