

EC centrifugal fans and modules

backward curved, 3-D, Ø 450



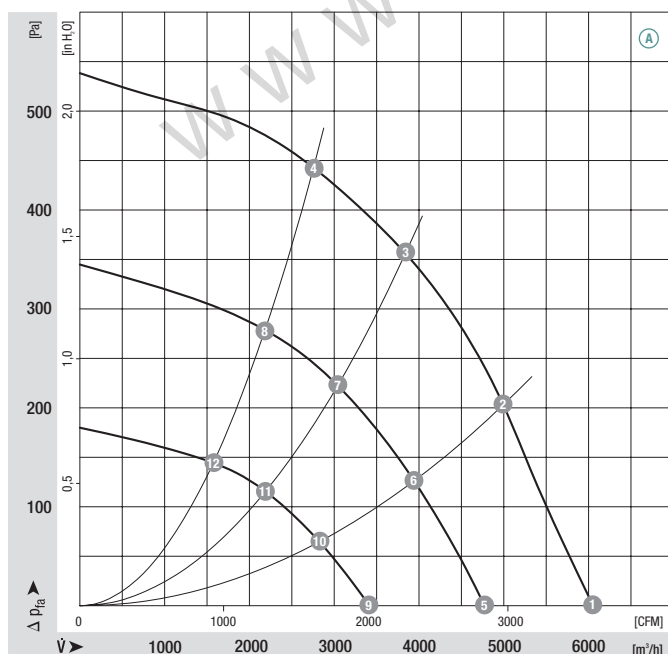
- **Material:** Support bracket: Steel, coated in black
Support plate: Galvanised sheet steel, spacer profiles: Aluminium
Impeller: Sheet aluminium, welded
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 54 (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⁾	Perm. amb. temp.	Electr. connection
Type	Motor	VAC	Hz	rpm	kW	A	°C	p. 607	
*3G 450	M3G 112-GA	 1 ~	200-277	50/60	1365	0.64	2.90	-25 to +60	L1)

subject to alterations

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

Curves

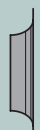


	n [rpm]	P ₁ [kW]	I [A]	L _{wA} [dB(A)]	η _{IL} [%]
Ⓐ 1	1365	0.48	2.20	80	—
Ⓐ 2	1345	0.60	2.70	75	57
Ⓐ 3	1330	0.64	2.90	71	66
Ⓐ 4	1340	0.62	2.80	73	60
Ⓐ 5	1065	0.23	1.10	74	—
Ⓐ 6	1065	0.29	1.40	68	58
Ⓐ 7	1055	0.32	1.50	66	66
Ⓐ 8	1060	0.30	1.40	67	61
Ⓐ 9	760	0.10	0.50	65	—
Ⓐ 10	760	0.12	0.60	59	57
Ⓐ 11	760	0.13	0.60	58	68
Ⓐ 12	760	0.12	0.60	59	63

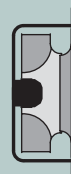
- **Technical features:**
 - PFC (active)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage detection
 - Motor current limitation
 - Electronics / motor overtemperature protection
 - Locked-rotor protection
 - Soft start
- **EMC:** Interference emission acc. to EN 61000-6-4 (industrial environment)
Interference immunity acc. to EN 61000-6-2 (industrial environment)
Harmonics acc. to DIN 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:** VDE, UL, CSA, CCC, GOST are applied for



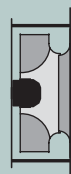
Mass of centrifugal fan



Inlet nozzle (long)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan

kg

Inlet nozzle (long)

Centrifugal module w. support bracket

kg

Centrifugal module with support plate

kg

R3G 450-AG33 -11

12.1

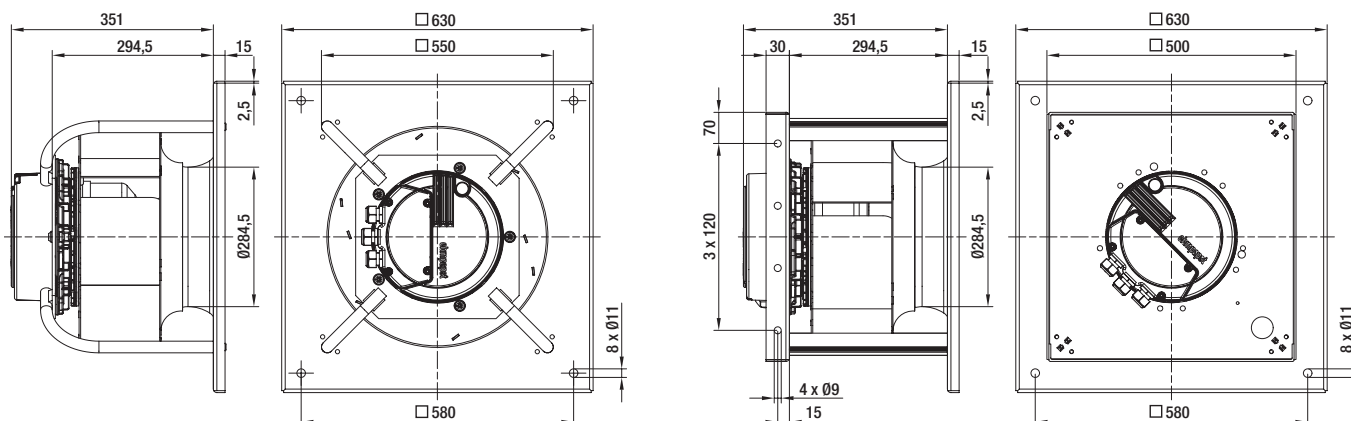
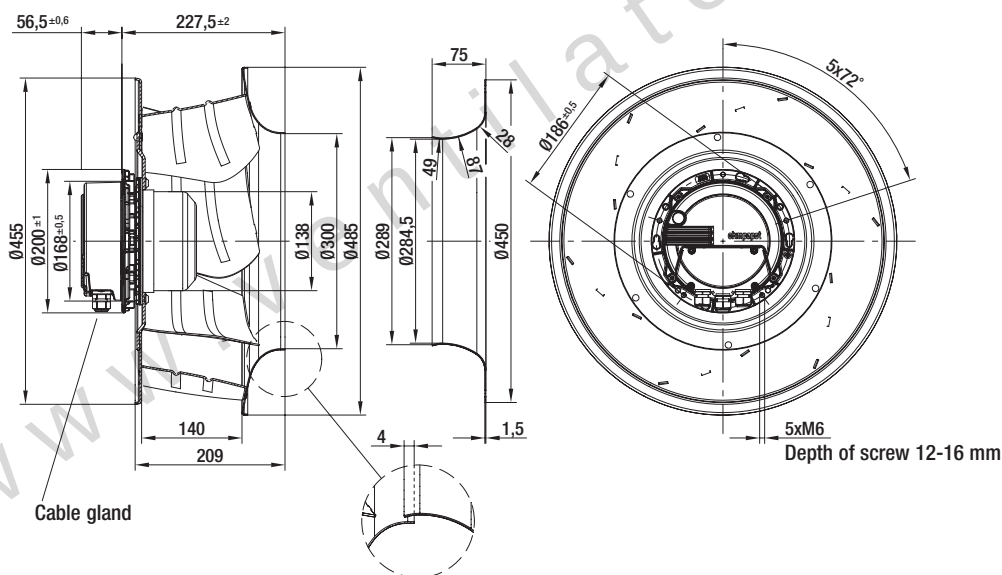
63045-2-4013

K3G 450-AG33 -12

22.2

K3G 450-AG33 -11

26.0



EC centrifugal fans and modules

backward curved, 3-D, Ø 450



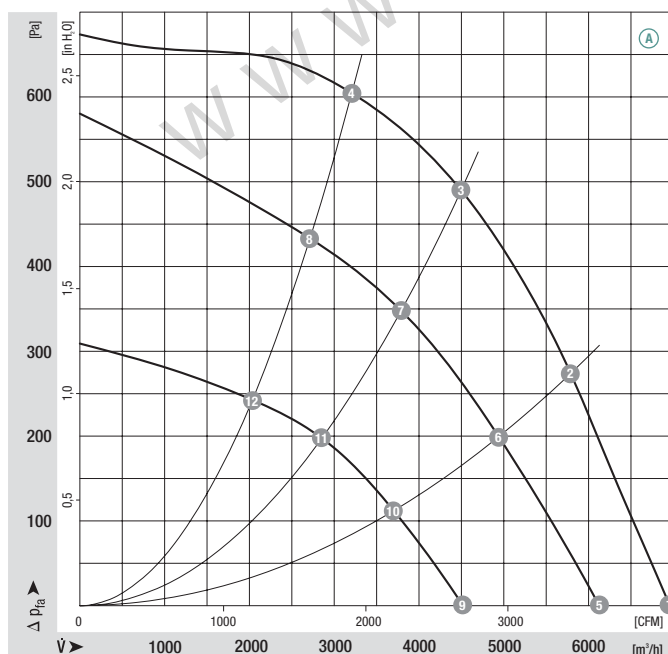
- **Material:** Support bracket: Steel, coated in black
Support plate: Galvanised sheet steel, spacer profiles: Aluminium
Impeller: Sheet aluminium, welded
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 54 (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⁾	Perm. amb. temp.	Electr. connection
Type	Motor		VAC	Hz	rpm	kW	A	°C	p. 607
*3G 450	M3G 112-GA	Ⓐ 3~	200-240	50/60	1560	1.01	3.20	-25 to +60	L2)

subject to alterations

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

Curves

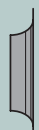


	n [rpm]	P ₁ [kW]	I [A]	L _{wA} [dB(A)]	η _{IL} [%]
Ⓐ 1	1560	0.69	2.30	83	—
Ⓐ 2	1555	0.91	2.90	78	58
Ⓐ 3	1555	1.01	3.20	74	67
Ⓐ 4	1560	0.96	3.10	77	60
Ⓐ 5	1345	0.43	1.60	80	—
Ⓐ 6	1315	0.53	2.00	73	60
Ⓐ 7	1300	0.58	2.00	70	71
Ⓐ 8	1315	0.54	1.90	72	62
Ⓐ 9	985	0.19	0.80	71	—
Ⓐ 10	970	0.22	0.90	65	62
Ⓐ 11	965	0.25	1.00	62	75
Ⓐ 12	970	0.23	0.90	64	67

- **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 ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Electronics / motor overtemperature protection
 - 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 DIN 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:** VDE, UL, CSA, CCC, GOST are applied for



Mass of centrifugal fan



Inlet nozzle (long)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan

kg

Inlet nozzle (long)

Centrifugal module w. support bracket

kg

Centrifugal module with support plate

kg

R3G 450-AG38 -06

12.1

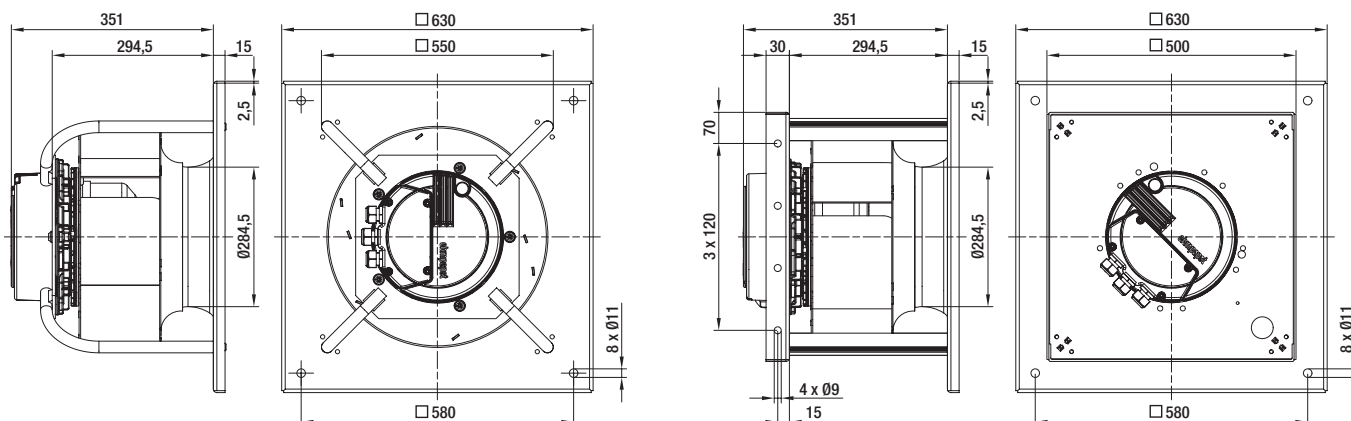
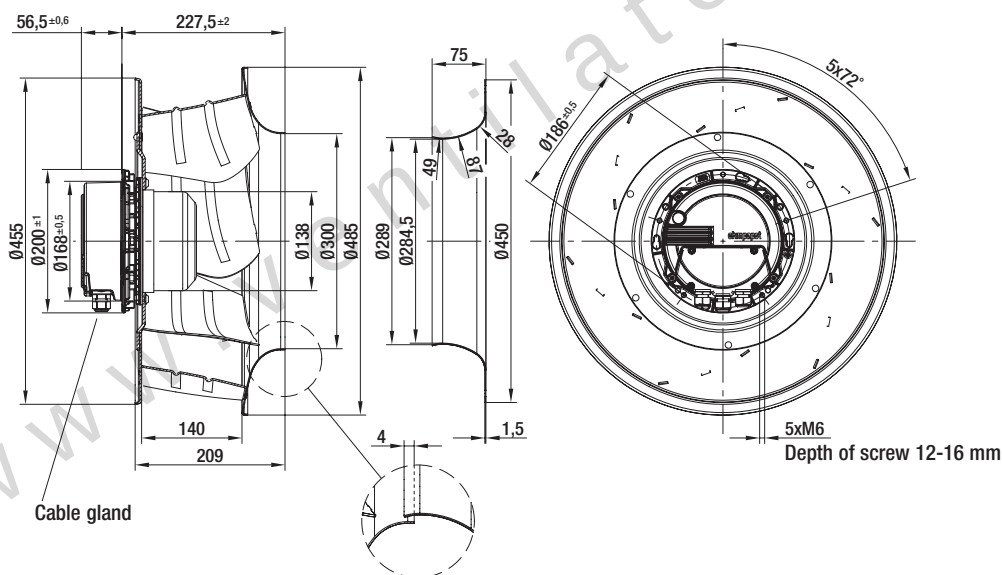
63045-2-4013

K3G 450-AG38 -07

22.2

K3G 450-AG38 -06

26.0



EC centrifugal fans and modules

backward curved, 3-D, Ø 450



- **Material:** Support bracket: Steel, coated in black
Support plate: Galvanised sheet steel, spacer profiles: Aluminium
Impeller: Sheet aluminium, 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 (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

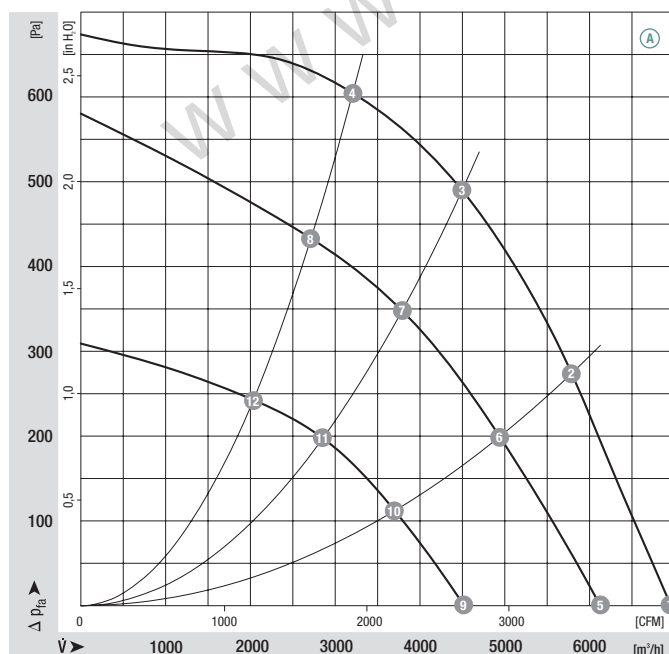
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed/rpm	Max. power input ⁽¹⁾	Max. current draw ⁽¹⁾	Perm. amb. temp.	Electr. connection
*3G 450	M3G 112-GA	A	3~ 380-480	50/60	1560	1.01	1.60	-25 to +60	p. 607

subject to alterations

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

Curves

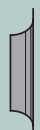


	n [rpm]	P ₁ [kW]	I [A]	L _{WA} [dB(A)]	η _{IL} [%]
A 1	1560	0.69	1.10	83	—
A 2	1555	0.91	1.50	78	58
A 3	1555	1.01	1.60	74	67
A 4	1560	0.96	1.50	77	60
A 5	1345	0.43	0.80	80	—
A 6	1315	0.53	1.00	73	60
A 7	1300	0.58	1.00	70	71
A 8	1315	0.54	1.00	72	62
A 9	985	0.19	0.40	71	—
A 10	970	0.22	0.50	65	62
A 11	965	0.25	0.50	62	75
A 12	970	0.23	0.50	64	67

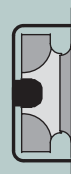
- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Electronics / motor overtemperature protection
 - 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 DIN 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:** VDE, UL, CSA, CCC, GOST are applied for



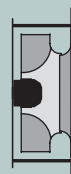
Mass of centrifugal fan



Inlet nozzle (long)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan

kg

Inlet nozzle (long)

Centrifugal module w. support bracket

kg

Centrifugal module with support plate

kg

R3G 450-AG33 -01

12.1

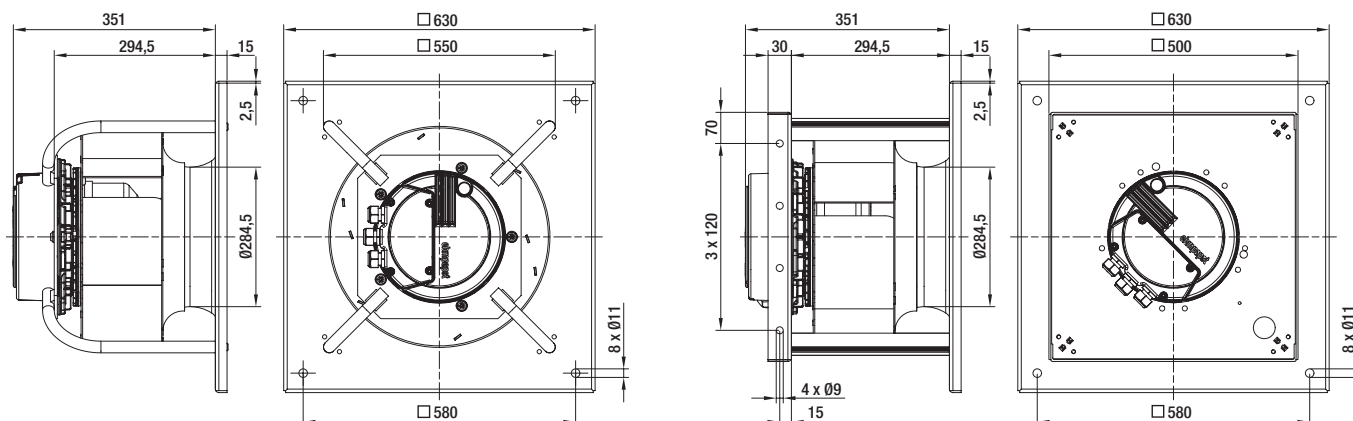
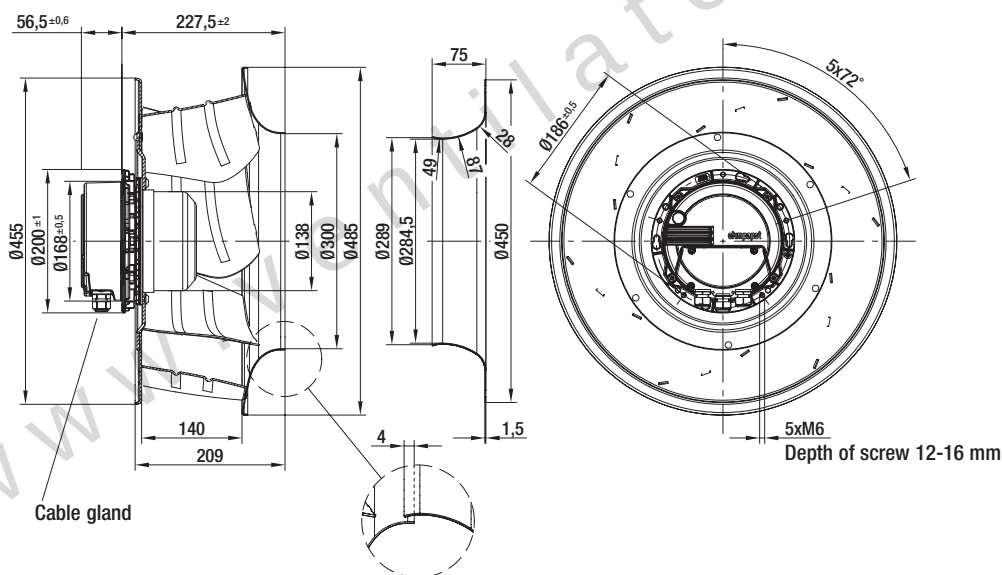
63045-2-4013

K3G 450-AG33 -02

22.2

K3G 450-AG33 -01

26.0



EC centrifugal fans and modules

backward curved, 3-D, Ø 450



- **Material:** Support bracket: Steel, coated in black
Support plate: Galvanised sheet steel, spacer profiles: Aluminium
Impeller: Sheet aluminium, 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 (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

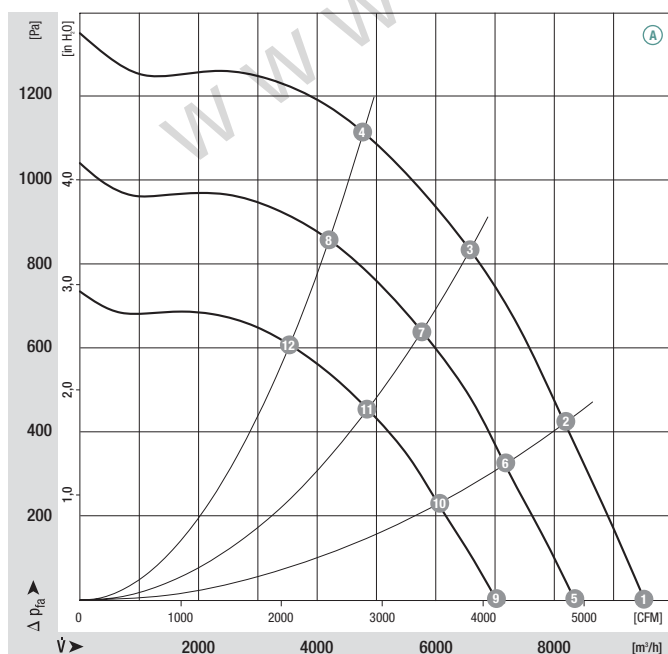
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed/rpm	Max. power input ⁽¹⁾	Max. current draw ⁽¹⁾	Perm. amb. temp.	Electr. connection
*3G 450	M3G 150-FF	Ⓐ	3~ 200-240	50/60	2165	2.63	9.80	-25 to +50	p. 608

subject to alterations

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

Curves



	n [rpm]	P ₁ [kW]	I [A]	Lp _A [dB(A)]	η _{IL} [%]
Ⓐ 1	2165	1.85	6.60	83	—
Ⓐ 2	2165	2.33	8.70	81	51
Ⓐ 3	2165	2.59	9.80	78	68
Ⓐ 4	2165	2.57	9.80	79	64
Ⓐ 5	1900	1.25	4.30	79	—
Ⓐ 6	1900	1.59	5.90	77	52
Ⓐ 7	1900	1.74	6.60	75	68
Ⓐ 8	1900	1.74	6.60	75	64
Ⓐ 9	1600	0.75	2.60	71	—
Ⓐ 10	1600	0.95	3.50	72	52
Ⓐ 11	1600	1.04	3.90	70	68
Ⓐ 12	1600	1.04	3.90	71	64

– **Technical features:**

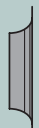
- PFC (passive)
- Integrated PID controller
- Control input 0-10 VDC / PWM
- Input for sensor 0-10 V or 4-20 mA
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST

- Slave output 0-10 V max. 3 mA
- Output 20 VDC ($\pm 20\%$) max. 50 mA
- Output 10 VDC ($+10\%$) max. 10 mA
- RS485 ebmBUS
- Alarm relay

- Line undervoltage / phase failure detection
- Motor current limitation
- Electronics / motor overtemperature protection
- Locked-rotor protection
- Soft start



Mass of centrifugal fan



Inlet nozzle (long)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan

kg

Inlet nozzle (long)

Centrifugal module w. support bracket

kg

Centrifugal module with support plate

kg

R3G 450-AT14 -13

21.0

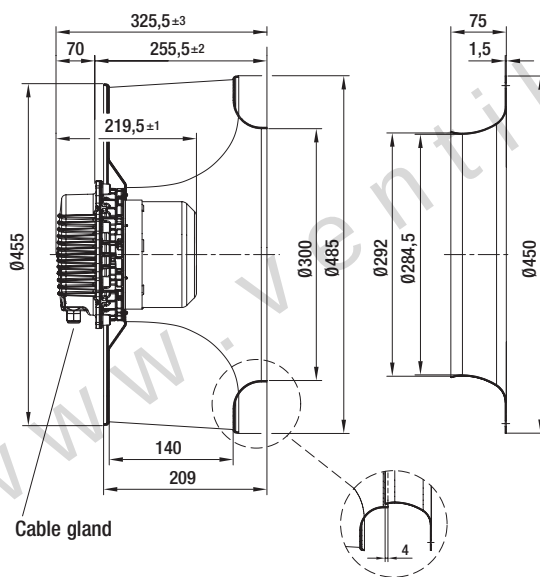
63045-2-4013

K3G 450-AT14 -20

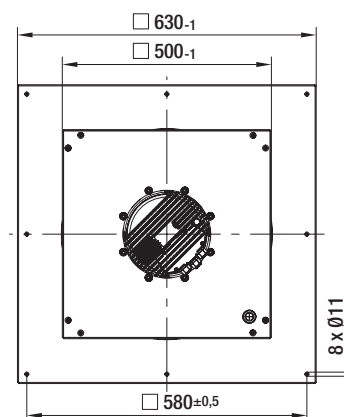
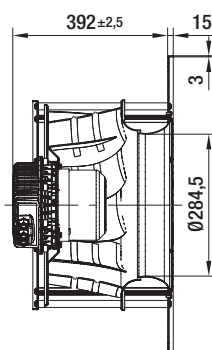
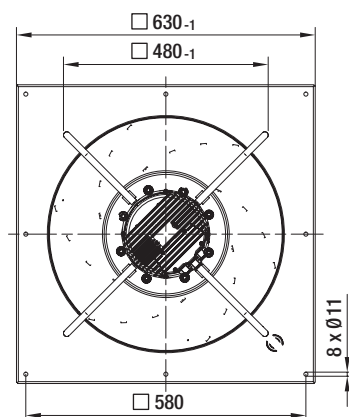
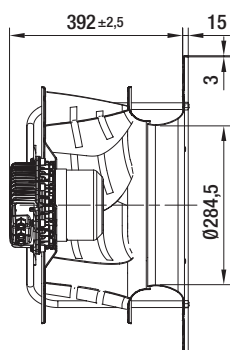
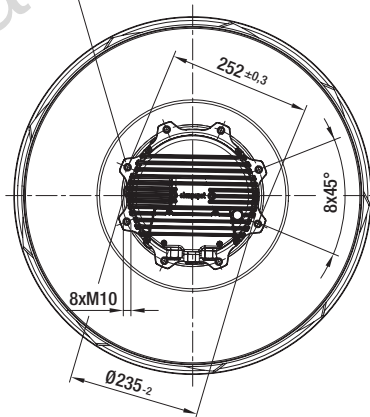
36.5

K3G 450-AT14 -13

38.5



Depth of screw 20-25 mm



EC centrifugal fans and modules

backward curved, 3-D, Ø 450



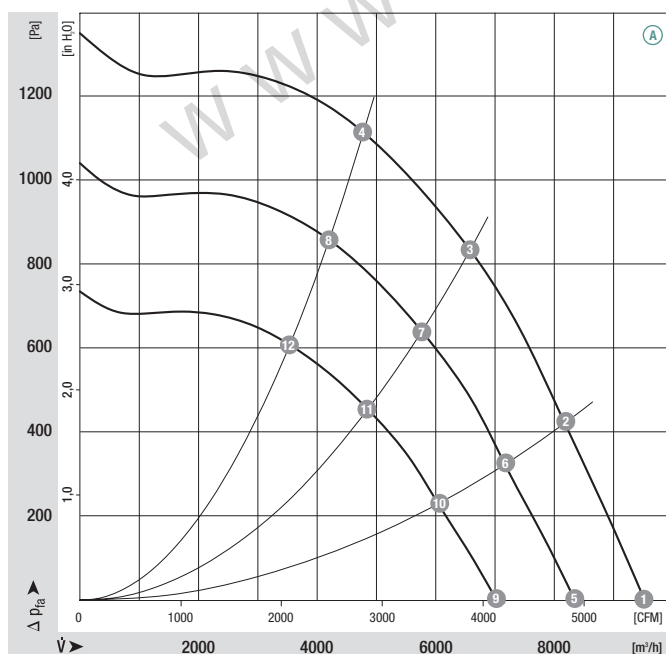
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Support plate: Galvanised sheet steel, spacer profiles: Aluminium
Impeller: Sheet aluminium, welded
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 54 (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⁾	Perm. amb. temp.	Electr. connection
Type	Motor		VAC	Hz	rpm	kW	A	°C	p. 608
*3G 450	M3G 150-FF	Ⓐ	3~ 380-480	50/60	2165	2.63	4.90	-25 to +50	M)

subject to alterations

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

Curves

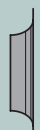


	n [rpm]	P ₁ [kW]	I [A]	Lp _A [dB(A)]	η _{IL} [%]
Ⓐ 1	2165	1.85	3.30	83	—
Ⓐ 2	2165	2.33	4.40	81	51
Ⓐ 3	2165	2.59	4.90	78	68
Ⓐ 4	2165	2.57	4.90	79	64
Ⓐ 5	1900	1.25	2.20	79	—
Ⓐ 6	1900	1.59	3.00	77	52
Ⓐ 7	1900	1.74	3.30	75	68
Ⓐ 8	1900	1.74	3.30	75	64
Ⓐ 9	1600	0.75	1.30	71	—
Ⓐ 10	1600	0.95	1.80	72	52
Ⓐ 11	1600	1.04	2.00	70	68
Ⓐ 12	1600	1.04	2.00	71	64

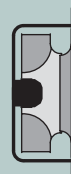
- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** <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



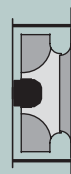
Mass of centrifugal fan



Inlet nozzle (long)



Mass of centrifugal module with support bracket



Mass of centrifugal module with support plate

Centrifugal fan	kg	Inlet nozzle (long)	Centrifugal module w. support bracket	kg	Centrifugal module with support plate	kg
R3G 450-AT09 -03	21.0	63045-2-4013	K3G 450-AT09 -10	36.5	K3G 450-AT09 -03	38.5

