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AIR MOVEMENT PRODUCTS & EXPERTISE

EC Centrifugal Fan Catalogue

Low Noise Fans with EC External Motors

Maximum efficiency
— Minimum power

Simx

www.simx.co.nz

“LOWEST WHOLE-OF-LIFE COST FOR GREATEST FUNCTIONALITY AND SIMPLICITY”

Education Facilities

Indoor Air Quality

Clean-Room Ventilation

Data Centre Ventilation

Highest motor efficiency available (IE4). Delivers lowest running costs. Integrated speed control. No VSD required. No VSD’s, means no harmonic noise generation delivering the lowest motor sound levels.

- Ease of Commissioning.
- No motor data input into VSD required
- Screened power cable not required.
- Delivers cost savings plus no power cable length limitations.
- Phase protection included.
- No overload required.
- Closed loop control capability without remote control modules delivers cost savings and ease of installation.
- Cooler running temperature delivers longer bearing life.
- Faster Nominal speeds than AC equivalents deliver greater flexibility to handle on-site installation variations.
- In-built thermal control. Real-time management of fan speed to control any thermal issues.
- Ease of adjustment during commissioning to ensure specified fan duties are met.
- Integrated motorised impeller delivers minimum operational vibration.
- Automatically correct fan rotation regardless of power supply orientation.

EC FANS, DELIVERING...

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Specifications

01 / BIQ-EC

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EC Centrifugal Fans

The energy saver amongst fans

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SPECIFICATION

INLINE CENTRIFUGAL EC FAN

Ziehl-Abegg Vpro
EC blue external rotor

Sizes (mm)

220, 280, 310, 315, 350, 400, 450, 500, 560, 630mm diameter.

Fan Performance

The fan is of low noise and high static efficiency design. The impeller is designed to give excellent performance characteristic with high static pressure development without stalling.

Impellers

Ziehl-Abegg Vpro low noise high efficiency centrifugal fan with profiled blades. The impellers are manufactured from high performance composite material and balanced according to ISO1940.

Motors

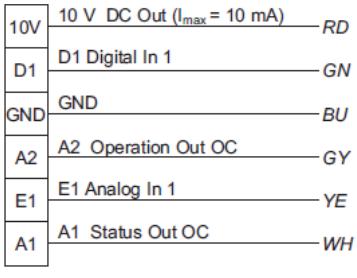
Ziehl-Abegg third generation EC motors. Motor enclosure to feature IP54 protection. Motor winding insulation incorporates thermal class 155 as standard. All models supplied with basic controller on-board activation via external speed setting 0-10v/PWM. The three phase models have optional premium plug-in controllers available. Motor bearings consist of maintenance free ball bearing design. Auto-reset thermal contacts are provided as standard.

Casing

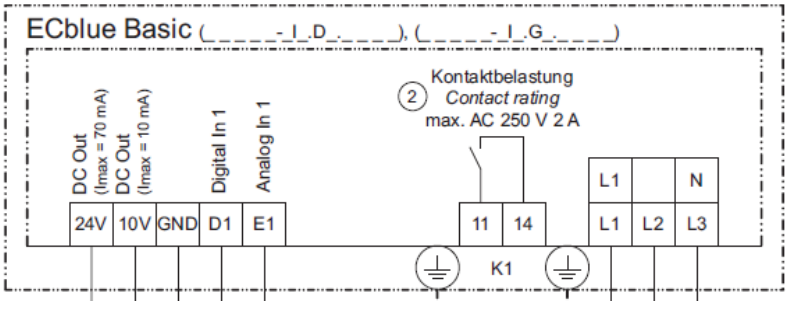
Fan casings are made galvanised sheet steel, with MEZZ flanges connection to suit either flexible duct or galvanised steel ductwork.

Control Wiring Diagram:

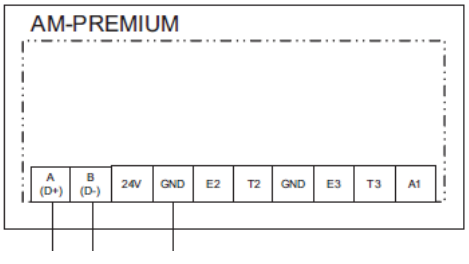
Single Phase



Three Phase



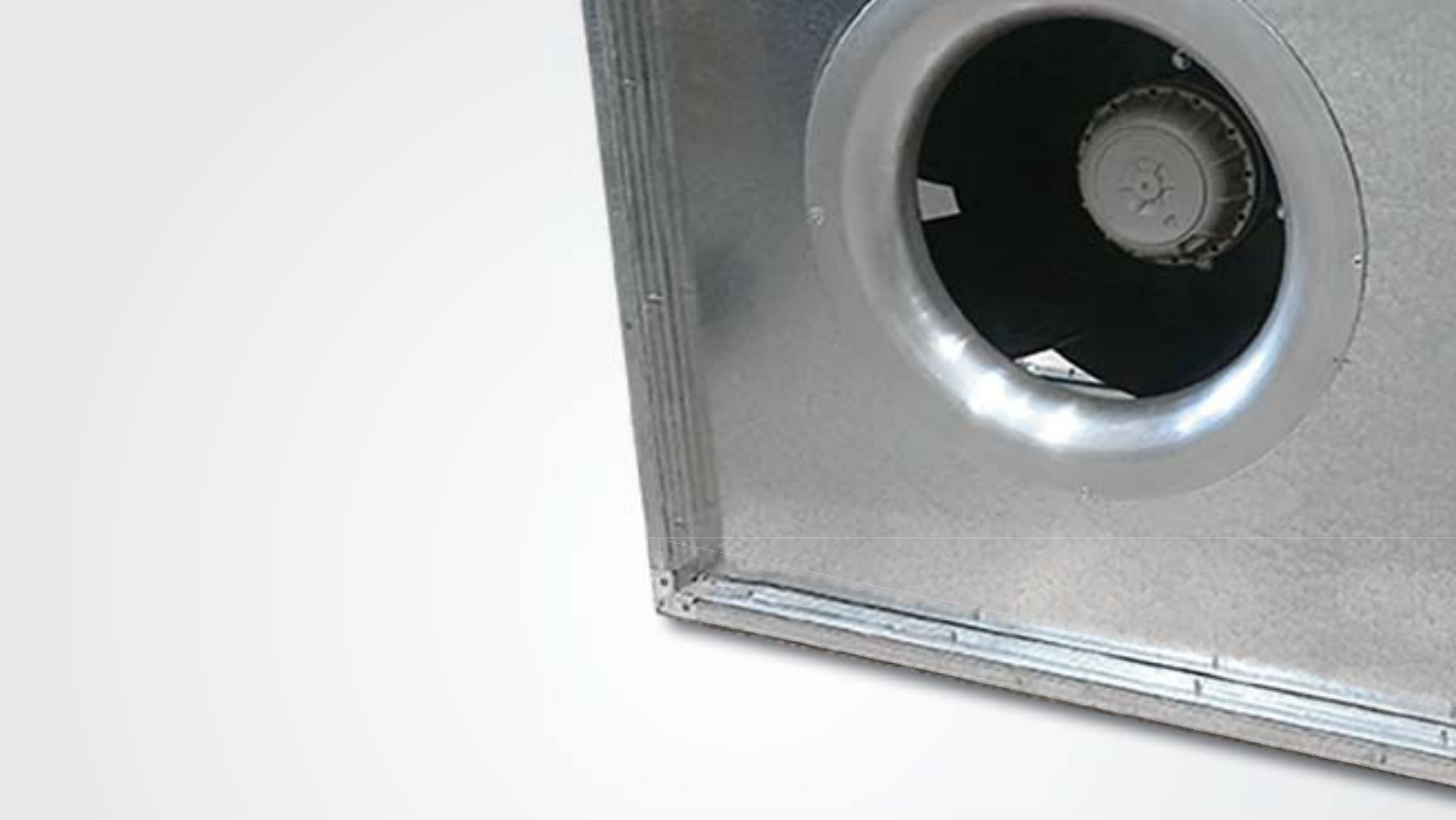
Premium module (For Three Phase model only)



Test Procedures:

Performance Data – Established from tests in accordance with ISO5801:1997.

Sound levels – Established from tests in accordance with ISO3745.



electronically commutated

highly efficient

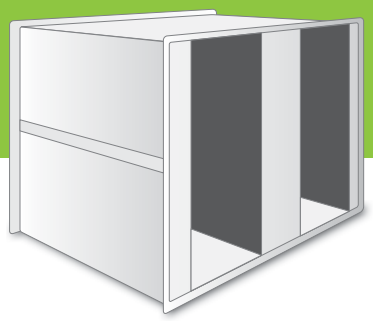
low sound aerofoil impeller

01 / BIQ-EC

- Inline duct mounted fan with flange connection.
- Galvanised sheet steel housing.
- Sized for low outlet velocities.
- Acoustically optimised centrifugal impeller.
- Integrated electrical protection.
- EC motor interfaced for easy control.
- Correct rotation assured.

SILENCER

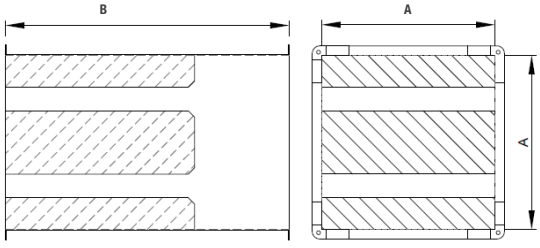
FOR BIQ INLINE PLUG FAN



Physical Detail

Lining:	None
Material:	Galvanised Sheet Steel
Material thickness:	1.2mm
Flange:	MEZ130
Infill material:	High density glass wool

Dimensions

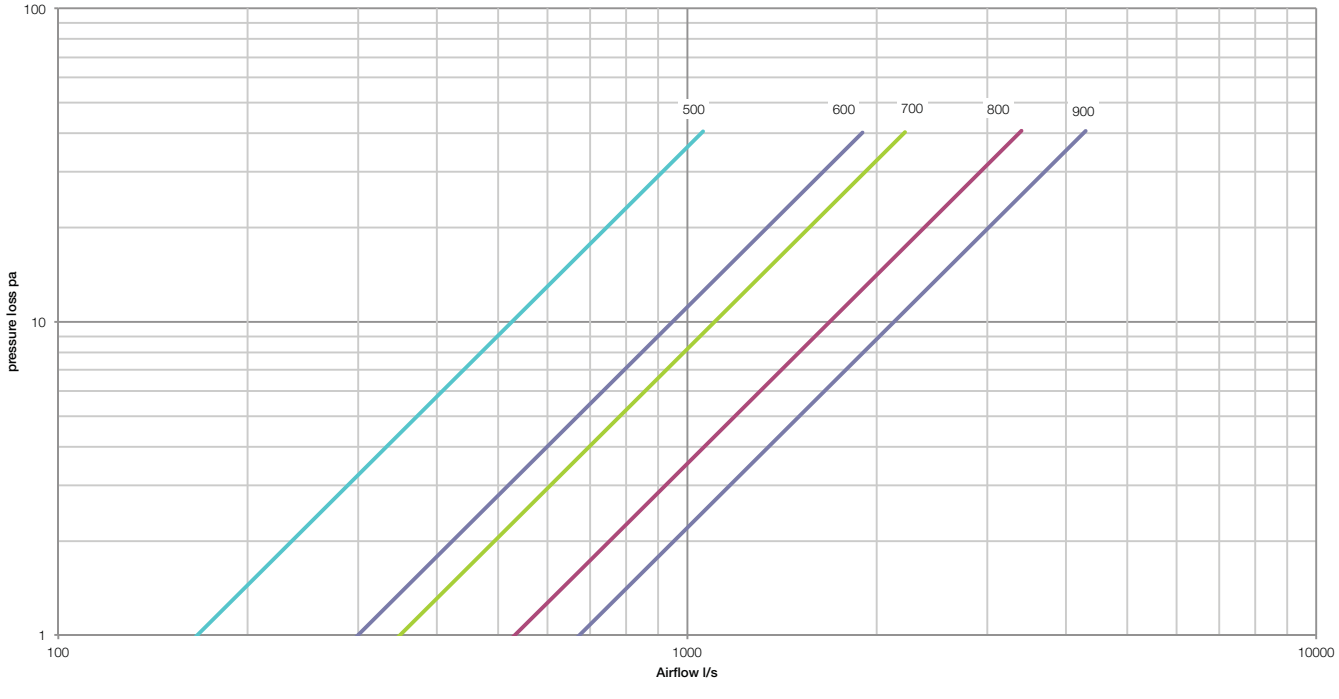


	A	B
BIQS-500-900	500	900
BIQS-500-1200	500	1200
BIQS-600-900	600	900
BIQS-600-1200	600	1200
BIQS-700-900	700	900
BIQS-700-1200	700	1200
BIQS-800-900	800	900
BIQS-800-1200	800	1200
BIQS-900-900	900	900
BIQS-900-1200	900	1200

Acoustic Data

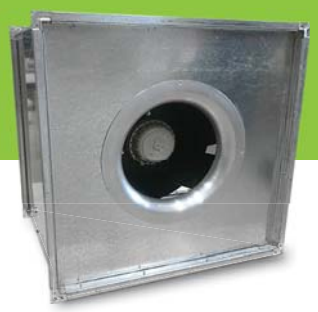
Static Insertion Loss (dB)								
	63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**
BIQS-500-900	4	8	15	18	28	37	29	24
BIQS-500-1200	5	11	22	24	38	49	39	27
BIQS-600-900	2	5	10	18	23	23	13	6
BIQS-600-1200	3	6	14	24	31	31	17	9
BIQS-700-900	2	5	10	19	24	24	14	7
BIQS-700-1200	3	6	14	25	32	32	18	10
BIQS-800-900	2	4	7	15	17	9	12	7
BIQS-800-1200	3	6	12	20	23	17	15	10
BIQS-900-900	2	5	9	17	22	22	12	7
BIQS-900-1200	3	6	13	22	30	30	16	8

Curve / Performance



BIQ221Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	220 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

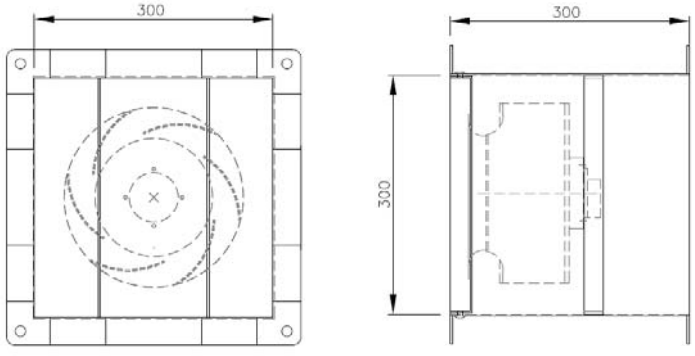
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.21 kW
Power Supply:	230V/1PH/50Hz
Speed:	3380 RPM
FLC:	1.85 A
Control I/O:	1 x Analogue Input E1
	1 x Status output A1
	1 x 10V DC output

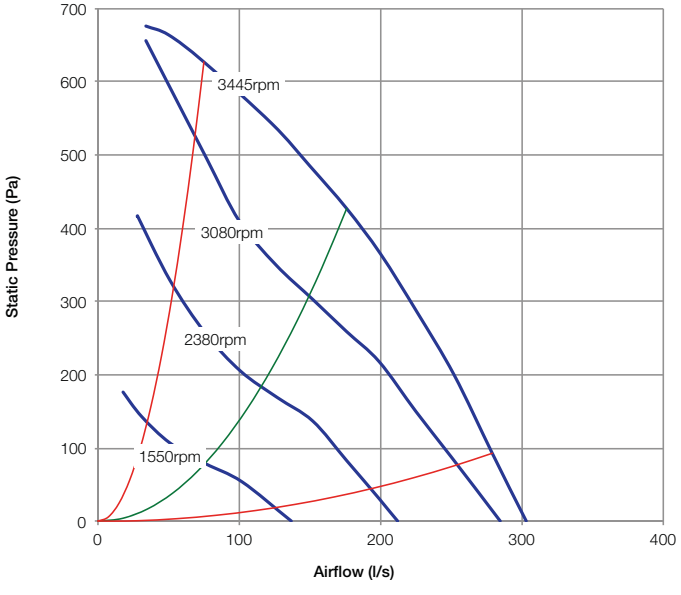
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	15 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



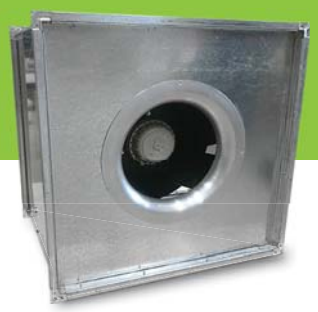
Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
3445	676	0.21	1.6
3080	656	0.13	1.01
2380	417	0.07	0.57
1550	176	0.02	0.22

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
85	74	75	72	67	63	60	60	53
75	72	71	68	62	60	57	57	49
71	70	63	63	55	54	54	50	43
71	68	50	53	50	48	48	38	37

BIQ281Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	280 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

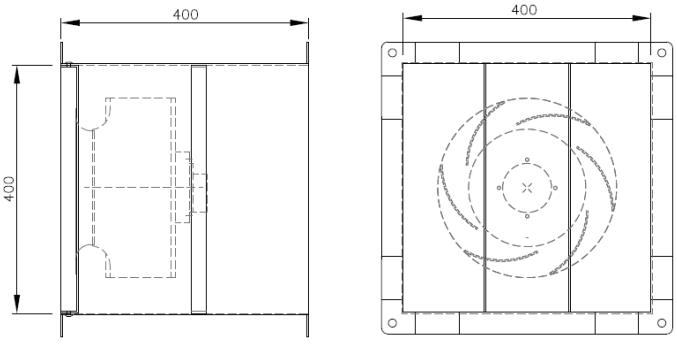
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.17 kW
Power Supply:	230V/1PH/50Hz
Speed:	2300 RPM
FLC:	1.30 A
Control I/O:	1 x Analogue Input E1 1 x Status output A1 1 x 10V DC output

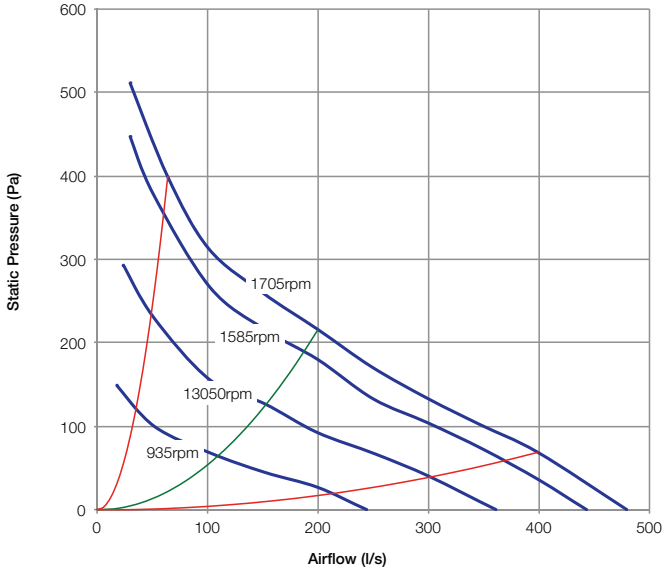
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	15 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



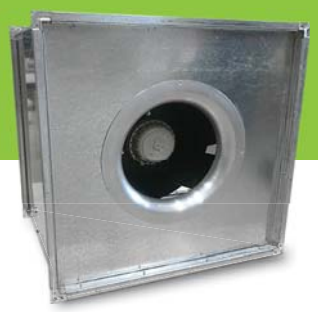
Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1705	511	0.17	1.6
1585	447	0.13	1.01
1305	293	0.08	0.57
935	149	0.02	0.22

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
71	66	60	61	54	52	47	41	40
68	64	58	58	53	51	47	37	39
65	60	53	51	46	50	46	32	34
63	53	45	45	39	40	33	29	26

BIQ311Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	310 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

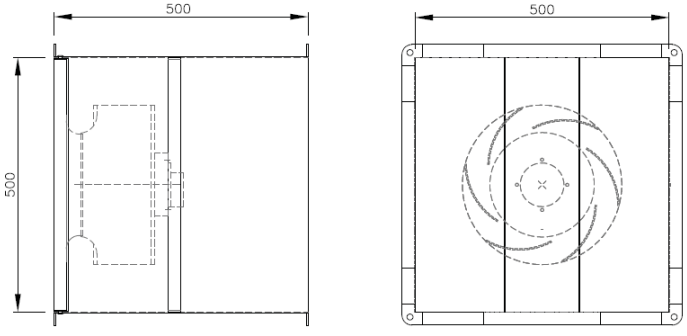
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.40 kW
Power Supply:	230V/1PH/50Hz
Speed:	2015 RPM
FLC:	2.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status output A1
	1 x Operation output A2
	1 x 10V DC output
	1 x Relay output K1

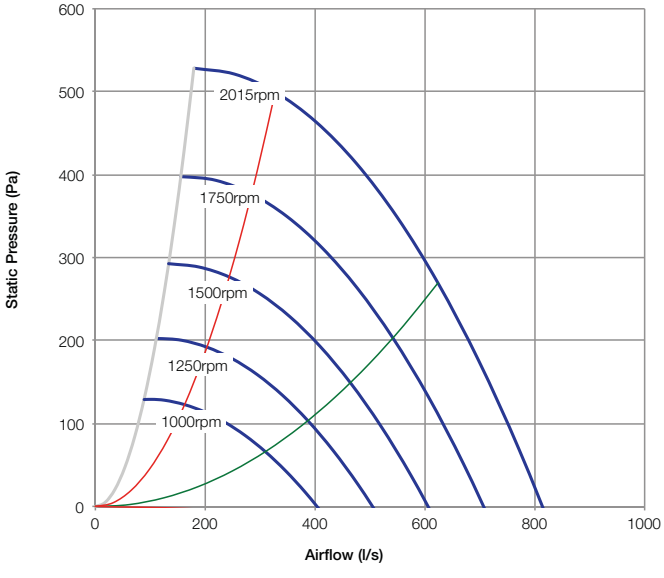
Fan

Case	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	15 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



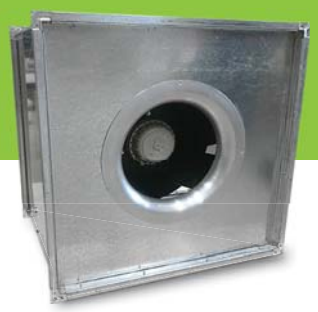
Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2015	528	0.40	2.1
1750	398	0.26	1.23
1500	293	0.17	0.8
1250	203	0.10	0.53
1000	130	0.06	0.33

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
77	68	66	67	61	67	61	57	50
74	67	63	63	57	64	57	56	47
72	66	59	59	53	60	51	54	43
68	60	55	57	48	54	51	49	39
66	59	56	47	42	48	49	27	34

BIQ351Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

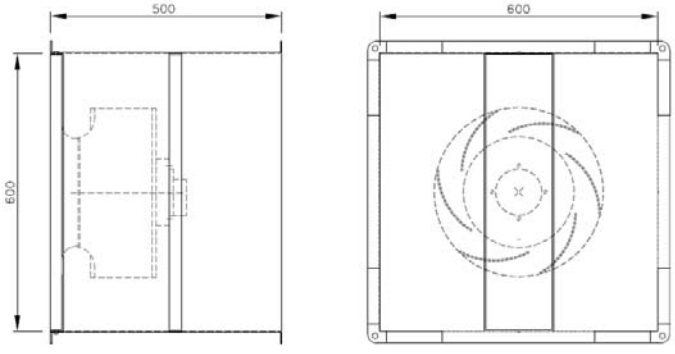
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.35 kW
Power Supply:	230V/1PH/50Hz
Speed:	1600 RPM
FLC:	1.85 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status output A1
	1 x Operation output A2
	1 x 10V DC output
	1 x Relay output K1

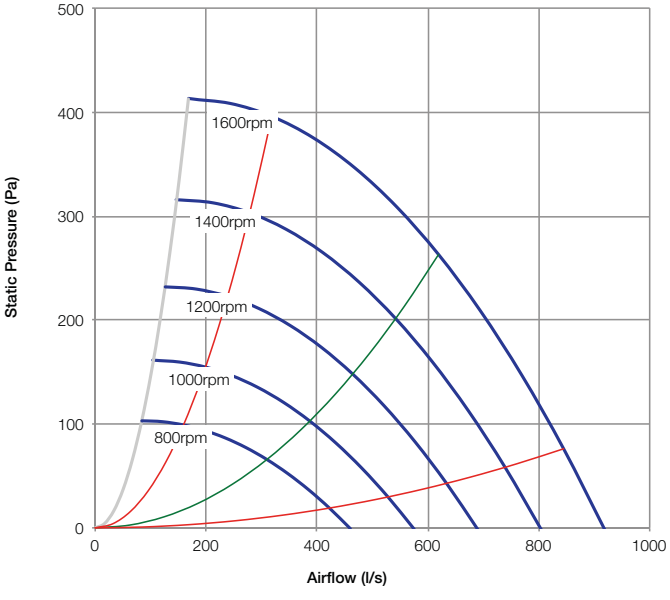
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	35 kg
Max. Temp:	50 °C

Dimensions



Fan Performance

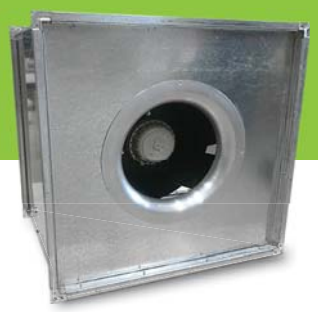


Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
				63	125	250	500	1k	2k	4k	8k	
1600	413	0.35	1.85	72	70	64	64	57	64	57	56	47
1400	316	0.23	1.09	71	65	61	60	54	61	52	57	44
1200	232	0.15	0.73	69	66	58	56	50	56	53	48	40
1000	161	0.09	0.47	66	58	57	51	45	50	50	31	35
800	103	0.04	0.3	68	52	49	45	41	46	45	24	30

BIQ353Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

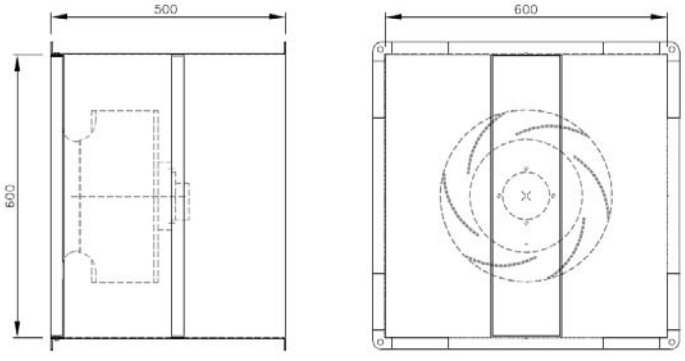
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.25 kW
Power Supply:	400V/3PH/50Hz
Speed:	2500 RPM
FLC:	2.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

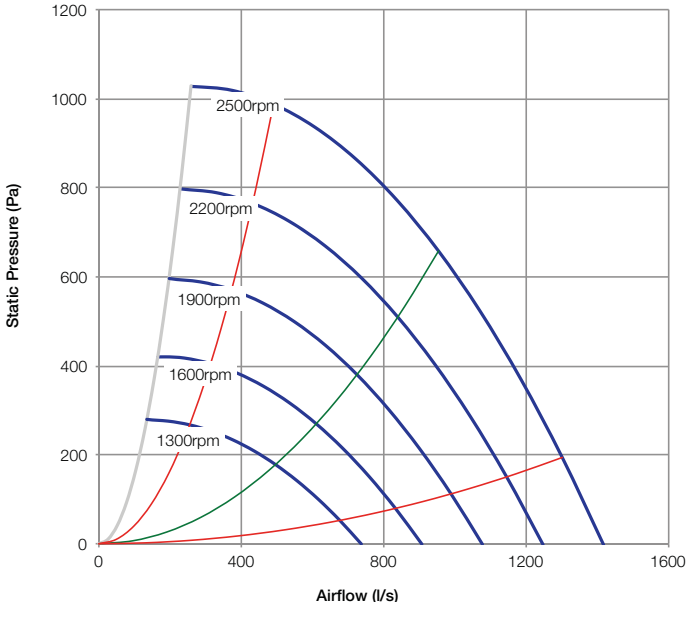
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	35 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2500	1029	1.25	2.1
2200	797	0.83	1.5
1900	595	0.55	1.1
1600	422	0.34	0.85
1300	278	0.20	0.54

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	76	77	76	70	66	62	58	55
81	73	73	73	66	62	58	57	52
78	70	70	69	62	60	54	57	49
76	68	66	64	57	54	50	56	44
72	65	63	58	54	51	54	52	41

BIQ401Q-EC

IN-LINE CENTRIFUGAL EC PLUG FAN

Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

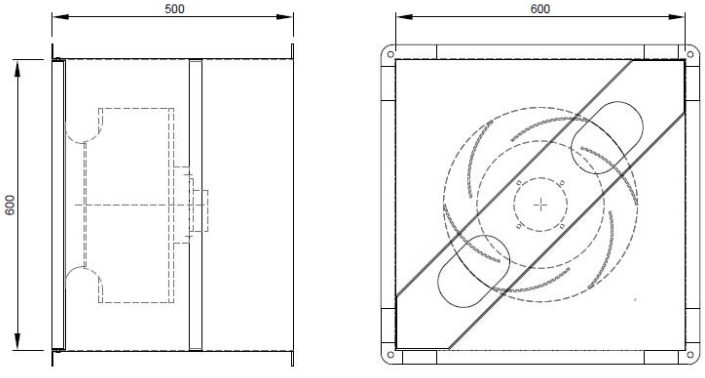
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.27 kW
Power Supply:	230V/1PH/50Hz
Speed:	1200 RPM
FLC:	1.25 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output

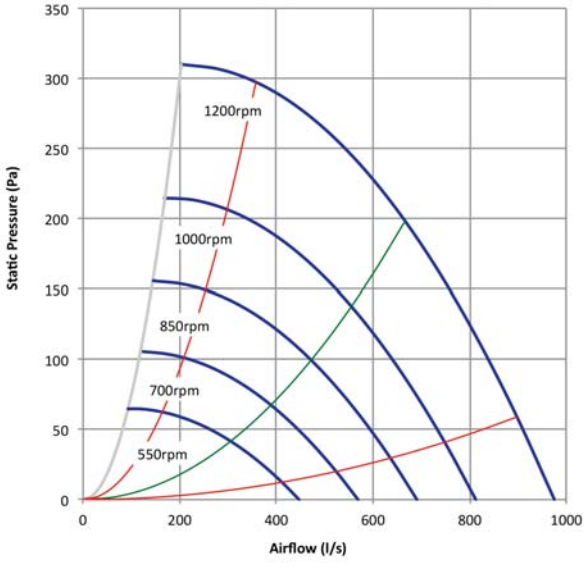
Fan

Case:	Galvanised Steel Metal
Flange:	MEZ130
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



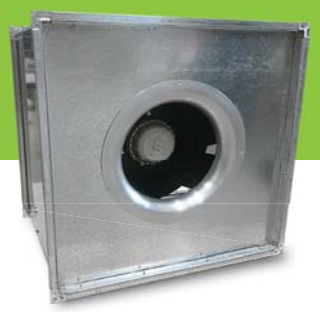
Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1200	310	0.27	1.3
1000	215	0.16	0.7
850	155	0.10	0.46
700	105	0.06	0.3
550	65	0.03	0.21

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
71	67	60	56	51	50	44	58	40
70	60	56	52	48	47	44	54	37
70	53	53	47	46	42	47	36	32
63	50	47	43	45	33	38	24	27
58	48	42	38	41	28	24	23	22

BIQ403Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

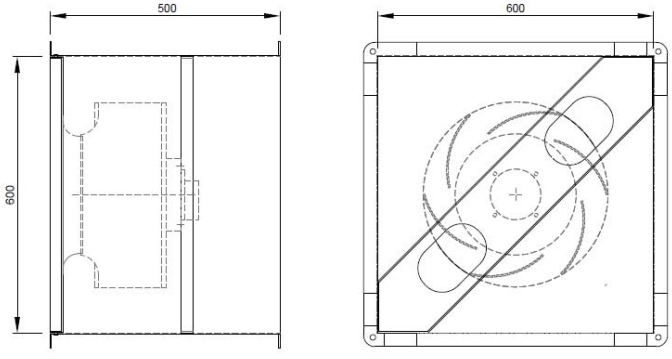
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.40 kW
Power Supply:	400V/3PH/50Hz
Speed:	2100 RPM
FLC:	2.40 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

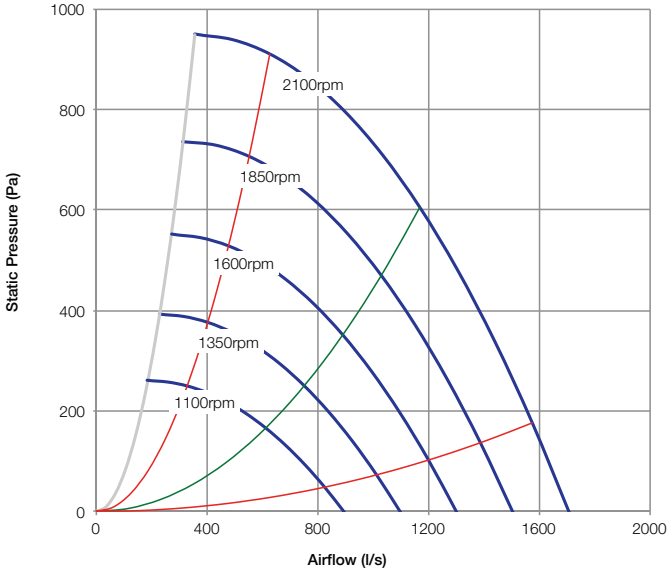
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



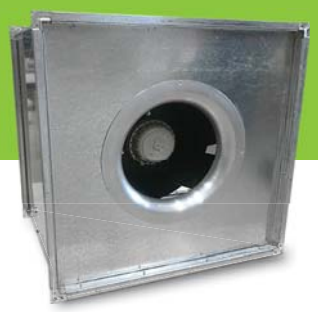
Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2100	949	1.40	2.4
1850	736	0.93	1.67
1600	551	0.62	1.23
1350	392	0.37	0.93
1100	260	0.22	0.59

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	74	77	74	68	64	61	57	54
78	72	75	72	64	61	58	56	51
76	73	72	66	60	57	54	57	47
75	70	69	63	56	54	50	56	44
76	68	66	57	52	50	53	54	41

BIQ453Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	450 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

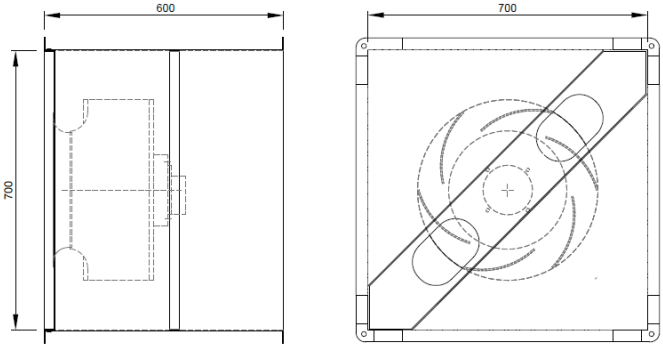
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.45 kW
Power Supply:	400V/3PH/50Hz
Speed:	1800 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

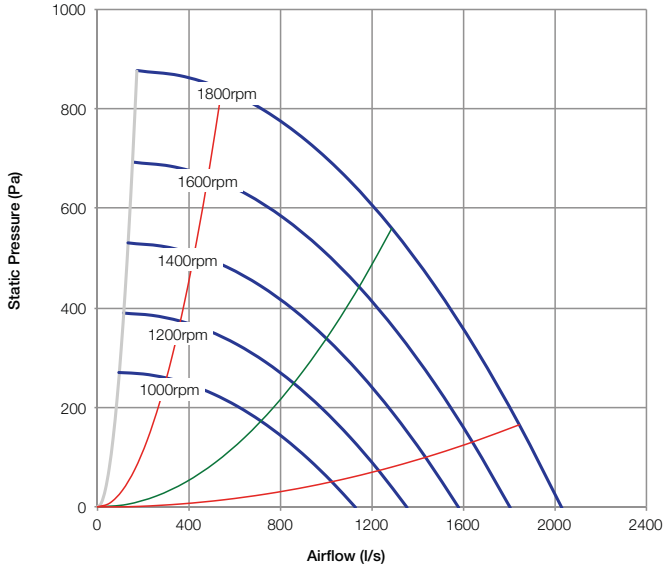
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	55 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1800	876	1.45	2.5
1600	692	1.00	1.74
1400	530	0.67	1.28
1200	389	0.43	0.99
1000	270	0.26	0.69

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	79	84	74	68	64	60	59	57
81	78	80	71	65	61	57	58	53
79	77	78	67	61	57	53	56	51
77	73	76	63	57	54	50	54	48
76	67	71	57	52	50	50	42	43

BIQ503Q-EC

IN-LINE CENTRIFUGAL EC PLUG FAN

Impeller

Size:	500 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

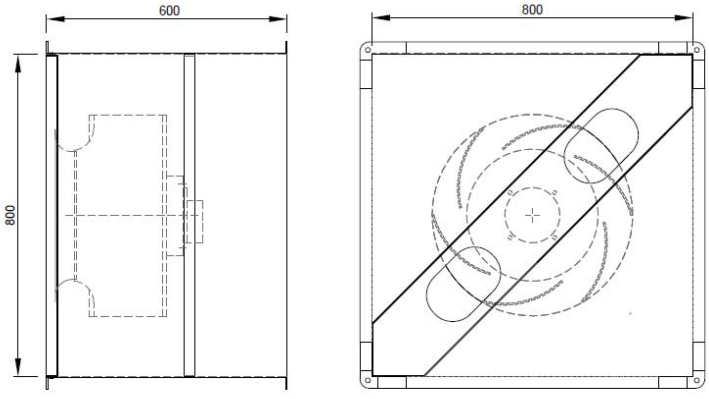
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.90 kW
Power Supply:	400V/3PH/50Hz
Speed:	1650 RPM
FLC:	3.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

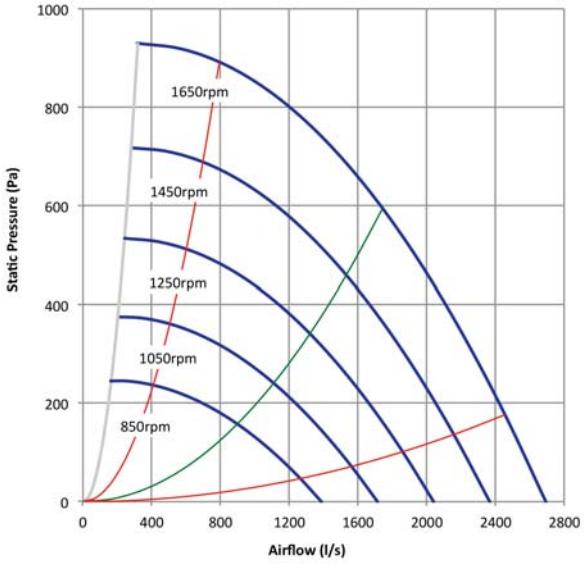
Fan

Case:	Galvanised Steel Metal
Flange:	MEZ130
Weight:	65 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1650	929	1.90	3.1
1450	718	1.40	2.3
1250	533	0.88	1.54
1050	376	0.54	1.07
850	247	0.32	0.77

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
79	83	78	74	69	68	65	59	56
79	80	75	71	66	65	62	57	53
76	76	72	67	62	61	58	59	50
73	71	68	63	57	58	52	61	46
73	68	64	58	52	55	48	54	42

BIQ563Q-EC

INLINE CENTRIFUGAL EC PLUG FAN

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

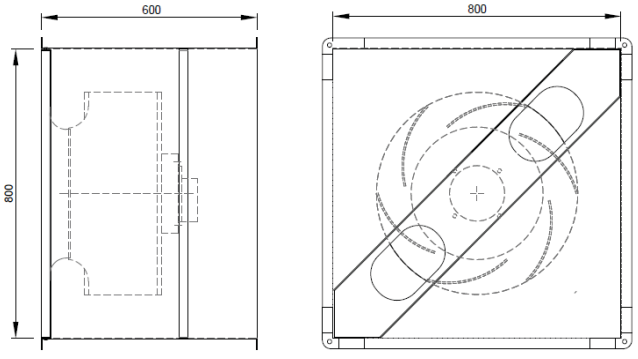
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1620 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

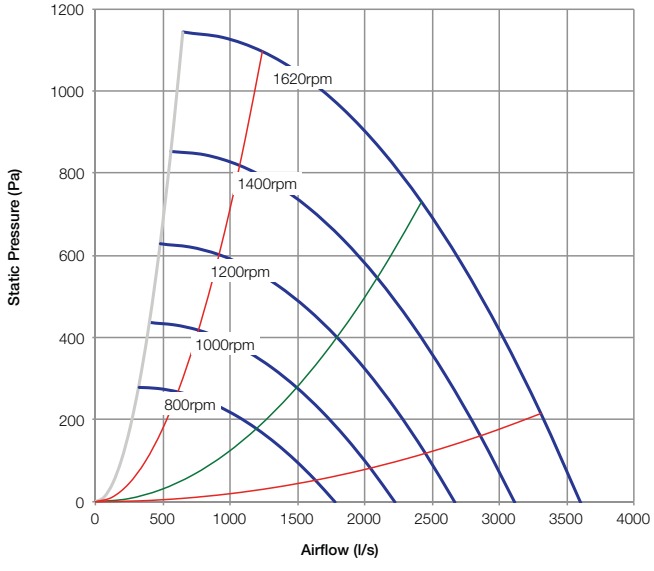
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1620	1142	3.50	5.7
1400	853	2.25	3.57
1200	627	1.44	2.37
1000	435	0.86	1.55
800	279	0.46	1.05

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
85	88	82	77	74	72	69	63	60
82	86	78	73	69	67	65	59	56
80	82	74	69	65	63	60	60	52
77	75	68	63	60	59	53	59	46
81	67	62	58	55	56	48	57	43

BIQ563Q-EC-L

IN-LINE CENTRIFUGAL EC PLUG FAN

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

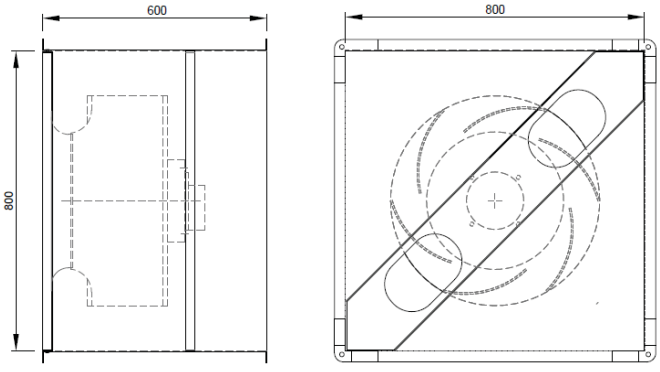
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1230 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

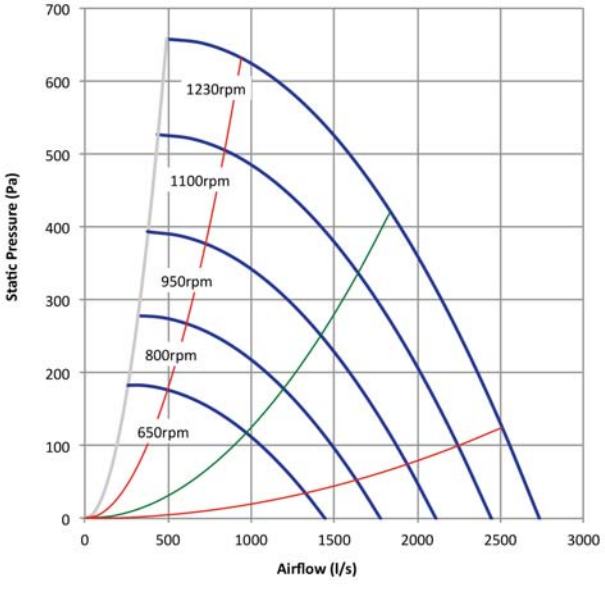
Fan

Case:	Galvanised Steel Metal
Flange:	MEZ130
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



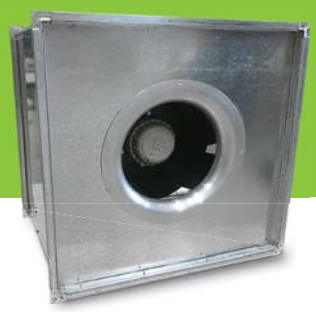
Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1230	658	1.50	2.5
1100	527	1.06	1.83
950	395	0.67	1.3
800	279	0.41	1
650	184	0.23	0.6

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
75	83	76	68	65	60	56	63	52
73	76	73	64	62	57	53	62	49
73	74	70	60	59	53	50	61	46
72	65	67	56	54	50	57	52	43
72	61	62	52	53	43	55	34	39

BIQ633Q-EC

INLINE CENTRIFUGAL EC PLUG FAN



Impeller

Size:	630 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

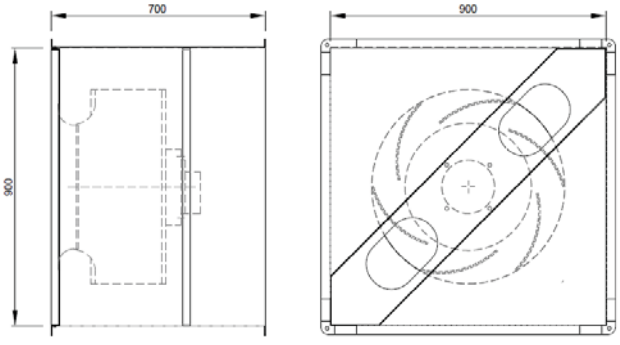
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.60 kW
Power Supply:	400V/3PH/50Hz
Speed:	1340 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

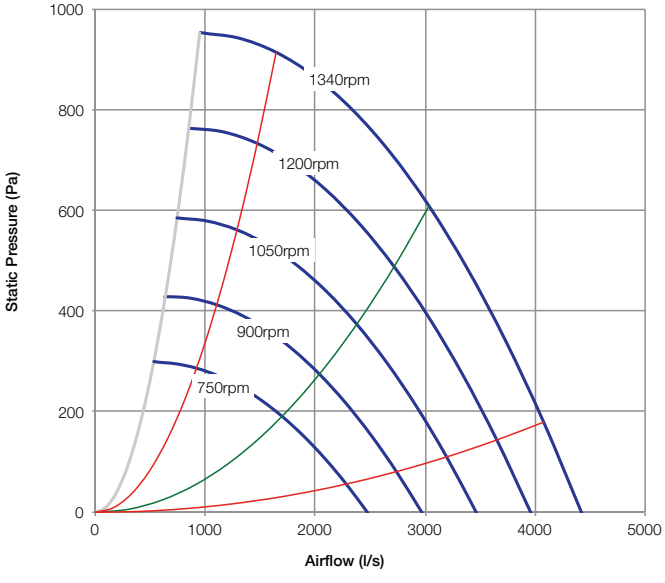
Fan

Case:	Galvanised Sheet Steel
Flange:	MEZ130
Weight:	85 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1340	952	3.60	5.7
1200	764	2.56	3.9
1050	585	1.72	2.65
900	430	1.10	1.73
750	298	0.65	1.1

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	81	85	73	73	70	68	64	59
79	80	79	69	70	67	64	63	55
78	74	76	67	66	64	61	60	52
79	74	72	64	62	61	57	59	48
76	71	68	63	59	55	56	51	45

electronically commutated

highly efficient

low sound aerofoil impeller

02 / BRC-EC

- Roof mounted centrifugal extract fan with side discharge.
- UV stabilized polymer cowling.
- Acoustically optimised centrifugal impeller.
- Integrated electrical protection.
- EC motor interfaced for easy control.
- Correct rotation assured.

BRC221Q-EC

ROOF EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	220 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

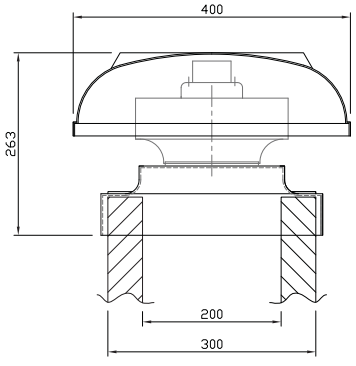
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.21 kW
Power Supply:	230V/1PH/50Hz
Speed:	3380 RPM
FLC:	1.85 A
Control I/O:	1 x Analogue Input E1
	1 x Status output A1
	1 x 10V DC output

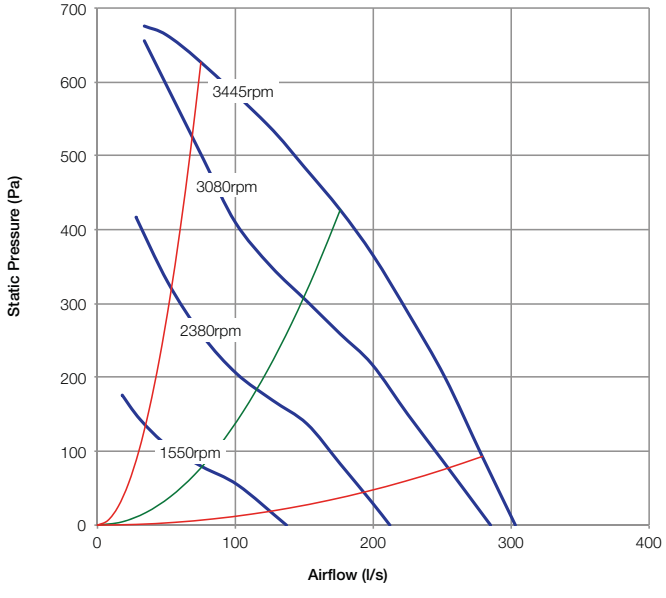
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	5 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)	Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
				63	125	250	500	1k	2k	4k	8k	
3445	676	0.21	1.6	85	74	75	72	67	63	60	60	59
3080	656	0.13	1.01	75	72	71	68	62	60	57	57	55
2380	417	0.07	0.57	71	70	63	63	55	54	54	50	52
1550	176	0.02	0.22	71	68	50	53	50	48	48	38	48

BRC281Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	280 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

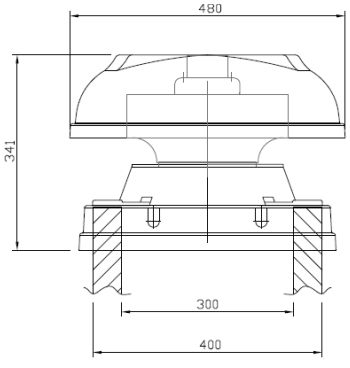
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.17 kW
Power Supply:	230V/1PH/50Hz
Speed:	2300 RPM
FLC:	1.30 A
Control I/O:	1 x Analogue Input E1
	1 x Status output A1
	1 x 10V DC output

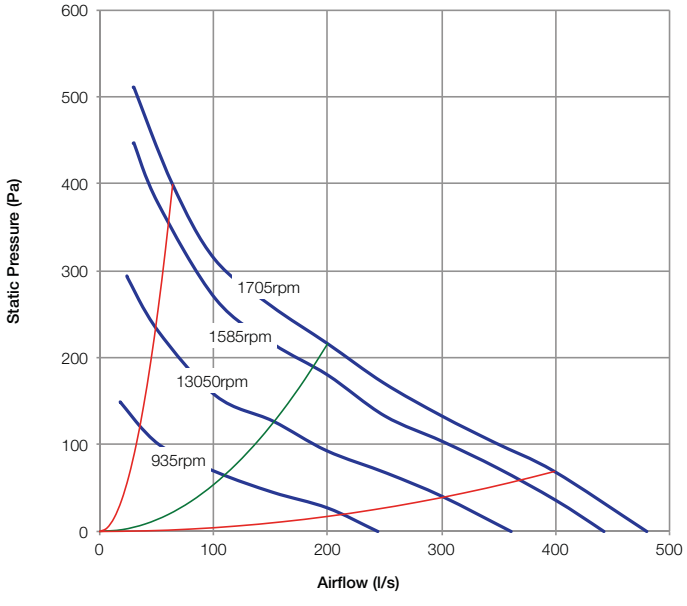
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	15 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1705	511	0.17	1.6
1585	447	0.13	1.01
1305	293	0.08	0.57
935	149	0.02	0.22

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
71	66	60	61	54	52	47	41	40
68	64	58	58	53	51	47	37	39
65	60	53	51	46	50	46	32	34
63	53	45	45	39	40	33	29	26

BRC311Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	310 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

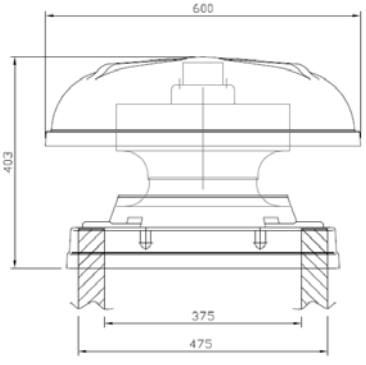
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.40 kW
Power Supply:	230V/1PH/50Hz
Speed:	2015 RPM
FLC:	2.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status output A1
	1 x Operation output A2
	1 x 10V DC output
	1 x Relay output K1

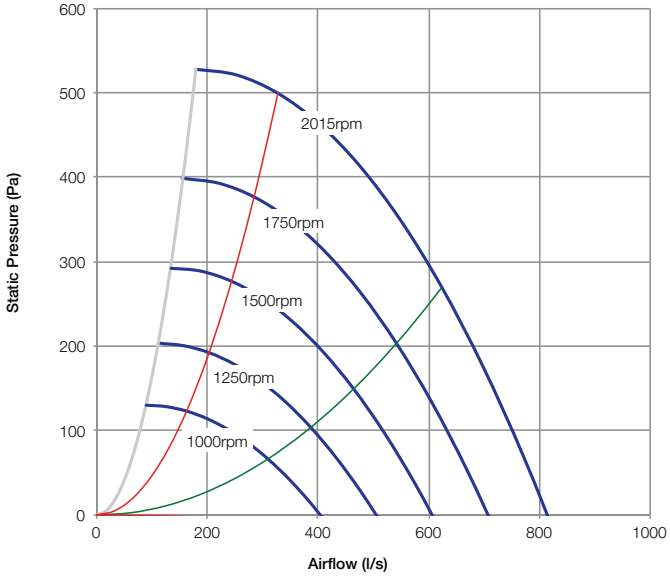
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	25 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2015	528	0.40	2.1
1750	398	0.26	1.23
1500	293	0.17	0.8
1250	203	0.10	0.53
1000	130	0.06	0.33

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
77	68	66	67	61	67	61	57	50
74	67	63	63	57	64	57	56	47
72	66	59	59	53	60	51	54	43
68	60	55	57	48	54	51	49	39
66	59	56	47	42	48	49	27	34

BRC351Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

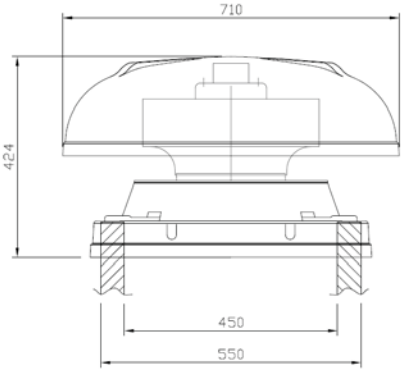
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.35 kW
Power Supply:	230V/1PH/50Hz
Speed:	1600 RPM
FLC:	1.85 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status output A1
	1 x Operation output A2
	1 x 10V DC output
	1 x Relay output K1

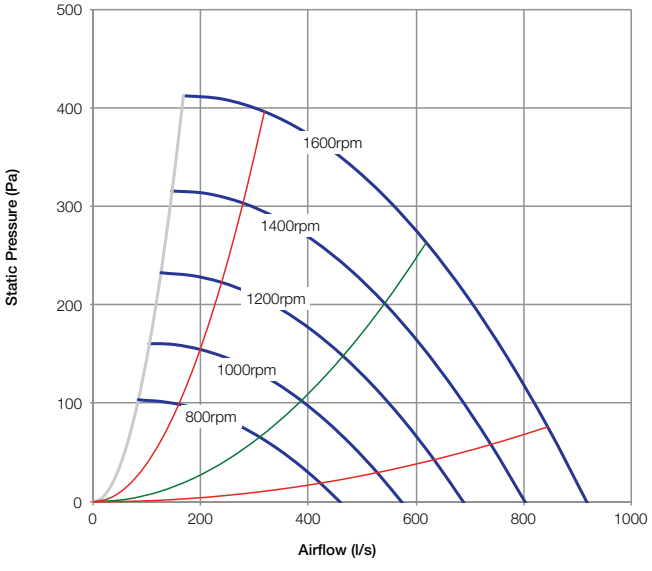
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	35 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1600	413	0.35	1.85
1400	316	0.23	1.09
1200	232	0.15	0.73
1000	161	0.09	0.47
800	103	0.04	0.3

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
72	70	64	64	57	64	57	56	47
71	65	61	60	54	61	52	57	44
69	66	58	56	50	56	53	48	40
66	58	57	51	45	50	50	31	35
68	52	49	45	41	46	45	24	30

BRC353Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

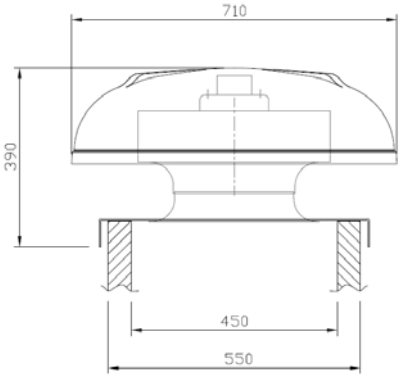
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.25 kW
Power Supply:	400V/3PH/50Hz
Speed:	2500 RPM
FLC:	2.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

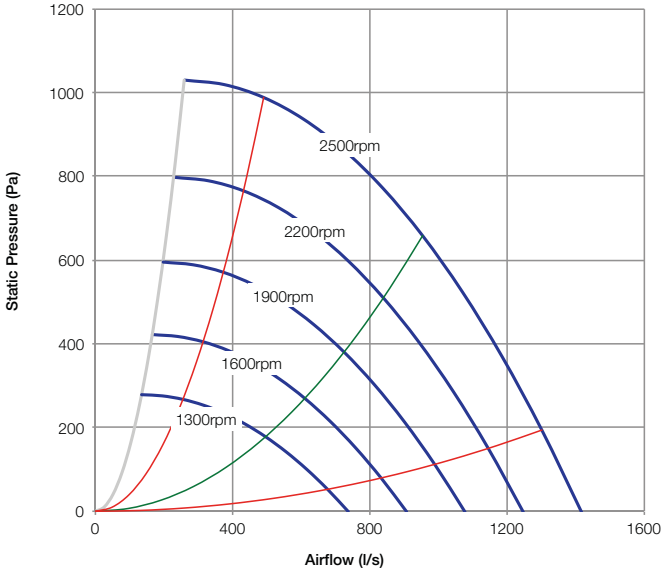
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	35 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2500	1029	1.25	2.1
2200	797	0.83	1.5
1900	595	0.55	1.1
1600	422	0.34	0.85
1300	278	0.20	0.54

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	76	77	76	70	66	62	58	55
81	73	73	73	66	62	58	57	52
78	70	70	69	62	60	54	57	49
76	68	66	64	57	54	50	56	44
72	65	63	58	54	51	54	52	41

BRC401Q-EC

ROOF EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

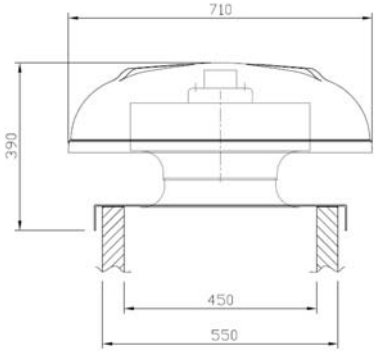
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.27 kW
Power Supply:	230V/1PH/50Hz
Speed:	1200 RPM
FLC:	1.25 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output

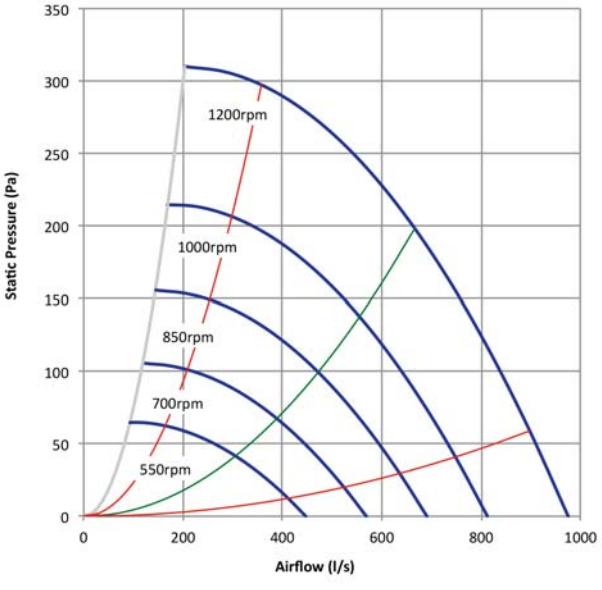
Fan

Cowl:	Rovel UV Stabilised
Base:	Galvanised Steel Metal
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1200	310	0.27	1.3
1000	215	0.16	0.7
850	155	0.10	0.46
700	105	0.06	0.3
550	65	0.03	0.21

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
71	67	60	56	51	50	44	58	40
70	60	56	52	48	47	44	54	37
70	53	53	47	46	42	47	36	32
63	50	47	43	45	33	38	24	27
58	48	42	38	41	28	24	23	22

BRC403Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

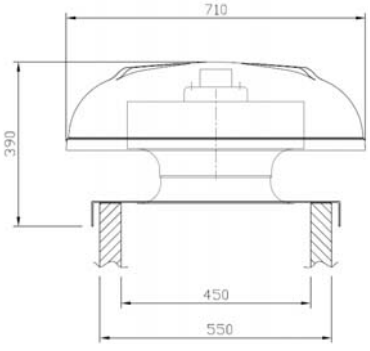
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.40 kW
Power Supply:	400V/3PH/50Hz
Speed:	2100 RPM
FLC:	2.40 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

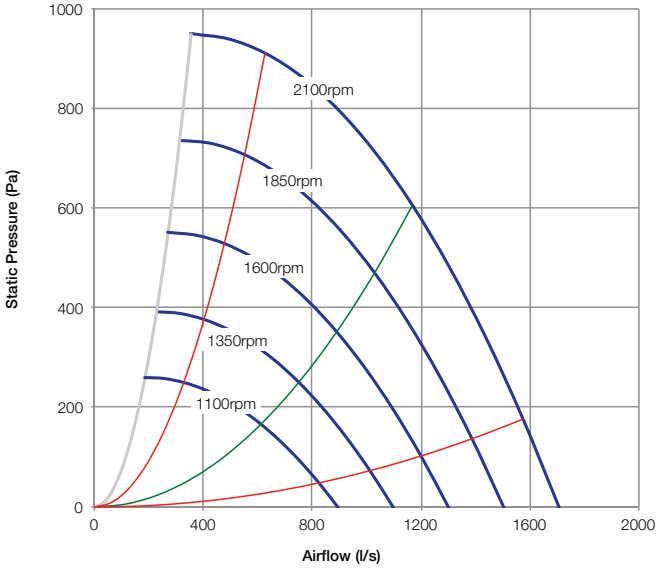
Fan

Cowl:	Polymer UV Stabilised
Base:	Galvanised Sheet Steel
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2100	949	1.40	2.4
1850	736	0.93	1.67
1600	551	0.62	1.23
1350	392	0.37	0.93
1100	260	0.22	0.59

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	74	77	74	68	64	61	57	54
78	72	75	72	64	61	58	56	51
76	73	72	66	60	57	54	57	47
75	70	69	63	56	54	50	56	44
76	68	66	57	52	50	53	54	41

BRC453Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	450 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

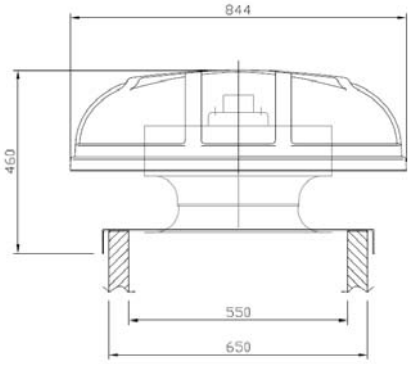
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.45 kW
Power Supply:	400V/3PH/50Hz
Speed:	1800 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

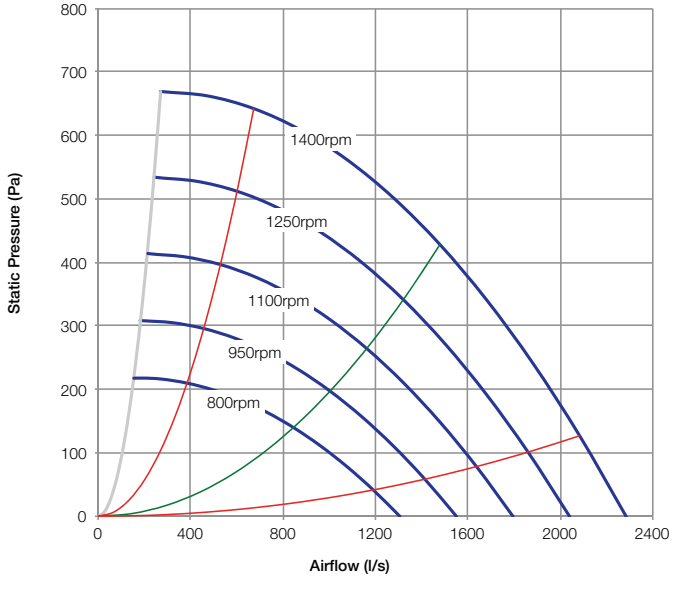
Fan

Cowl:	Polymer UV Stabilised
Base:	Galvanised Sheet Steel
Weight:	55 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1800	876	1.45	2.5
1600	692	1.00	1.74
1400	530	0.67	1.28
1200	389	0.43	0.99
1000	270	0.26	0.69

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	79	84	74	68	64	60	59	57
81	78	80	71	65	61	57	58	53
79	77	78	67	61	57	53	56	51
77	73	76	63	57	54	50	54	48
76	67	71	57	52	50	50	42	43

BRC503Q-EC

ROOF EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	500 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

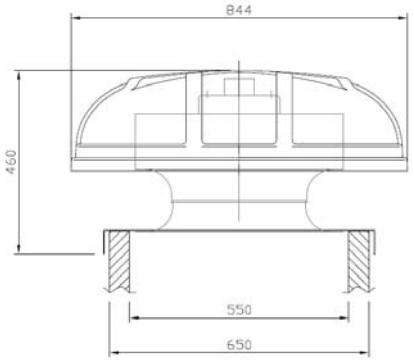
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.90 kW
Power Supply:	400V/3PH/50Hz
Speed:	1650 RPM
FLC:	3.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

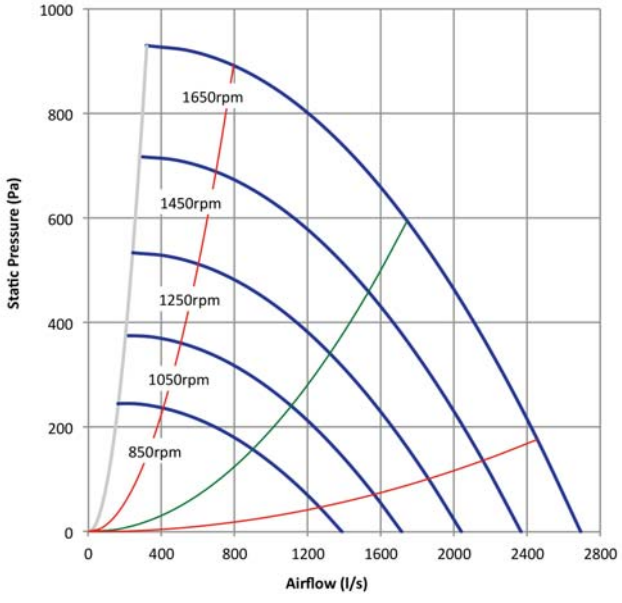
Fan

Cowl:	Rovel UV Stabilised
Base:	Galvanised Steel Metal
Weight:	65 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1650	929	1.90	3.1
1450	718	1.40	2.3
1250	533	0.88	1.54
1050	376	0.54	1.07
850	247	0.32	0.77

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
79	83	78	74	69	68	65	59	56
79	80	75	71	66	65	62	57	53
76	76	72	67	62	61	58	59	50
73	71	68	63	57	58	52	61	46
73	68	64	58	52	55	48	54	42

BRC563Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

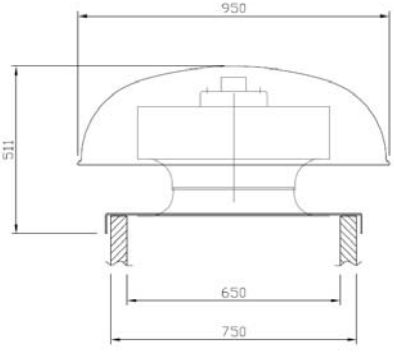
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1620 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

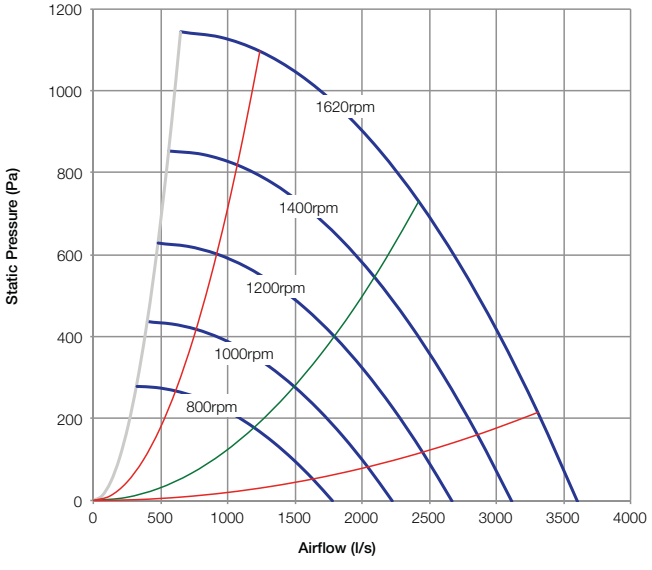
Fan

Cowl:	Fiberglass
Base:	Galvanised Sheet Steel
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1620	1142	3.50	5.7
1400	853	2.25	3.57
1200	627	1.44	2.37
1000	435	0.86	1.55
800	279	0.46	1.05

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
85	88	82	77	74	72	69	63	60
82	86	78	73	69	67	65	59	56
80	82	74	69	65	63	60	60	52
77	75	68	63	60	59	53	59	46
81	67	62	58	55	56	48	57	43

BRC563Q-EC-L

ROOF EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

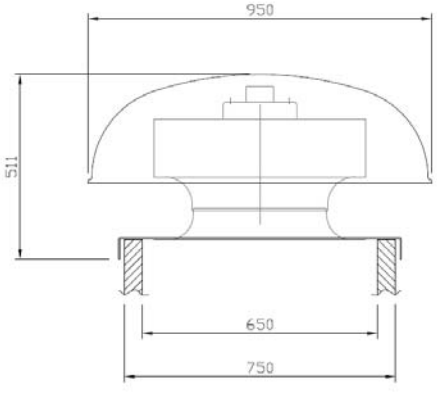
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1230 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

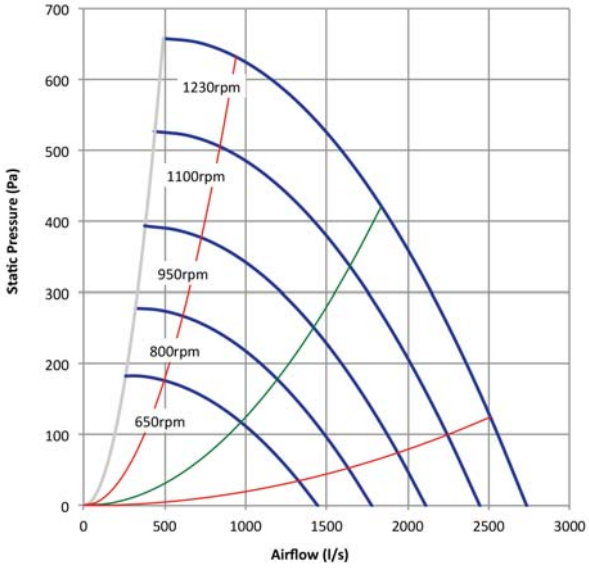
Fan

Cowl:	Fiberglass
Base:	Galvanised Steel Metal
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1230	658	1.50	2.5
1100	527	1.06	1.83
950	393	0.67	1.3
800	279	0.41	1
650	184	0.23	0.6

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	125	250	500	1k	2k	4k	8k	
75	83	76	68	65	60	56	63	52
73	76	73	64	62	57	53	62	49
73	74	70	60	59	53	50	61	46
72	65	67	56	54	50	57	52	43
72	61	62	52	53	43	55	34	39

BRC633Q-EC

ROOF EXTRACT CENTRIFUGAL EC

Impeller

Size:	630 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

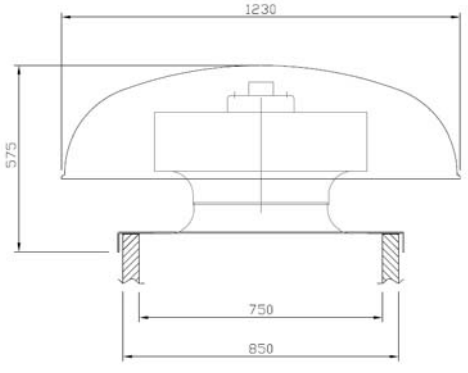
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.60 kW
Power Supply:	400V/3PH/50Hz
Speed:	1340 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

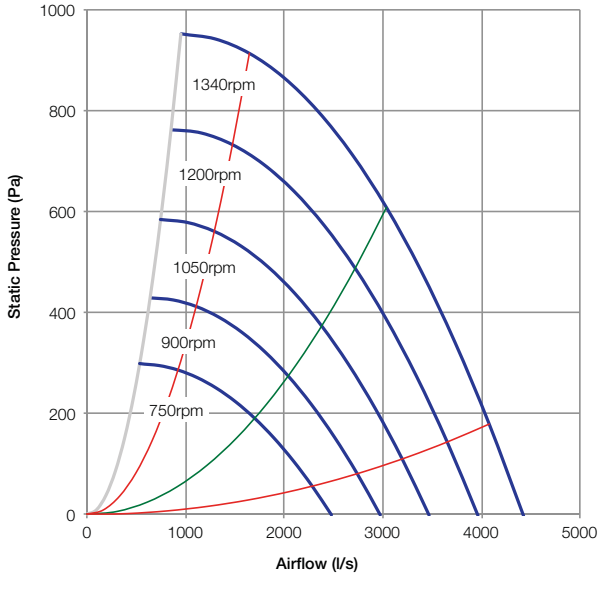
Fan

Cowl:	Fibreglass
Base:	Galvanised Sheet Steel
Weight:	85 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1340	952	3.60	5.7
1200	764	2.56	3.9
1050	585	1.72	2.65
900	430	1.10	1.73
750	298	0.65	1.1

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	81	85	73	73	70	68	64	59
79	80	79	69	70	67	64	63	55
78	74	76	67	66	64	61	60	52
79	74	72	64	62	61	57	59	48
76	71	68	63	59	55	56	51	45

electronically commutated

highly efficient

low sound aerofoil impeller

03 / BRS-EC

- Roof mounted centrifugal supply fan.
- UV stabilized polymer cowling.
- Acoustically optimised centrifugal impeller.
- Integrated electrical protection.
- EC motor interfaced for easy control.
- Correct rotation assured.

BRS221Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	220 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

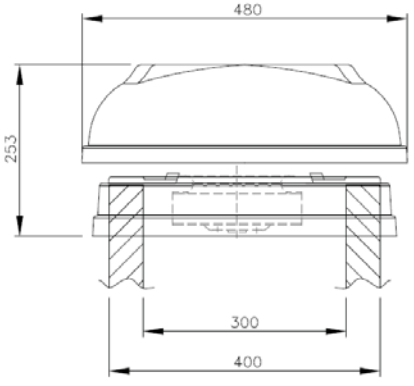
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.21 kW
Power Supply:	230V/1PH/50Hz
Speed:	3380 RPM
FLC:	1.85 A
Control I/O:	1 x Analogue Input E1
	1 x Status output A1
	1 x 10V DC output

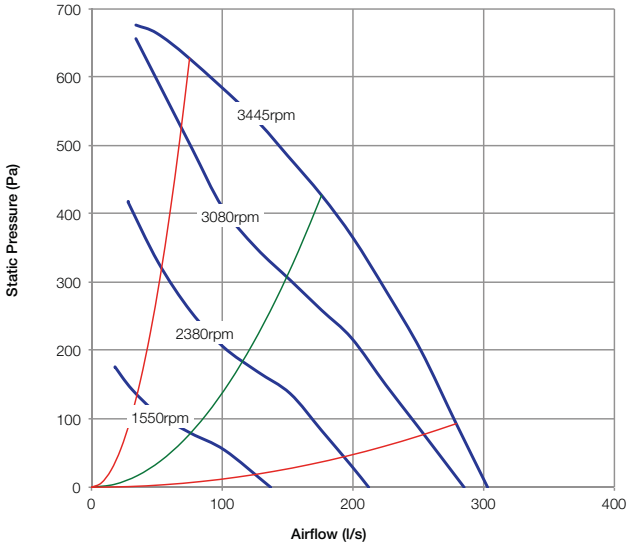
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	5 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
3445	676	0.21	1.6
3080	656	0.13	1.01
2380	417	0.07	0.57
1550	176	0.02	0.22

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
85	74	75	72	67	63	60	60	53
75	72	71	68	62	60	57	57	49
71	70	63	63	55	54	54	50	43
71	68	50	53	50	48	48	38	37

BRS281Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	280 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

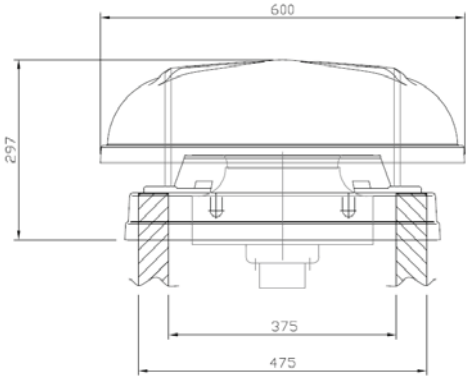
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.17 kW
Power Supply:	230V/1PH/50Hz
Speed:	2300 RPM
FLC:	1.30 A
Control I/O:	1 x Analogue Input E1
	1 x Status output A1
	1 x 10V DC output

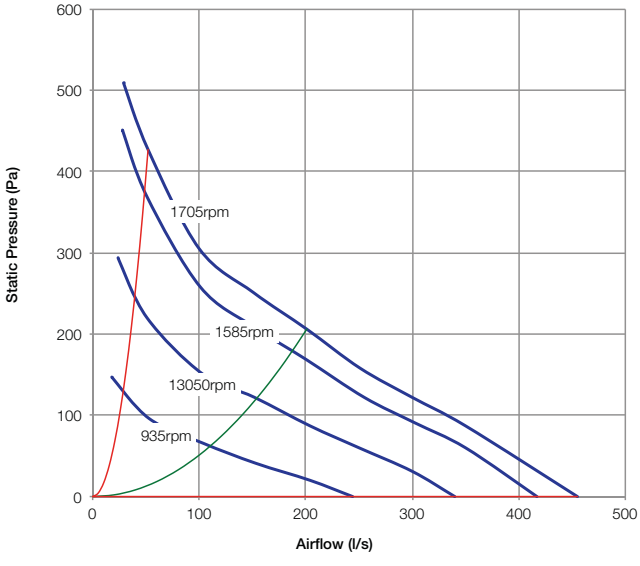
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	5 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1705	511	0.17	1.6
1585	447	0.13	1.01
1305	293	0.08	0.57
935	149	0.02	0.22

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
71	66	60	61	54	52	47	41	40
68	64	58	58	53	51	47	37	39
65	60	53	51	46	50	46	32	34
63	53	45	45	39	40	33	29	26

BRS311Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	310 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

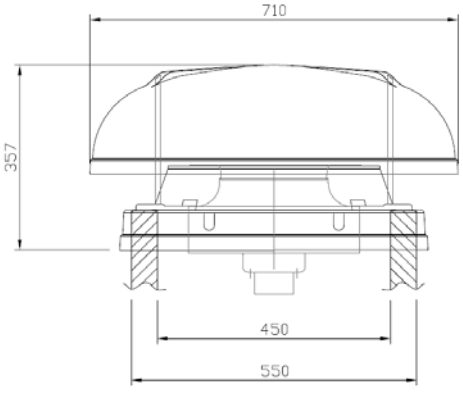
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.40 kW
Power Supply:	230V/1PH/50Hz
Speed:	2015 RPM
FLC:	2.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status output A1
	1 x Operation output A2
	1 x 10V DC output
	1 x Relay output K1

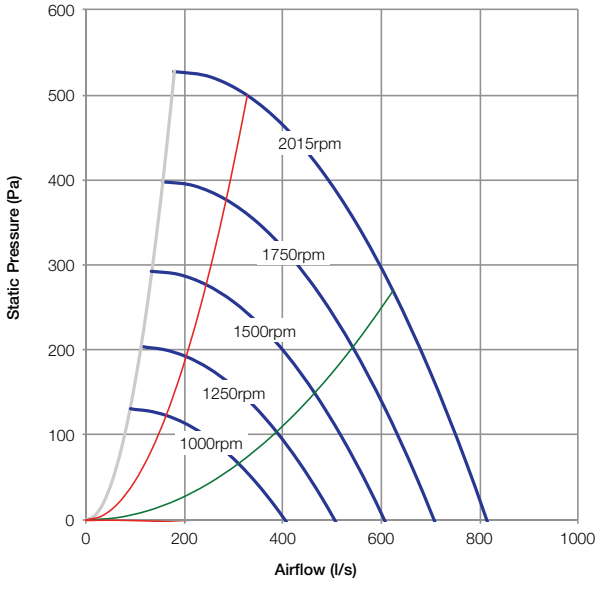
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	25 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2015	528	0.40	2.1
1750	398	0.26	1.23
1500	293	0.17	0.8
1250	203	0.10	0.53
1000	130	0.06	0.33

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
77	68	66	67	61	67	61	57	50
74	67	63	63	57	64	57	56	47
72	66	59	59	53	60	51	54	43
68	60	55	57	48	54	51	49	39
66	59	56	47	42	48	49	27	34

BRS351Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

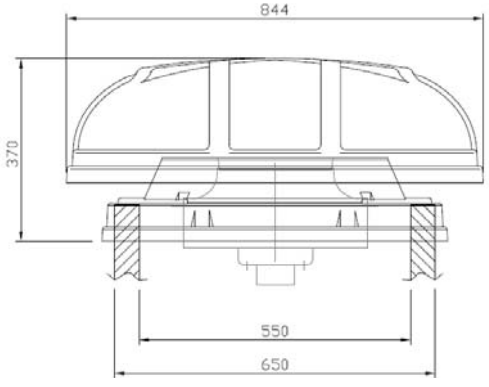
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.35 kW
Power Supply:	230V/1PH/50Hz
Speed:	1600 RPM
FLC:	1.85 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status output A1
	1 x Operation output A2
	1 x 10V DC output
	1 x Relay output K1

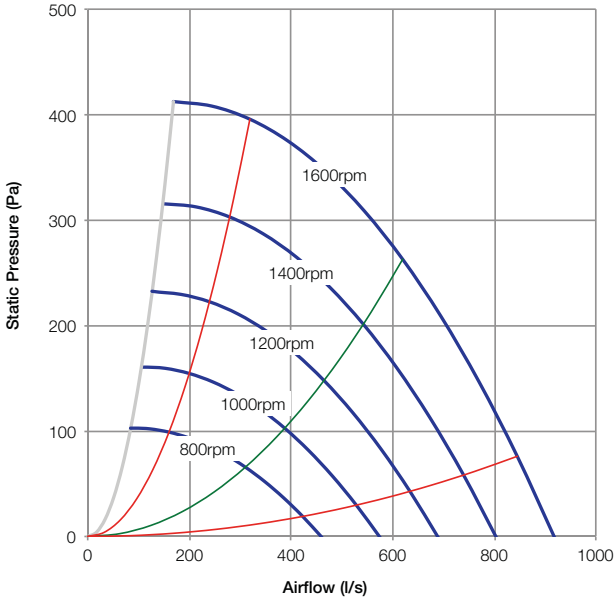
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	35 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1600	413	0.35	1.85
1400	316	0.23	1.09
1200	232	0.15	0.73
1000	161	0.09	0.47
800	103	0.04	0.3

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
72	70	64	64	57	64	57	56	47
71	65	61	60	54	61	52	57	44
69	66	58	56	50	56	53	48	40
66	58	57	51	45	50	50	31	35
68	52	49	45	41	46	45	24	30

BRS353Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

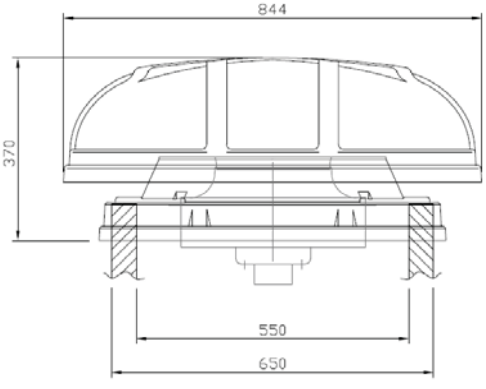
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.25 kW
Power Supply:	400V/3PH/50Hz
Speed:	2500 RPM
FLC:	2.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

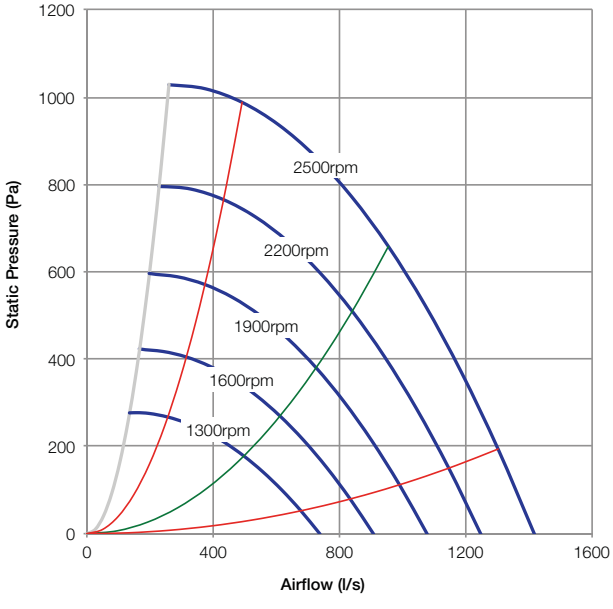
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	35 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2500	1029	1.25	2.1
2200	797	0.83	1.5
1900	595	0.55	1.1
1600	422	0.34	0.85
1300	278	0.20	0.54

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	76	77	76	70	66	62	58	55
81	73	73	73	66	62	58	57	52
78	70	70	69	62	60	54	57	49
76	68	66	64	57	54	50	56	44
72	65	63	58	54	51	54	52	41

BRS401Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

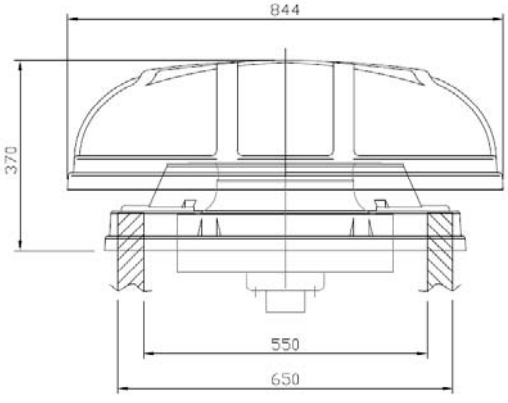
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.27 kW
Power Supply:	230V/1PH/50Hz
Speed:	1200 RPM
FLC:	1.25 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output

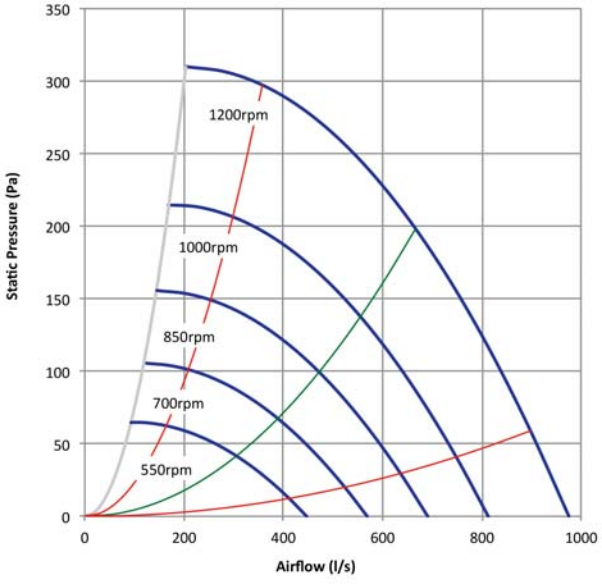
Fan

Cowl:	Rovel UV Stabilised
Base:	Rovel UV Stabilised
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1200	310	0.27	1.3
1000	215	0.16	0.7
850	155	0.10	0.46
700	105	0.06	0.3
550	65	0.03	0.21

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
71	67	60	56	51	50	44	58	40
70	60	56	52	48	47	44	54	37
70	53	53	47	46	42	47	36	32
63	50	47	43	45	33	38	24	27
58	48	42	38	41	28	24	23	22

BRS403Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

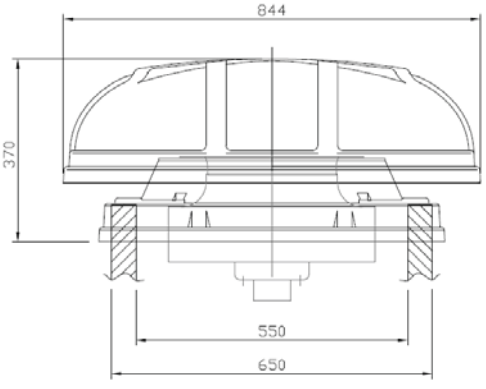
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.40 kW
Power Supply:	400V/3PH/50Hz
Speed:	2100 RPM
FLC:	2.40 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

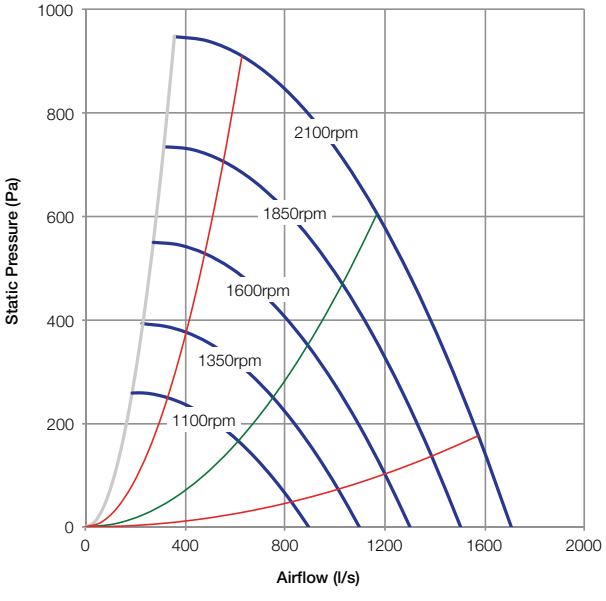
Fan

Cowl:	Polymer UV Stabilised
Base:	Polymer UV Stabilised
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2100	949	1.40	2.4
1850	736	0.93	1.67
1600	551	0.62	1.23
1350	392	0.37	0.93
1100	260	0.22	0.59

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	74	77	74	68	64	61	57	54
78	72	75	72	64	61	58	56	51
76	73	72	66	60	57	54	57	47
75	70	69	63	56	54	50	56	44
76	68	66	57	52	50	53	54	41

BRS453Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	450 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

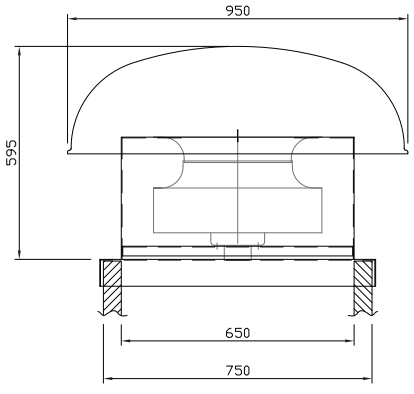
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.45 kW
Power Supply:	400V/3PH/50Hz
Speed:	1800 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

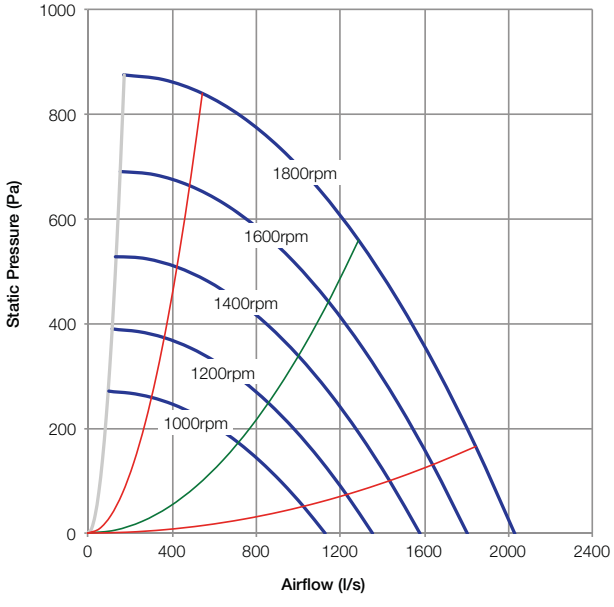
Fan

Cowl:	Polymer UV Stabilised
Base:	Galvanised Sheet Steel
Weight:	55 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1800	876	1.45	2.5
1600	692	1.00	1.74
1400	530	0.67	1.28
1200	389	0.43	0.99
1000	270	0.26	0.69

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	79	84	74	68	64	60	59	57
81	78	80	71	65	61	57	58	53
79	77	78	67	61	57	53	56	51
77	73	76	63	57	54	50	54	48
76	67	71	57	52	50	50	42	43

BRS503Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	500 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

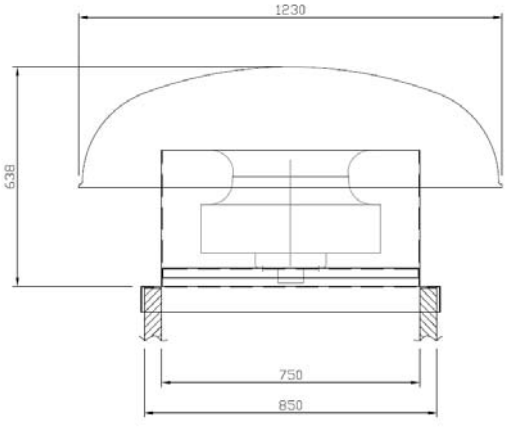
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.90 kW
Power Supply:	400V/3PH/50Hz
Speed:	1650 RPM
FLC:	3.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

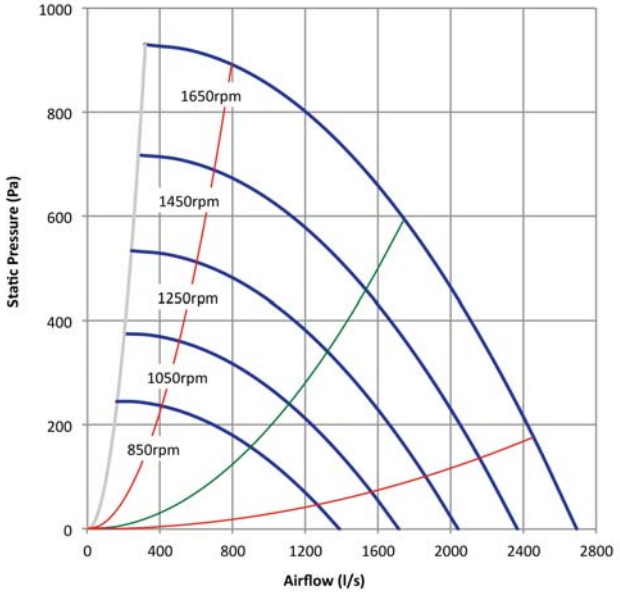
Fan

Cowl:	Fiberglass
Base:	Galvanised Steel Metal
Weight:	65 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1650	929	1.90	3.1
1450	718	1.40	2.3
1250	533	0.88	1.54
1050	376	0.54	1.07
850	247	0.32	0.77

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	125	250	500	1k	2k	4k	8k	
79	83	78	74	69	68	65	59	56
79	80	75	71	66	65	62	57	53
76	76	72	67	62	61	58	59	50
73	71	68	63	57	58	52	61	46
73	68	64	58	52	55	48	54	42

BRS563Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

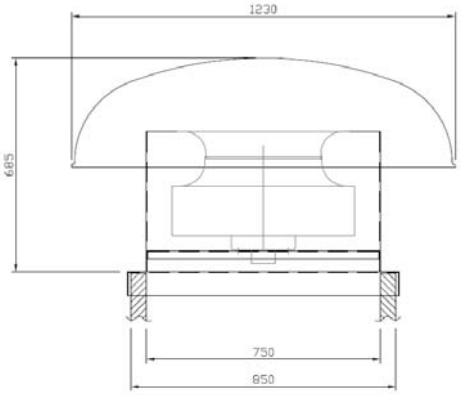
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1620 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

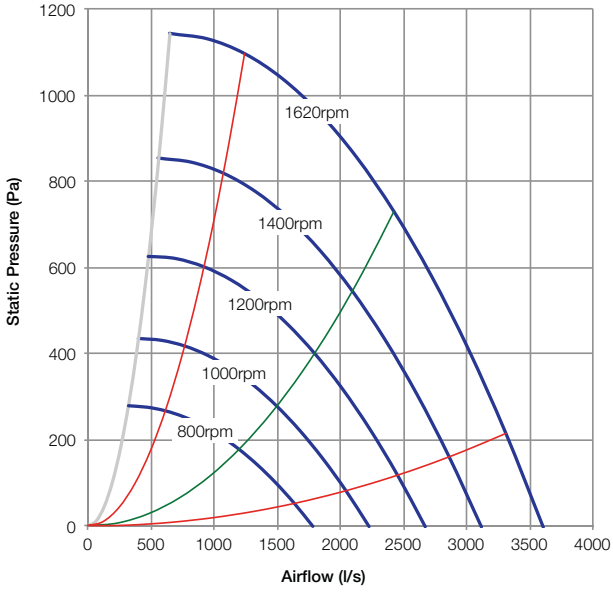
Fan

Cowl:	Fibreglass
Base:	Galvanised Sheet Steel
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1620	1142	3.50	5.7
1400	853	2.25	3.57
1200	627	1.44	2.37
1000	435	0.86	1.55
800	279	0.46	1.05

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
85	88	82	77	74	72	69	63	60
82	86	78	73	69	67	65	59	56
80	82	74	69	65	63	60	60	52
77	75	68	63	60	59	53	59	46
81	67	62	58	55	56	48	57	43

BRS563Q-EC-L

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

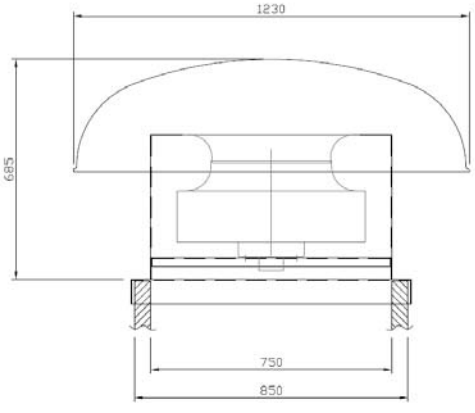
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1230 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

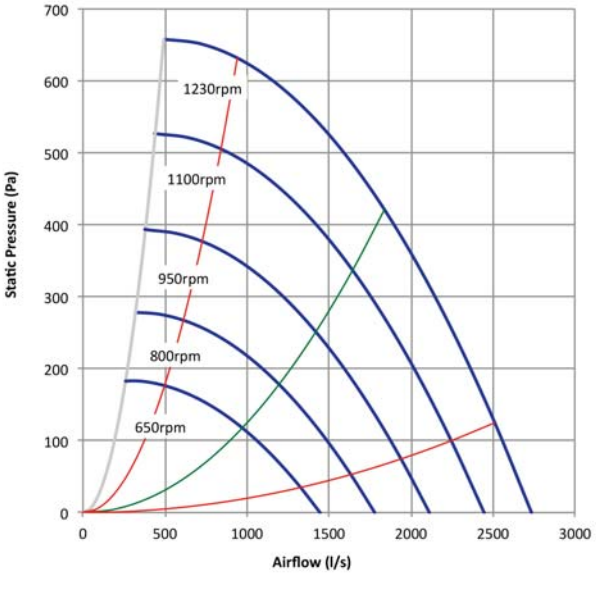
Fan

Cowl:	Fiberglass
Base:	Galvanised Steel Metal
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Peak Power (kW)	Motor Running Current (A)
1230	658	1.50	2.5
1100	527	1.06	1.83
950	393	0.67	1.3
800	279	0.41	1
650	184	0.23	0.6

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	125	250	500	1k	2k	4k	8k	
75	83	76	68	65	60	56	63	52
73	76	73	64	62	57	53	62	49
73	74	70	60	59	53	50	61	46
72	65	67	56	54	50	57	52	43
72	61	62	52	53	43	55	34	39

BRS633Q-EC

ROOF SUPPLY CENTRIFUGAL EC FAN

Impeller

Size:	630 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

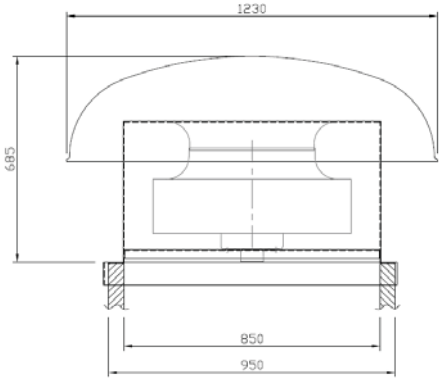
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.60 kW
Power Supply:	400V/3PH/50Hz
Speed:	1340 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

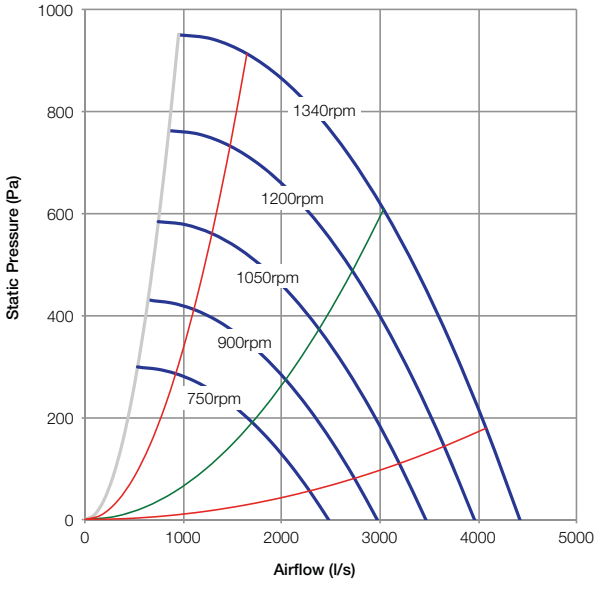
Fan

Cowl:	Fibreglass
Base:	Galvanised Sheet Steel
Weight:	85 kg
Max. Temp:	50 °C

Dimensions



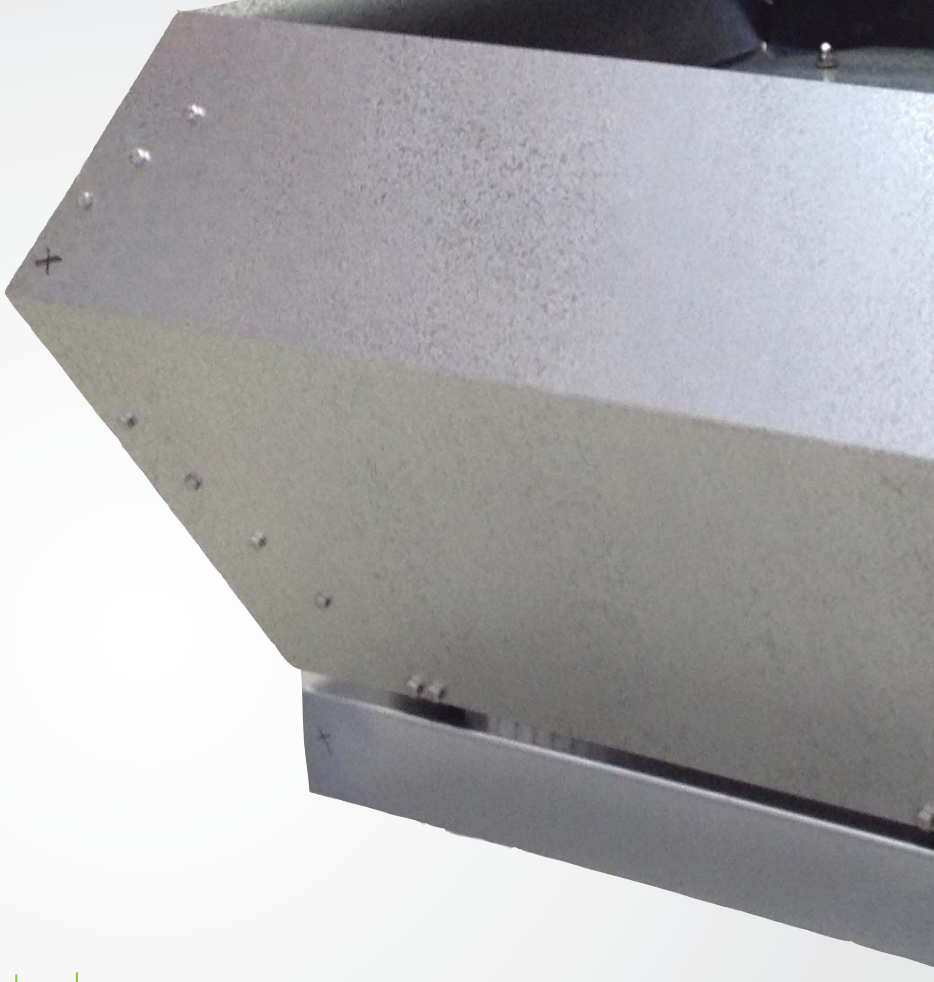
Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1340	952	3.60	5.7
1200	764	2.56	3.9
1050	585	1.72	2.65
900	430	1.10	1.73
750	298	0.65	1.1

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	81	85	73	73	70	68	64	59
79	80	79	69	70	67	64	63	55
78	74	76	67	66	64	61	60	52
79	74	72	64	62	61	57	59	48
76	71	68	63	59	55	56	51	45



electronically commutated

highly efficient

low sound aerofoil impeller

04 / BRM-EC

- Roof mounted centrifugal extract fan with vertical discharge.
- Galvanised sheet steel construction.
- Acoustically optimised centrifugal impeller.
- Integrated electrical protection.
- EC motor interfaced for easy control.
- Correct rotation assured.

BRM351Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

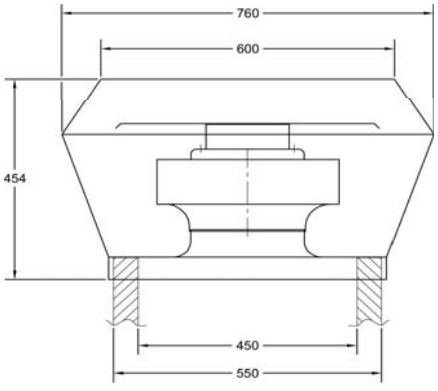
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.35 kW
Power Supply:	230V/1PH/50Hz
Speed:	1600 RPM
FLC:	1.85 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status output A1
	1 x Operation output A2
	1 x 10V DC output

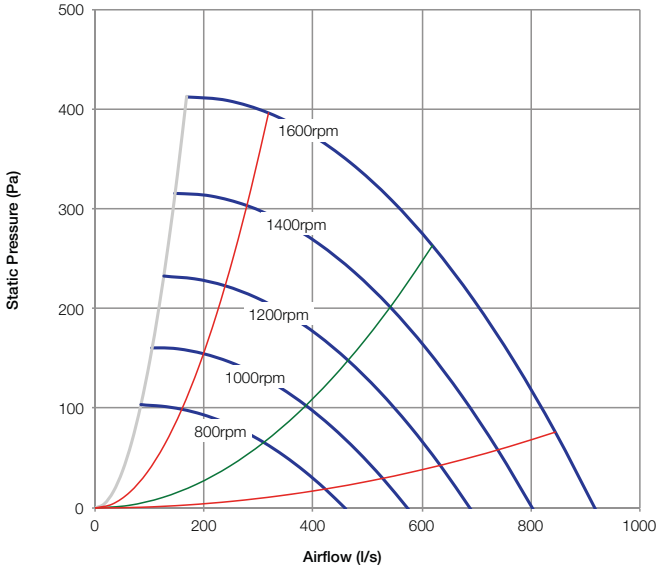
Fan

Cowl:	Galvanised Sheet Steel
Weight:	35 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1600	413	0.35	1.85
1400	316	0.23	1.09
1200	232	0.15	0.73
1000	161	0.09	0.47
800	103	0.04	0.3

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
72	70	64	64	57	64	57	56	47
71	65	61	60	54	61	52	57	44
69	66	58	56	50	56	53	48	40
66	58	57	51	45	50	50	31	35
68	52	49	45	41	46	45	24	30

BRM353Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	350 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

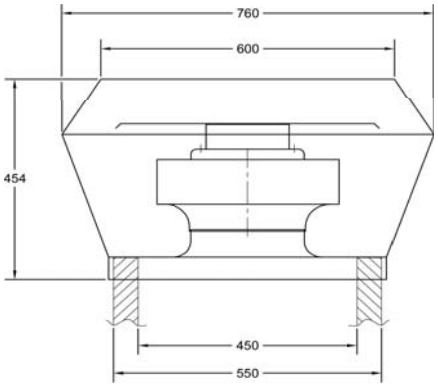
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.25 kW
Power Supply:	400V/3PH/50Hz
Speed:	2500 RPM
FLC:	2.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

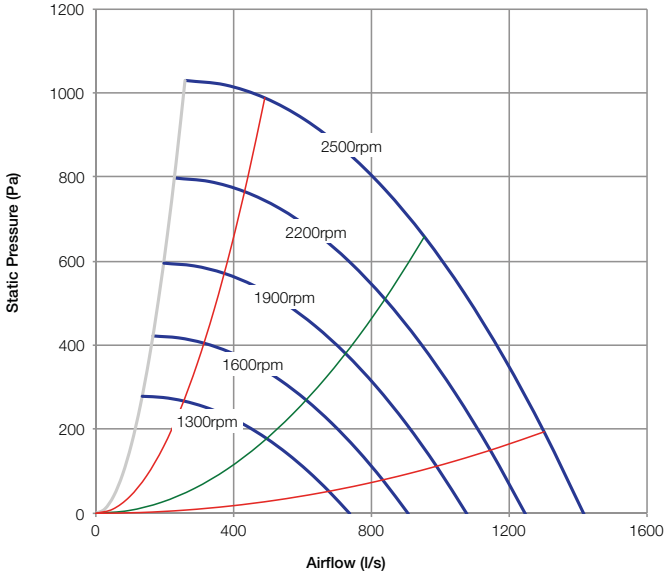
Fan

Case:	Galvanised Sheet Steel
Weight:	30 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2500	1029	1.25	2.1
2200	797	0.83	1.5
1900	595	0.55	1.1
1600	422	0.34	0.85
1300	278	0.20	0.54

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	76	77	76	70	66	62	58	55
81	73	73	73	66	62	58	57	52
78	70	70	69	62	60	54	57	49
76	68	66	64	57	54	50	56	44
72	65	63	58	54	51	54	52	41

BRM401Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

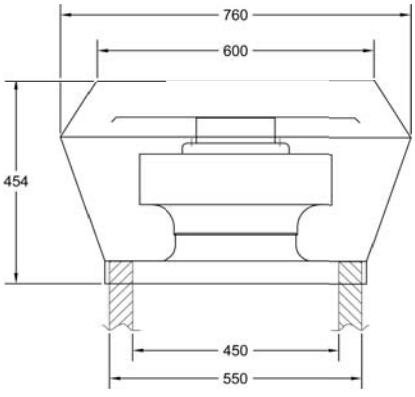
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	0.27 kW
Power Supply:	230V/1PH/50Hz
Speed:	1200 RPM
FLC:	1.25 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output

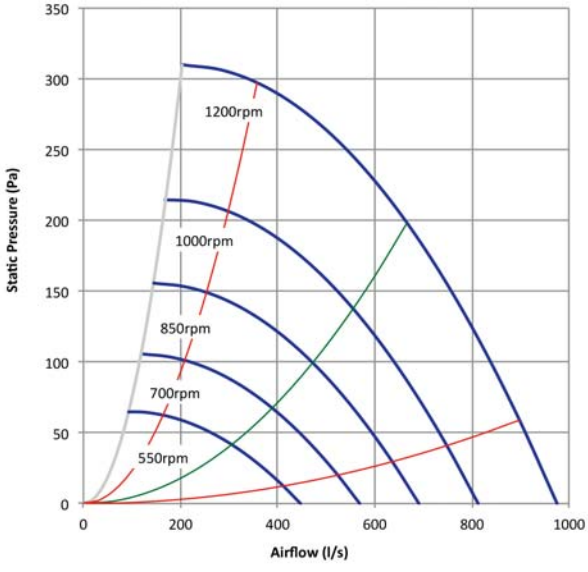
Fan

Case:	Galvanised Sheet Steel
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1200	310	0.27	1.3
1000	215	0.16	0.7
850	155	0.10	0.46
700	105	0.06	0.3
550	65	0.03	0.21

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
71	67	60	56	51	50	44	58	40
70	60	56	52	48	47	44	54	37
70	53	53	47	46	42	47	36	32
63	50	47	43	45	33	38	24	27
58	48	42	38	41	28	24	23	22

BRM403Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	400 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

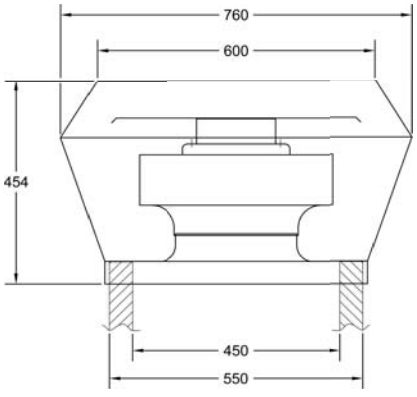
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.40 kW
Power Supply:	400V/3PH/50Hz
Speed:	2100 RPM
FLC:	2.40 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

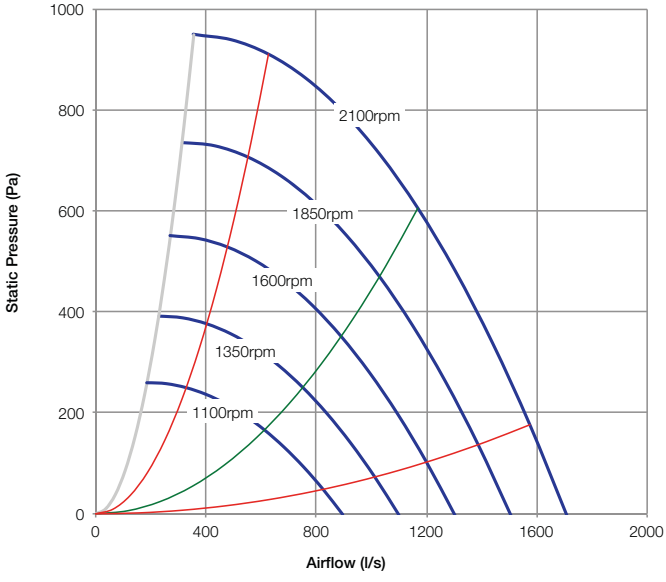
Fan

Case:	Galvanised Sheet Steel
Weight:	45 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
2100	949	1.40	2.4
1850	736	0.93	1.67
1600	551	0.62	1.23
1350	392	0.37	0.93
1100	260	0.22	0.59

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	74	77	74	68	64	61	57	54
78	72	75	72	64	61	58	56	51
76	73	72	66	60	57	54	57	47
75	70	69	63	56	54	50	56	44
76	68	66	57	52	50	53	54	41

BRM453Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	450 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

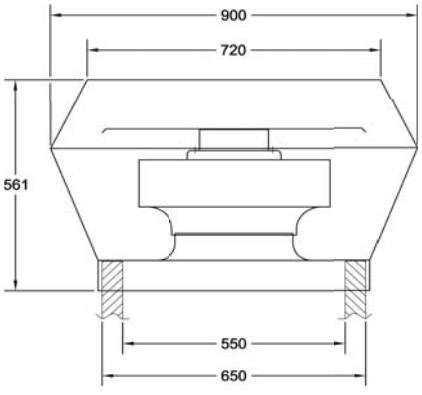
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.45 kW
Power Supply:	400V/3PH/50Hz
Speed:	1800 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

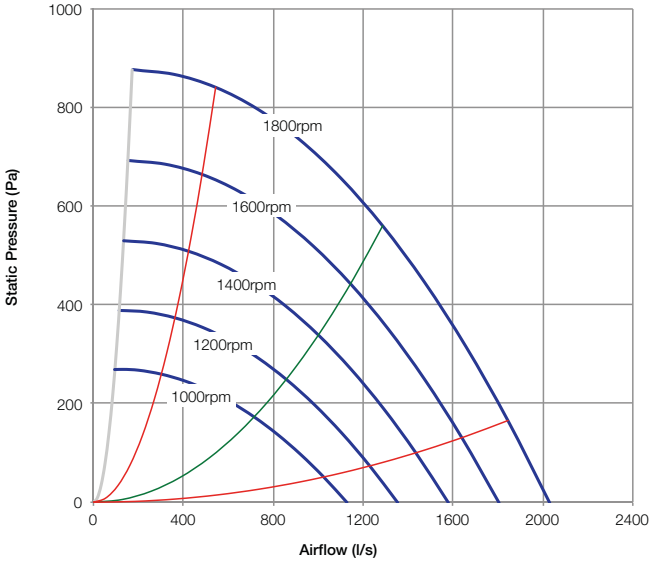
Fan

Case:	Galvanised Sheet Steel
Weight:	55 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1800	876	1.45	2.5
1600	692	1.00	1.74
1400	530	0.67	1.28
1200	389	0.43	0.99
1000	270	0.26	0.69

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
84	79	84	74	68	64	60	59	57
81	78	80	71	65	61	57	58	53
79	77	78	67	61	57	53	56	51
77	73	76	63	57	54	50	54	48
76	67	71	57	52	50	50	42	43

BRM503Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	500 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

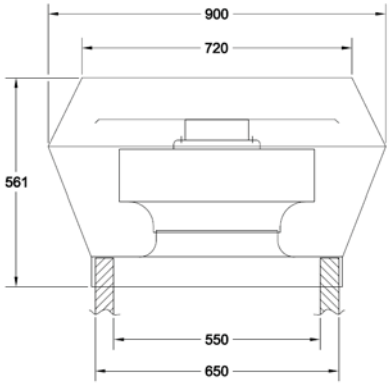
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.90 kW
Power Supply:	400V/3PH/50Hz
Speed:	1650 RPM
FLC:	3.10 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

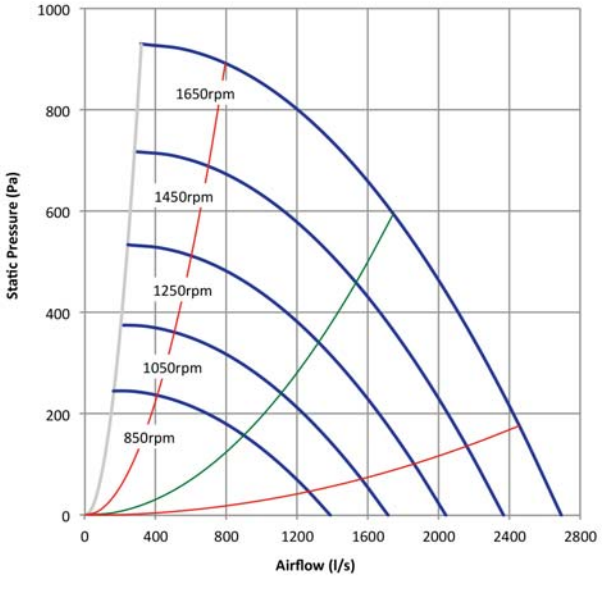
Fan

Case:	Galvanised Sheet Steel
Weight:	65 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1650	929	1.90	3.1
1450	718	1.40	2.3
1250	533	0.88	1.54
1050	376	0.54	1.07
850	247	0.32	0.77

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	125	250	500	1k	2k	4k	8k	
79	83	78	74	69	68	65	59	56
79	80	75	71	66	65	62	57	53
76	76	72	67	62	61	58	59	50
73	71	68	63	57	58	52	61	46
73	68	64	58	52	55	48	54	42

BRM563Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

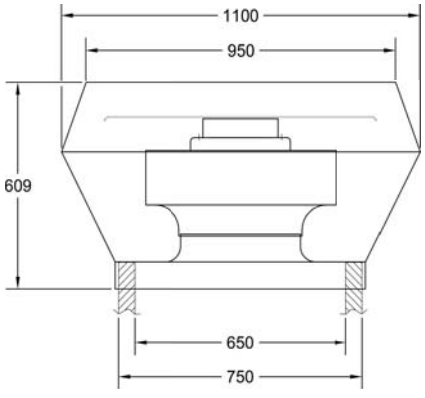
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1620 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

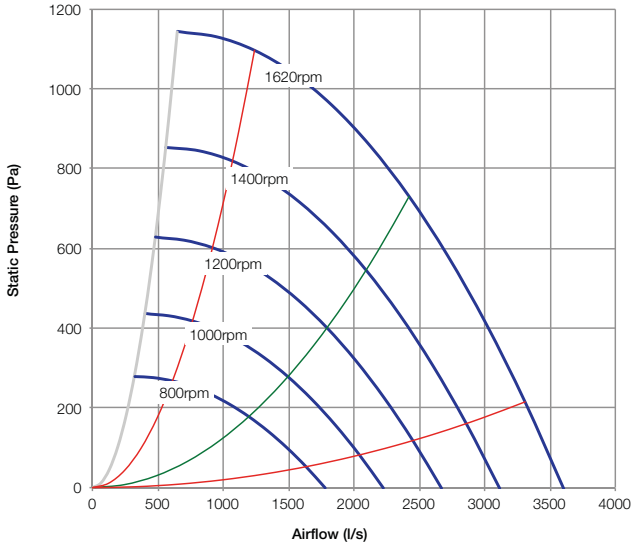
Fan

Case:	Galvanised Sheet Steel
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1620	1142	3.50	5.7
1400	853	2.25	3.57
1200	627	1.44	2.37
1000	435	0.86	1.55
800	279	0.46	1.05

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
85	88	82	77	74	72	69	63	60
82	86	78	73	69	67	65	59	56
80	82	74	69	65	63	60	60	52
77	75	68	63	60	59	53	59	46
81	67	62	58	55	56	48	57	43

BRM563Q-EC-L

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	560 mm
Type:	Backward Aerofoil Curve
Material:	Composite Material

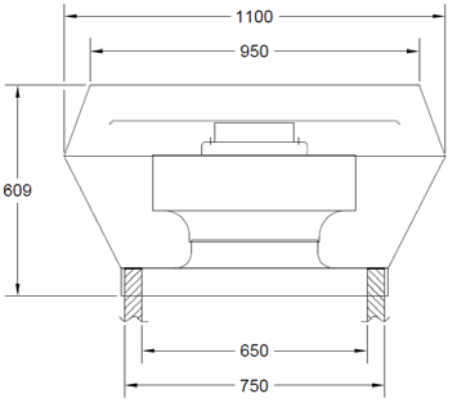
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	1.50 kW
Power Supply:	400V/3PH/50Hz
Speed:	1230 RPM
FLC:	2.50 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

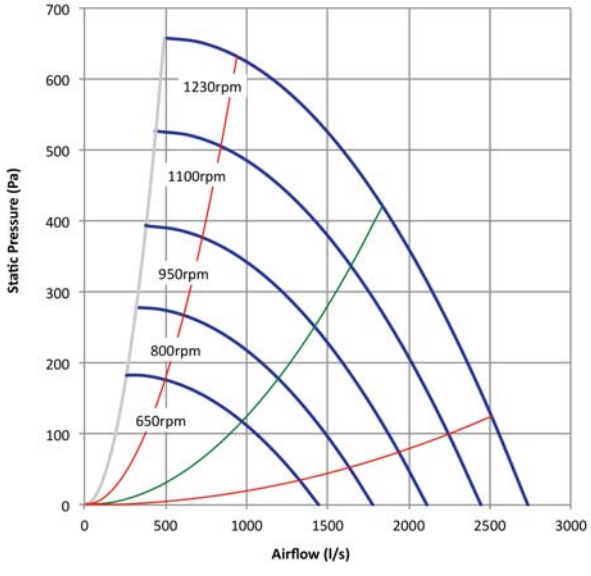
Fan

Case:	Galvanised Sheet Steel
Weight:	75 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1230	658	2.50	1.5
1100	527	1.83	1.06
950	393	1.30	0.67
800	279	1.00	0.41
650	184	0.60	0.23

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
75	83	76	68	65	60	56	63	52
73	76	73	64	62	57	53	62	49
73	74	70	60	59	53	50	61	46
72	65	67	56	54	50	57	52	43
72	61	62	52	53	43	55	34	39

BRM633Q-EC

ROOF VERTICAL EXTRACT CENTRIFUGAL EC FAN

Impeller

Size:	630 mm
Type:	Backward Aerofoil Curve
Material:	High Performance Composite Material

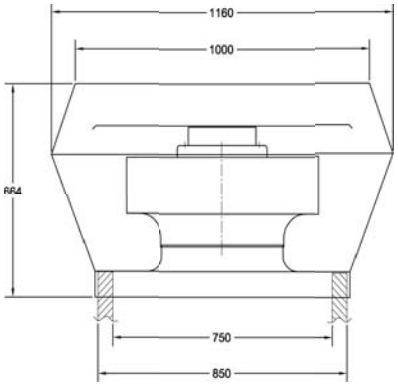
Motor

Type:	High Efficiency EC
IP Rating:	54
Power:	3.60 kW
Power Supply:	400V/3PH/50Hz
Speed:	1340 RPM
FLC:	5.70 A
Control I/O:	1 x Digital Input D1
	1 x Analogue Input E1
	1 x Status contact output K1
	1 x 10V DC output
	1 x 24V DC output

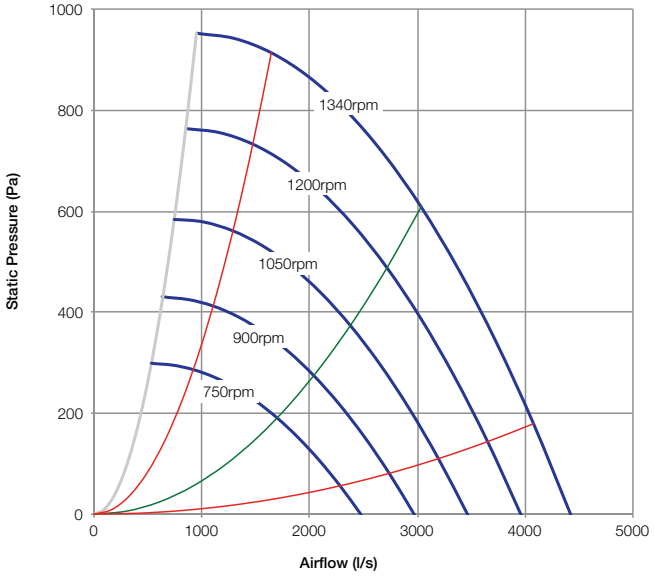
Fan

Case:	Galvanised Sheet Steel
Weight:	85 kg
Max. Temp:	50 °C

Dimensions



Fan Performance



Nominal Data

Speed (RPM)	Peak Pressure (Pa)	Running Power (kW)	Motor Running Current (A)
1340	952	3.60	5.7
1200	764	2.56	3.9
1050	585	1.72	2.65
900	430	1.10	1.73
750	298	0.65	1.1

Sound Power Level SWL dB re 1pw								Sound Pressure Level dBA at 3m
63	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	
80	81	85	73	73	70	68	64	59
79	80	79	69	70	67	64	63	55
78	74	76	67	66	64	61	60	52
79	74	72	64	62	61	57	59	48
76	71	68	63	59	55	56	51	45

air conditioning

refrigeration

clean room technology

05 / CONTROL MODULES

- Intelligent control modules.
- Simple installation.
- Easy commissioning
- Modbus network compatibility.
- Extensive sensor range.

AM-Modbus-W

COMMUNICATION MODULE FOR EC FANS

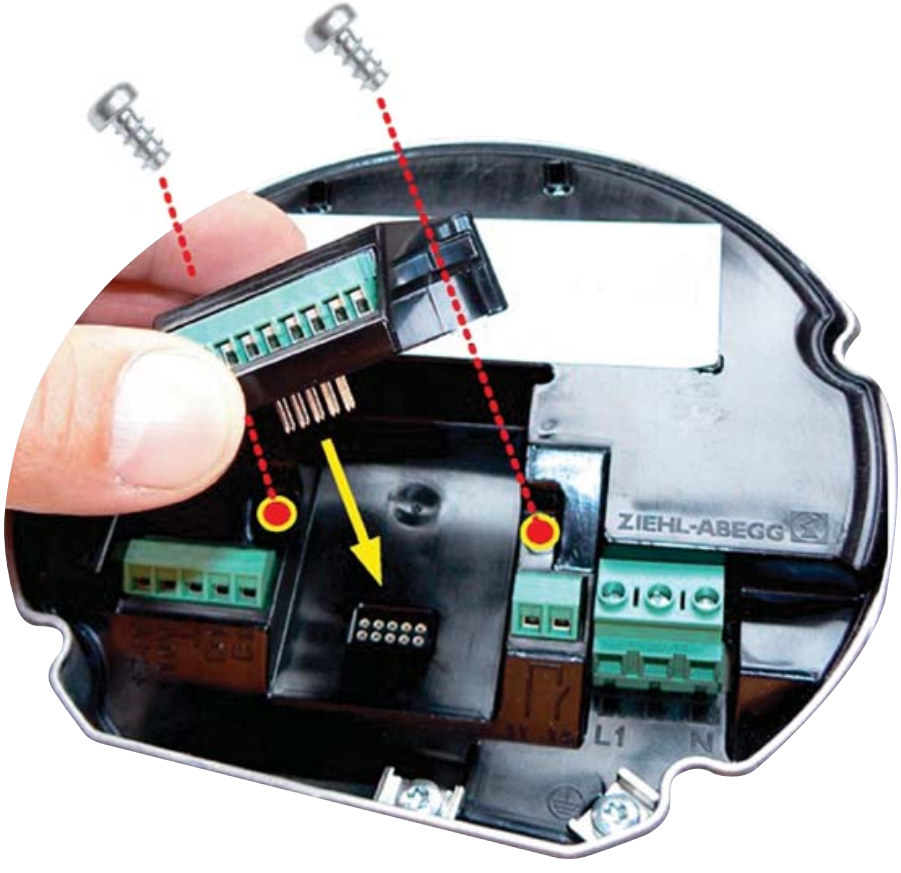
Features / Benefits

Adding the "AM-Modbus" module to a basic fan delivers the following functions:

1. The module can be put in temporarily for programming of desired functions during start-up or for diagnosis.
2. A MODBUS network of several ECblue fans can be built up or the fans can be integrated into existing MODBUS-RTU networks.
3. Programming can be achieved over a radio link using the hand held AG-247NW.

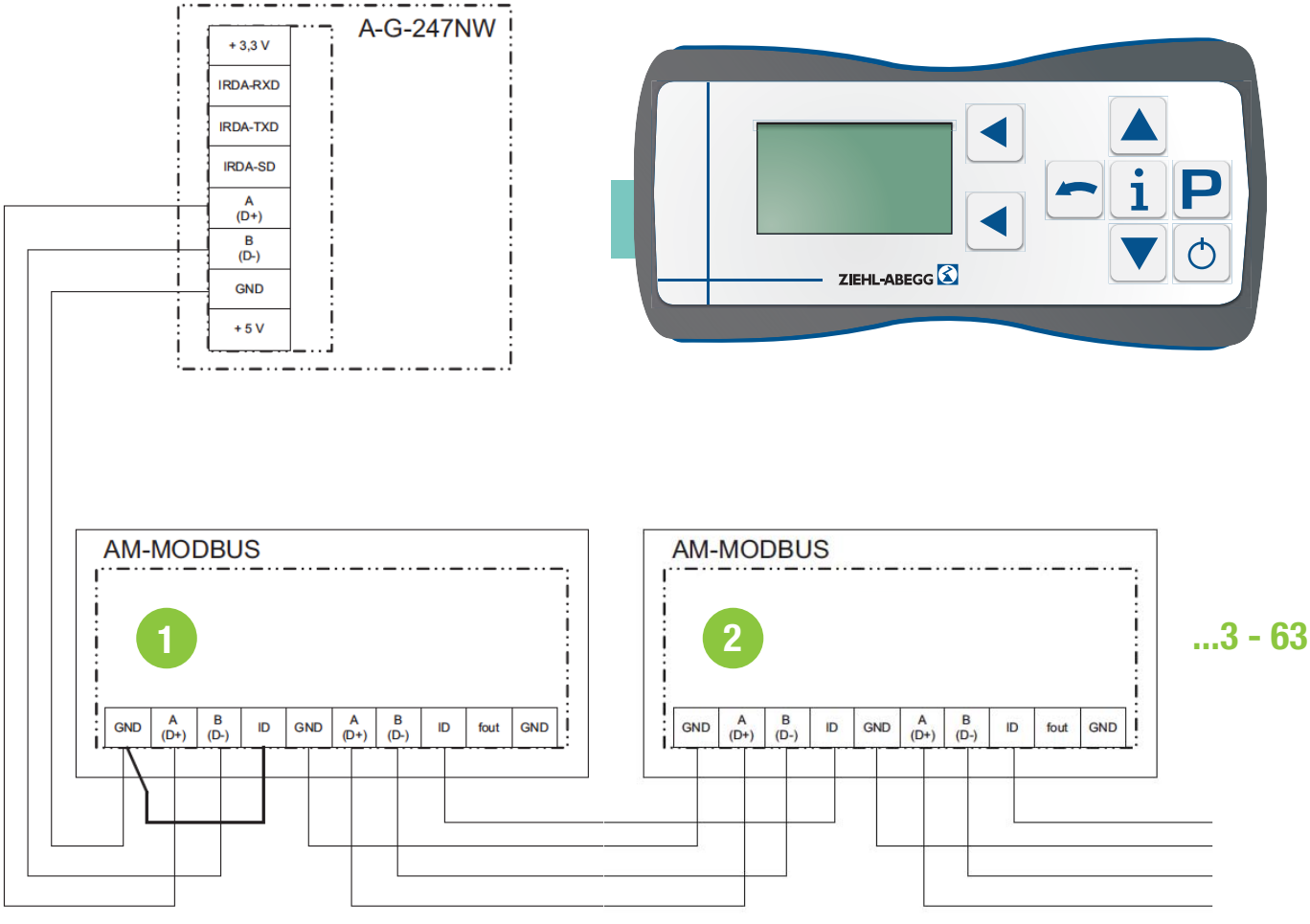
Installing / Guide

Plug in to EC Fans.



Connection / Wiring

Connection example for MODBUS device with automatic addressing.

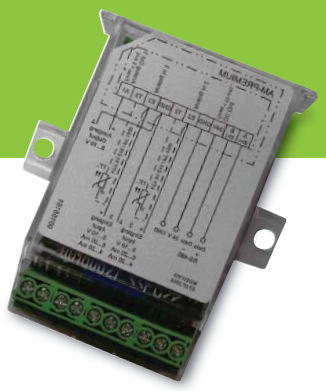


Note:

- Available connections: 1-63.

AM-Premium-W

CONTROL MODULE FOR EC FANS



Features / Benefits

Adding the "AM-Premium-W" module to a basic fan delivers the following functions:

1. AM-premium is a plug in module for an EC fan to extend I/O interface and set up a desired operation.
2. It enables sensors to be connected directly to the EC fan.
3. It provides MODBUS interface allowing integration into existing MODBUS-RTU networks.
4. Programming can be achieved over a radio link using the hand held AG-247NW.

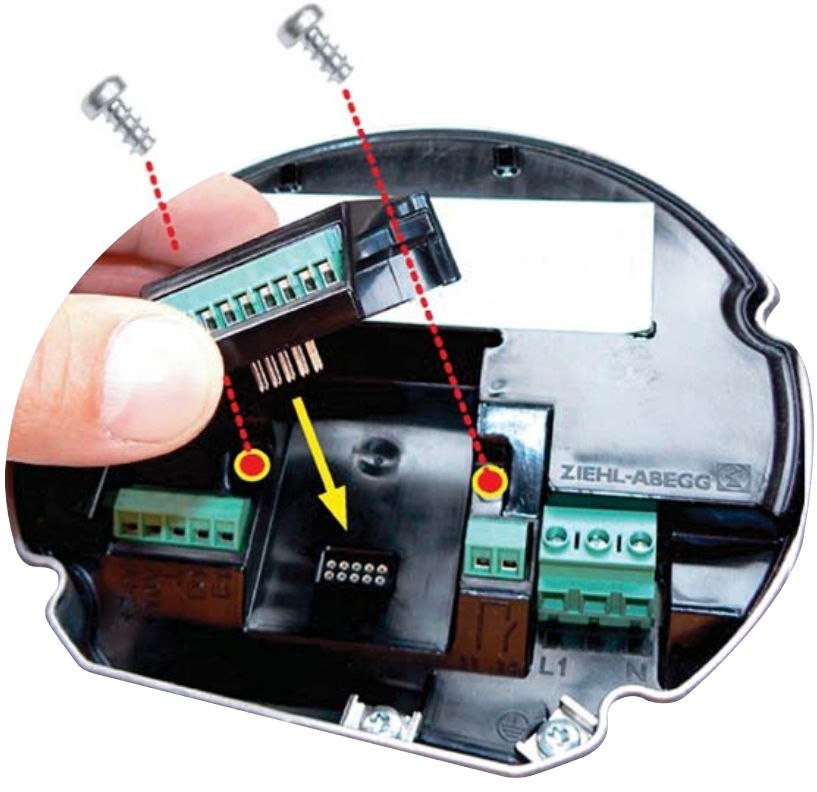
I/O

With AM-Premium module the following I/O can be used:

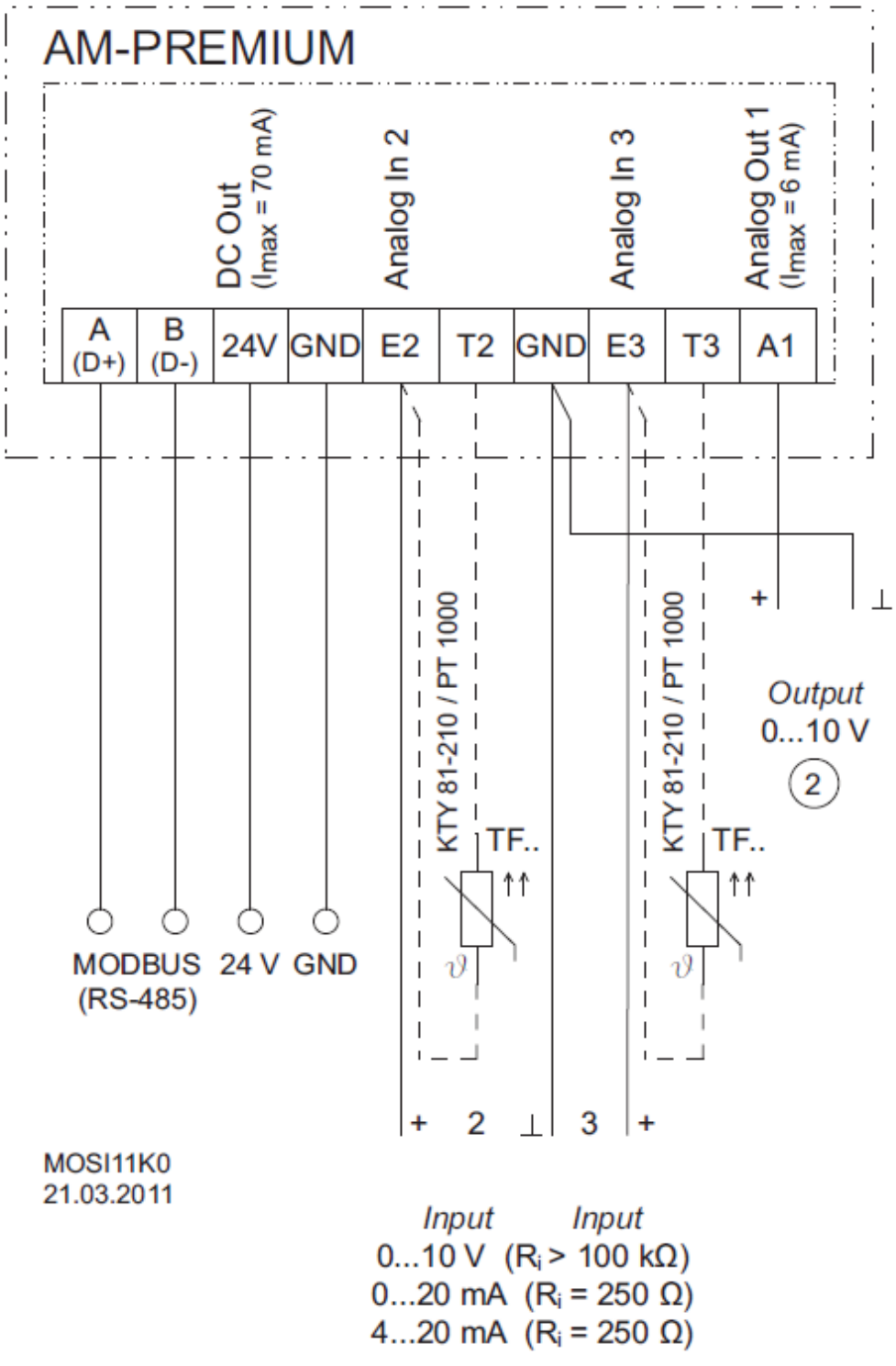
1. 2 x Digital input.
2. 2 x Analogue Input.
3. 2 x Sensors input.
4. 1 x Analogue output.
5. 1 x 24VDC output.
6. 1 x 10VDC output.
7. 1 x Relay output.
8. 1 x MODBUS (RS-485).

Installing / Guide

Plug in to EC Fans.



Connection / Wiring



TEMPERATURE SENSORS

PASSIVE TEMPERATURE SENSORS

Available versions:

Contact, room, immersion, living space, and duct sensors for registration of the temperature value and for control of fans by means of a Ziehl-Abegg control units.
The silicon PTC element changes its resistance depending on the ambient temperature.

R 25 °C = 2.0 K Ω (KTY81-210).

TF ( ) temperature sensors are passive sensors; they do not need any voltage supply.

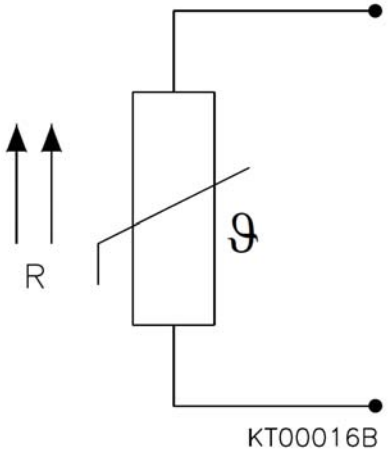
TRF 00089846
Room sensors

TFT 00154797
Immersion sensors

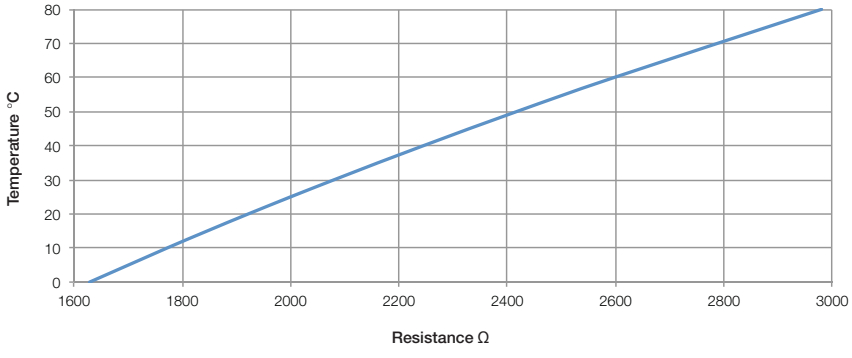
TFA 00153407
Contact sensors

Type	Art No.	Protection Class	Details
TFR	00089846	IP 54	Housing dimensions W x H x D: 75 x 75 x 37mm
TFR-E	00153406	-	Sensor element from TFR
TFT	00154797	IP 43	**Ø 7 x 50mm** Cable 1.9m
TFT (XL)	384027	IP 43	**Ø 7 x 50mm** Cable 4m
TFA	00153407	IP 67	**Ø 7 x 50mm** Cable 2m
TFW	00154798	IP 20	Housing dimensions W x H x D: 84 x 84 x 22mm
TFK	384022	IP 65	Housing dimensions W x H x D: 84 x 84 x 22mm | Sensing element **Ø 7 x 135mm**

Connection / Wiring



Temperature vs Resistance Graph



DSG

DIFFERENTIAL PRESSURE SENSOR

For non-aggressive, gaseous mediums (air conditioning). For detection of the air pressure in air ducts (differential air pressure). Depending on the detected value, the speed of Ziehl-Abegg fans is controlled by means of a Ziehl-Abegg control unit. Dependent on the control unit, the air pressure or air volume flow can be regulated.

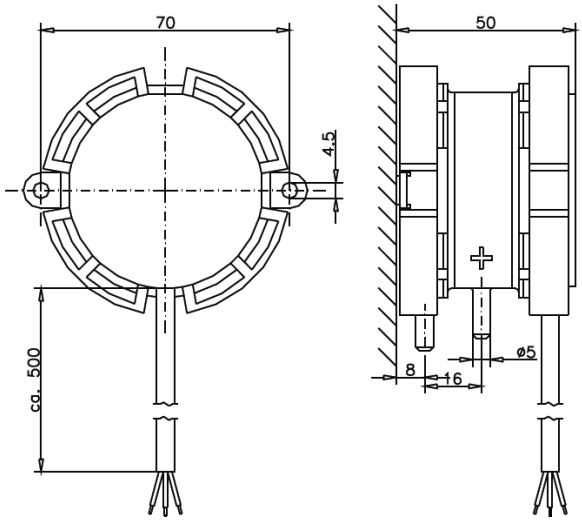
The differential pressure sensor is supplied with 24 V from a Ziehl-Abegg control unit. Through the output of a 0-10 V signal, the measured value is transmitted to the Ziehl-Abegg control unit. The DSG ( ) are active sensors.

Features / Benefits

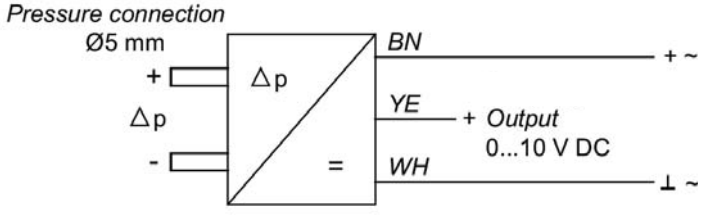
- Protection class IP 65.
- 0.5m connection cable.
- Connection sockets (" + / – ")
- Ø 5mm.
- Ideal installation position: vertical.

Type	Art No.	Protection Class	Details
DSG50	00155595	0 – 50	Versions with integrated digital display or versions with test certificate on request
DSG200	00150229	0 – 200	
DSG500	00150230	0 – 500	
DSG1000	00150231	0 – 1000	
DSG2000	00150684	0 – 2000	
DSG4000	00150685	0 – 4000	
DSG6000	00150694	0 – 6000	

Dimensions



Connection / Wiring



Voltage supply
15-30 V DC
24 V AC 15 %

MAL

AIR VELOCITY SENSORS

For non-aggressive, gaseous media (air conditioning / clean room technology).

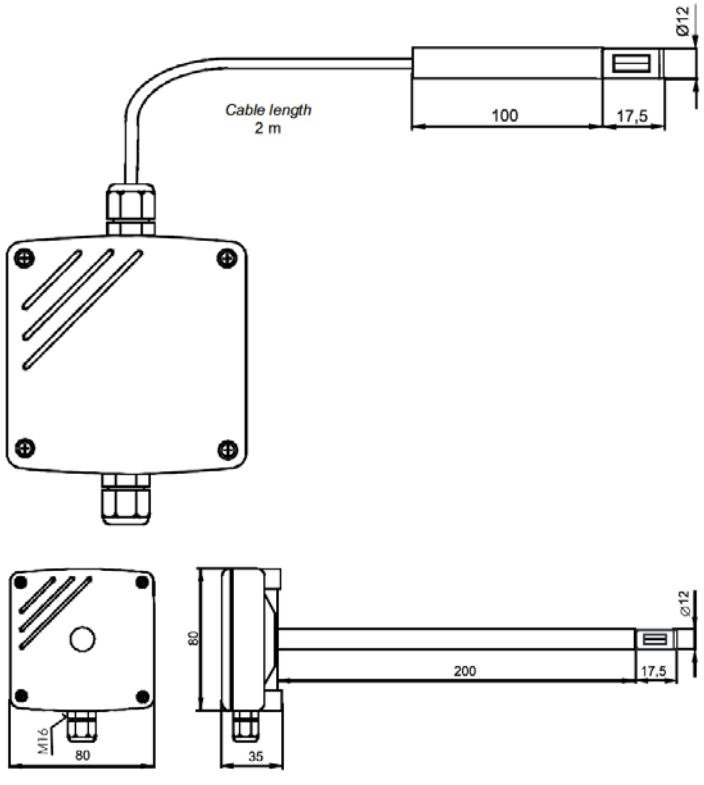
Depending on the detected air velocity, the speed of Ziehl-Abegg fans is controlled by means of a Ziehl-Abegg control unit.

The MAL differential pressure sensors are supplied with 24 V from a Ziehl-Abegg control unit.

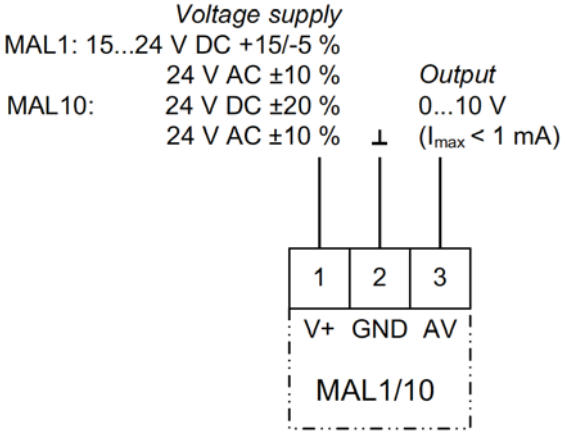
Through the output of a 0-10 V signal (proportional to measuring range), the measured value is transmitted to the Ziehl-Abegg control unit. The MAL sensors are active sensors.

Type	Art No.	Protection Class	Measuring Range	Details
MAL 1	384008	IP 40	0-1 m/s	-
MAL 1	384019	IP 40	0-1 m/s	with test certificate
MAL 1 - X	384018	IP 40	0-1 m/s	with sensing element split via the cable (2m)
MAL 1 - X	384021	IP 40	0-1 m/s	additionally with test certificate
MAL 10	384009	IP 40	0-10 m/s	

Dimensions



Connection / Wiring

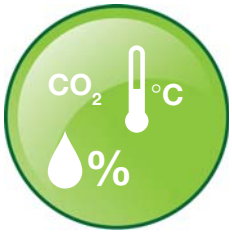


MCFTG-3AV

CO2, HUMIDITY, TEMPERATURE SENSOR

Combined sensor for the measurement of CO2 concentration, relative humidity and temperature. Example applications: Office buildings, conference rooms, churches and classrooms, with measured values displayed.

The CO2 concentration, humidity and temperature can be measured separately or combined. Depending on the detected value, the speed of Ziehl-Abegg fans, is controlled by a means of a Ziehl-Abegg control unit. The sensor is supplied with 24V from a mains adapter. For each measured variable one 0-10V output is available which communicates the value. The value is also shown rotationally on the integrated display.



Features / Benefits

Measurement range: CO2: 0-2000 ppm.

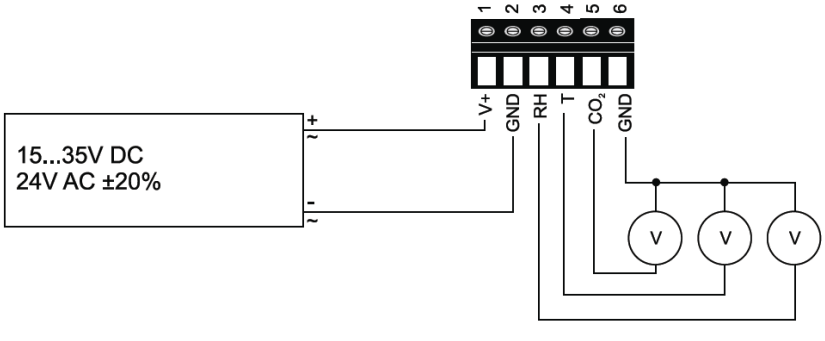
Humidity: 10-90 %.

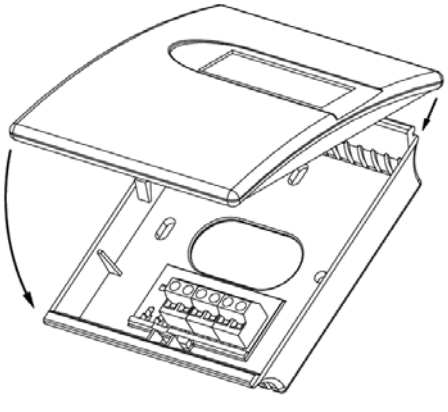
Temperature: 0 to +50 °C.

- 3 analogue outputs: For each measuring range 0-10V.
- Housing protection class IP 20.
- Housing dimensions (WxHxD) 85x100x26 mm.

Accessory
Step Power - Art. no: 380067

Connection / Wiring





MPR300

DIFFERENTIAL PRESSURE SWITCH

High-presicion differential pressure switch for monitoring differential pressure and negative pressure of gaseous, non-corrosive media in air ducts, air intakes or extraction equipment.

The desired switching point (changeover contact as NO or NC contact) is set by means of the rotary switch (scale 0,2 to 3 mbar).

Examples of applications:

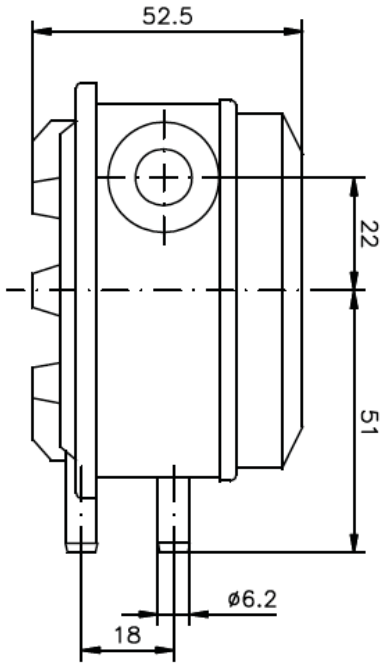
- Pressure control for central extraction systems and variable air volume systems (VVS) .
- Flow monitoring for warm-air heaters.
- Frost protection for heat exchangers.
- Vee-belt and filter monitoring.
- Controlling and monitoring gas boilers and OEM applications.

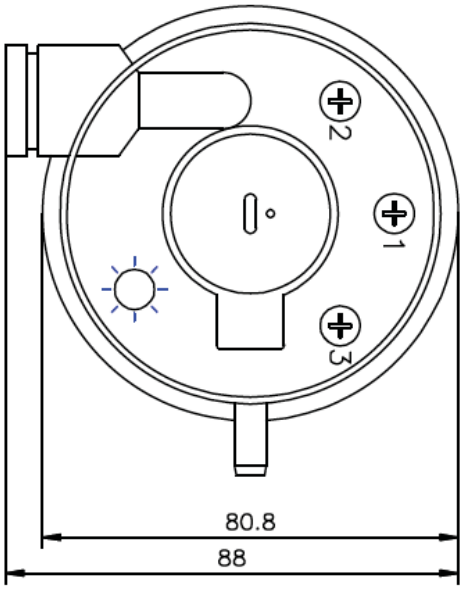
Features / Benefits

Measurement range:

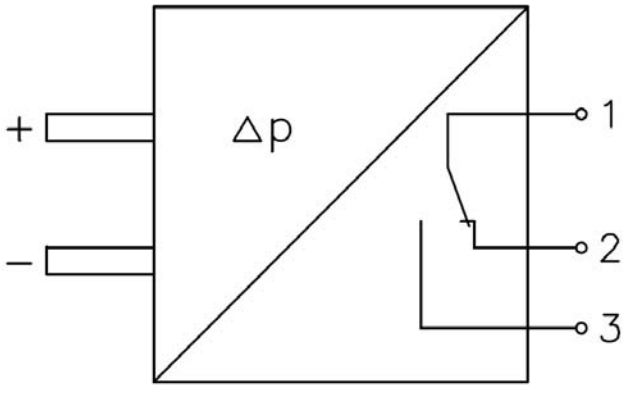
- Measurement range 20-300 Pa.
- Housing protection class IP 55.
- Switch over contact load: 250 VAC, 5A.
- Ideal installation position: vertical.
- Pressure port " + / – " for Ø 6.2 mm tubing.
- Max. ambient temperature -30 to +75 °C.
- Permissible storage temperature -40 to +85 °C.
- Pressure connection P1 for higher pressure.
- P2 for lower pressure.
- Connection nozzles: 6,2 mm, adapter 1/8".
- Membrane silicon LSR.
- Factory setting of zero point and measurement range.
- Housing protection IP 54.

Dimensions





Connection / Wiring



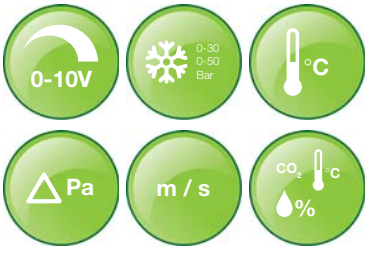
UNIcon CXE/AV(E)

UNIVERSAL CONTROL MODULE

All Ziehl-Abegg sensors can be evaluated with the CXE/AV(E) control module. Control is carried out in relation to the entered target value through triggering of external speed controllers using a 0-10 V signal (2 x 0-10 V outputs are integrated). The control module is available in different versions, for different power supplies. Operation as close loop controller.

Applications:

- Air conditioning.
- Clean room technology.
- Refrigeration.
- Special applications.



Acquisition of the value and control to the target value selectively with following sensors:

- Pressure sensors MBG refrigerant pressure 0-30 / 0-50 bar.
- Temperature sensors TF +27 to +75 °C.
- Temperature sensor MTG-120V +10 to +120 °C.
- Differential pressure sensor DSG 0-6000 Pa / air volume m³/h.
- Air velocity sensors MAL 0-1 / 0-10 m/s.
- Sensors with output signal: 0-10 V / 0-20 mA / 4-20 mA.
  Target value (e.g. air humidity, concentration of toxins, CO2, etc.) depending on sensor measurement range.

Input for sensors or speed preset

- Speed preset.
- Pressure sensors refrigeration.
- Temperature sensors.
- Differential pressure sensor.
- Air velocity sensors.
- Combined sensor CO2 / humidity / temperature with mains adapter.

Features

Multifunctional plaintext display, various menu languages can be selected.

- Integrated process control: air pressure, air velocity, air volume, temperature, refrigerant pressure, etc.
- Simple start-up operation through selectable, preset operating modes.
- Connection facility for 2 sensors.
- When one sensor is connected, external target-value preset possible via 0-10 V.
- Voltage supply for auxiliary devices (24 V, max. 120 mA), e.g. for sensors.
- 2 outputs 0-10 V for activation of a subsequent speed controller.
- 2 digital outputs (relay) programmable (e.g. status signals, threshold values).
- 5 digital inputs programmable (e.g. enable function, target value 1/2, controller output limitation, automatic/ manual switch over, heating/cooling switch over).
- Integration into bus system via RS485 interface, MODBUS-RTU.

Expansion Possibility: Clock

The control modules CXE/AV(E) can be extended with the Z-Modul RTC, art. no. 380056, to get the function of a real time clock.

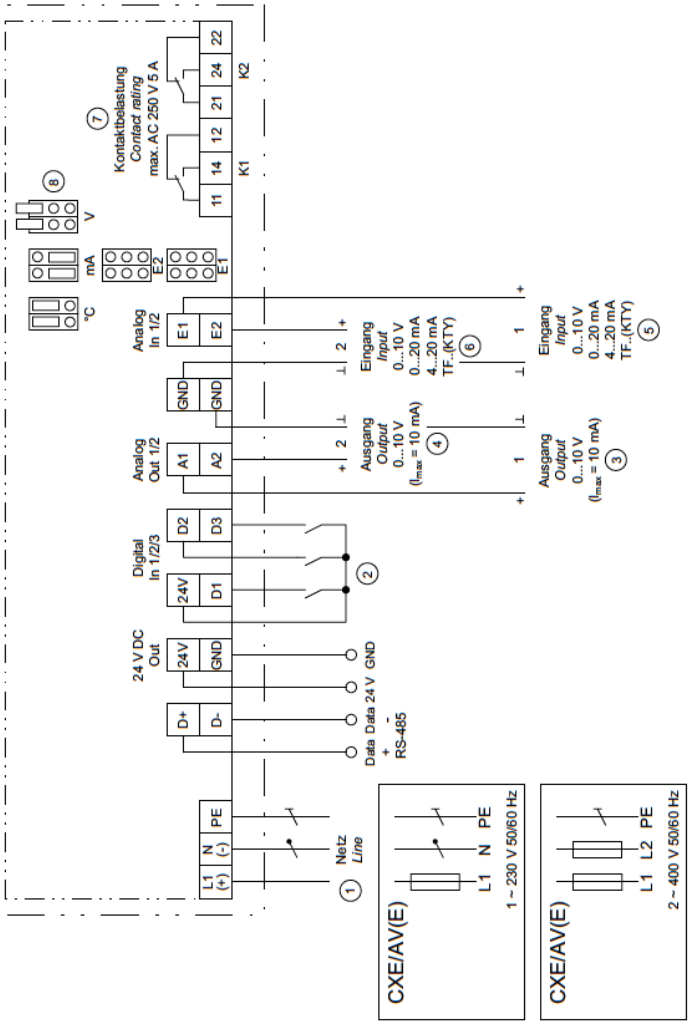
Nominal Data

	Type	Art No.	Protection Class	Weight
1~ 230V 50/60Hz	CXE/AV	320019	IP 54	0.9
	CXE/AVE	320020	IP 54*	0.8
48 V DC 24 V AC	CXG-48AV	320025	IP 54	0.6
	CXG-48AVE	320026	IP 54*	0.5
24 V DC	CXG-24AV	320023	IP 54	0.6
	CXG-24AVE	320024	IP 54*	0.5
2~ 400 V 50/60Hz	CXE/AV	320045	IP 54	0.9

*Front side built in

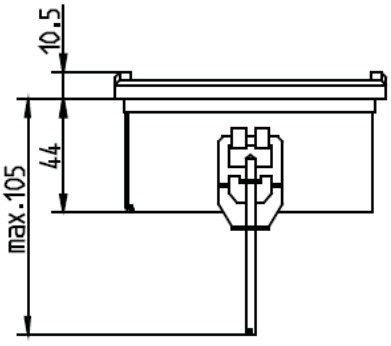
Connection / Wiring

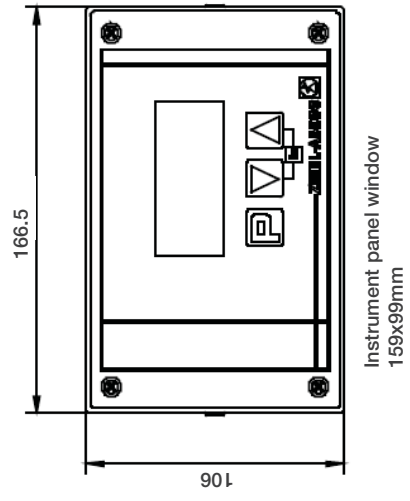
Page Rotation Required

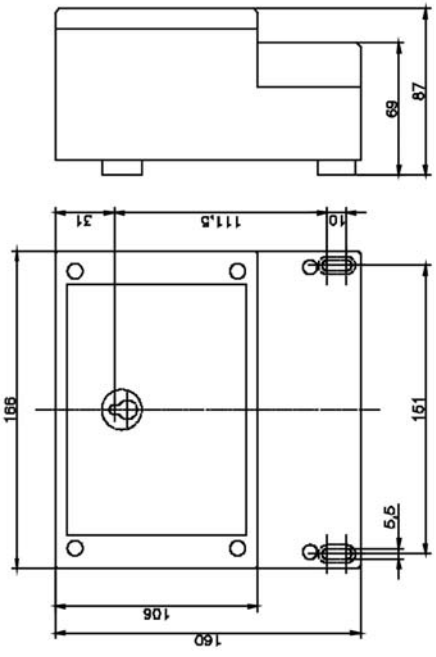


Dimensions

Page Rotation Required





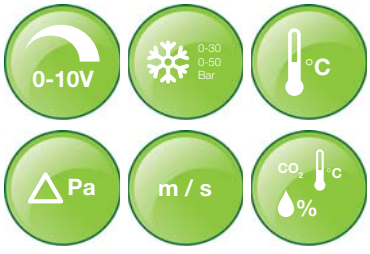


UNIcon CXE/AVC(E)

WITH PROGRAMMABLE CLOCK AND TIMER

All Ziehl-Abegg sensors can be evaluated with the CXE/AVC(E) control module. Control is carried out in relation to the entered target value through triggering of external speed controllers using a 0-10 V signal. (2 x 0-10 V outputs are integrated).

Operation as close loop controller applications:



- Air conditioning.
- Clean room technology.
- Refrigeration.
- Special applications.

Input for sensors or speed preset

- Speed preset.
- Pressure sensors refrigeration.
- Temperature sensors.
- Differential pressure sensor.
- Air velocity sensors.
- Combined sensor CO2/humidity /temperature with mains adapter.

Acquisition of the value and control to the target value selectively with following sensors:

- Pressure sensors MBG - refrigerant pressure 0-30 / 0-50 bar.
- Temperature sensors TF ( ) +27 to +75 °C.
- Temperature sensor MTG-120V +10 to +120 °C.
- Differential pressure sensor DSG 0-6000 Pa / air volume m³/h.
- Air velocity sensors MAL 0-1 / 0-10 m/s.
- Sensors with output signal: 0-10 V / 0-20 mA / 4-20 mA. Target value (e.g. air humidity, concentration of toxins, CO2, etc depending on sensor measurement range).

Features

Multifunctional plaintext display, various menu languages can be selected.

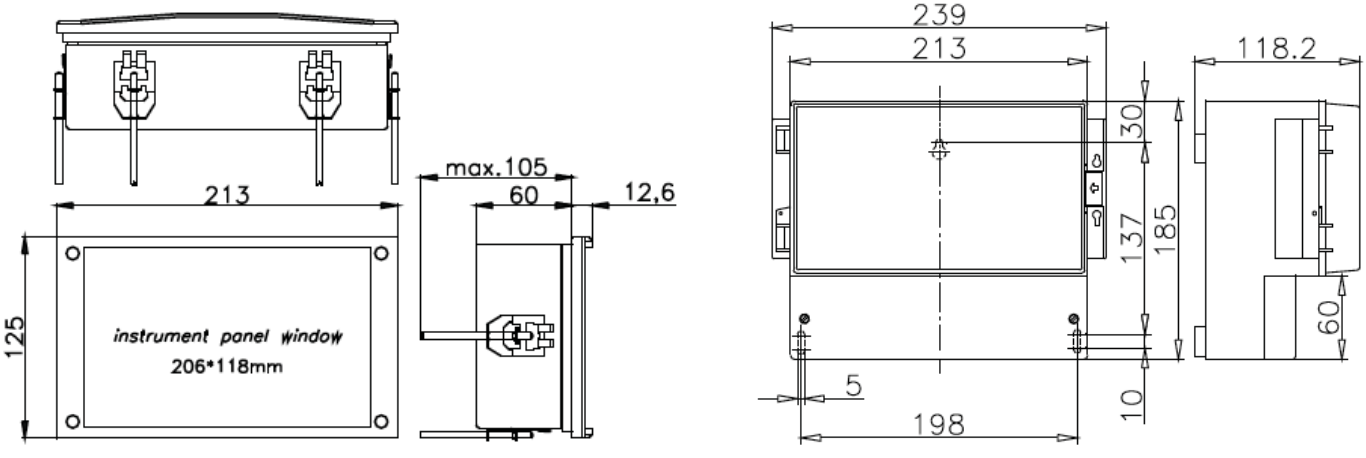
- Integrated clock, timer function programmable.
- Integrated process control: Air pressure, air velocity, air volume, temperature, refrigerant pressure, etc.
- Simple start-up operation through selectable, preset operating modes.
- Connection facility for 2 sensors.
- When one sensor is connected, external target-value preset possible via 0-10 V.
- Voltage supply for auxiliary devices (24 V, max 120 mA) e.g. for sensors.
- 2 outputs 0-10 V for activation of a subsequent speed controller.
- 2 digital outputs (relay) programmable (e.g. status signals, threshold values).
- 5 digital inputs programmable (e.g. enable function, target value 1/2, controller output limitation, automatic/manual switch over, heating/cooling switch over.
- Integration into bus system via RS485 interface, MODBUS-RTU.

Nominal Data

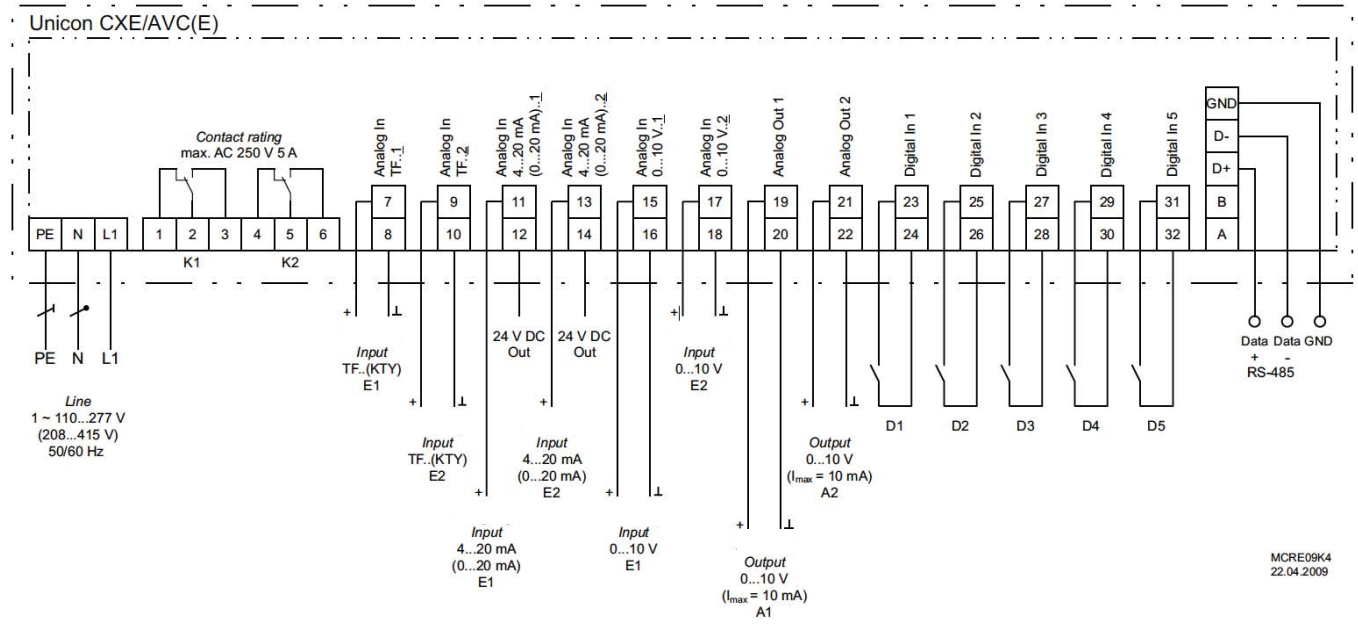
	Type	Art No.	Protection Class	Weight (kg)
1~ 230V 50/60Hz	CXE/AVC	320006	IP 54	1.05
	CXE/AVCE	320008	IP 54	0.85
2~ 400 V 50/60Hz	CXE/AVC	320007	IP 54	1.05

*Front side built in

Dimensions



Connection / Wiring



UNIcon CTG-150AV

TEMPERATURE CONTROL MODULE

Temperature control for e.g. extraction systems, warm-air heaters, air curtain installations, liquid-cooling, chillers.

- The measured value at the sensor is compared with the adjusted target value, and the controlled value is deduced from this. Controlled output (0-10 V) e.g. for activating a speed controller for fans. Fans with integrated controller and input 0-10 V can be activated directly.
- Voltage input (10-24 V DC) for switch over between Setpoint 1 and Setpoint 2 (e.g. for day / night, summer / winter).
- Alternatively the device can be operated as a temperature sensor. Output 0-10 V in this mode proportional to the adjusted measuring range (max. -50 to +150 °C).
- Input for temperature sensor type TF (KTY81-210) or PT1000.

TRF 00089846
Room sensors

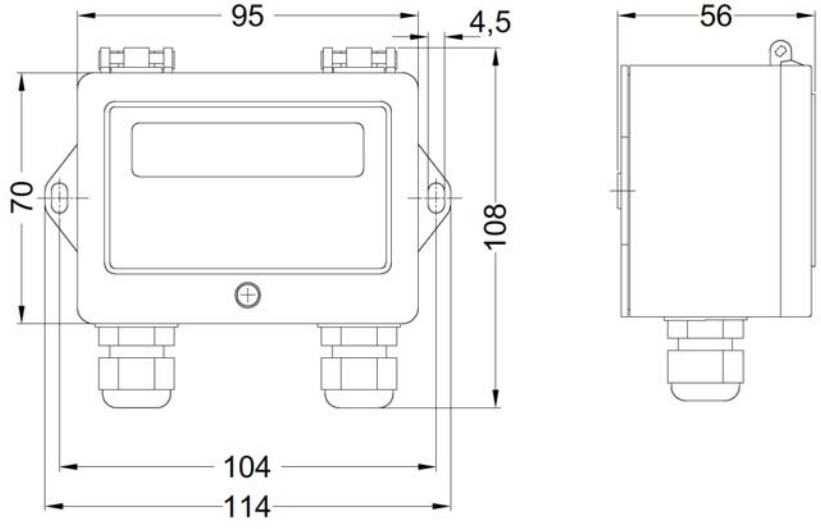
TFT 00154797
Immersion sensors

TFA 00153407
Contact sensors

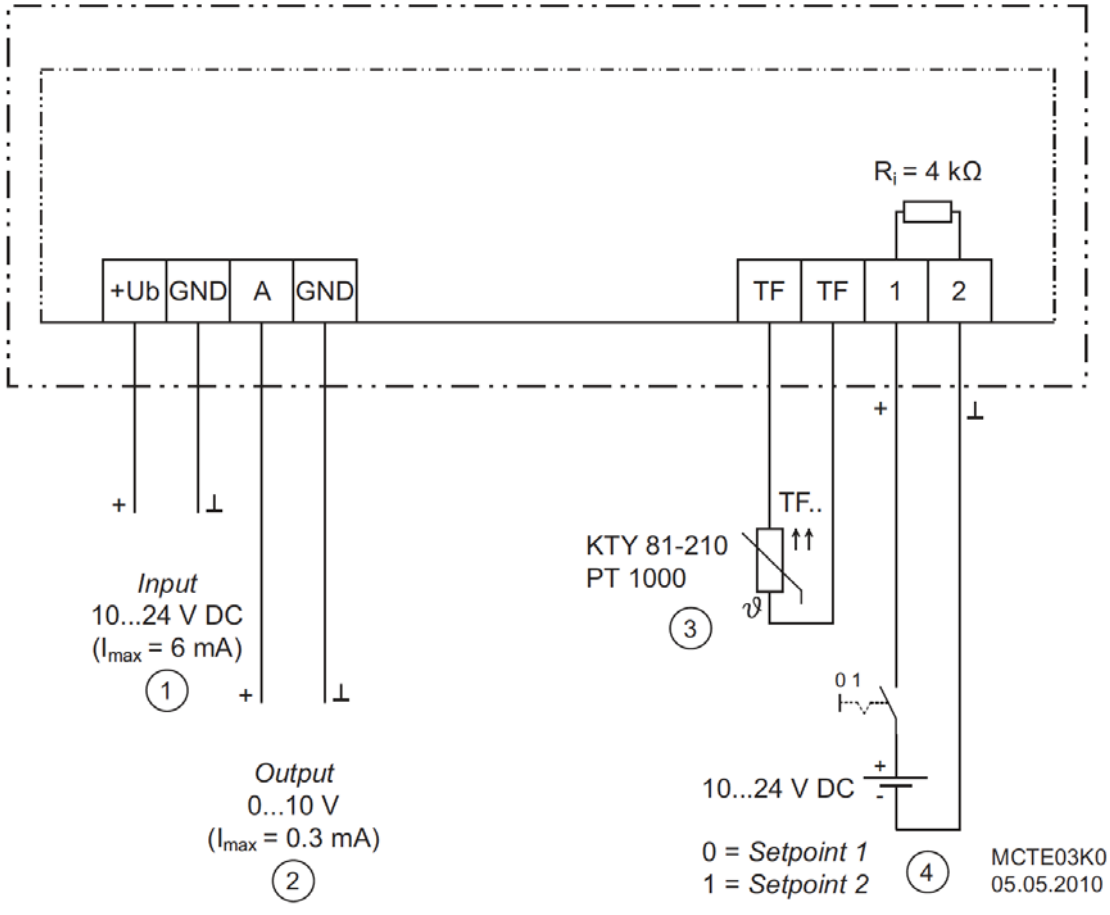
Features / Benefits

- Measuring range -50 to +150 °C.
- Voltage supply 10 V to 24 V DC electronically protected against faulty polarization.
- Current consumption approx. 6 mA.
- Output voltage (0-10 V), Imax = 0.3 mA (short-circuit proof).
- LC Display double-row (max. 16 digits each) Housing cover ABS, bottom Polyamid PA 6.6 fire protection classification UL 94 HB.
- Protection class IP54 according EN 60529.
- Weight approx. 200 g.
- Permissible ambient temperature -10 to +50 °C.
- Permissible rel. humidity 85 % no condensation.
- Interference emission according EN 61000-6-3.
- Interference immunity EN 61000-6-2.
- Possible settings by three internal keys.
- Mode: sensor, control module.
- Kind of sensor: KTY81-210 or PT1000, sensor offset.
- Minimal and maximal output voltage (0-10 V).
- For operation control module: Setpoint 1, Setpoint 2, Pband, Switch-over control function ("Heating" / "Cooling"), Minimum rate of air ON / OFF.

Dimensions



Connection / Wiring



UNIcon CPG-150AV

PRESSURE CONTROL MODULE

The differential pressure (non-aggressive gas) to be measured takes effect on a spring supported silicone membrane. Function when the pressure at the "+" connection exceeds the pressure at the "-" connection. A range from 50 Pa to 6000 Pa is covered by 3 models. With each model four calibrated measuring ranges are programmable.

- For operation as pressure sensor the device supplies an output signal (0-10 V proportional to the measuring range).
- For operation as air volume sensor the device supplies an output signal (0-10 V proportional to the air volume measuring range. Function in combination with centrifugal fans and measuring device in the inlet duct. The controller calculates the air volume of the fan from the K-factor and pressure differential between the suction side and the inlet duct.
- For operation as control module for pressure or volume the purpose of the device is to reach and maintain the target value set. To accomplish this, the measured value (sensor value) is compared with the adjusted target value, and the controlled value is deduced from this. Voltage input (10-24 V DC) for switch over between Setpoint 1 and Setpoint 2 (e.g. for day / night, summer / winter). Controlled output (0-10 V) e.g. for activating a speed controller for fans or an EC-fan directly.

Features / Benefits

- Voltage supply 10 V-24 V DC electronic protected against faulty polarization.
- Current consumption approx. 6 mA.
- Output voltage 0-10 V, Imax = 0,3 mA.
- Connection sockets "+, -": tubing Æ 5 / 6 mm.
- LC display double-row (max. 16 digits each).
- Housing cover ABS, bottom Polyamid PA 6.6 fire protection classification UL 94 HB.
- Use position: vertical (measuring depends on position).
- Protection class IP54 according EN 60529.
- Weight approx. 250 g.
- Permissible ambient temperature -10 to +50 °C.
- Overload protection 0.2 bar.
- Static pressure max. 0.2 bar.
- Interference emission according to EN 61000-6-3.
- Interference immunity according to EN 61000-6-2.

Fault limits (data for pressure sensor max. measuring range).

- Zero point deviation: < +/- 0.5 %.
- Final value deviation: < +/- 0.5 %.
- Linearity deviation: < +/- 0.25 %.
- Resolution: < 0.1 %.
- Hysteresis: < 1.0 %.
- Possible settings by three internal keys.
- Mode: sensor, control module.
- Measuring range:

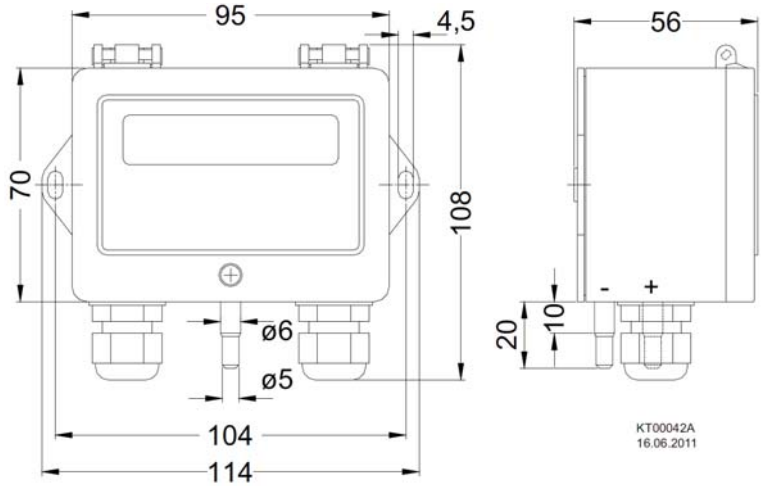
CPG-200AV: 0…50 / 100 / 150 / 200 Pa.

CPG-1000AV: 0…200 / 300 / 500 / 1000 Pa.

CPG-6000AV: 0…2000 / 3000 / 4000 / 6000 Pa.

- Air volume measuring range max. 65000 m^3/h (depends on selected pressure measuring range and K-Factor).
- Minimal and maximal output voltage (0-10 V).
- Sensor offset, K-Factor for air volume measuring.
- For operation control module: Setpoint 1, Setpoint 2, Pband.

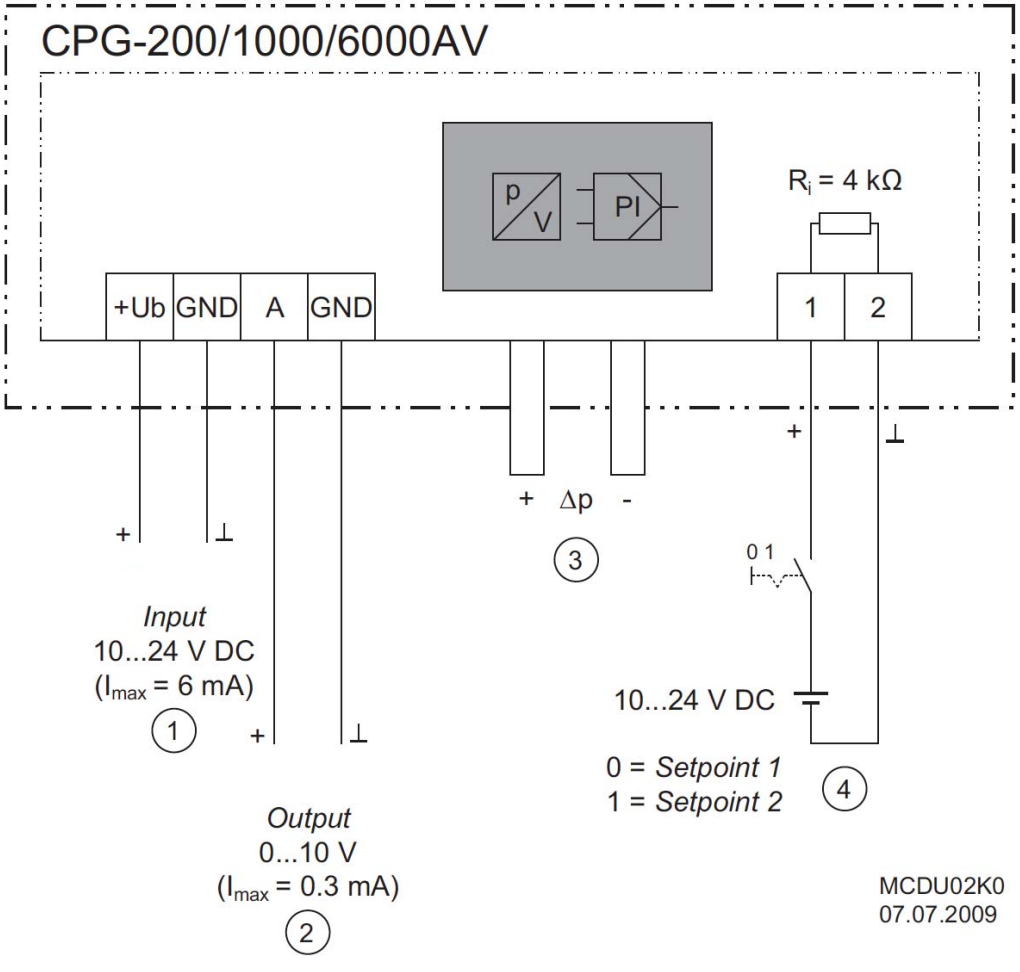
Dimensions



Part Number

	CPG-200AV	CPG-1000AV	CPG-6000AV
Part No.	320042	320043	320044

Connection / Wiring



EC Centrifugal Fans

The energy saver amongst fans

The new economic solution since the middle of the 80's, Ziehl-Abegg has been performing pioneering work in the development and manufacture of efficient EC external rotor motors for fans. Nearly 30 years later, a new era is dawning in EC technology: ECblue ECblue is Ziehl-Abegg's third generation of EC motors.

This latest EC technology is setting new standards for control, efficiency and reliability. Ingeniously simple functionality, compact, cutting-edge technology, and user-friendly – these are the main criteria we set for the development of the ECblue series. Meet ECblue and convince yourself of the result! Maximum efficiency – Minimum power consumption nowadays, saving energy is more important than ever. Energy costs are exploding; the global climate is changing. Fans with ECblue technology will help lower your operating costs.

Our environment will also appreciate the low power consumption of the ECblue fans – after all, the cleanest energy is the energy that doesn't need to be generated in the first place! Dependability and reliability are the basic prerequisites for a quality product from Ziehl-Abegg, so the new ECblue energy-saving motors were tested under extreme conditions. Whether they were exposed to shock or vibration tests, constant loads under extreme temperatures or salt-fog tests – the ECblue fans passed all the tests brilliantly. We are 100% convinced of the reliability of the ECblue fans.

Maximum efficiency — Minimum power consumption nowadays, saving energy is more important than ever

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AIR MOVEMENT PRODUCTS & EXPERTISE

Alaskon - Air Movement Products & Expertise

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