

Movement by Perfection

Axial Fans



Main Catalogue
2016 Edition

Addendum
FB and FC

The Royal League in ventilation, control and drive technology



Contents

Axial fan FB	Blades made of aluminium resp., steel optimised for short bell mouth		Page 6
Axial fan FC	Profiled blades made of aluminium, optimised for full bell mouth		Page 106
Connection diagram			Page 192

Expertise in ventilation

ErP directive

With the Kyoto protocol, the European Union pledged to reduce CO₂ emissions by at least 20 per cent by the year 2020. One measure for achieving this is the ErP directive for improved energy efficiency and general environmental compatibility of electrical equipment – also known in Germany as the Eco Design directive. It supports a resource-friendly and energy-efficient product design. With the implementation of the ErP directive, stricter efficiency requirements for fans in the output range from 125 W to 500 kW apply since 2013 and 2015 in two stages. A further stage is planned for 2020. Energy efficiency is thus given the same standing as the compliance with the low voltage or EMC directive. The system efficiency requirement is a prerequisite for a CE mark and is thus essential for a product to be used in EU member states. An own label as for refrigerators is not planned for fans because the fan manufacturers do not usually have any influence on the installation conditions.

Products for use in EU countries and world-wide markets are listed in this catalogue. For the fans for the EU countries, the respective ErP identification is included directly in the description of the fan.



The **European Ventilation Industry Association (EVIA)** represents the European ventilation industry with national and European institutions.

The EVIA is the key platform for fan manufacturers and is their interface to politicians, decision-makers in the European Union, and other associations that use fans in their products. The EVIA supports the use of high efficiency fans in Europe to implement the EU targets for increased efficiency.

ZIEHL-ABEGG played a leading role in its foundation and supports the EVIA with active involvement in its working groups. ZIEHL-ABEGG also provides the chairman.



Technical description

FB

Description

Aluminium sheet blades
Ø 200630 mm
Optimised for short bell mouth applications
Two airflow directions possible
Three blade angles possible
100 % speed control

Application

Primarily refrigeration / heating, in short bell mouth

Advantages

FB fans are primarily used in equipment with short bell mouth, see installation examples section.



FC

Description

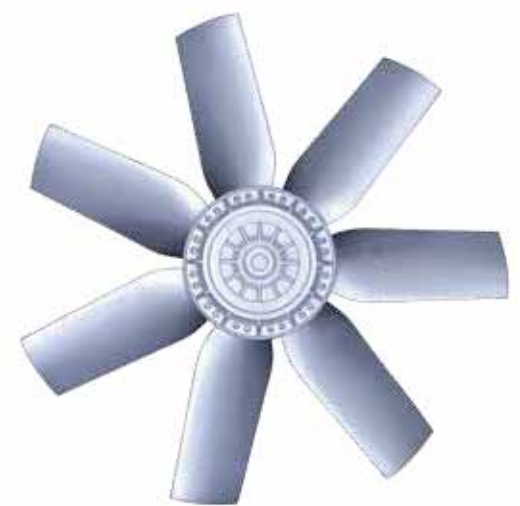
Profiled die cast aluminium blades
Ø 315 ... 1250 mm
Optimised for full nozzle
100 % speed control

Application

Air conditioning and refrigeration, agriculture, transformer and rolling stock cooling, wood drying, industry, engineering

Advantages

The FC series of fans with die cast aluminium blades deliver exceptionally high efficiency and therefore should only be operated in ventilation duct systems with excellent aerodynamics.







Axial fans FB

AC technology

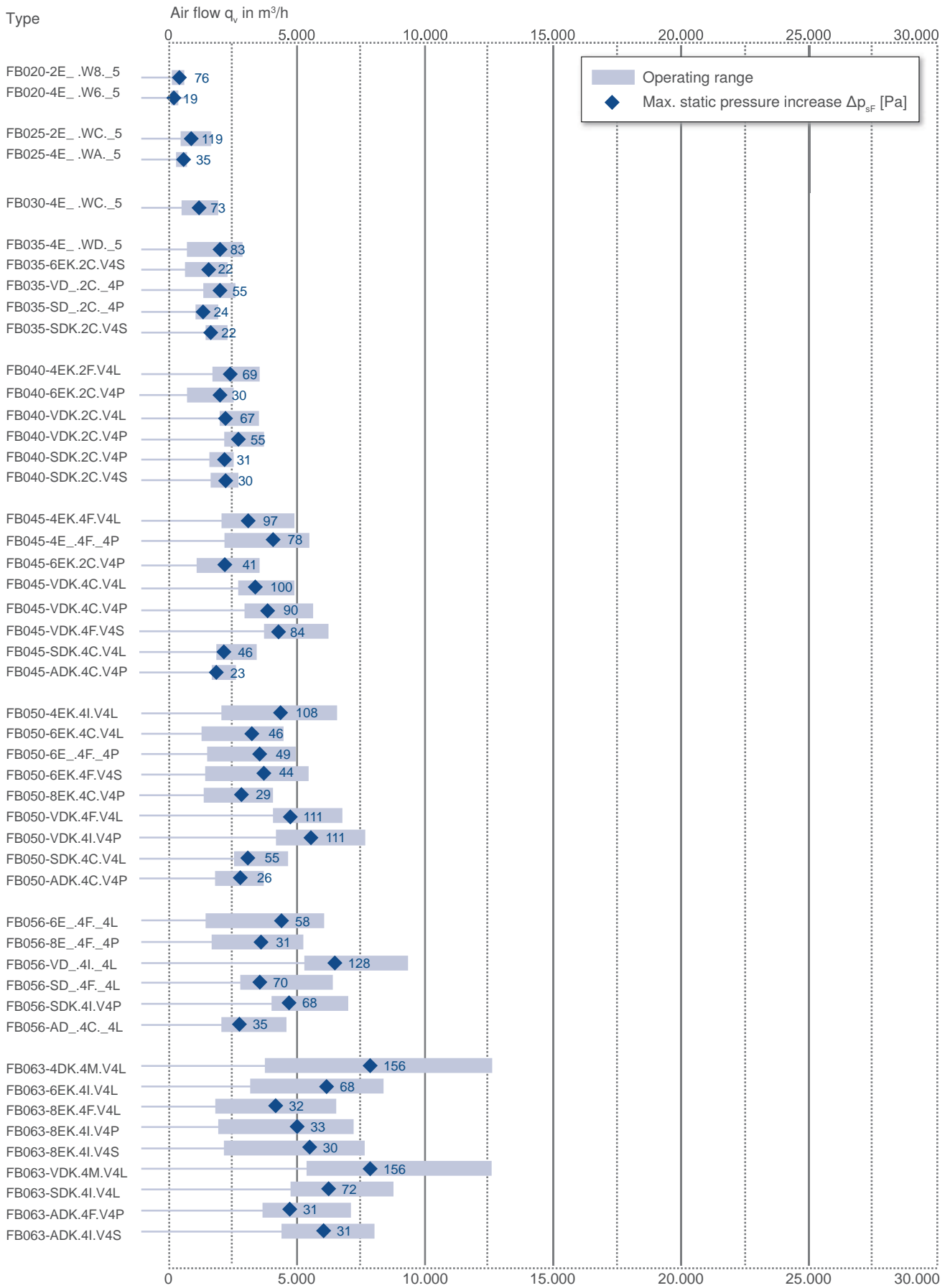
Product overview

Quick selection	Page 8
Size 200	Page 10
Size 250	Page 14
Size 300	Page 18
Size 350	Page 20
Size 400	Page 30
Size 450	Page 42
Size 500	Page 58
Size 560	Page 76
Size 630	Page 88

Size	Voltage	Number of poles	Type	Airflow direction	ErP	Page
200	1~ 230 V		2 FB020-2E_.W8_.5	⇒ A ⇐ V	-	10
			4 FB020-4E_.W6_.5	⇒ A ⇐ V	-	12
250	1~ 230 V		2 FB025-2E_.WC_.5	⇒ A ⇐ V	-	14
			4 FB025-4E_.WA_.5	⇒ A ⇐ V	-	16
300	1~ 230 V		4 FB030-4E_.WC_.5	⇒ A ⇐ V	-	18
350	1~ 230 V		4 FB035-4E_.WD_.5	⇒ A ⇐ V	2015	20
			6 FB035-6EK.2C.V4S	⇐ V	-	22
	3~ 400 V		4-4 FB035-VD_.2C_.4P	⇒ A ⇐ V	-	24
			6-6 FB035-SD_.2C_.4P	⇒ A ⇐ V	-	26
			6-6 FB035-SDK.2C.V4S	⇐ V	-	28
400	1~ 230 V		4 FB040-4EK.2F.V4L	⇐ V	2015	30
			6 FB040-6EK.2C.V4P	⇐ V	-	32
	3~ 400 V		4-4 FB040-VDK.2C.V4L	⇐ V	2015	34
			4-4 FB040-VDK.2C.V4P	⇐ V	2015	36
			6-6 FB040-SDK.2C.V4P	⇐ V	-	38
			6-6 FB040-SDK.2C.V4S	⇐ V	-	40
450	1~ 230 V		4 FB045-4EK.4F.V4L	⇐ V	2015	42
			6 FB045-4E_.4F_.4P	⇒ A ⇐ V	2015 *	44
			6 FB045-6EK.2C.V4P	⇐ V	-	46
	3~ 400 V		4-4 FB045-VDK.4C.V4L	⇐ V	2015	48
			4-4 FB045-VDK.4C.V4P	⇐ V	2015	50
			6-6 FB045-VDK.4F.V4S	⇐ V	2015 *	52
			6-6 FB045-SDK.4C.V4L	⇐ V	2015 *	54
			8-8 FB045-ADK.4C.V4P	⇐ V	-	56
500	1~ 230 V		4 FB050-4EK.4I.V4L	⇐ V	2015 *	58
			6 FB050-6EK.4C.V4L	⇐ V	2015	60
			6 FB050-6E_.4F_.4P	⇒ A ⇐ V	2015	62
			8 FB050-6EK.4F.V4S	⇐ V	-	64
	3~ 400 V		4-4 FB050-8EK.4C.V4P	⇐ V	-	66
			4-4 FB050-VDK.4F.V4L	⇐ V	2015	68
			6-6 FB050-VDK.4I.V4P	⇐ V	2015	70
			6-6 FB050-SDK.4C.V4L	⇐ V	2015 *	72
			8-8 FB050-ADK.4C.V4P	⇐ V	2015	74
560	1~ 230 V		6 FB056-6E_.4F_.4L	⇒ A ⇐ V	2015	76
			8 FB056-8E_.4F_.4P	⇒ A ⇐ V	-	78
	3~ 400 V		4-4 FB056-VD_.4I_.4L	⇒ A ⇐ V	2015	80
			6-6 FB056-SD_.4F_.4L	⇒ A ⇐ V	2015	82
			8-8 FB056-SDK.4I.V4P	⇐ V	2015	84
			8-8 FB056-AD_.4C_.4L	⇒ A ⇐ V	-	86
630	3~ 400 V		4 FB063-4DK.4M.V4L	⇐ V	2015	88
			6 FB063-6EK.4I.V4L	⇐ V	2015	90
	1~ 230 V		8 FB063-8EK.4F.V4L	⇐ V	-	92
			8 FB063-8EK.4I.V4P	⇐ V	-	94
			8 FB063-8EK.4I.V4S	⇐ V	-	96
	3~ 400 V		4-4 FB063-VDK.4M.V4L	⇐ V	2015	98
			6-6 FB063-SDK.4I.V4L	⇐ V	2015 *	100
			8-8 FB063-ADK.4F.V4P	⇐ V	-	102
			8-8 FB063-ADK.4I.V4S	⇐ V	-	104

* with ZIEHL-ABEGG frequency inverter





FB

for single phase alternating current, 2 pole

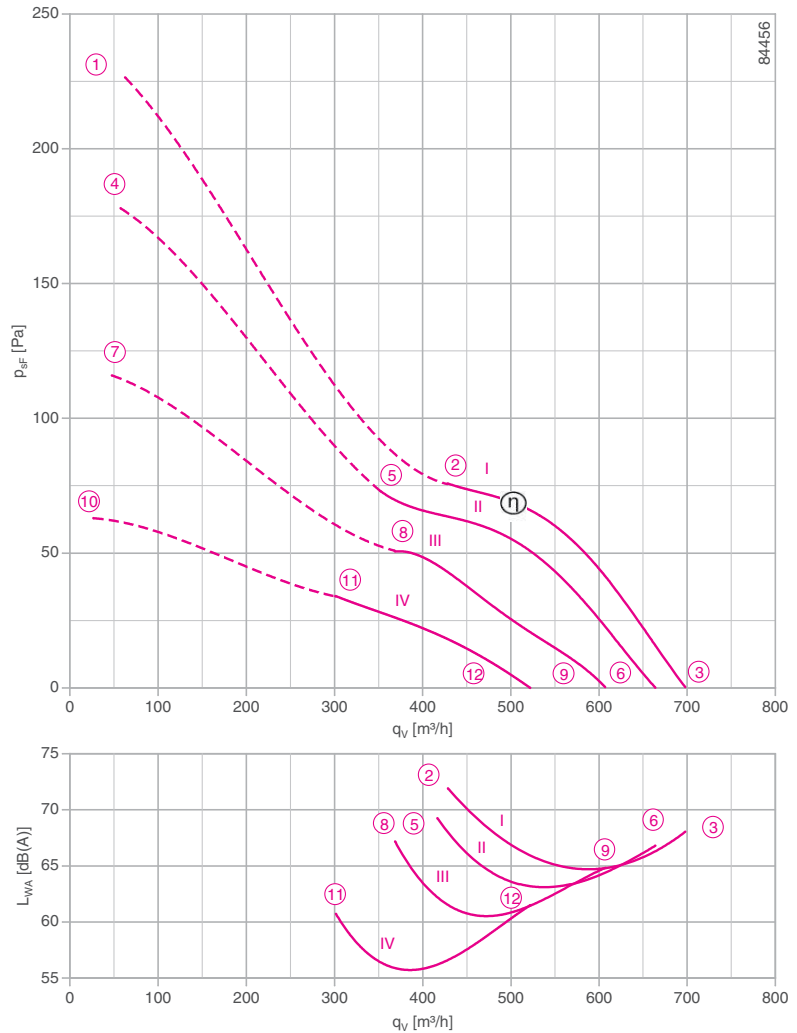
FBO20-2E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.05 kW*
 Rated current I_N : 0.26 A*
 Rated speed n_N : 2730 min⁻¹*
 Starting current I_s : 0.62 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 1.5 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 80 °C
 Electrical connection: Supply cable variable 45 cm
 Number of blades: 5
 Motor protection: thermal contact
 Blades: Steel, powder-coated, jet black
 Rotor: Aluminium, 1 coat paint, ultramarine blue
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



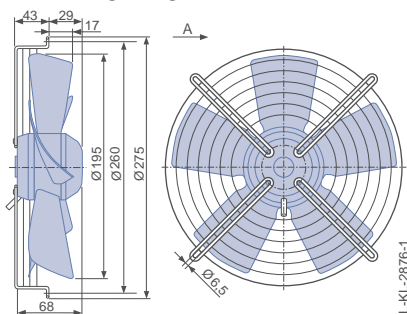
Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

Connection diagram

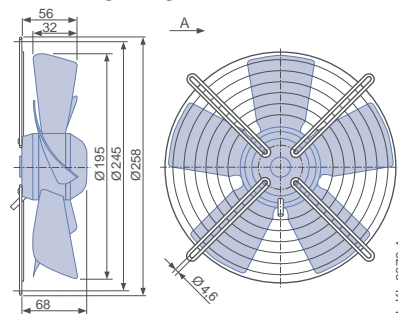
Page 192
1360-177X

Airflow direction A

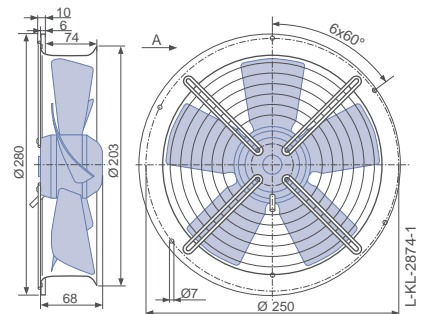
Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Design D - axial bolted, suspension for full bell mouth, guard grille suction side



Design L - round full bell mouth, guard grille suction side



FB

for single phase alternating current, 4 pole

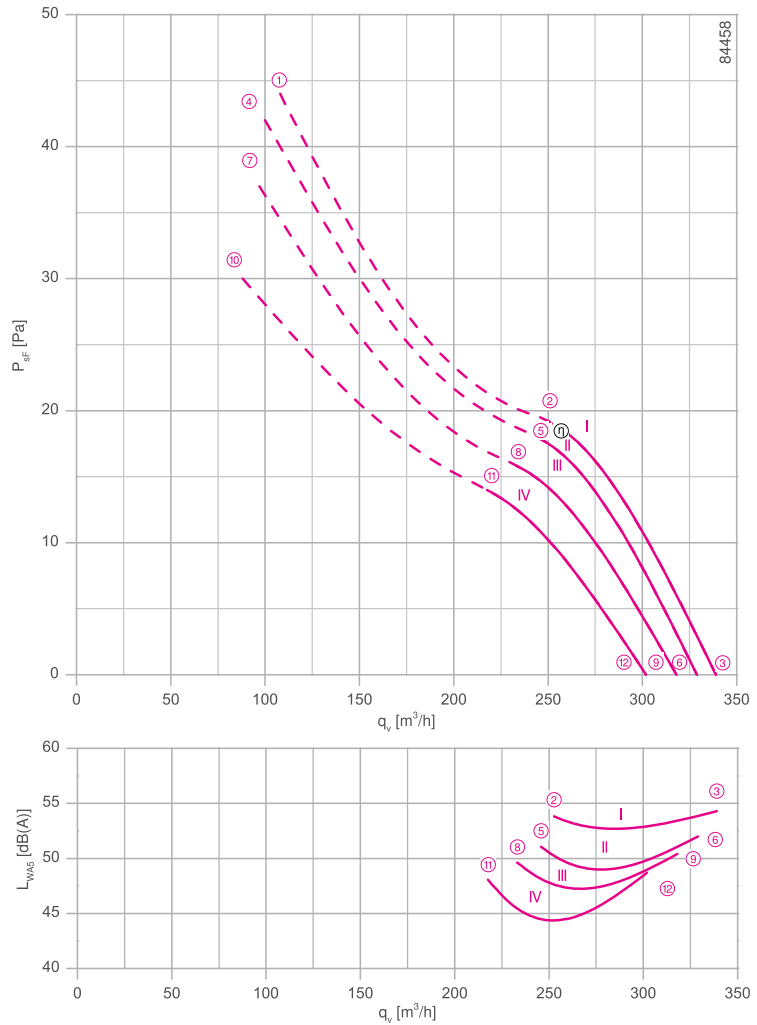
FBO20-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.03 kW*
 Rated current I_N : 0.15 A*
 Rated speed n_N : 1400 min⁻¹*
 Starting current I_s : 0.24 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 1.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Supply cable variable 45 cm
 Number of blades: 5
 Motor protection: thermal contact
 Blades: Steel, powder-coated, jet black
 Rotor: Aluminium, 1 coat paint, ultramarine blue
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

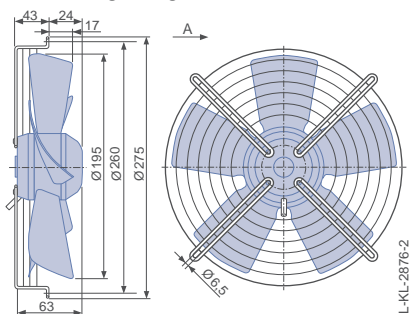
Connection diagram

Page 192
1360-177X

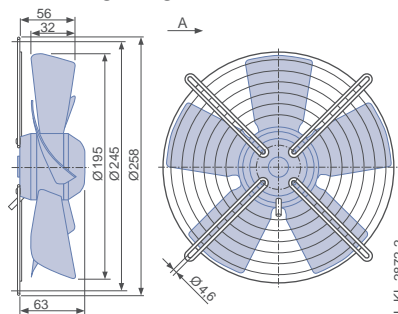
Dimensions mm

Airflow direction A

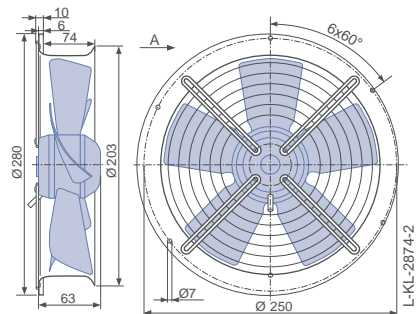
Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Design D - axial bolted, suspension for full bell mouth, guard grille suction side



Design L - round full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB020-4E_W6_5	I	230	①	0.15	30	1390	54
		230*	②	0.15*	30*	1400*	
		230	③	0.15	28	1410	
	II	170	④	0.11	16	1340	51
		170	⑤	0.10	16	1360	
		170	⑥	0.10	15	1380	
	III	135	⑦	0.09	12	1260	50
		135	⑧	0.09	11	1300	
		135	⑨	0.08	10	1330	
	IV	110	⑩	0.08	8	1130	48
		110	⑪	0.08	8	1200	
		110	⑫	0.07	8	1260	

*rated data

Fan ordering information

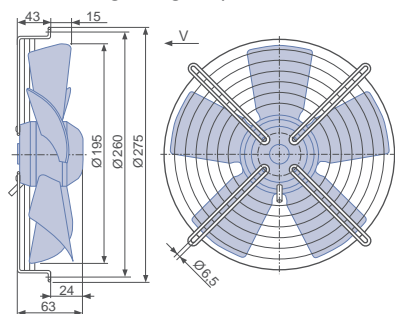
Airflow direction A			Airflow direction V			
Design	W (guard grille suction side)	D (guard grille suction side)	L (guard grille suction side)	K (guard grille pressure side)	I (guard grille pressure side)	H (guard grille pressure side)
Type Article no.	FB020-4EW.W6.A5 140544	FB020-4ED.W6.A5 139668	FB020-4EL.W6.A5 139675	FB020-4EK.W6.V5 138871	FB020-4EI.W6.V5 139689	FB020-4EH.W6.V5 139696
Weight kg	1.70	1.40	2.20	1.70	1.40	2.20

Control technology

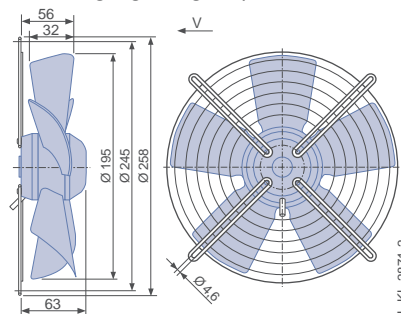


Airflow direction V

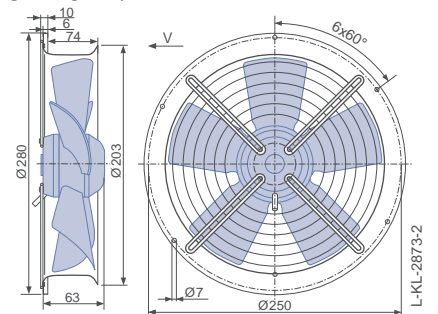
Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Design I - axial bolted, mounting for bell mouth flange, guard grille pressure side



Design H - pipe sockets with a flange, guard grille pressure side



FB

for single phase alternating current, 2 pole

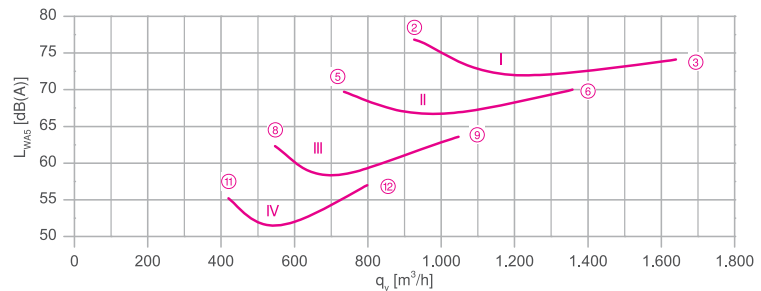
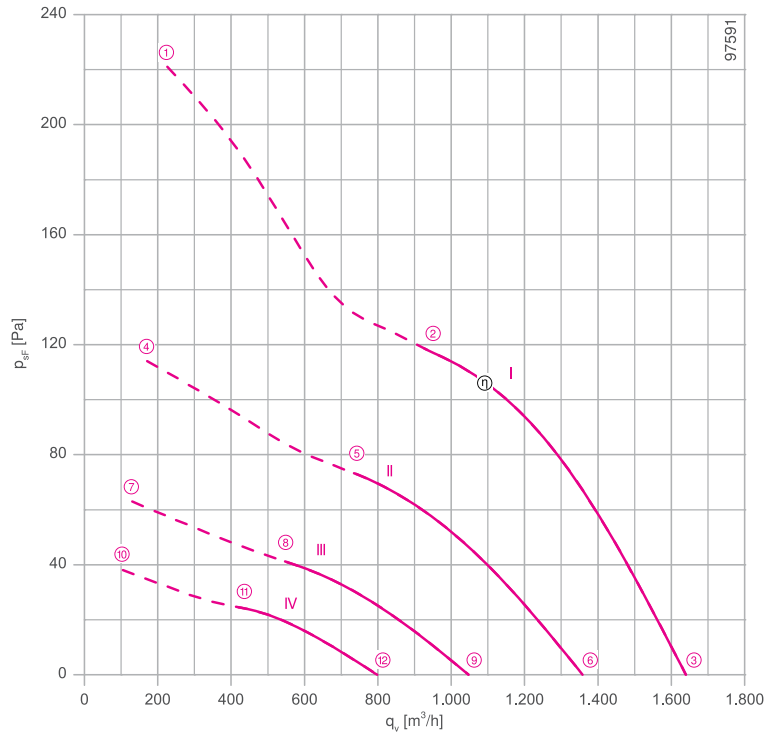
FBO25-2E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.12 kW*
 Rated current I_N : 0.54 A*
 Rated speed n_N : 2380 min⁻¹*
 Starting current I_s : 0.95 A
 Service capacitor C_{400V} : 4.0 μF
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 75 °C
 Electrical connection: Supply cable variable 45 cm
 Number of blades: 5
 Motor protection: thermal contact
 Blades: Steel, powder-coated, jet black
 Rotor: Aluminium, 1 coat paint, ultramarine blue
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

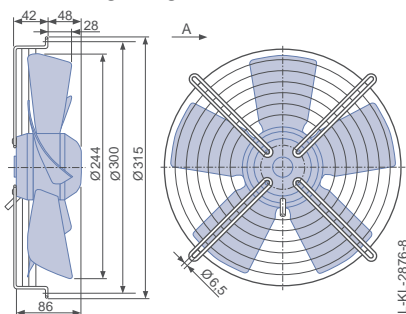
Connection diagram

Page 192
1360-177X

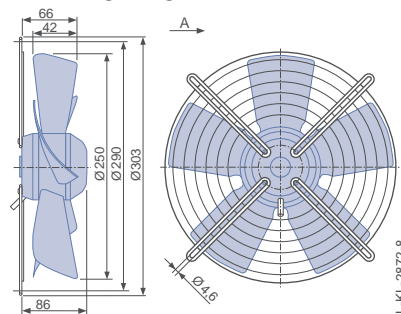
Dimensions mm

Airflow direction A

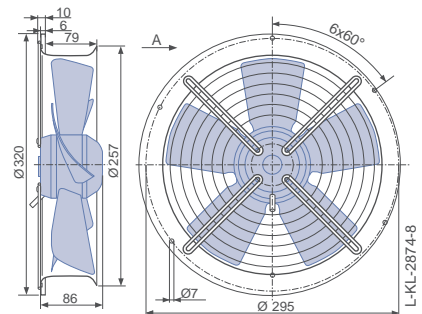
Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Design D - axial bolted, suspension for full bell mouth, guard grille suction side



Design L - round full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB025-2E_WC_5	I	230	①	0.62	140	2140	
		230*	②	0.54*	120*	2400*	77
		230	③	0.48	110	2530	74
	II	170	④	0.56	95	1550	
		170	⑤	0.52	90	1880	70
		170	⑥	0.48	80	2120	70
	III	135	⑦	0.46	65	1150	
		135	⑧	0.46	60	1410	63
		135	⑨	0.44	60	1630	64
	IV	110	⑩	0.39	42	900	
		110	⑪	0.38	42	1080	55
		110	⑫	0.38	42	1250	57

*rated data

Fan ordering information

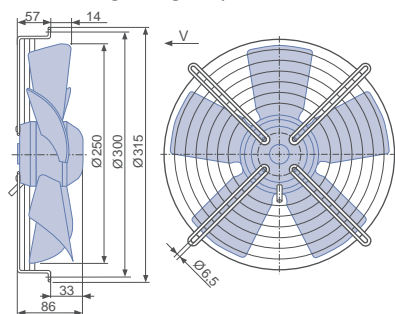
Airflow direction A			Airflow direction V			
Design	W (guard grille suction side)	D (guard grille suction side)	L (guard grille suction side)	K (guard grille pressure side)	I (guard grille pressure side)	H (guard grille pressure side)
Type	FB025-2EW.WC.A5	FB025-2ED.WC.A5	FB025-2EL.WC.A5	FB025-2EK.WC.V5	FB025-2EI.WC.V5	FB025-2EH.WC.V5
Article no.	162800	162798	162799	162796	162794	162795
Weight kg	2.90	2.60	3.60	3.00	2.60	3.50

Control technology

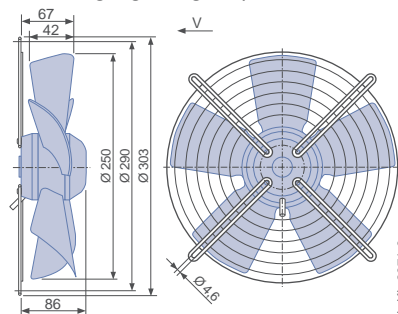


Airflow direction V

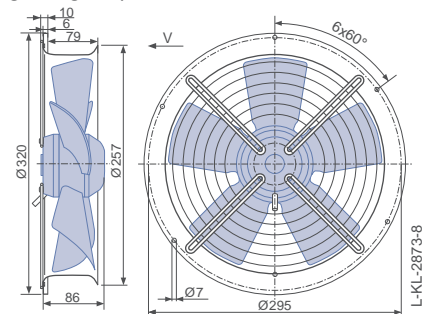
Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Design I - axial bolted, mounting for bell mouth flange, guard grille pressure side



Design H - pipe sockets with a flange, guard grille pressure side



FB

for single phase alternating current, 4 pole

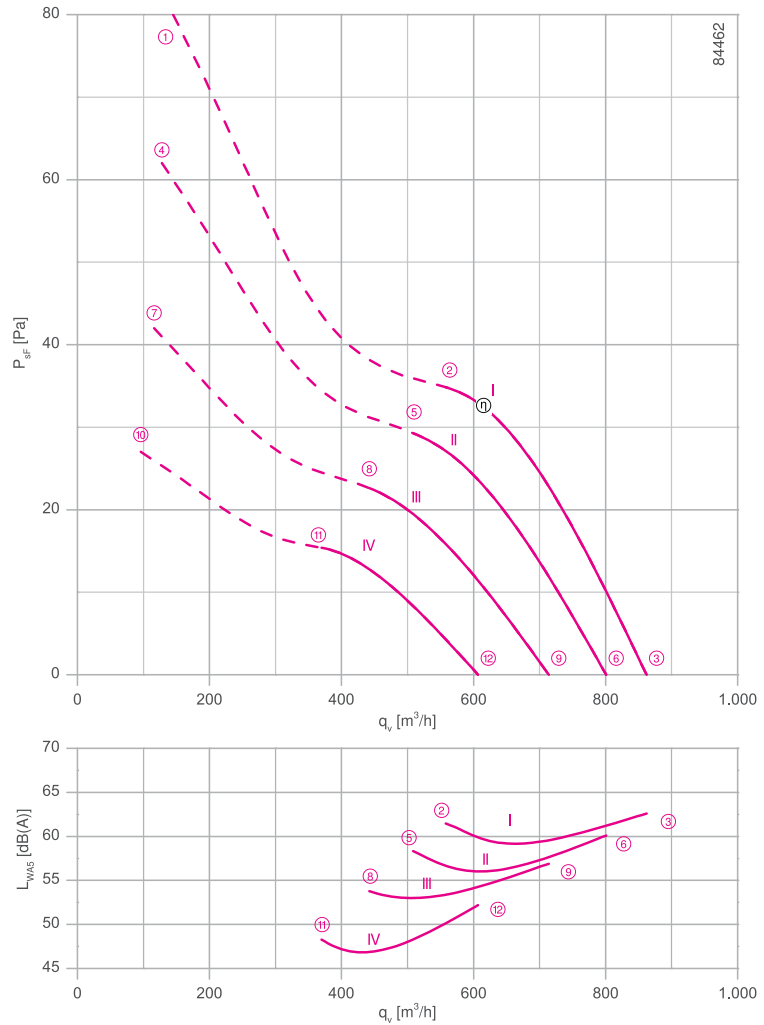
FBO25-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.04 kW*
 Rated current I_N : 0.16 A*
 Rated speed n_N : 1340 min⁻¹*
 Starting current I_s : 0.30 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 1.5 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 80 °C
 Electrical connection: Supply cable variable 45 cm
 Number of blades: 5
 Motor protection: thermal contact
 Blades: Steel, powder-coated, jet black
 Rotor: Aluminium, 1 coat paint, ultramarine blue
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

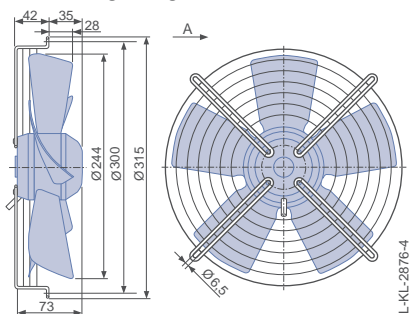
Connection diagram

Page 192
1360-177X

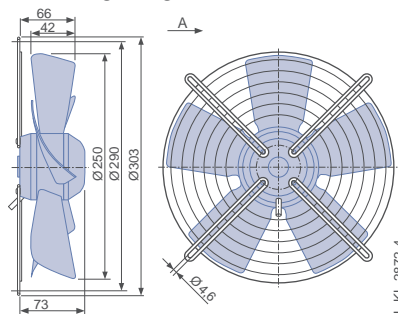
Dimensions mm

Airflow direction A

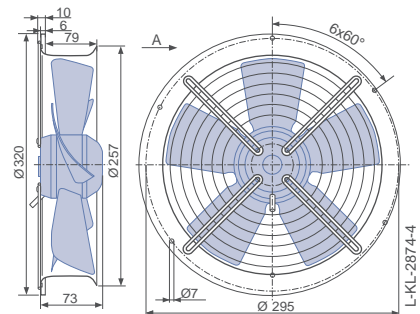
Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Design D - axial bolted, suspension for full bell mouth, guard grille suction side



Design L - round full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB025-4E_WA_5	I	230	①	0.17	40	1300	
		230*	②	0.16*	36*	1340*	62
		230	③	0.16	36	1370	63
	II	170	④	0.15	26	1140	
		170	⑤	0.14	24	1220	59
		170	⑥	0.13	22	1270	60
	III	135	⑦	0.14	19	950	
		135	⑧	0.13	18	1060	54
		135	⑨	0.12	17	1130	57
	IV	110	⑩	0.13	14	760	
		110	⑪	0.12	13	880	48
		110	⑫	0.11	12	950	52

*rated data

Fan ordering information

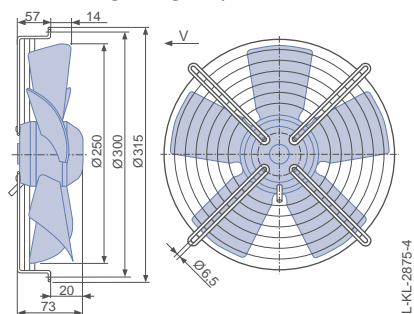
Airflow direction A			Airflow direction V			
Design	W (guard grille suction side)	D (guard grille suction side)	L (guard grille suction side)	K (guard grille pressure side)	I (guard grille pressure side)	H (guard grille pressure side)
Type Article no.	FB025-4EW.WA.A5 140546	FB025-4ED.WA.A5 139670	FB025-4EL.WA.A5 139677	FB025-4EK.WA.V5 138873	FB025-4EI.WA.V5 139691	FB025-4EH.WA.V5 139698
Weight kg	2.40	2.10	3.10	2.50	2.10	3.10

Control technology

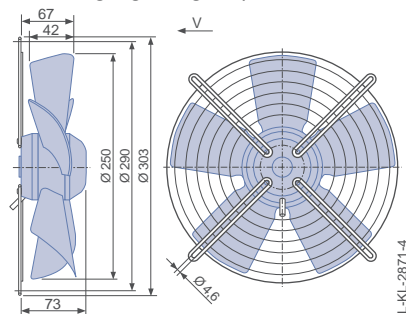


Airflow direction V

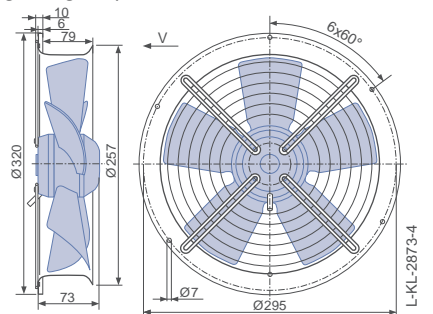
Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Design I - axial bolted, mounting for bell mouth flange, guard grille pressure side



Design H - pipe sockets with a flange, guard grille pressure side



FB

for single phase alternating current, 4 pole

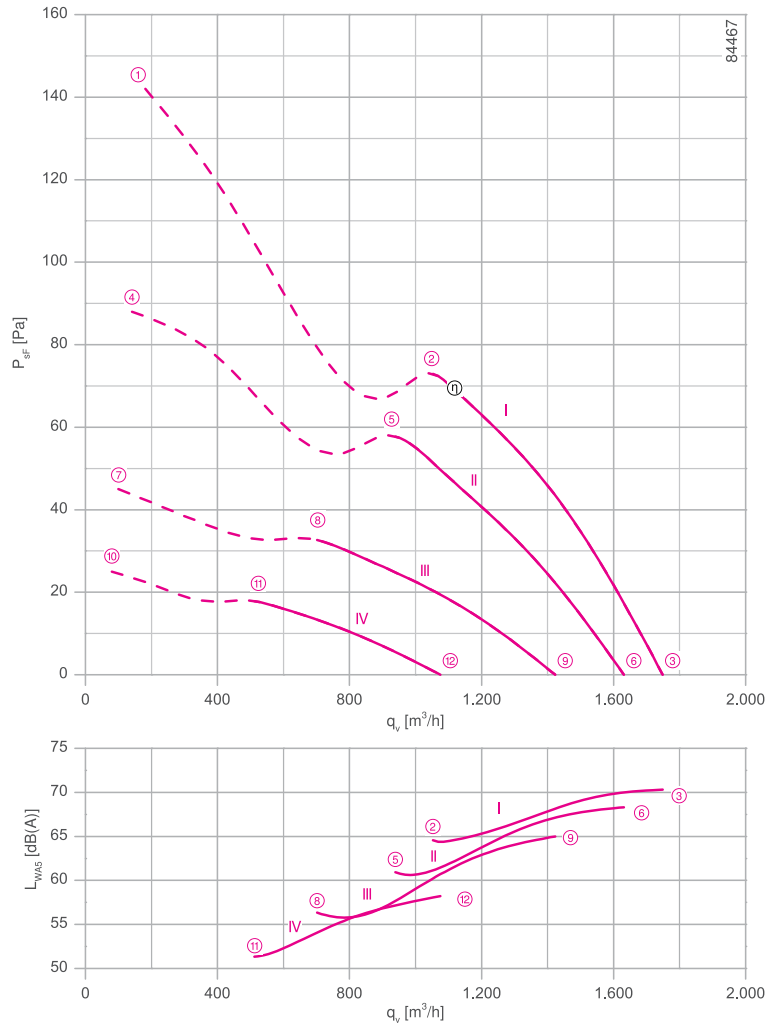
FBO30-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.09 kW*
 Rated current I_N : 0.39 A*
 Rated speed n_N : 1360 min⁻¹*
 Starting current I_s : 0.77 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 3.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 65 °C
 Electrical connection: Supply cable variable 45 cm
 Number of blades: 5
 Motor protection: thermal contact
 Blades: Steel, powder-coated, jet black
 Rotor: Aluminium, 1 coat paint, ultramarine blue
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

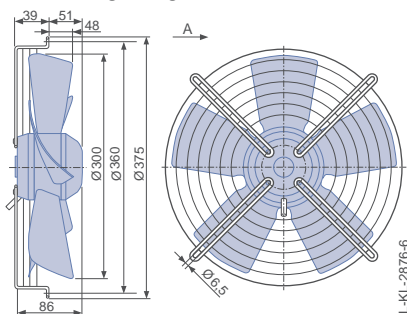
Connection diagram

Page 192
1360-177X

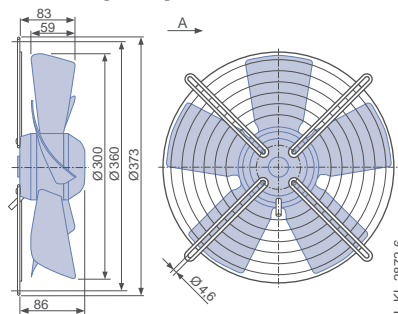
Dimensions mm

Airflow direction A

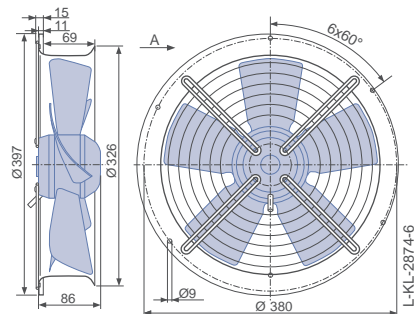
Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Design D - axial bolted, suspension for full bell mouth, guard grille suction side



Design L - round full bell mouth, guard grille suction side



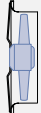





Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB030-4E_WC_5	I	230	①	0.44	100	1300	
		230*	②	0.39*	90*	1360*	65
		230	③	0.35	80	1400	70
	II	170	④	0.44	75	1030	
		170	⑤	0.38	65	1200	61
		170	⑥	0.32	55	1320	68
	III	135	⑦	0.39	50	730	
		135	⑧	0.37	50	910	56
		135	⑨	0.32	44	1150	65
	IV	110	⑩	0.33	36	540	
		110	⑪	0.33	34	650	51
		110	⑫	0.31	34	870	58

*rated data

Fan ordering information

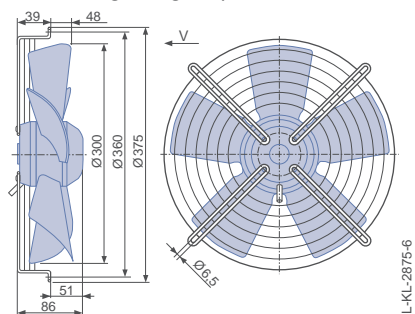
Airflow direction A			Airflow direction V			
Design	W (guard grille suction side)	D (guard grille suction side)	L (guard grille suction side)	K (guard grille pressure side)	I (guard grille pressure side)	H (guard grille pressure side)
						
Type	FB030-4EW.WC.A5	FB030-4ED.WC.A5	FB030-4EL.WC.A5	FB030-4EK.WC.V5	FB030-4EI.WC.V5	FB030-4EH.WC.V5
Article no.	141627	141625	141626	141630	141628	141629
Weight kg	3.30	3.00	4.50	3.30	3.00	4.60

Control technology

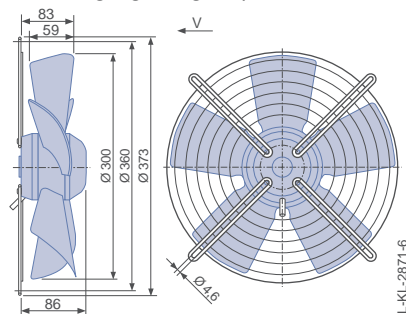


Airflow direction V

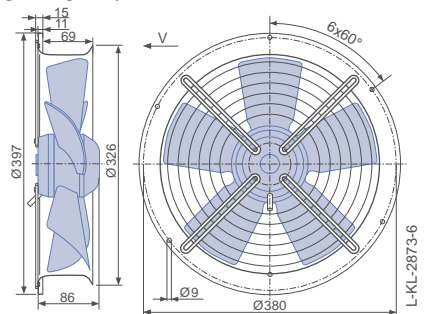
Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Design I - axial bolted, mounting for bell mouth flange, guard grille pressure side



Design H - pipe sockets with a flange, guard grille pressure side



FB

for single phase alternating current, 4 pole

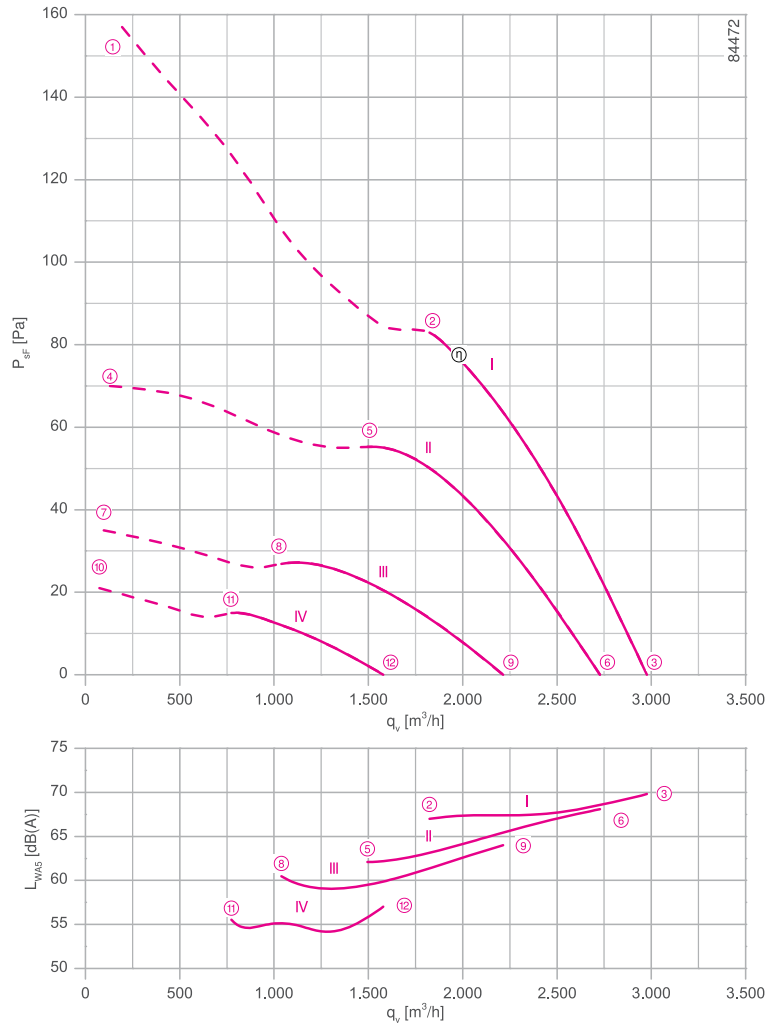
FBO35-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.15 kW*
 Rated current I_N : 0.68 A*
 Rated speed n_N : 1290 min⁻¹*
 Starting current I_s : 1.10 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 5.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 65 °C
 Electrical connection: Supply cable variable 45 cm
 Number of blades: 5
 Motor protection: thermal contact
 Blades: Steel, powder-coated, jet black
 Rotor: Aluminium, 1 coat paint, ultramarine blue
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 28.8 %
 Efficiency: $N_{actual} = 40.3 / N_{target} = 40^{**}$
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

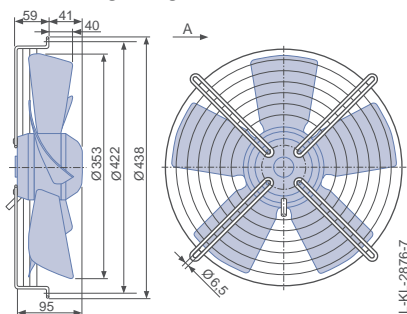
Connection diagram

Page 192
1360-177X

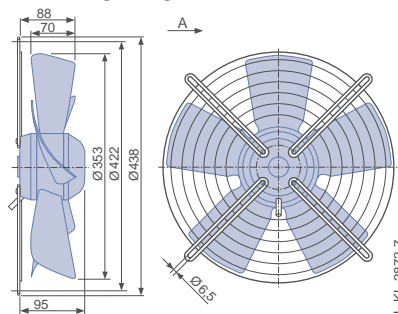
Dimensions mm

Airflow direction A

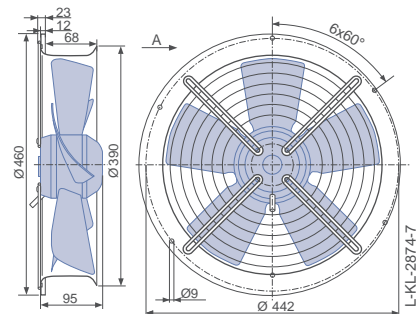
Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Design D - axial bolted, suspension for full bell mouth, guard grille suction side



Design L - round full bell mouth, guard grille suction side



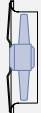





Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB035-4E_WD_5	I	230	①	0.82	190	1120	
		230*	②	0.68*	150*	1290*	67
		230	③	0.56	130	1360	70
	II	170	④	0.74	120	740	
		170	⑤	0.66	110	1060	62
		170	⑥	0.54	90	1260	68
	III	135	⑦	0.60	80	520	
		135	⑧	0.58	75	740	60
		135	⑨	0.52	70	1020	64
	IV	110	⑩	0.48	50	410	
		110	⑪	0.48	50	540	55
		110	⑫	0.46	50	730	57

*rated data

Fan ordering information

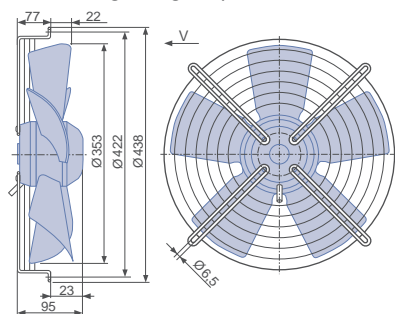
Airflow direction A			Airflow direction V			
Design	W (guard grille suction side)	D (guard grille suction side)	L (guard grille suction side)	K (guard grille pressure side)	I (guard grille pressure side)	H (guard grille pressure side)
						
Type Article no.	FB035-4EW.WD.A5 152697	FB035-4ED.WD.A5 152695	FB035-4EL.WD.A5 152696	FB035-4EK.WD.V5 152700	FB035-4EI.WD.V5 152698	FB035-4EH.WD.V5 152699
Weight kg	4.50	4.00	6.00	4.60	4.00	6.00

Control technology

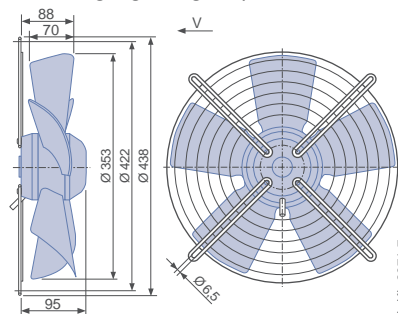


Airflow direction V

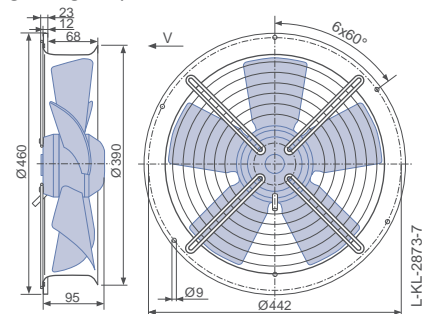
Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Design I - axial bolted, mounting for bell mouth flange, guard grille pressure side



Design H - pipe sockets with a flange, guard grille pressure side



FB

for single phase alternating current, 6 pole

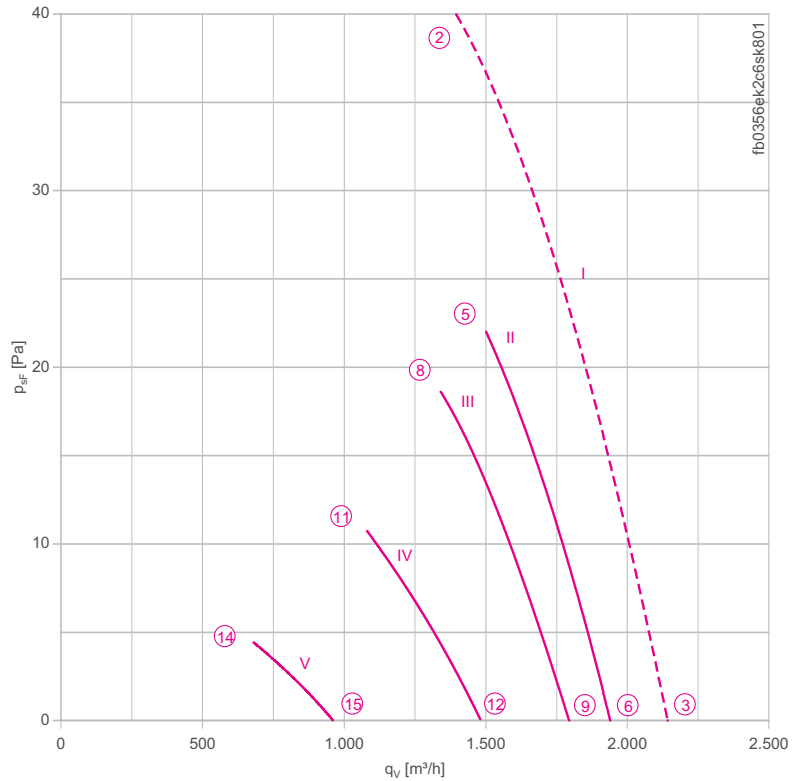
FBO35-6E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V±10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 100 W*
 Rated current I_N : 0.49 A*
 Rated speed n_N : 930 min⁻¹*
 Starting current I_s : 0.95 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 2.5 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

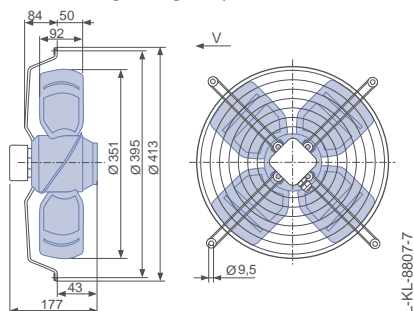
Connection diagram

Page 192
1360-104XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB035-6E_2C.V4S	I	230*	②	0.49*	100*	930*	
		230	③	0.43	89	940	
	II	230	⑤	0.40	80	920	61
		230	⑥	0.39	78	940	61
	III	160	⑧	0.36	54	850	60
		160	⑨	0.34	51	870	59
	IV	130	⑪	0.39	45	660	55
		130	⑫	0.37	44	720	54
	V	105	⑭	0.35	32	440	
		105	⑮	0.34	31	460	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB035-6EK.2C.V4S**
Article no. **124159**

Weight kg 4.80

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for three phase alternating current, 4-4 pole

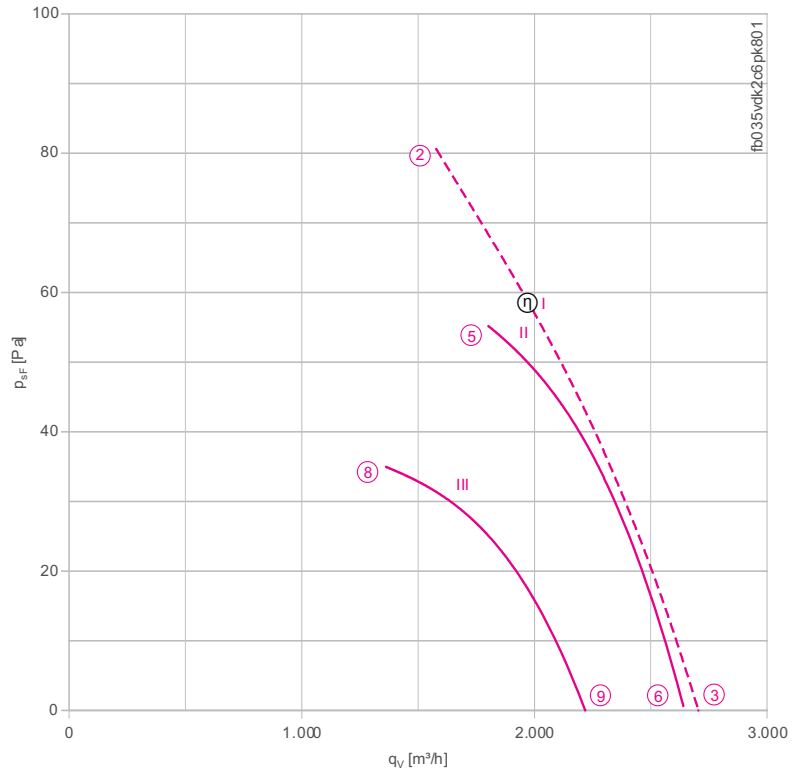
FBO35-VD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 140/90 W*
 Rated current I_N : 0.25/0.14 A*
 Rated speed n_N : 1320/1050 min^{-1} *
 Starting current I_s : 0.80 / 0.26 A
 Current increase ΔI : 5 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



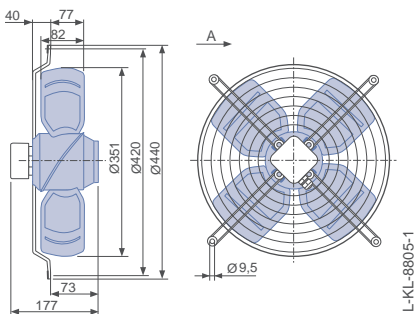
I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

Connection diagram Page 192
 for airflow direction A 1360-108XB
 for airflow direction V 1360-108XA

Dimensions mm

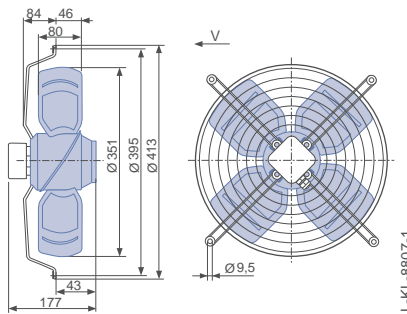
Airflow direction A

Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side





Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)		
			U V							
FB035-VD_2C_4P	Δ	I	400*	②	0.25*	140*	1320*			
			400	③	0.22	110	1360	68		
			400	⑤	0.22	110	1360	73		
		II	400	⑥	0.21	97	1380	67		
			Y	III	400	⑧	0.14	91	1040	66
					400	⑨	0.12	74	1160	62

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	W (guard grille suction side)	K (guard grille pressure side)
		
Type	FB035-VDW.2C.A4P	FB035-VDK.2C.V4P
Article no.	106939	124151
Weight kg	4.50	4.80

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 6-6 pole

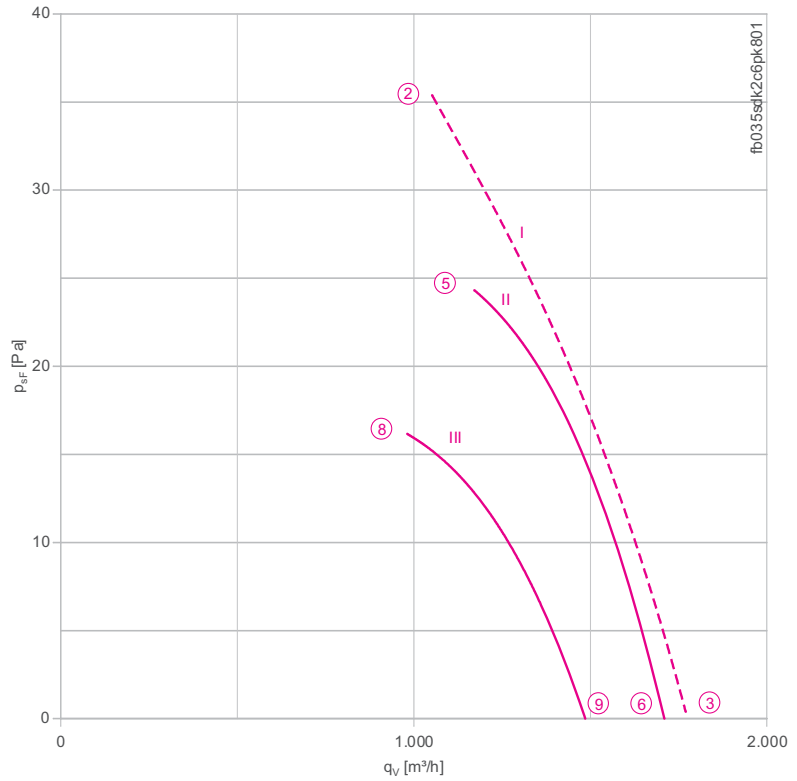
FBO35-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 50/30 W*
 Rated current I_N : 0.10/0.05 A*
 Rated speed n_N : 860/ 670 min⁻¹*
 Starting current I_s : 0.27 / 0.09 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

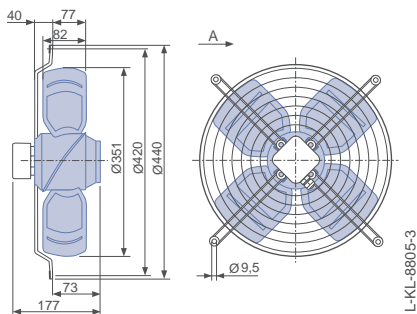
II-x) Measured in short-bell mouth with compressed side contact protection.

Connection diagram Page 192
 for airflow direction A 1360-108XB
 for airflow direction V 1360-108XA

Dimensions mm

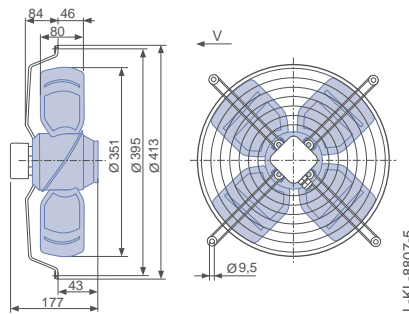
Airflow direction A

Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side





Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
			U V					
FB035-SD_2C_4P	Δ	I	400*	②	0.10*	50*	860*	
			400	③	0.09	38	920	59
		II	400	⑤	0.10	38	890	60
	Y	III	400	⑥	0.09	34	910	58
			400	⑧	0.06	28	790	57
		400	⑨	0.05	26	760	54	

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	W (guard grille suction side)	K (guard grille pressure side)
		
Type	FB035-SDW.2C.A4P	FB035-SDK.2C.V4P
Article no.	107068	124157
Weight kg	4.50	4.80

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 6-6 pole

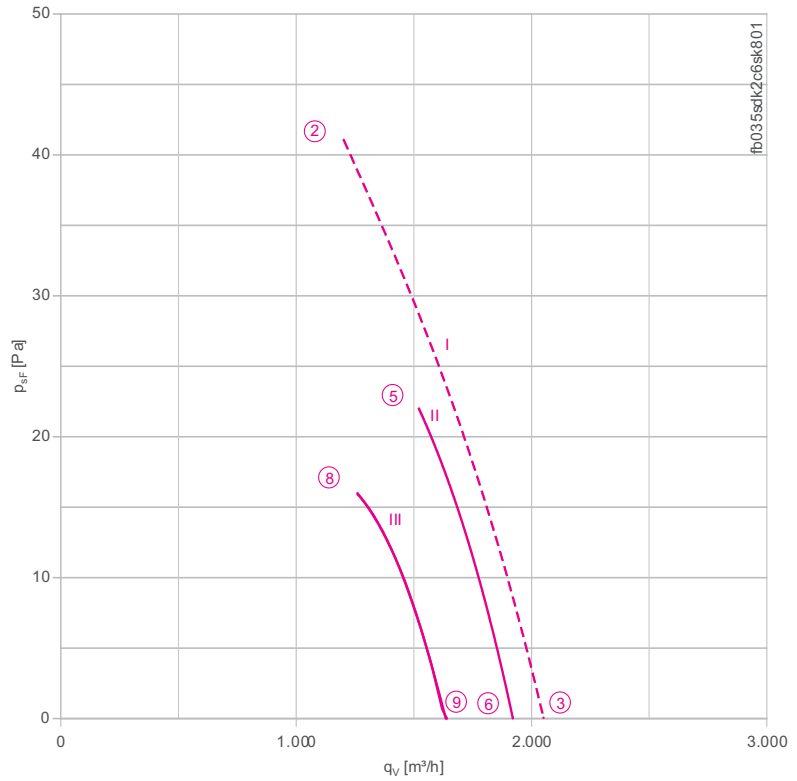
FBO35-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 70/40 W*
 Rated current I_N : 0.17/0.08 A*
 Rated speed n_N : 880/ 700 min⁻¹*
 Starting current I_s : 0.42 / 0.14 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

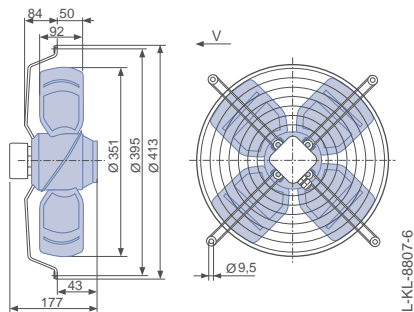
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)	
FB035-SD_2C.V4S	Δ	I	400*	②	0.17*	70*	880*		
			400	③	0.16	57	920	61	
			400	⑤	0.16	58	920	64	
		Y	III	400	⑥	0.15	54	930	60
				400	⑧	0.08	39	760	60
				400	⑨	0.07	37	790	57

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB035-SDK.2C.V4S
Article no. 210514

Weight kg 4.80

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for single phase alternating current, 4 pole

FBO4O-4E



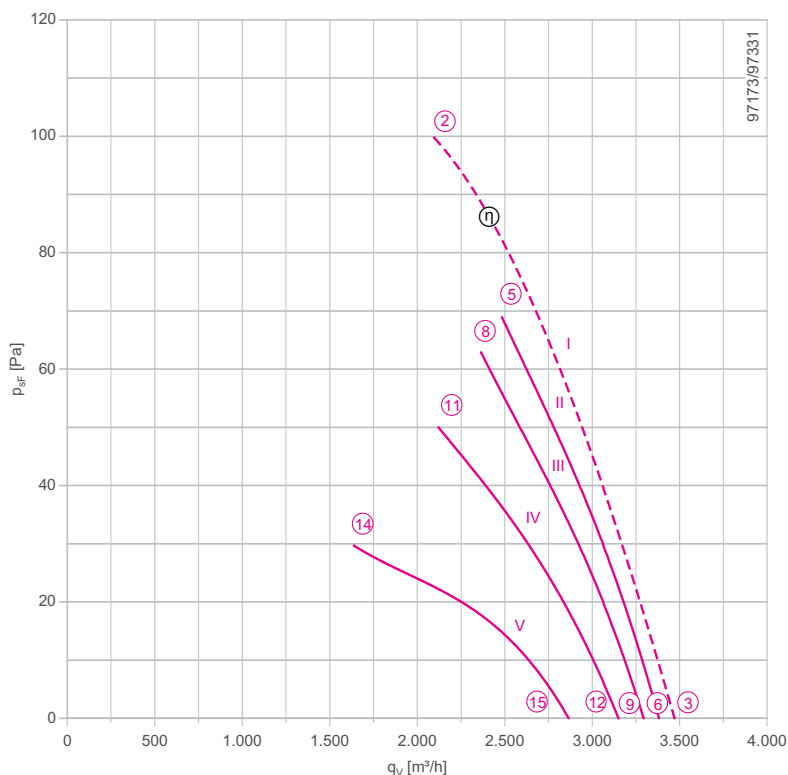
Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 200 W*
 Rated current I_N : 0.94 A*
 Rated speed n_N : 1410 min⁻¹*
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 4.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 30.4 %
 Efficiency: $N_{actual} = 41.2 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

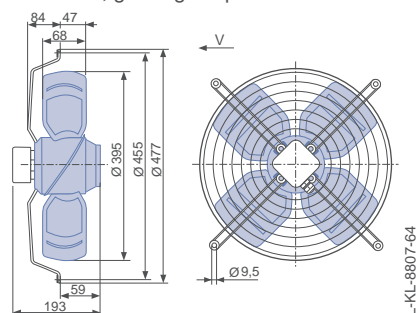
Connection diagram

Page 192
1360-104XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB040-4E_2F_4L	I	230*	②	0.94*	200*	1410*	77
		230	③	0.74	150	1450	71
	II	230	⑤	0.90	190	1420	69
		230	⑥	0.76	160	1450	68
	III	170	⑧	0.94	160	1350	67
		170	⑨	0.70	120	1410	67
	IV	135	⑪	1.10	140	1210	65
		135	⑫	0.76	100	1340	66
	V	110	⑭	1.20	130	930	60
		110	⑮	0.88	95	1220	64

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB040-4EK.2F.V4L**
Article no. **160119**

Weight kg 6.40

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for single phase alternating current, 6 pole

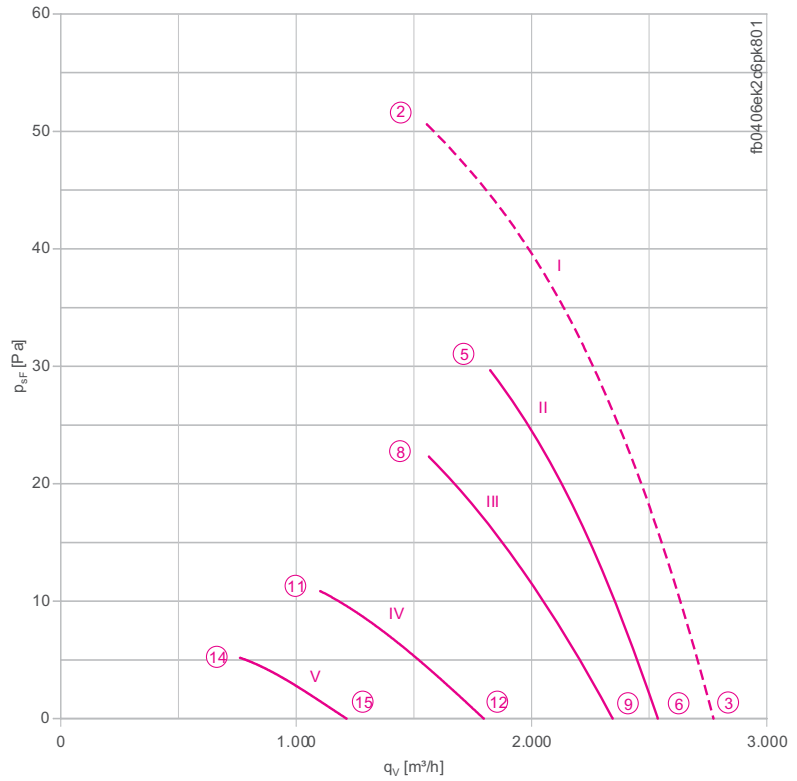
FBO40-6E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 110 W*
 Rated current I_N : 0.50 A*
 Rated speed n_N : 900 min⁻¹*
 Starting current I_s : 0.95 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 3.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

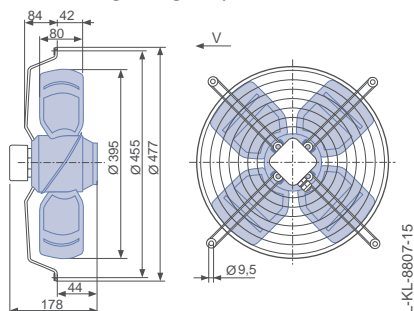
Connection diagram

Page 192
1360-104XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB040-6E_2C.V4P	I	230*	②	0.50*	110*	900*	
		230	③	0.42	90	930	64
	II	230	⑤	0.44	100	920	65
		230	⑥	0.42	90	930	61
	III	160	⑧	0.42	65	810	62
		160	⑨	0.38	59	860	61
	IV	130	⑪	0.43	51	560	
		130	⑫	0.40	49	670	
	V	105	⑭	0.37	35	390	
		105	⑮	0.36	34	450	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB040-6EK.2C.V4P**
Article no. **124164**

Weight kg 5.50

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB040-VD_2C.V4L	Δ	I	400*	②	0.35*	180*	1300*	
			400	③	0.28	120	1390	72
			400	⑤	0.29	150	1350	77
	Y	III	400	⑥	0.26	115	1400	68
			400	⑧	0.18	110	1070	70
			400	⑨	0.14	88	1190	64

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB040-VDK.2C.V4L
Article no. 124154

Weight kg 5.50

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 4-4 pole

FBO4O-VD

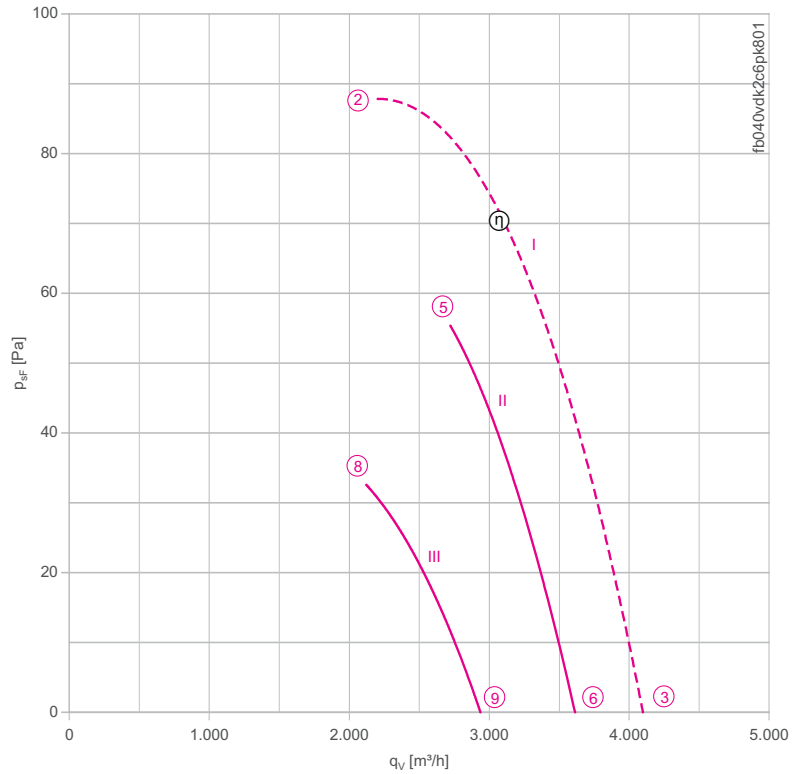


Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 240/160 W*
 Rated current I_N : 0.45/0.26 A*
 Rated speed n_N : 1340/1020 min^{-1} *
 Starting current I_s : 1.30 / 0.42 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 29.9 %
 Efficiency: $N_{\text{actual}} = 40.5 / N_{\text{target}} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

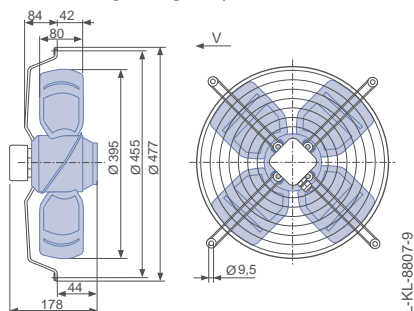
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)	
			U V						
FB040-VD_2C.V4P	Δ	I	400*	②	0.45*	240*	1340*		
			400	③	0.39	165	1410	73	
			400	⑤	0.33	175	1330	74	
		II	400	⑥	0.31	155	1360	70	
			Y	400	⑧	0.21	135	980	66
				400	⑨	0.18	110	1100	65

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB040-VDK.2C.V4P
Article no. 124155

Weight kg 5.50

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 6-6 pole

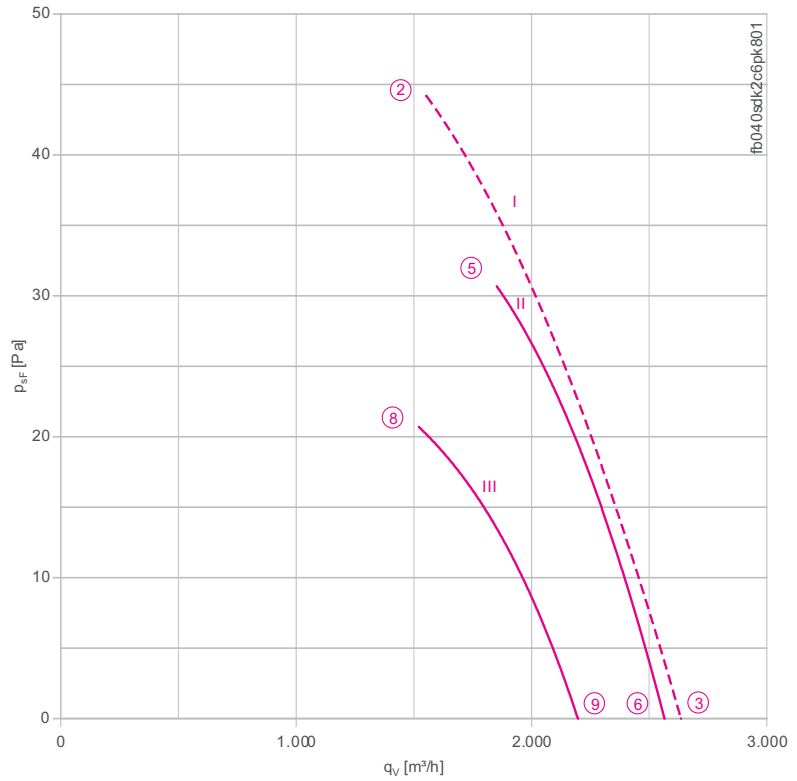
FBO4O-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 90/60 W*
 Rated current I_N : 0.23/0.11 A*
 Rated speed n_N : 900/ 730 min⁻¹*
 Starting current I_s : 0.51 / 0.17 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

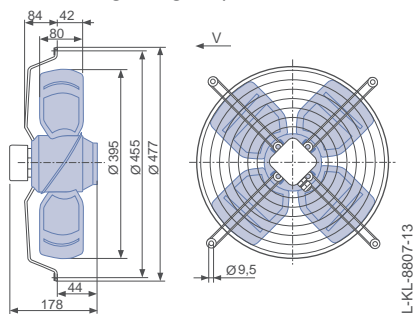
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB040-SD_2C.V4P	Δ	I	400*	②	0.23*	90*	900*	
			400	③	0.21	70	920	64
		II	400	⑤	0.21	80	920	62
	Y	III	400	⑥	0.20	70	930	62
			400	⑧	0.11	54	770	57
			400	⑨	0.09	48	820	58

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB040-SDK.2C.V4P
Article no. 124160

Weight kg 5.50

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for three phase alternating current, 6-6 pole

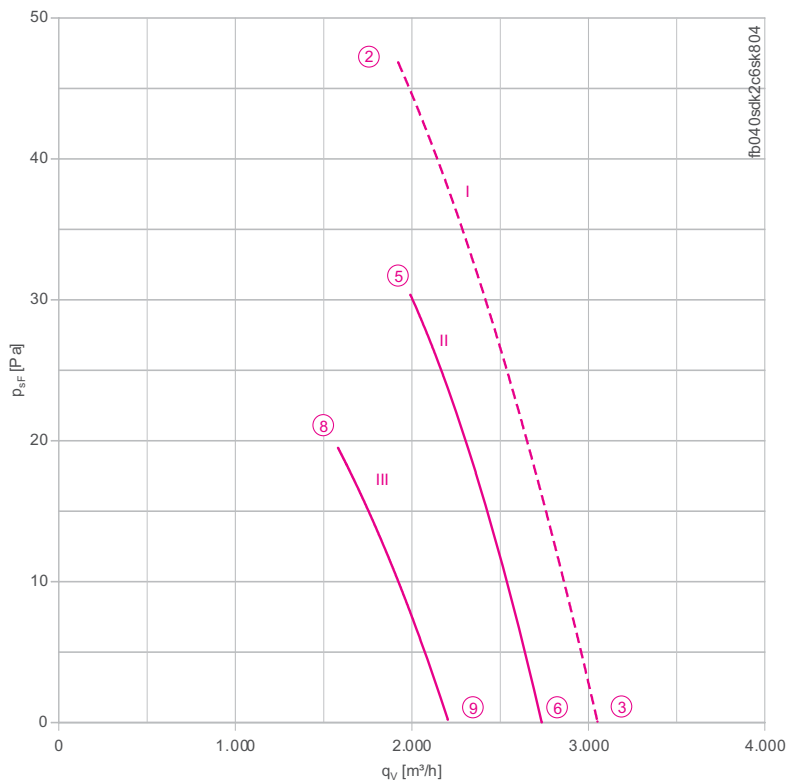
FBO4O-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 120/80 W*
 Rated current I_N : 0.28/0.14 A*
 Rated speed n_N : 900/ 700 min⁻¹*
 Starting current I_s : 0.66 / 0.22 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

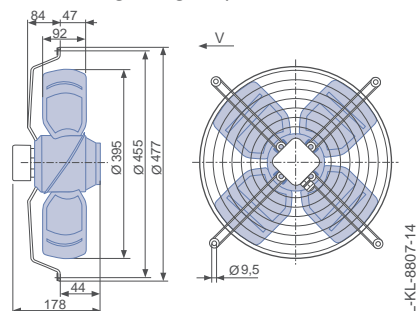
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB040-SD_2C.V4S	Δ	I	400*	②	0.28*	120*	900*	
			400	③	0.26	100	920	65
			400	⑤	0.27	100	920	64
	Y	III	400	⑥	0.26	95	930	63
			400	⑧	0.12	64	730	58
			400	⑨	0.12	62	750	58

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB040-SDK.2C.V4S
Article no. 124161

Weight kg 5.50

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for single phase alternating current, 4 pole

FBO45-4E



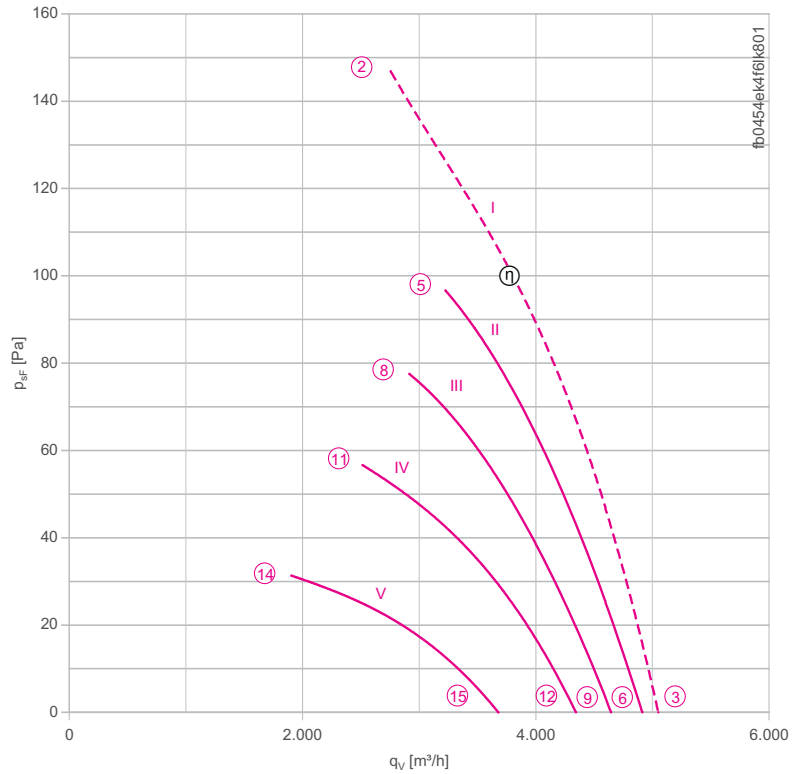
Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V±10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.41 kW*
 Rated current I_N : 1.90 A*
 Rated speed n_N : 1320 min⁻¹*
 Starting current I_s : 4.40 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 8.0 μF
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 32.3 %
 Efficiency: $N_{actual} = 41.7 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

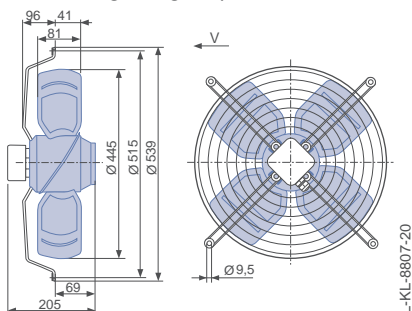
Connection diagram

Page 192
1360-104XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB045-4E_4F.V4L	I	230*	②	1.90*	410*	1320*	
		230	③	1.45	300	1400	74
	II	230	⑤	1.55	330	1380	72
		230	⑥	1.30	260	1410	72
	III	160	⑧	1.70	260	1240	69
		160	⑨	1.25	190	1340	71
	IV	130	⑪	1.80	220	1080	66
		130	⑫	1.35	170	1250	69
	V	105	⑭	1.80	175	810	58
		105	⑮	1.45	145	1060	66

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB045-4EK.4F.V4L
Article no. 124180

Weight kg 9.20

Control technology

Frequency inverter Fcontrol 1~

Motor protection units 1~

Electronic voltage controllers 1~



FB

for single phase alternating current, 4 pole

FBO45-4E



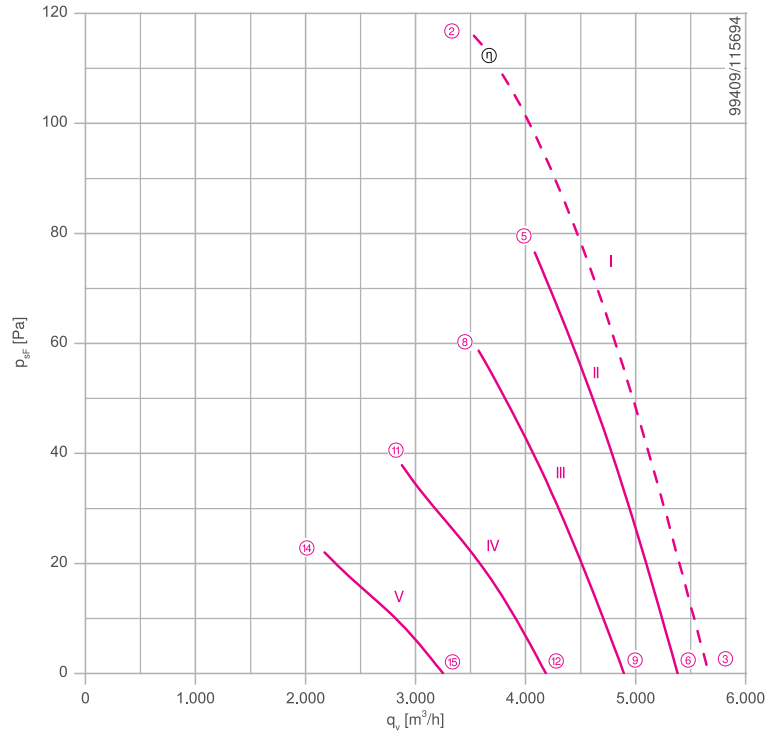
Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 380 W*
 Rated current I_N : 1.70 A*
 Rated speed n_N : 1310 min⁻¹*
 Starting current I_s : 4.40 A
 Current increase ΔI : 10 %
 Service capacitor C_{400V} : 8.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 31.6 %
 Efficiency: $N_{actual} = 40.6 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



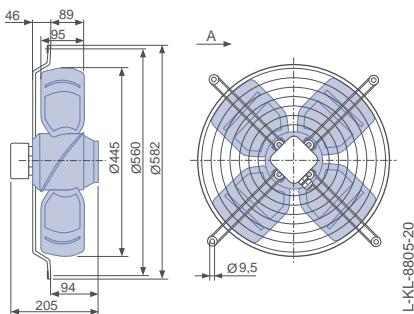
I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

Connection diagram Page 192
 for airflow direction A 1360-104XB
 for airflow direction V 1360-104XA

Dimensions mm

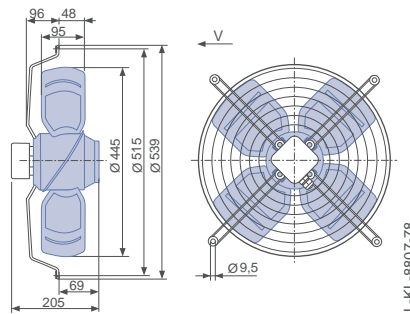
Airflow direction A

Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB045-4E_4F_4P	I	230*	②	1.70*	380*	1320*	77
		230	③	1.30	290	1380	75
	II	230	⑤	1.70	370	1320	74
		230	⑥	1.50	320	1360	73
	III	170	⑧	1.80	300	1160	71
		170	⑨	1.55	260	1240	70
	IV	135	⑪	1.85	240	930	65
		135	⑫	1.65	220	1050	66
	V	110	⑭	1.75	180	710	57
		110	⑮	1.65	170	820	59

*rated data

Fan ordering information

Airflow direction A

Airflow direction V

Design	W (guard grille suction side)	K (guard grille pressure side)
Type	FB045-4EW.4F.A4P	FB045-4EK.4F.V4P
Article no.	171270	171269
Weight kg	8.70	9.20

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~

FB

for single phase alternating current, 6 pole

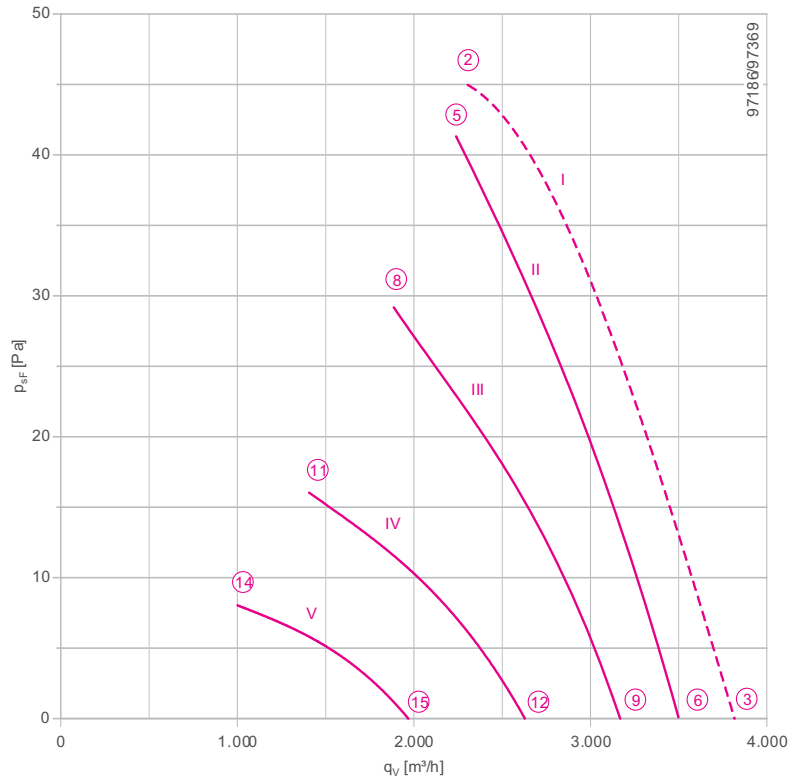
FBO45-6E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 130 W*
 Rated current I_N : 0.58 A*
 Rated speed n_N : 880 min⁻¹*
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 4.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

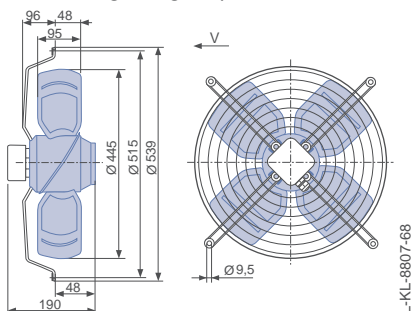
Connection diagram

Page 192
1360-104XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB045-6E_2C_4P	I	230*	②	0.58*	130*	870*	68
		230	③	0.48	110	920	63
	II	230	⑤	0.58	130	870	66
		230	⑥	0.50	110	910	66
	III	170	⑧	0.56	95	730	62
		170	⑨	0.48	80	830	64
	IV	135	⑪	0.52	70	540	54
		135	⑫	0.48	65	680	59
	V	110	⑭	0.46	48	390	46
		110	⑮	0.44	48	510	52

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB045-6EK.2C.V4P**
Article no. **160121**

Weight kg 4.00

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for three phase alternating current, 4-4 pole

FBO45-VD



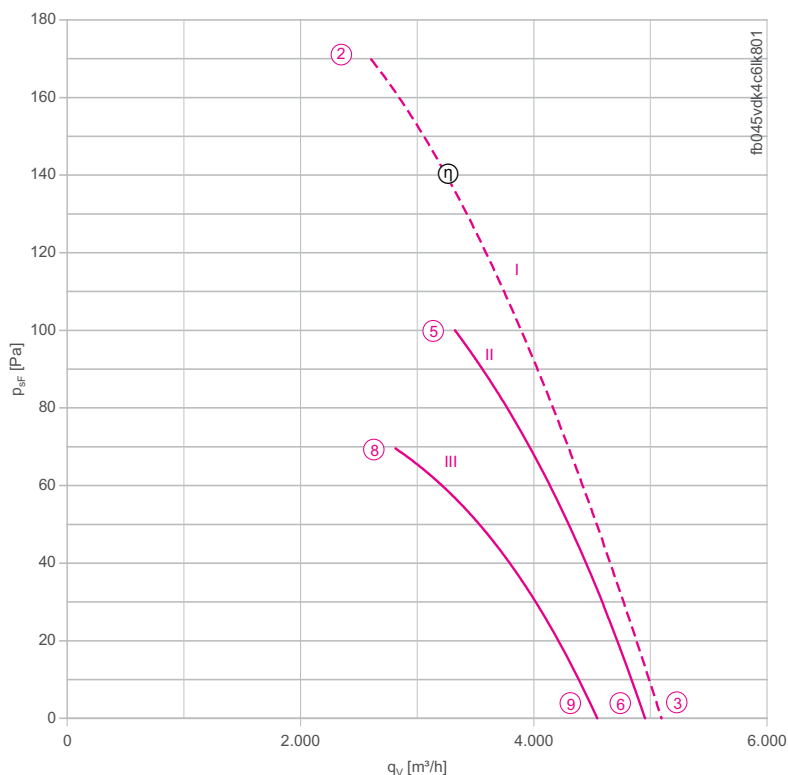
Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 430/330 W*
 Rated current I_N : 0.79/0.53 A*
 Rated speed n_N : 1370/1030 min^{-1} *
 Starting current I_s : 3.10 / 1.80 A
 Current increase ΔI : 20 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 55 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 36.6 %
 Efficiency: $N_{\text{actual}} = 45.6 / N_{\text{target}} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

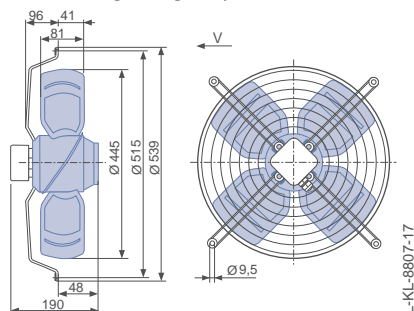
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)	Maximum ambient temperature t_R °C
			U V						
FB045-VD_4C.V4L	Δ	I	400*	②	0.79*	430*	1370*		55
			400	③	0.60	240	1435	75	
			400	⑤	0.61	300	1400	72	70
		II	400	⑥	0.52	210	1440	72	
			400	⑧	0.39	240	1180	68	
			400	⑨	0.28	165	1310	70	
	Y	III	400						

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB045-VDK.4C.V4L
Article no. 124166

Weight kg 7.70

Control technology

<p>Frequency inverter Fcontrol 3~</p> 	<p>Motor protection units 3~</p> 	<p>Electronic voltage controllers 3~</p> 
--	---	---

FB

for three phase alternating current, 4-4 pole

FBO45-VD

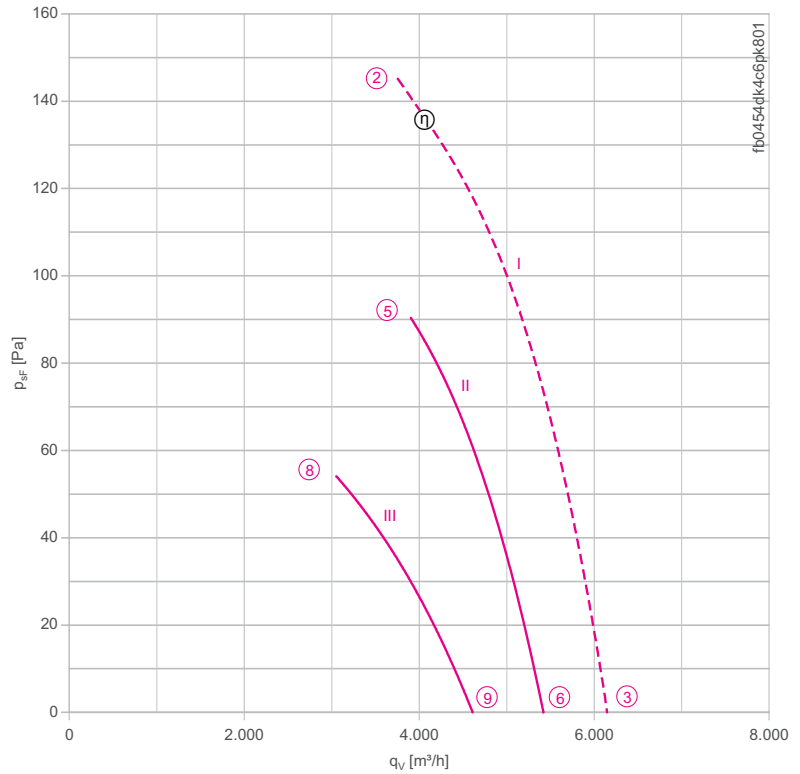


Description

Motor technology: AC
 Rated voltage U_N : 3~ 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 450/340 W*
 Rated current I_N : 0.81/0.55 A*
 Rated speed n_N : 1360/1040 min⁻¹*
 Starting current I_s : 3.00 / 1.00 A
 Current increase ΔI : 20 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 31.4 %
 Efficiency: $N_{actual} = 40.1 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

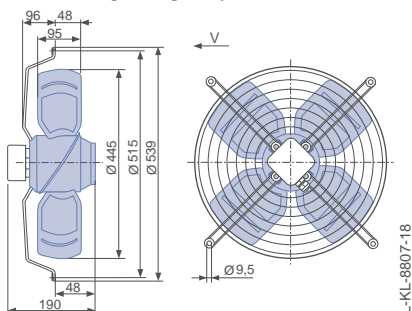
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)	Maximum ambient temperature t_R °C	
			U V							
FB045-VD_4C.V4P	Δ	I	400*	②	0.81*	450*	1360*		60	
			400	③	0.60	300	1400	79		
			400	⑤	0.69	380	1370	75	70	
		Y	III	400	⑥	0.60	300	1400	74	
				400	⑧	0.48	280	1070	69	
				400	⑨	0.41	250	1180	70	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB045-VDK.4C.V4P
Article no. 210540

Weight kg 7.70

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 4-4 pole

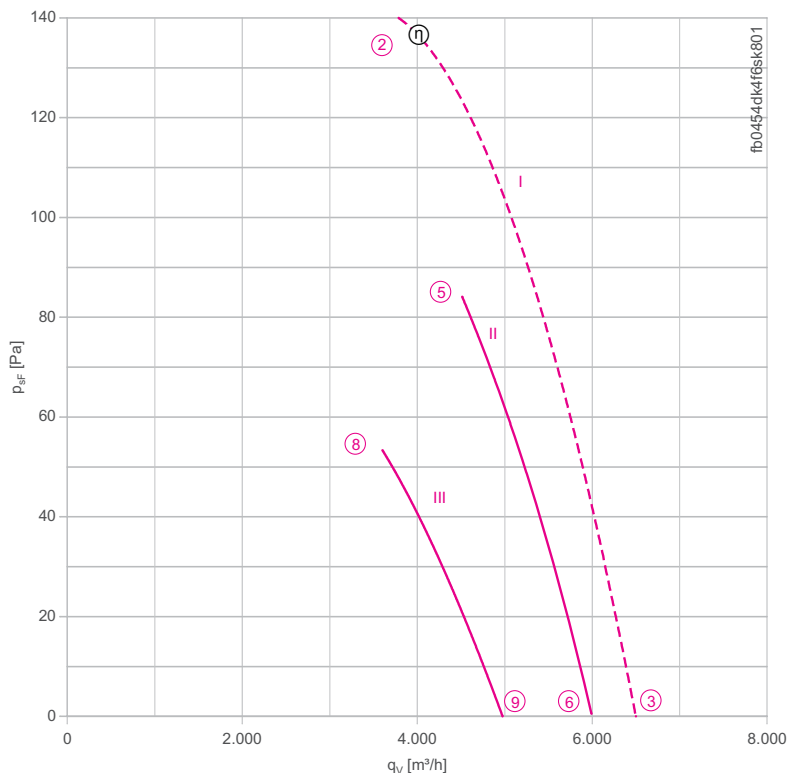
FBO45-VD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.63/0.43 kW*
 Rated current I_N : 1.10/0.70 A*
 Rated speed n_N : 1330/ 970 min⁻¹*
 Starting current I_s : 4.00 / 1.20 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 55 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 32.0 %
 Efficiency: $N_{actual} = 40.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

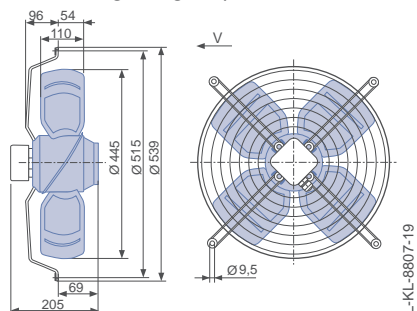
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)	Maximum ambient temperature t_R °C
			U V		I A	P_1 W	n min ⁻¹		
FB045-VD_4F.V4S	Δ	I	400*	②	1.10*	630*	1330*		55
			400	③	0.90	430	1380	81	
		II	400	⑤	0.92	460	1370	80	70
	Y	III	400	⑥	0.86	410	1390	77	
			400	⑧	0.59	340	1100	75	
		400	⑨	0.54	310	1160	72		

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB045-VDK.4F.V4S
Article no. 124167

Weight kg 9.20

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 6-6 pole

FBO45-SD



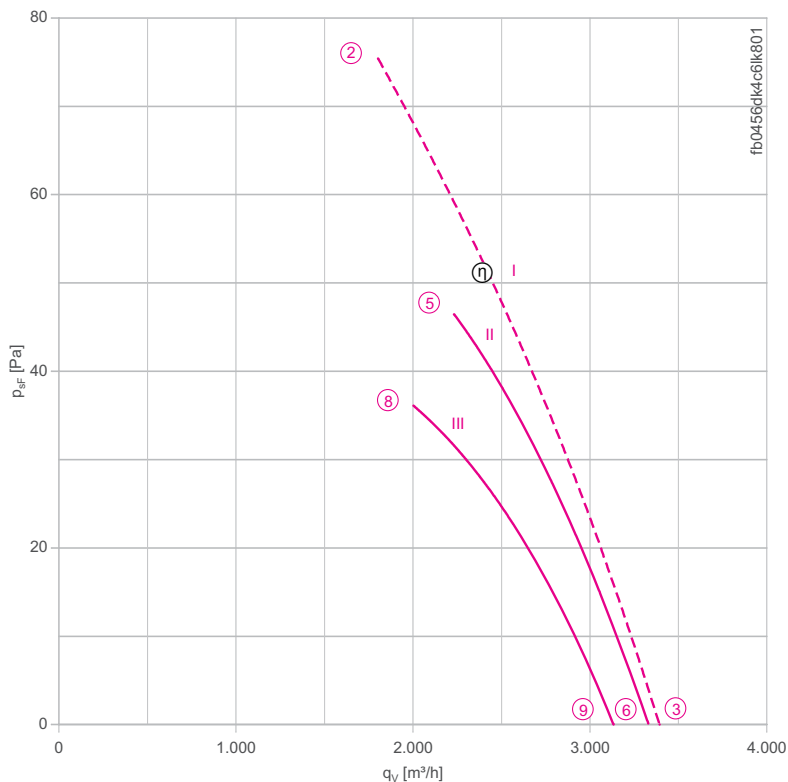
Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 150/100 W*
 Rated current I_N : 0.45/0.23 A*
 Rated speed n_N : 920/ 730 min^{-1} *
 Starting current I_s : 1.20 / 0.36 A
 Current increase ΔI : 0 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 28.1 %
 Efficiency: $N_{\text{actual}} = 40.0 / N_{\text{target}} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

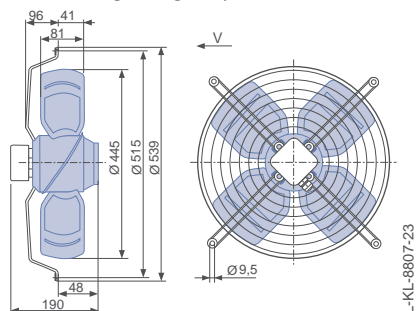
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB045-SD_4C.V4L	Δ	I	400*	②	0.45*	150*	920*	
			400	③	0.45	115	960	69
			400	⑤	0.45	130	650	63
	Y	II	400	⑥	0.44	105	970	62
			400	⑧	0.19	86	850	60
			400	⑨	0.17	65	910	61

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB045-SDK.4C.V4L
Article no. 124177

Weight kg 7.70

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for three phase alternating current, 8-8 pole

FBO45-AD



Description

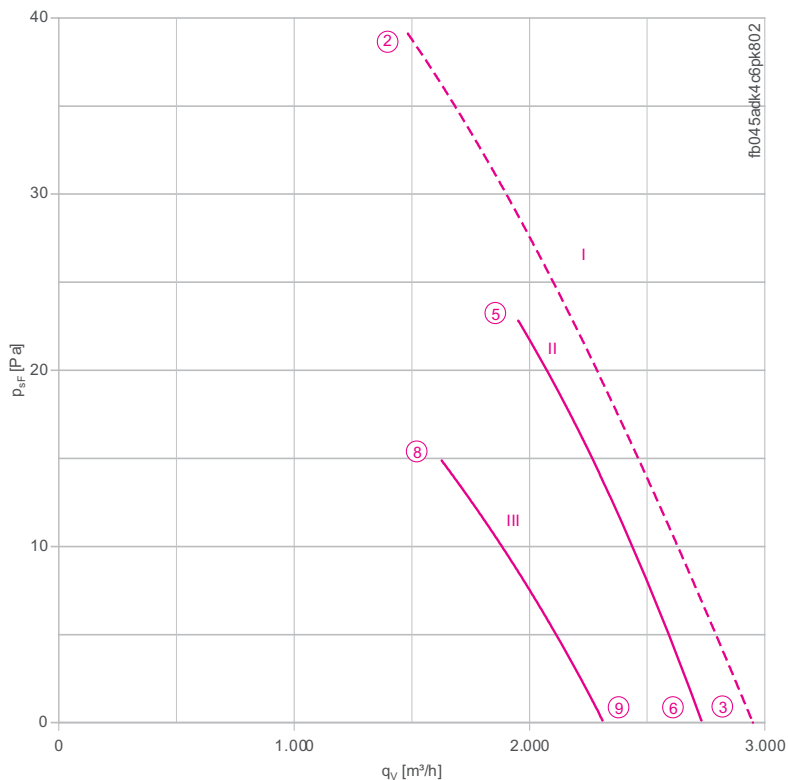
Motor technology: AC
 Rated voltage U_N : 3~ 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 70/50 W*
 Rated current I_N : 0.17/0.09 A*
 Rated speed n_N : 660/510 min⁻¹*
 Starting current I_s : 0.42 / 0.13 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box

Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE

ErP-data

Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

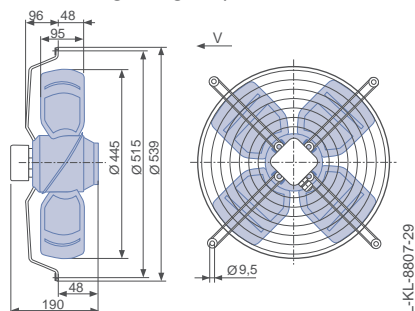
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB045-AD_4C.V4P	Δ	I	400*	②	0.17*	73*	660*	
			400	③	0.14	44	710	61
		II	400	⑤	0.16	63	680	57
	Y	III	400	⑥	0.15	56	690	56
			400	⑧	0.08	45	520	52
		400	⑨	0.07	36	590	53	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB045-ADK.4C.V4P
Article no. 124179

Weight kg 7.70

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for single phase alternating current, 4 pole

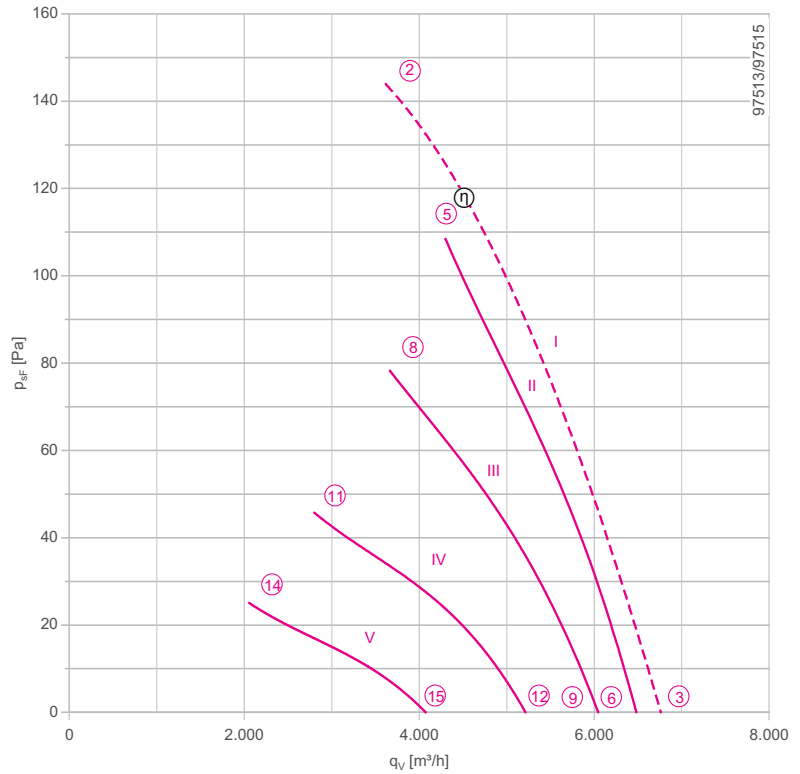
FBO50-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.45 kW*
 Rated current I_N : 2.10 A*
 Rated speed n_N : 1300 min⁻¹*
 Starting current I_s : 5.00 A
 Current increase ΔI : 10 %
 Service capacitor C_{400V} : 8.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 35.5 %
 Efficiency: $N_{actual} = 44.2 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

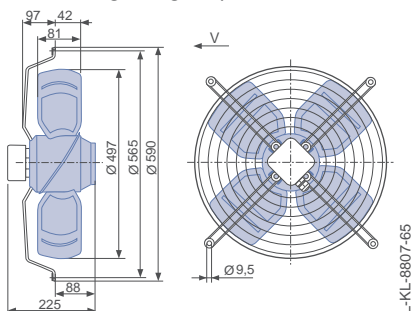
Connection diagram

Page 192
1360-104XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB050-4E_4I.V4L	I	230*	②	2.20*	460*	1290*	81
		230	③	1.40	300	1390	79
	II	230	⑤	1.95	420	1320	75
		230	⑥	1.45	310	1380	75
	III	170	⑧	2.20	350	1130	72
		170	⑨	1.60	260	1290	73
	IV	135	⑪	2.20	270	860	65
		135	⑫	1.75	220	1110	69
	V	110	⑭	1.95	190	640	59
		110	⑮	1.80	180	860	63

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB050-4EK.4I.V4L**
Article no. **160135**

Weight kg 12.00

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for single phase alternating current, 6 pole

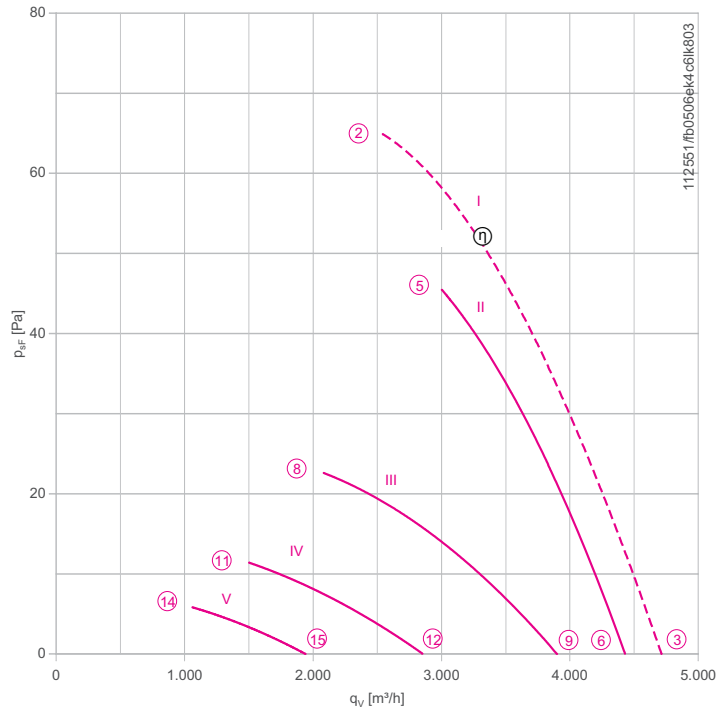
FBO50-6E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 180 W*
 Rated current I_N : 0.88 A*
 Rated speed n_N : 870 min⁻¹*
 Starting current I_A : 1.70 A
 Current increase ΔI : 5 %
 Service capacitor C_{400V} : 5.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 28.8 %
 Efficiency: $N_{actual} = 40.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

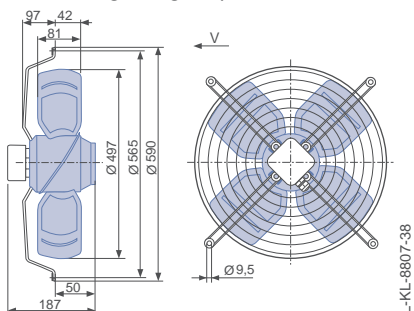
Connection diagram

Page 192
1360-104XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB050-6E_4C.V4L	I	230*	②	0.88*	180*	870*	
		230	③	0.71	130	940	64
	II	230	⑤	0.83	175	880	66
		230	⑥	0.71	145	920	65
	III	160	⑧	0.85	125	630	56
		160	⑨	0.69	105	800	62
	IV	130	⑪	0.76	85	420	57
		130	⑫	0.71	82	590	56
	V	105	⑭	0.62	56	320	
		105	⑮	0.61	55	410	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB050-6EK.4C.V4L**
Article no. **124189**

Weight kg 8.10

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for single phase alternating current, 6 pole

FBO50-6E

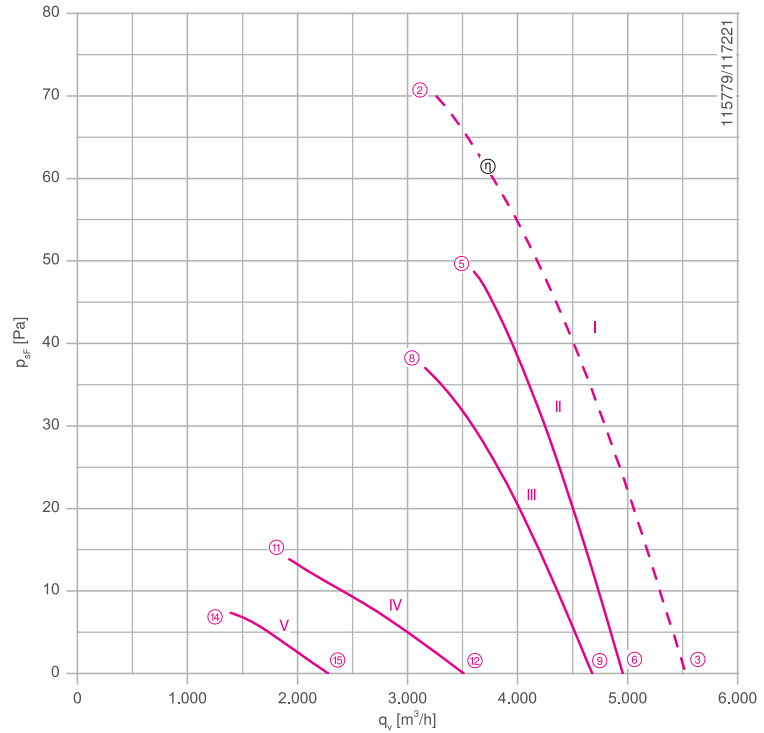


Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 230 W*
 Rated current I_N : 1.00 A*
 Rated speed n_N : 910 min⁻¹*
 Starting current I_s : 1.80 A
 Current increase ΔI : 10 %
 Service capacitor C_{400V} : 8.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated

ErP-data
 Efficiency η_{statA} : 29.6 %
 Efficiency: $N_{actual} = 40.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



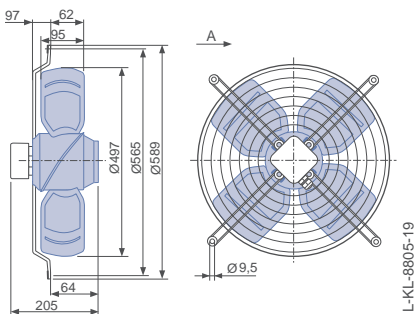
I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

Connection diagram Page 192
 Airflow direction A 1360-104XB
 Airflow direction V 1360-104XA

Dimensions mm

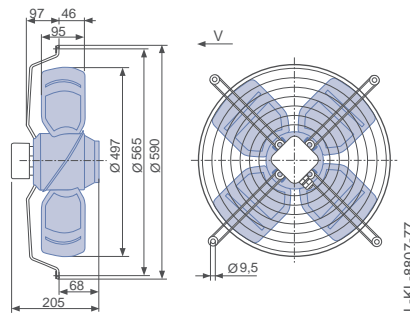
Airflow direction A

Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side





Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB050-6E_4F_4P	I	230*	②	1.00*	230*	910*	71
		230	③	0.80	180	950	68
	II	230	⑤	0.92	210	930	69
		230	⑥	0.80	180	950	67
	III	170	⑧	0.98	160	810	65
		170	⑨	0.82	140	890	65
	IV	135	⑪	0.94	110	510	56
		135	⑫	0.88	110	660	57
	V	110	⑭	0.76	75	360	47
		110	⑮	0.76	75	430	49

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	W (guard grille suction side)	K (guard grille pressure side)
		
Type	FB050-6EW.4F.A4P	FB050-6EK.4F.V4P
Article no.	170480	170478
Weight kg	10.00	9.50

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~
		

FB

for single phase alternating current, 6 pole

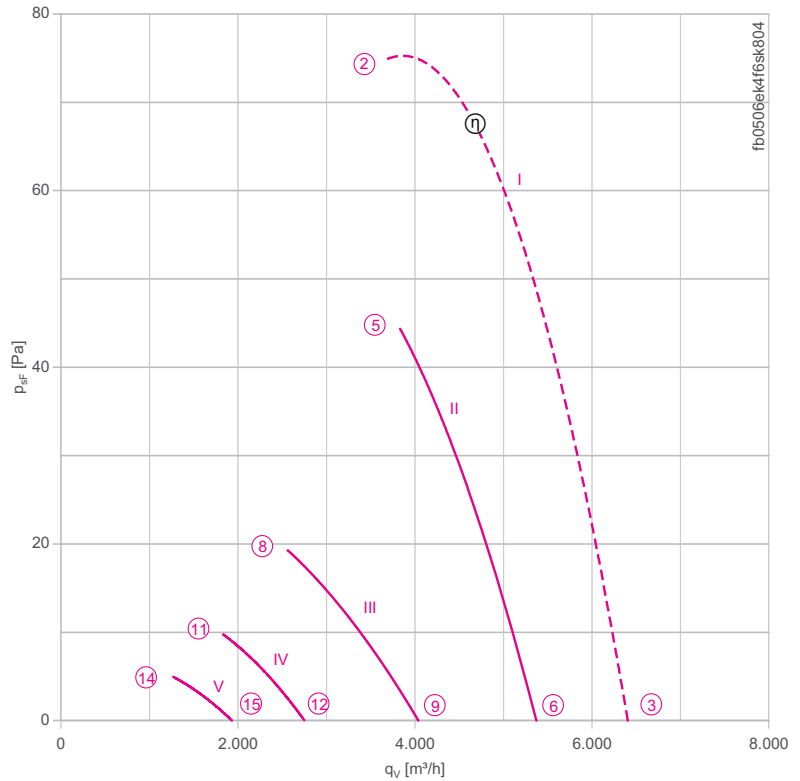
FBO50-6E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 290 W*
 Rated current I_N : 1.35 A*
 Rated speed n_N : 850 min⁻¹*
 Starting current I_s : 2.20 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 8.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 65 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

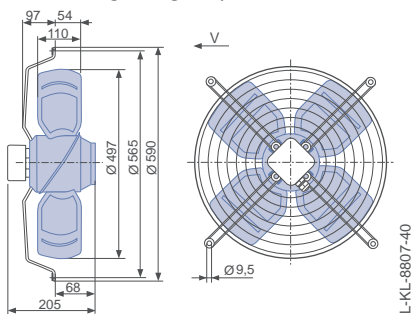
Connection diagram

Page 192
1360-104XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)	Maximum ambient temperature t_{R} °C
		U V		I A	P_1 W	n min ⁻¹		
FB050-6E_4F.V4S	I	230*	②	1.35*	290*	850*		65
		230	③	1.15	250	900	72	
		230	⑤	1.20	270	880	70	
	II	230	⑥	1.10	240	910	70	70
		160	⑧	1.30	190	570	59	
	III	160	⑨	1.25	180	670	62	
		130	⑪	1.10	130	410	55	
	IV	130	⑫	1.10	125	460	55	
		105	⑭	0.91	83	280		
	V	105	⑮	0.90	82	340		

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB050-6EK.4F.V4S
Article no. 124191

Weight kg 9.50

Control technology

Frequency inverter Fcontrol 1~

Motor protection units 1~

Electronic voltage controllers 1~



FB

for single phase alternating current, 8 pole

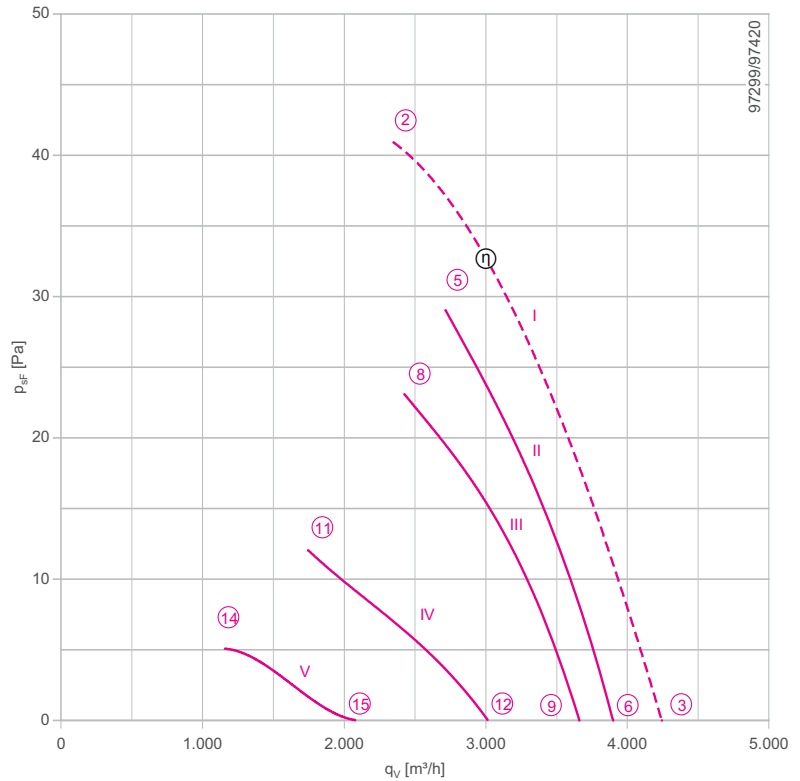
FBO50-8E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V±10 %*
 Rated frequency f_N : 50 Hz* (60Hz Daten verfügbar)
 Motor input power P_1 : 0.15 kW*
 Rated current I_N : 0.66 A*
 Rated speed n_N : 670 min⁻¹*
 Starting current I_s : 0.90 A
 current increase ΔI : 0 %
 Service capacitor C_{400V} : 3.0 μ F
 Thermal class: THCL155*
 Min. permitted conveyor temperature $t_{R(min)}$: -25 °C
 Maximum permitted conveyor temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: Thermostat (TB)
 Blades: Blades made of aluminium, uncoated
 Rotor: Aluminium, uncoated
 conformity: CE
 * Rating plate data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

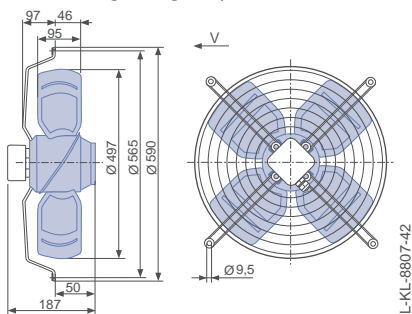
Connection diagram

Page 192
1360-104XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB050-8E_4C_4P	I	230*	②	0.64*	130*	680*	67
		230	③	0.56	110	710	64
	II	230	⑤	0.62	120	690	63
		230	⑥	0.58	120	700	61
	III	170	⑧	0.60	95	620	59
		170	⑨	0.52	85	660	58
	IV	135	⑪	0.64	75	440	52
		135	⑫	0.56	70	540	54
	V	110	⑭	0.56	50	300	46
		110	⑮	0.54	50	370	47

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB050-8EK.4C.V4P**
Article no. **160129**

Weight kg 8.10

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for three phase alternating current, 4-4 pole

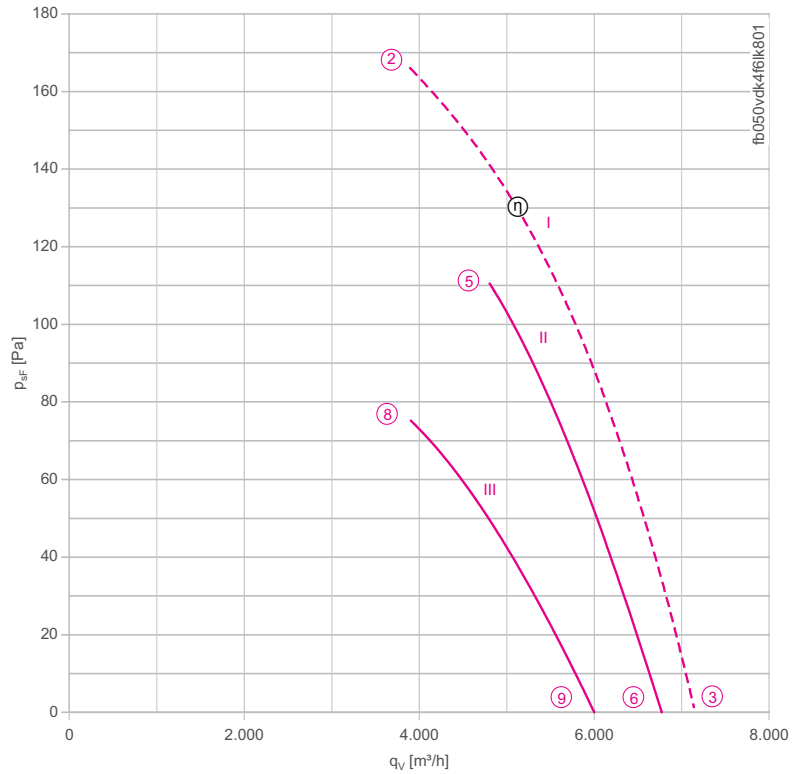
FBO50-VD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 5 Hz*
 Input power P_i : 0.58/0.44 kW*
 Rated current I_N : 1.05/0.71 A*
 Rated speed n_N : 1350/1030 min⁻¹*
 Starting current I_s : 4.00 / 1.20 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 55 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 36.8 %
 Efficiency: $N_{actual} = 45.2 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

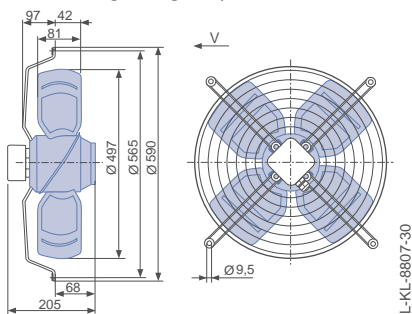
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)	Maximum ambient temperature t_R °C	
			U V							
FB050-VD_4F.V4L	Δ	I	400*	②	1.05*	580*	1350*	76	55	
			400	③	0.88	360	1410			
			400	⑤	0.98	480	1380			
		Y	III	400	⑥	0.85	350	1420	76	70
				400	⑧	0.62	360	1130	72	
				400	⑨	0.48	280	1260	73	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB050-VDK.4F.V4L
Article no. 124186

Weight kg 9.50

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for three phase alternating current, 4-4 pole

FBO50-VD

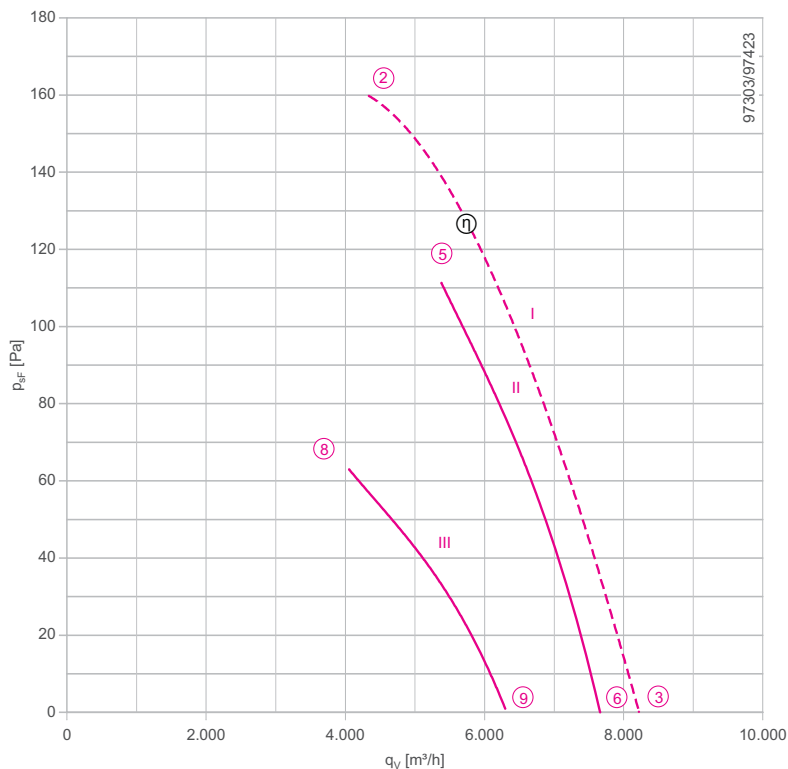


Description

Motor technology: AC
 Rated voltage U_N : 3~ 400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.65/0.44 kW*
 Rated current I_N : 1.15/0.77 A*
 Rated speed n_N : 1340/ 960 min^{-1} *
 Starting current I_s : 4.20 / 1.20 A
 Current increase ΔI : 15 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 34.6 %
 Efficiency: $N_{\text{actual}} = 42.4 / N_{\text{target}} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

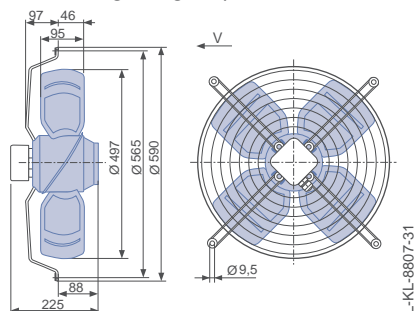
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)	
FB050-VD_4I_4P	Δ	I	400*	②	1.15*	660*	1340*	84	
			400	③	0.84	420	1410	77	
			400	⑤	1.05	600	1360	79	
		Y	III	400	⑥	0.90	460	1400	77
				400	⑧	0.74	420	1030	73
				400	⑨	0.64	370	1140	72

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB050-VDK.4I.V4P
Article no. 210543

Weight kg 11.30

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 6-6 pole

FBO50-SD

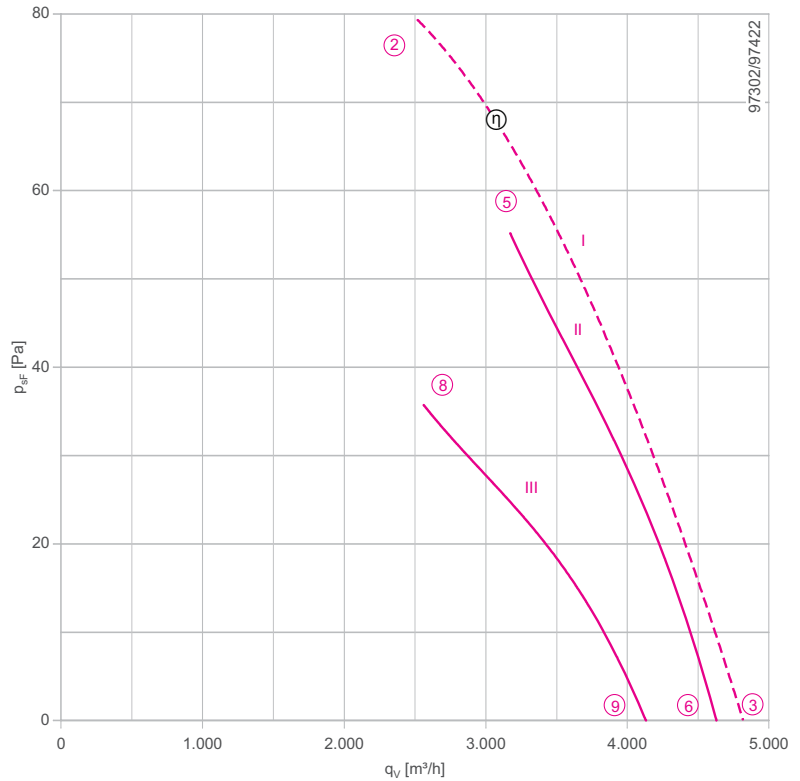


Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 210/140 W*
 Rated current I_N : 0.56/0.28 A*
 Rated speed n_N : 920/ 730 min⁻¹*
 Starting current I_s : 1.50 / 0.46 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 29.6 %
 Efficiency: $N_{actual} = 40.3 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

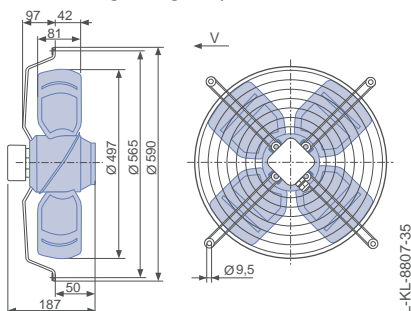
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)	
FB050-SD_4C_4L	Δ	I	400*	②	0.56*	220*	920*	73	
			400	③	0.52	140	960	71	
			400	⑤	0.54	190	930	67	
		Y	III	400	⑥	0.52	150	950	66
				400	⑧	0.27	130	750	61
				400	⑨	0.21	100	850	62

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB050-SDK.4C.V4L
Article no. 124187

Weight kg 8.10

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for three phase alternating current, 8-8 pole

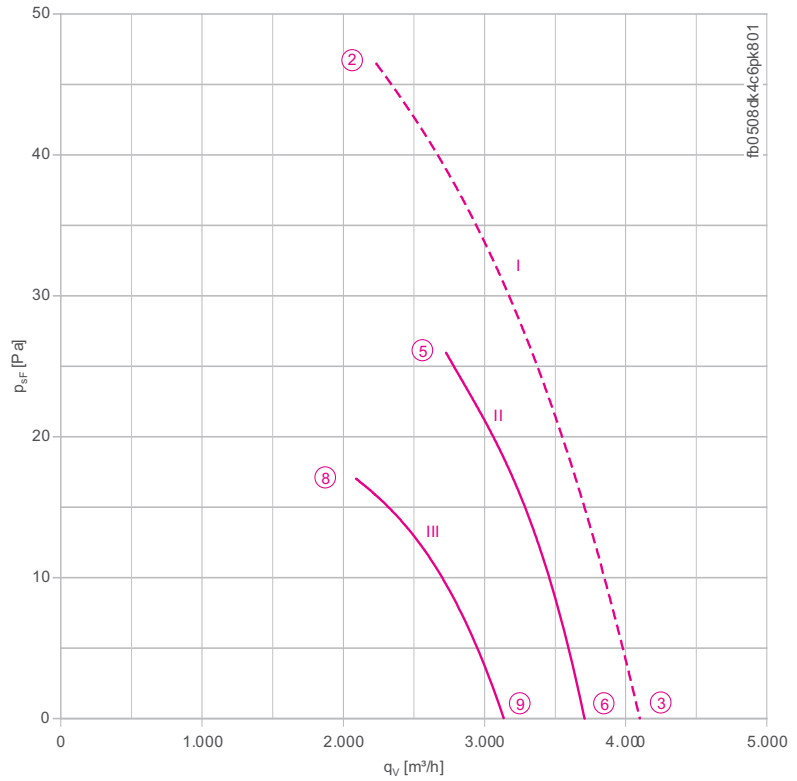
FBO50-AD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz*
 Input power P_i : 120/80 W*
 Rated current I_N : 0.30/0.15 A*
 Rated speed n_N : 670/520 min⁻¹*
 Starting current I_s : 0.70 / 0.22 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

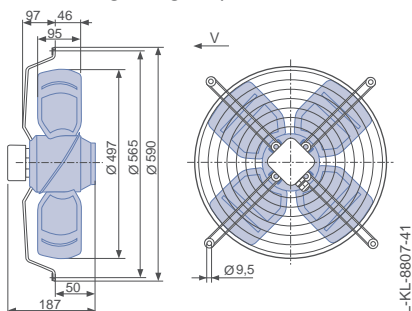
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)	
FB050-AD_4C.V4P	Δ	I	400*	②	0.30*	115*	670*		
			400	③	0.26	92	690	62	
			400	⑤	0.27	105	680	63	
		Y	III	400	⑥	0.26	92	690	60
				400	⑧	0.13	66	550	59
				400	⑨	0.11	60	590	57

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB050-ADK.4C.V4P
Article no. 124188

Weight kg 8.10

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~





Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB056-6E_4F_4L	I	230*	②	1.30*	280*	890*	73
		230	③	0.92	200	950	72
	II	230	⑤	1.20	260	900	69
		230	⑥	0.98	210	940	70
	III	170	⑧	1.40	210	600	63
		170	⑨	1.05	170	850	66
	IV	135	⑪	1.15	130	380	60
		135	⑫	1.10	130	510	60
	V	110	⑭	0.94	85	290	52
		110	⑮	0.92	85	370	56

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	W (guard grille suction side)	K (guard grille pressure side)
		
Type	FB056-6EW.4F.A4L	FB056-6EK.4F.V4L
Article no.	160137	160139
Weight kg	10.40	10.40

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~
		

FB

for single phase alternating current, 8 pole

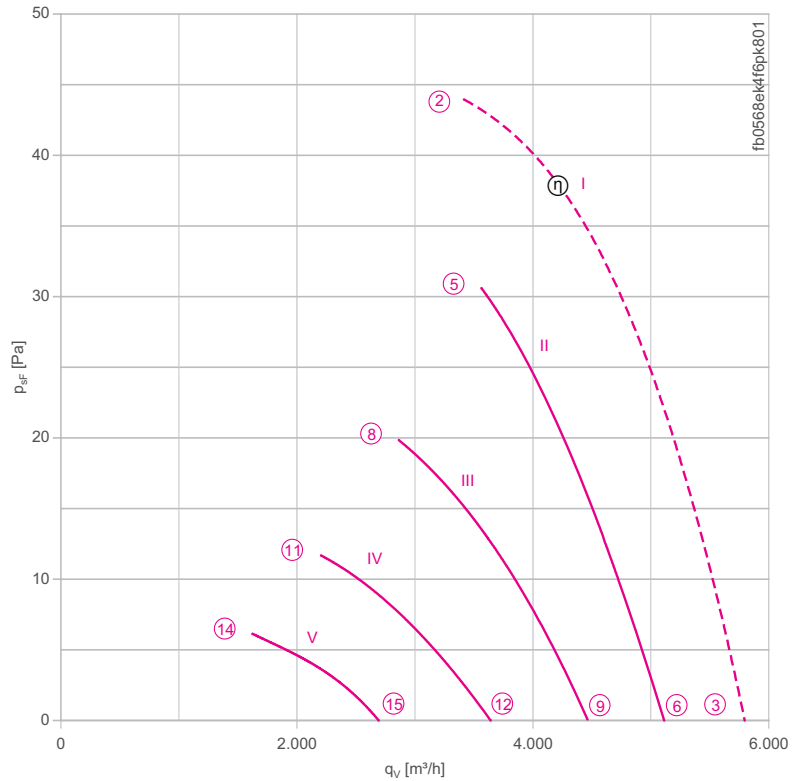
FBO56-8E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V±10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 220 W*
 Rated current I_N : 1.10 A*
 Rated speed n_N : 680 min⁻¹*
 Starting current I_s : 1.60 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 5.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 65 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

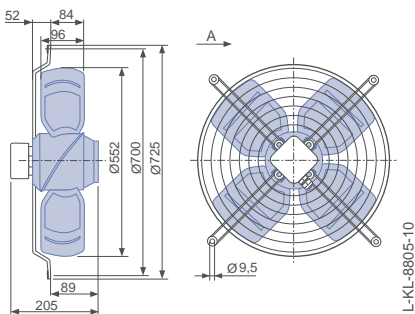
II-x) Measured in short-bell mouth with compressed side contact protection.

Connection diagram Page 192
 for airflow direction A 1360-104XB
 for airflow direction V 1360-104XA

Dimensions mm

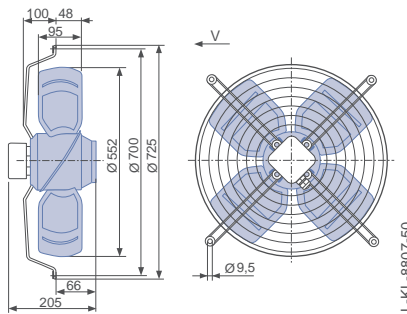
Airflow direction A

Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side





Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)	Maximum ambient temperature t_{R} °C
		U V		I A	P_1 W	n min ⁻¹		
FB056-8E_4F_4P	I	230*	②	1.10*	220*	680*		65
		230	③	0.95	190	690	64	
	II	230	⑤	1.00	200	680	65	70
		230	⑥	0.93	180	710	65	
	III	160	⑧	0.94	130	510	60	
		160	⑨	0.81	115	600	61	
	IV	130	⑪	0.83	94	410	56	
		130	⑫	0.78	89	490	57	
	V	105	⑭	0.70	62	310		
		105	⑮	0.69	62	360		

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	W (guard grille suction side)	K (guard grille pressure side)
		
Type	FB056-8EW.4F.A4P	FB056-8EK.4F.V4P
Article no.	107066	124176
Weight kg	10.40	10.40

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~
		

FB

for three phase alternating current, 4-4 pole

FBO56-VD

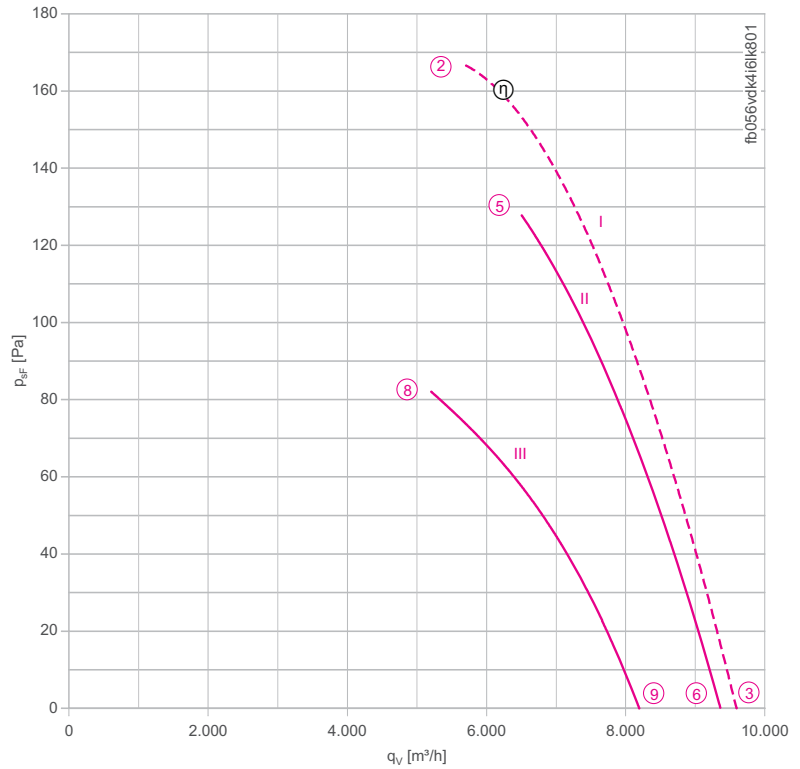


Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.84/0.64 kW*
 Rated current I_N : 1.65/1.05 A*
 Rated speed n_N : 1360/1090 min⁻¹*
 Starting current I_s : 6.50 / 2.00 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 40 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 37.9 %
 Efficiency: $N_{actual} = 45.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



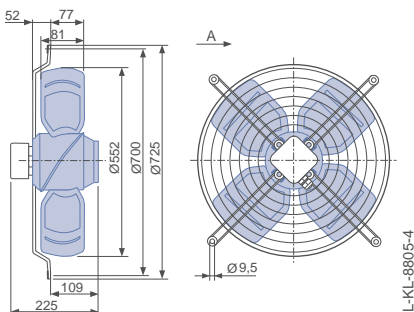
I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

Connection diagram Page 192
 for airflow direction A 1360-108XB
 for airflow direction V 1360-108XA

Dimensions mm

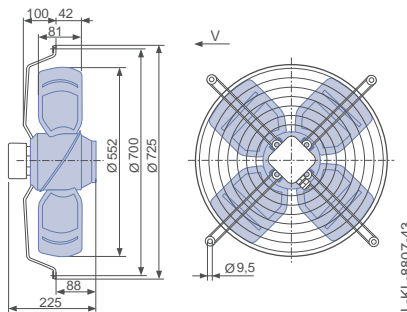
Airflow direction A

Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)	Maximum ambient temperature t_R °C
			U V						
FB056-VD_4I_4L	Δ	I	400*	②	1.65*	840*	1360*		40
			400	③	1.25	570	1410	79	
		II	400	⑤	1.45	760	1370	80	
	Y	III	400	⑥	1.20	540	1420	80	
			400	⑧	0.97	580	1110	76	
		400	⑨	0.76	450	1230	77		

*rated data

Fan ordering information

Airflow direction A
Airflow direction V

Design	W (guard grille suction side)	K (guard grille pressure side)
Type	FB056-VDW.4I.A4L	FB056-VDK.4I.V4L
Article no.	127411	124384
Weight kg	12.20	12.20

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~

FB

for three phase alternating current, 6-6 pole

FBO56-SD

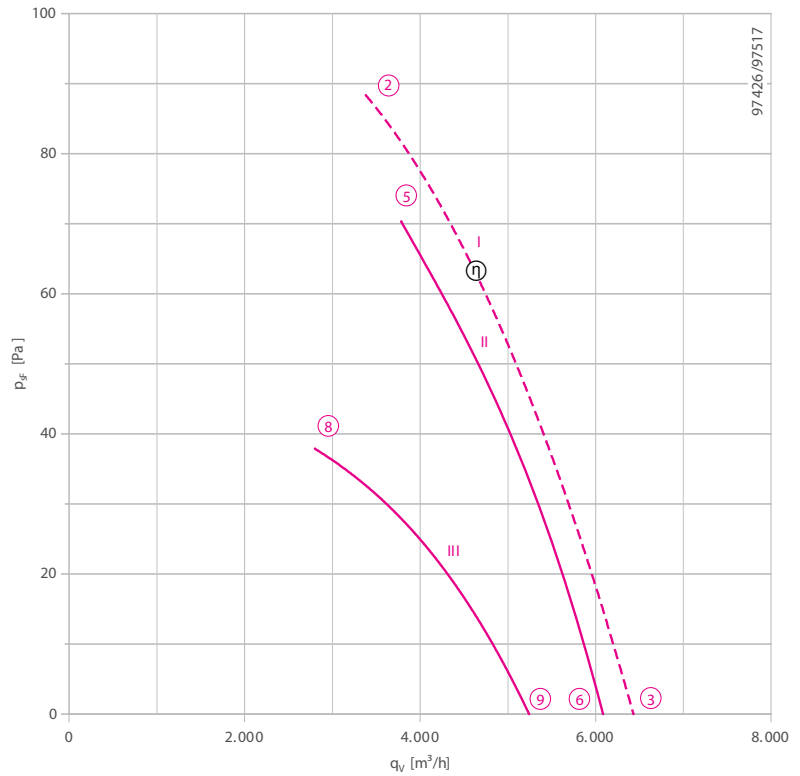


Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 280/180 W*
 Rated current I_N : 0.68/0.39 A*
 Rated speed n_N : 910/ 660 min^{-1} *
 Starting current I_s : 1.80 / 0.50 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 34.0 %
 Efficiency: $N_{\text{actual}} = 44.2 / N_{\text{target}} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



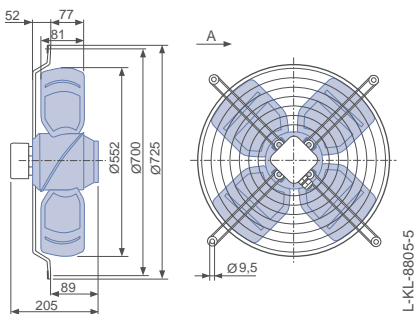
I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

Connection diagram Page 192
 for airflow direction A 1360-108XB
 for airflow direction V 1360-108XA

Dimensions mm

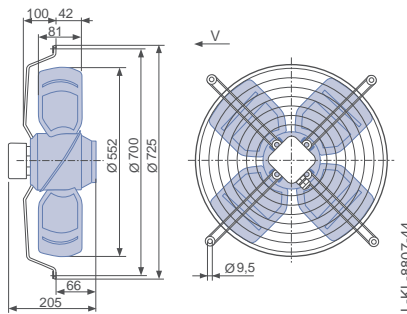
Airflow direction A

Design W - axial bolted, mounting for short bell mouth, guard grille suction side



Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side





Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)		
			U V							
FB056-SD_4F_4L	Δ	I	400*	②	0.68*	280*	910*	76		
			400	③	0.58	180	960	72		
			400	⑤	0.64	250	930	75		
		II	400	⑥	0.58	190	950	72		
			Y	III	400	⑧	0.38	170	680	68
					400	⑨	0.30	140	820	68

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	W (guard grille suction side)	K (guard grille pressure side)
		
Type	FB056-SDW.4F.A4L	FB056-SDK.4F.V4L
Article no.	132416	124385
Weight kg	10.40	10.40

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 6-6 pole

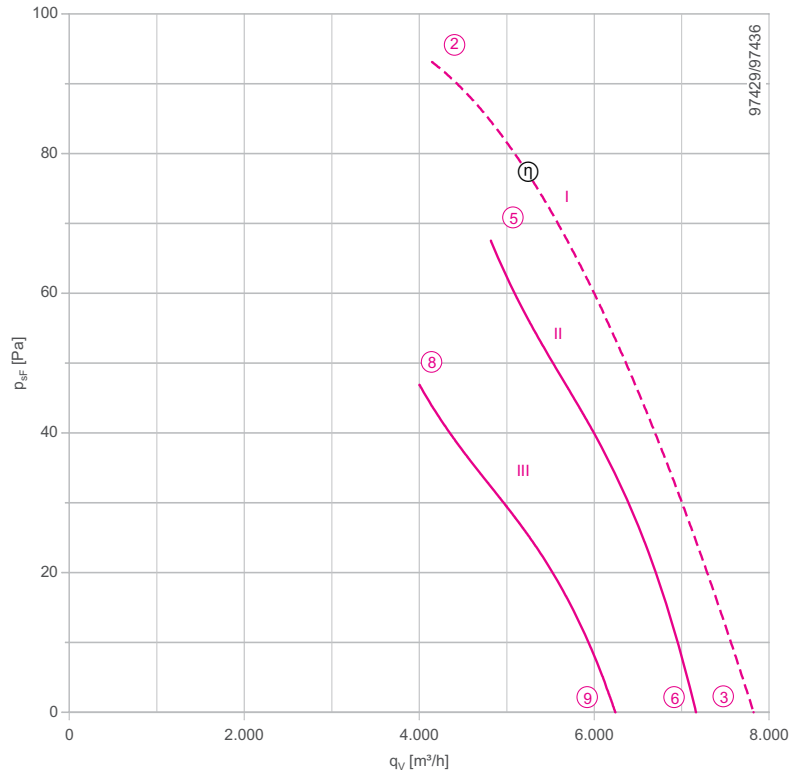
FBO56-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 340/250 W*
 Rated current I_N : 0.64/0.41 A*
 Rated speed n_N : 910/ 750 min⁻¹*
 Starting current I_s : 2.20 / 0.70 A
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 36.5 %
 Efficiency: $N_{actual} = 46.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

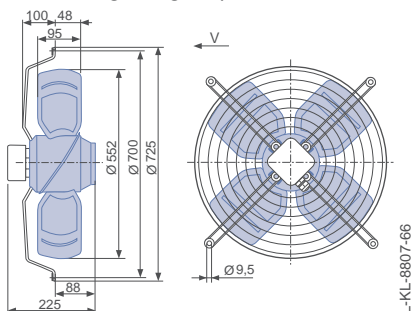
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB056-SD_4I.V4P	Δ	I	400*	②	0.64*	340*	910*	76
			400	③	0.52	230	950	74
			400	⑤	0.60	310	920	74
	Y	II	400	⑥	0.54	250	940	73
			400	⑧	0.39	230	770	69
			400	⑨	0.33	200	820	69

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB056-SDK.4I.V4P
Article no. 160149

Weight kg 12.20

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~





Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)		
			U V						I A	P_1 W
FB056-AD_4C_4L	Δ	I	400*	②	0.30*	130*	660*	67		
			400	③	0.26	90	700	65		
			400	⑤	0.29	120	670	63		
		II	400	⑥	0.27	100	700	61		
			Y	III	400	⑧	0.15	80	520	56
					400	⑨	0.12	65	590	57

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	W (guard grille suction side)	K (guard grille pressure side)
		
Type	FB056-ADW.4C.A4L	FB056-ADK.4C.V4L
Article no.	160141	160143
Weight kg	9.00	9.00

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FB

for three phase alternating current, 4 pole

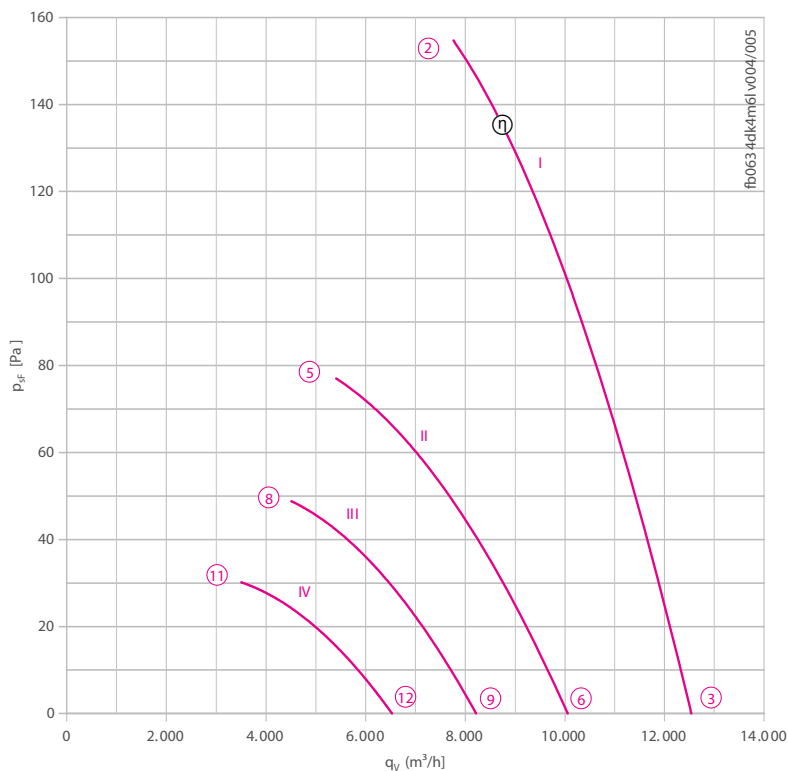
FBO63-4D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.10 kW*
 Rated current I_N : 3.80/2.20 A*
 Rated speed n_N : 1300 min⁻¹*
 Starting current I_s : 11.00 / 6.50 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 38.5 %
 Efficiency: $N_{actual} = 44.7 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 Operation of fan only in short bell mouth (min. 634 mm, height of nozzle max. 60 mm).

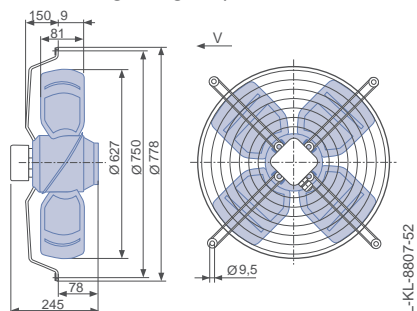
Connection diagram

Page 192
1360-106XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB063-4D_4M.V4L	I	400*	②	2.20*	1100*	1300*	83
		400	③	1.80	790	1380	85
	II	230	⑤	2.10	650	910	74
		230	⑥	1.85	560	1090	80
	III	180	⑧	1.90	450	730	69
		180	⑨	1.70	400	860	74
	IV	140	⑪	1.60	280	570	63
		140	⑫	1.50	270	700	68

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB063-4DK.4M.V4L
Article no. 135045

Weight kg 17.40

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for single phase alternating current, 6 pole

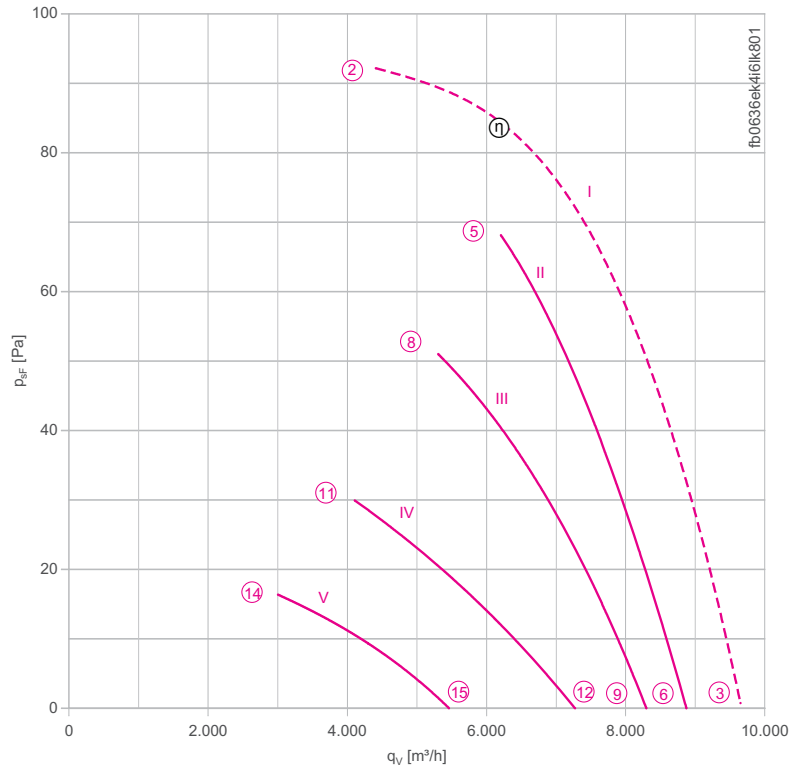
FBO63-6E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.47 kW*
 Rated current I_N : 2.30 A*
 Rated speed n_N : 920 min⁻¹*
 Starting current I_s : 5.50 A
 Current increase ΔI : 15 %
 Service capacitor C_{400V} : 10,0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 55 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 33.1 %
 Efficiency: $N_{actual} = 41.4 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

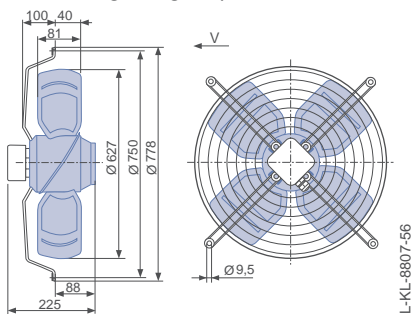
Connection diagram

Page 192
1360-104XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)	Maximum ambient temperature t_{R} °C
		U V		I A	P_1 W	n min ⁻¹		
FB063-6E_4I.V4L	I	230*	②	2.40*	520*	910*		55
		230	③	2.10	400	950	76	
		230	⑤	2.20	490	930	76	
	II	230	⑥	1.95	410	950	74	65
		160	⑧	2.40	370	800	71	
	III	160	⑨	1.90	300	880	72	
		130	⑪	2.40	290	610	65	
	IV	130	⑫	2.00	250	770	69	
		105	⑭	2.10	200	450	58	
	V	105	⑮	2.00	190	570	63	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB063-6EK.4I.V4L
Article no. 206837

Weight kg 12.80

Control technology

Frequency inverter Fcontrol 1~

Motor protection units 1~

Electronic voltage controllers 1~



FB

for single phase alternating current, 8 pole

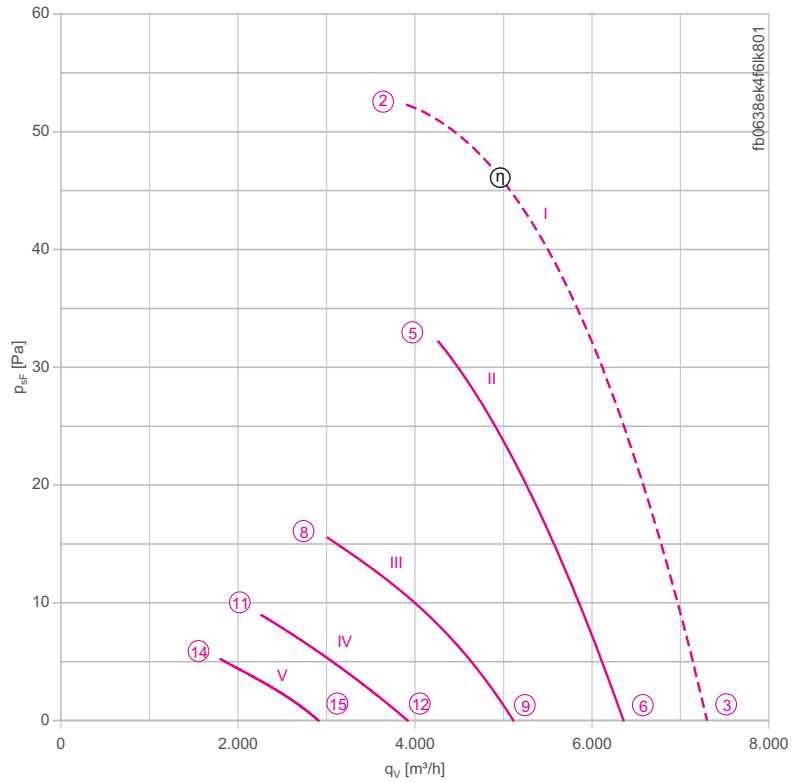
FBO63-8E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 250 W*
 Rated current I_N : 1.15 A*
 Rated speed n_N : 650 min⁻¹*
 Starting current I_s : 1.60 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 5.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

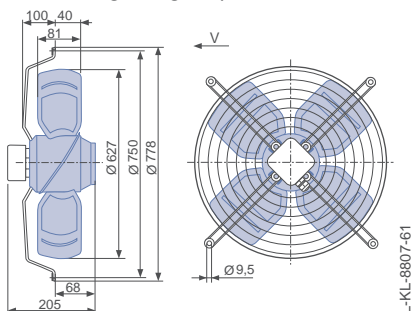
Connection diagram

Page 192
1360-104XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB063-8E_4F.V4L	I	230*	②	1.15*	250*	650*	
		230	③	0.92	190	700	67
	II	230	⑤	1.10	230	620	66
		230	⑥	0.97	195	660	65
	III	160	⑧	0.94	130	430	58
		160	⑨	0.86	125	530	60
	IV	130	⑪	0.81	90	330	55
		130	⑫	0.78	87	410	53
	V	105	⑭	0.67	60	250	53
		105	⑮	0.66	59	310	46

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB063-8EK.4F.V4L**
Article no. **124172**

Weight kg 11.10

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for single phase alternating current, 8 pole

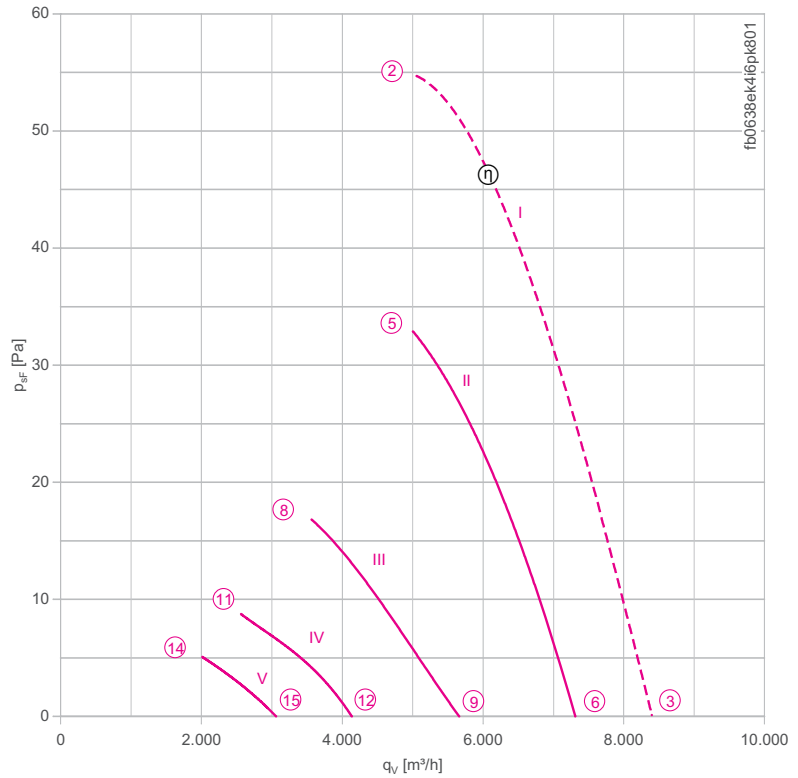
FBO63-8E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 310 W*
 Rated current I_N : 1.55 A*
 Rated speed n_N : 650 min⁻¹*
 Starting current I_s : 2.20 A
 Current increase ΔI : 5 %
 Service capacitor C_{400V} : 6.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

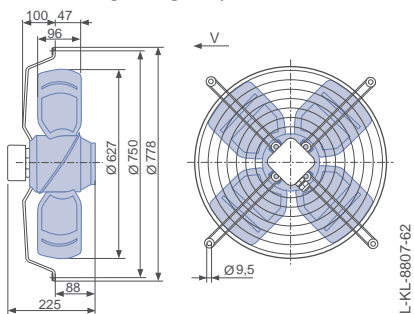
Connection diagram

Page 192
1360-104XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FB063-8E_4I.V4P	I	230*	②	1.55*	310*	650*	
		230	③	1.30	250	690	71
	II	230	⑤	1.50	290	640	71
		230	⑥	1.35	260	660	67
	III	160	⑧	1.40	190	450	63
		160	⑨	1.30	180	510	61
	IV	130	⑪	1.25	135	330	53
		130	⑫	1.20	130	380	61
	V	105	⑭	1.05	87	250	
		105	⑮	1.00	86	280	

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type **FB063-8EK.4I.V4P**
Article no. **108187**

Weight kg 12.80

Control technology

Frequency inverter Fcontrol 1~



Motor protection units 1~



Electronic voltage controllers 1~



FB

for single phase alternating current, 8 pole

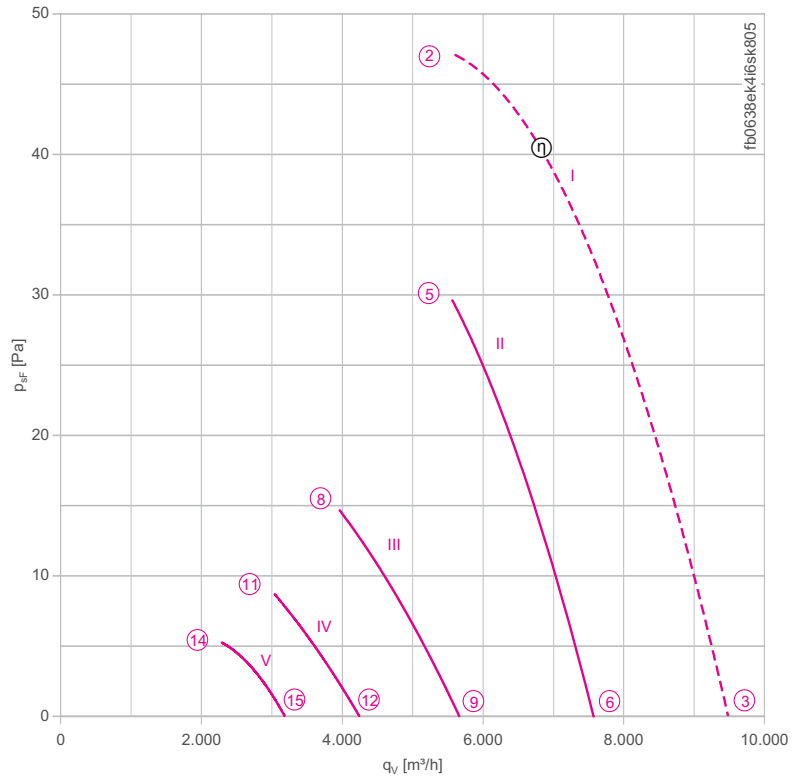
FBO63-8E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 360 W*
 Rated current I_N : 1.70 A*
 Rated speed n_N : 600 min⁻¹*
 Starting current I_s : 2.40 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 8.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

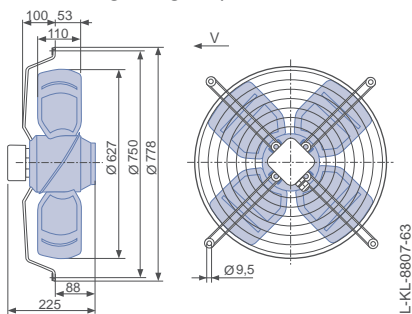
Connection diagram

Page 192
1360-104XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)	Maximum ambient temperature t_{R} °C
		U V		I A	P_1 W	n min ⁻¹		
FB063-8E_4I.V4S	I	230*	②	1.70*	360*	600*		60
		230	③	1.55	330	630	73	
		230	⑤	1.60	340	620	69	
	II	230	⑥	1.50	320	640	69	65
		160	⑧	1.45	210	430	60	
	III	160	⑨	1.40	200	480	63	
		130	⑪	1.30	145	340	55	
	IV	130	⑫	1.25	140	360	56	
		105	⑭	1.05	92	250		
	V	105	⑮	1.00	91	270		

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB063-8EK.4I.V4S
Article no. 124173

Weight kg 12.80

Control technology

Frequency inverter Fcontrol 1~

Motor protection units 1~

Electronic voltage controllers 1~



FB

for three phase alternating current, 4-4 pole

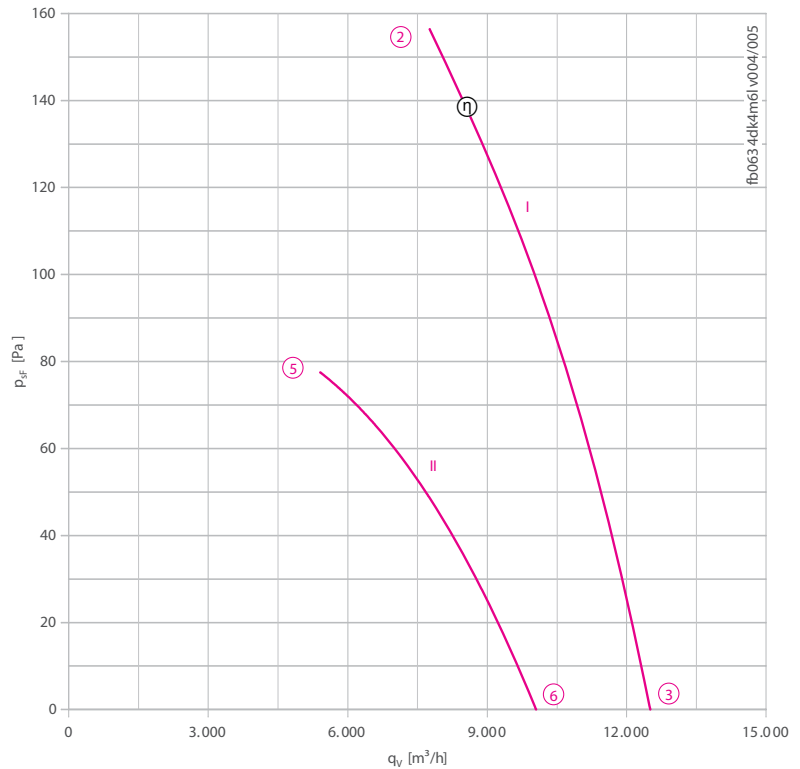
FBO63-VD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.10/0.65 kW*
 Rated current I_N : 2.20/1.25 A*
 Rated speed n_N : 1300/ 910 min⁻¹*
 Starting current I_s : 6.50 / 1.90 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 38.5 %
 Efficiency: $N_{actual} = 44.7 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 II-x) Measured in short-bell mouth with compressed side contact protection.

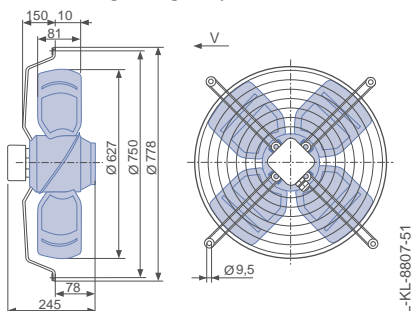
Connection diagram

Page 192
1360-108XA

Dimensions mm

Airflow direction V

Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FB063-VD_4M.V4L	Δ	I	400*	②	2.20*	1100*	1300*	83
			400	③	1.80	790	1380	85
	Y	II	400*	⑤	1.25*	650*	910*	74
			400	⑥	1.10	570	1090	80

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB063-VDK.4M.V4L
Article no. 135044

Weight kg 17.40

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for three phase alternating current, 6-6 pole

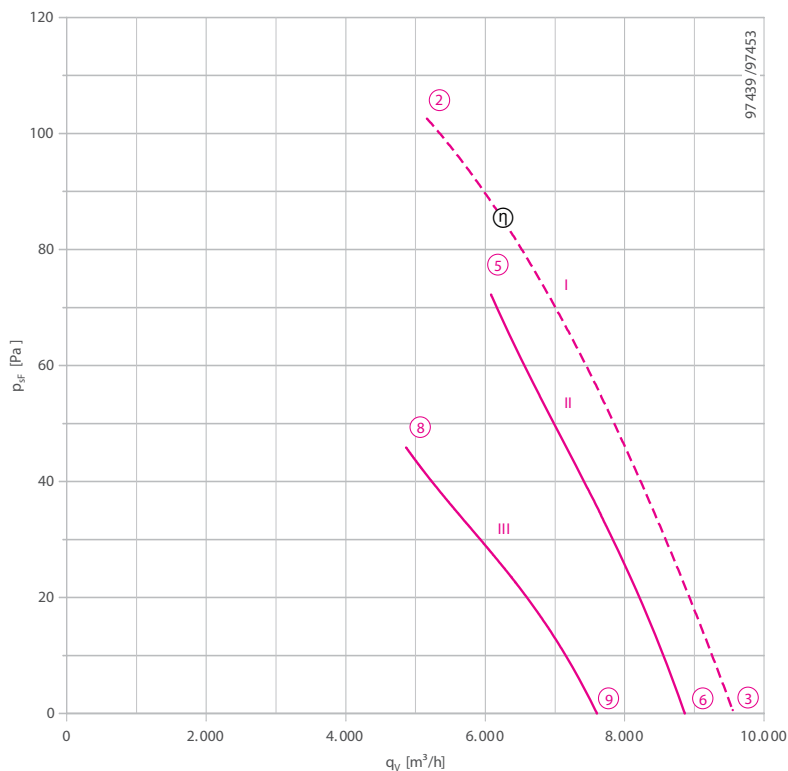
FBO63-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.42/0.30 kW*
 Rated current I_N : 0.78/0.50 A*
 Rated speed n_N : 900/ 710 min⁻¹*
 Starting current I_s : 2.80 / 0.90 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 38.4 %
 Efficiency: $N_{actual} = 47.3 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

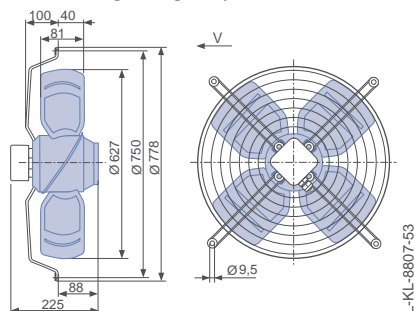
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)	
FB063-SD_4I.V4L	Δ	I	400*	②	0.78*	420*	900*	78	
			400	③	0.60	260	940	76	
			400	⑤	0.74	390	910	74	
		Y	III	400	⑥	0.64	300	940	72
				400	⑧	0.48	290	730	70
				400	⑨	0.39	230	800	68

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB063-SDK.4I.V4L
Article no. 124168

Weight kg 12.80

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for three phase alternating current, 8-8 pole

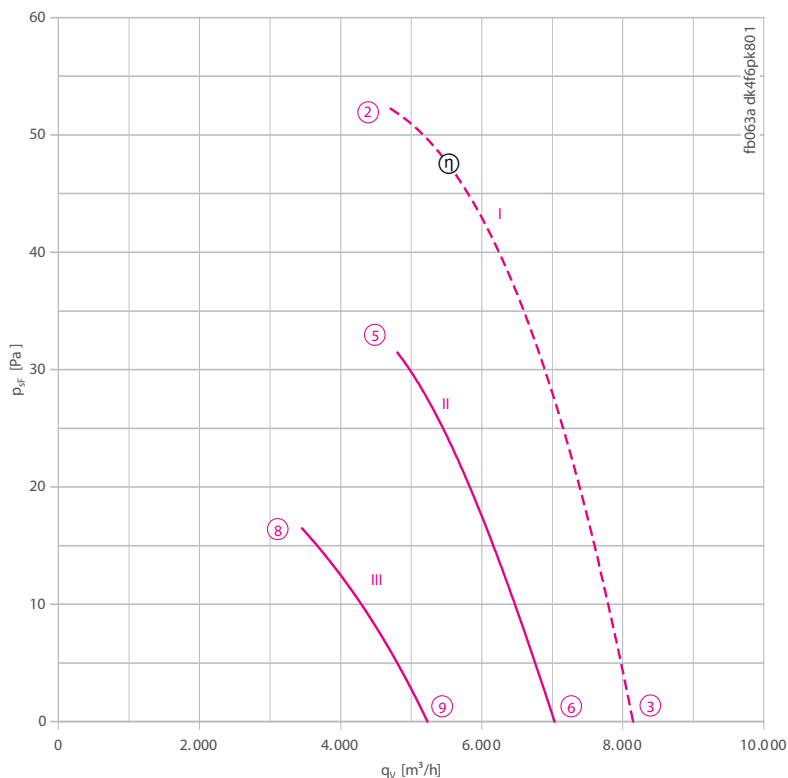
FBO63-AD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 260/160 W*
 Rated current I_N : 0.59/0.30 A*
 Rated speed n_N : 640/ 470 min⁻¹*
 Starting current I_s : 1.20 / 0.36 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

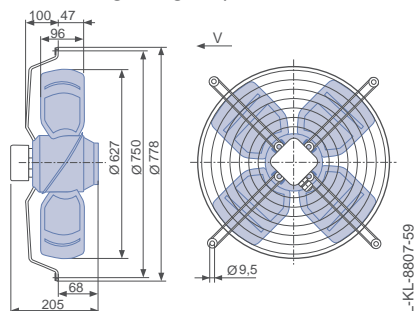
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data


Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB063-AD_4F.V4P	Δ	I	400*	②	0.59*	260*	640*	
			400	③	0.51	190	680	70
			400	⑤	0.61	250	630	69
	Y	II	400	⑥	0.59	220	650	67
			400	⑧	0.28	130	440	60
			400	⑨	0.27	125	490	59

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB063-ADK.4F.V4P
Article no. 209100

Weight kg 11.10

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FB

for three phase alternating current, 8-8 pole

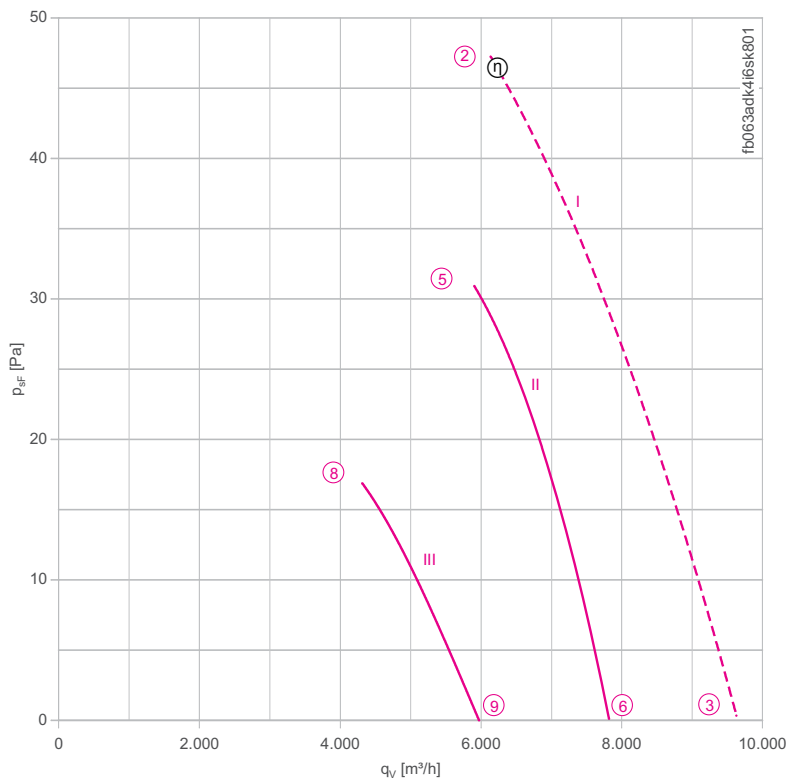
FBO63-AD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 350/220 W*
 Rated current I_N : 0.77/0.40 A*
 Rated speed n_N : 640/ 470 min⁻¹*
 Starting current I_s : 1.70 / 0.55 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 4
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, uncoated
 Rotor: Aluminium, uncoated
 * Rated data

Characteristic curve



I) Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

II-x) Measured in short-bell mouth with compressed side contact protection.

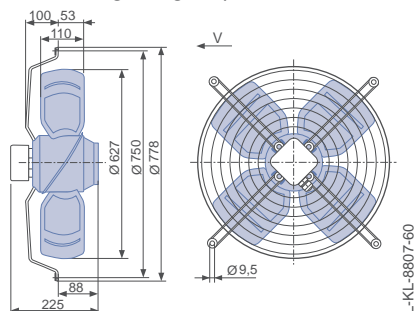
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design K - axial bolted, mounted for short bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FB063-AD_4I.V4S	Δ	I	400*	②	0.77*	350*	640*	
			400	③	0.71	280	680	75
			400	⑤	0.69	340	650	69
	Y	III	400	⑥	0.66	310	670	69
			400	⑧	0.40	230	480	62
			400	⑨	0.37	210	500	64

*rated data

Fan ordering information

Airflow direction V

Design K (guard grille pressure side)



Type FB063-ADK.4I.V4S
Article no. 107775

Weight kg 12.80

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~





Axial fans FC

AC technology

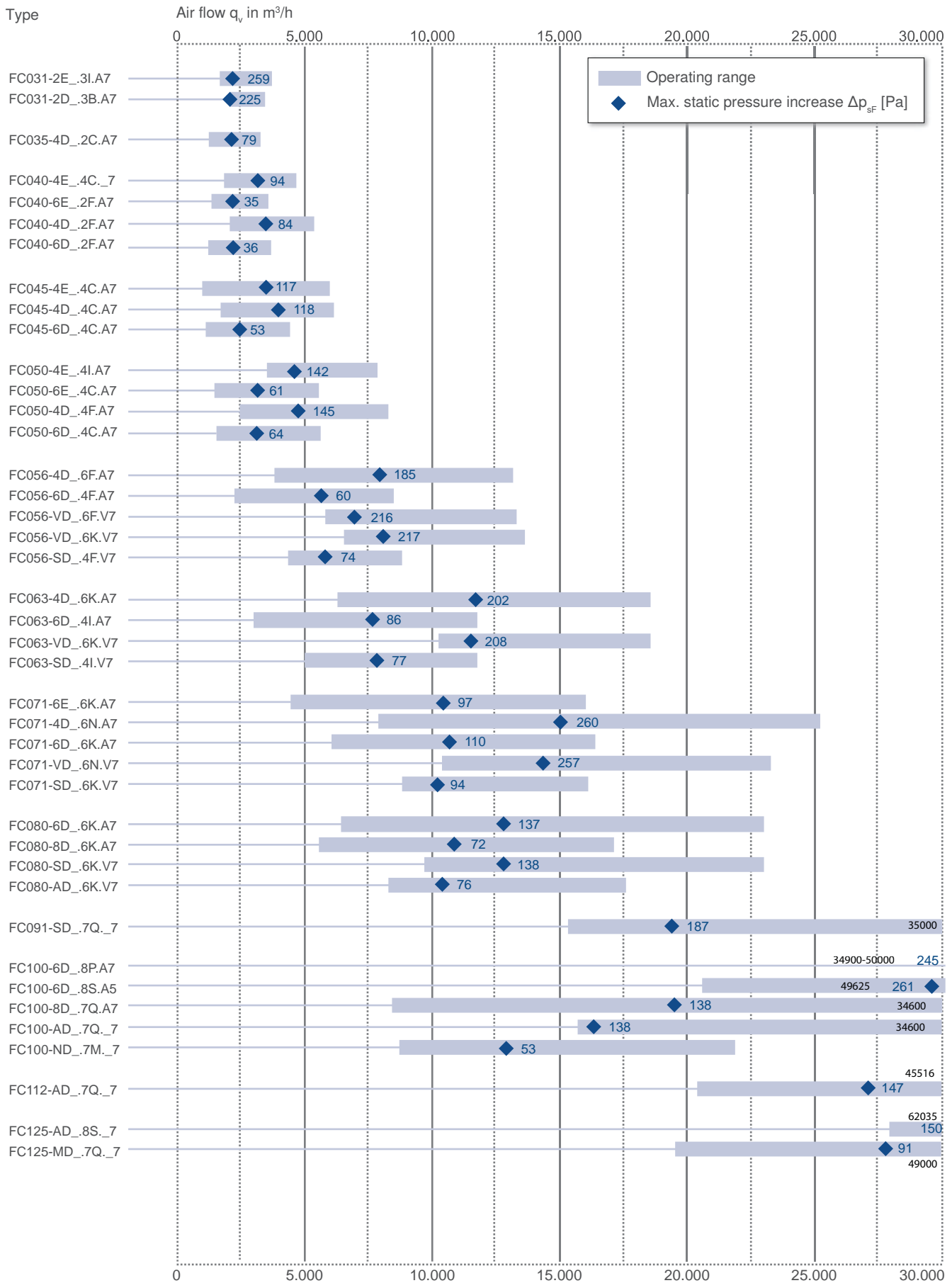
Product overview

Quick selection	Page 108
Size 315	Page 110
Size 350	Page 114
Size 400	Page 116
Size 450	Page 124
Size 500	Page 130
Size 560	Page 136
Size 630	Page 148
Size 710	Page 160
Size 800	Page 166
Size 910	Page 174
Size 1000	Page 176
Size 1120	Page 186
Size 1250	Page 188

Size	Voltage	Number of poles	Type	Airflow direction	ErP	Page	
315	1~ 230 V 3~ 400 V	2	FC031-2E_3I.A7		2015	110	
			FC031-2D_3B.A7		2015	112	
350	3~ 400 V	4	FC035-4D_2C.A7		2015	114	
400	1~ 230 V 3~ 400 V	4	FC040-4E_4C_7			2015	116
			FC040-6E_2F.A7		-	-	118
		6	FC040-4D_2F.A7		-	-	120
			FC040-6D_2F.A7		-	-	122
450	1~ 230 V 3~ 400 V	4	FC045-4E_4C.A7		2015	124	
			FC045-4D_4C.A7		2015	126	
		6	FC045-6D_4C.A7		-	-	128
500	1~ 230 V 3~ 400 V	4	FC050-4E_4I.A7		2015	130	
			FC050-6E_4C.A7		2015	132	
		6	FC050-4D_4F.A7		2015	134	
			FC050-6D_4C.A7		2015	136	
560	3~ 400 V	4	FC056-4D_6F.A7		2015	138	
			FC056-6D_4F.A7		2015	140	
		6	FC056-VD_6F.V7			2015	142
			FC056-VD_6K.V7			2015	144
			FC056-SD_4F.V7			2015	146
630	3~ 400 V	4	FC063-4D_6K.A7		2015	148	
			FC063-6D_4I.A7		2015	150	
		6	FC063-VD_6K.V7			2015	152
			FC063-SD_4I.V7			2015	154
710	1~ 230 V 3~ 400 V	6	FC071-6E_6K.A7		2015	156	
			FC071-4D_6N.A7		2015	158	
		6	FC071-6D_6K.A7		2015	160	
			FC071-VD_6N.V7			2015*	162
			FC071-SD_6K.V7			2015	164
800	3~ 400 V	6	FC080-6D_6K.A7		2015	166	
			FC080-8D_6K.A7		2015	168	
		8	FC080-SD_6K.V7			2015	170
			FC080-AD_6K.V7			2015	172
910	3~ 400 V	6-6	FC091-SD_7Q_7			2015	174
1000	3~ 400 V	6	FC100-6D_8P.A7		2015	176	
			FC100-6D_8S.A5		2015	178	
		8	FC100-8D_7Q.A7		2015	180	
			FC100-AD_7Q_7			2015	182
			FC100-ND_7M_7			2015	184
1120	3~ 400 V	8-8	FC112-AD_7Q_7			2015	186
1250	3~ 400 V	8-8	FC125-AD_8S_7			2015	188
			FC125-MD_7Q_7			2015*	190

* with ZIEHL-ABEGG frequency inverter





FC

for single phase alternating current, 2 pole

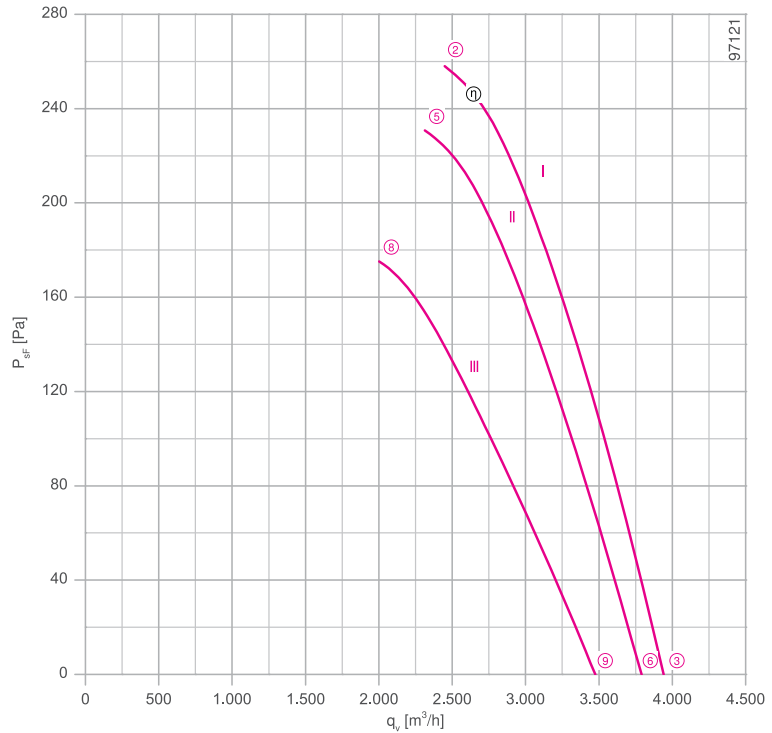
FCO31-2E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.56 kW*
 Rated current I_N : 2.40 A*
 Rated speed n_N : 2860 min⁻¹*
 Starting current I_s : 10.00 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 14.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Supply cable lateral-diagonal 65 cm
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 33.2 %
 Efficiency: $N_{actual} = 41.1 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

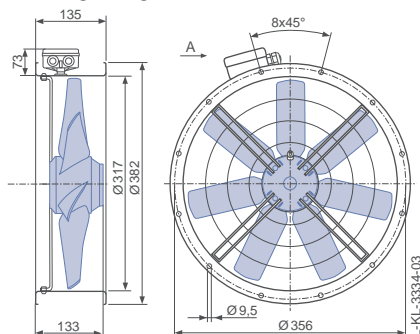
Connection diagram

Page 192
1360-104XB

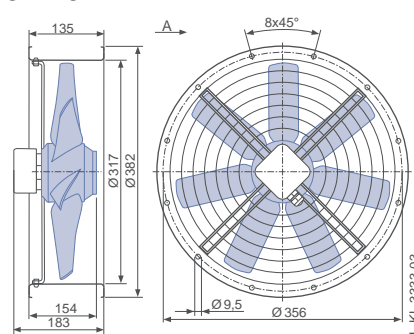
Dimensions mm

Airflow direction A

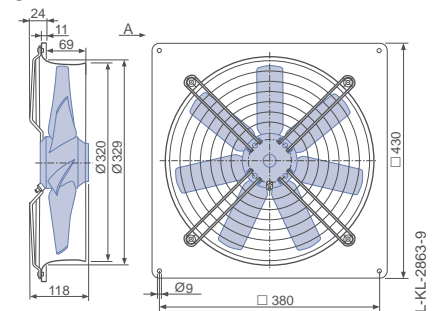
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side

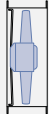


Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC031-2E_3I_7	I	230*	②	2.40*	560*	2860*	89
		230	③	2.20	500	2870	81
		170	⑤	2.80	480	2710	88
	II	170	⑥	2.50	420	2760	80
		135	⑧	3.30	440	2360	84
	III	135	⑨	2.80	380	2540	78

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC031-2EF.3I.A7	FC031-2EF.3I.A7	FC031-2EQ.3I.A7
Article no.	160070	160071	160069
Weight kg	12.20	12.10	11.90

Control technology

Frequency inverter Fcontrol 1~ 	Motor protection units 1~ 	Electronic voltage controllers 1~ 
---	--	--

FC

for three phase alternating current, 2 pole

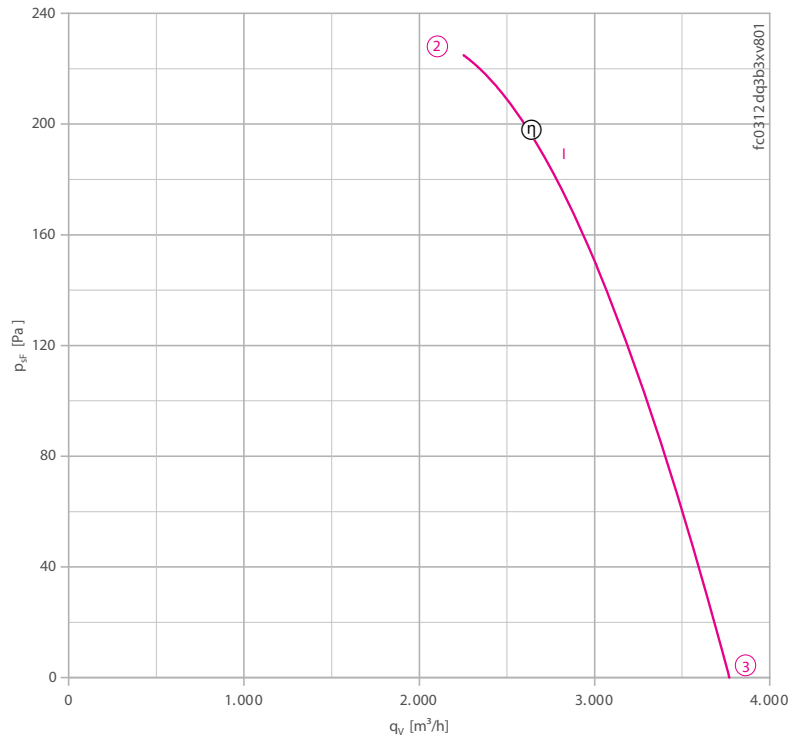
FCO31-2D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.51 kW*
 Rated current I_N : 1.40/0.79 A*
 Rated speed n_N : 2690 min⁻¹*
 Starting current I_s : 4.40 / 2.60 A
 Current increase ΔI : - %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 55 °C
 Electrical connection: Supply cable lateral-diagonal 65 cm
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 31.8 %
 Efficiency: $N_{actual} = 40.1 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 Not voltage controllable fan.

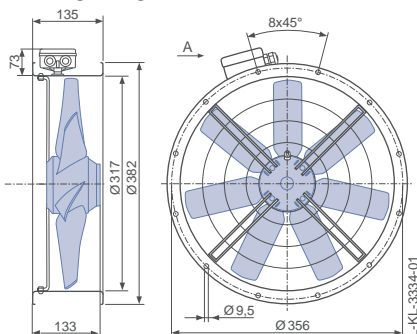
Connection diagram

Page 192
1360-106XB

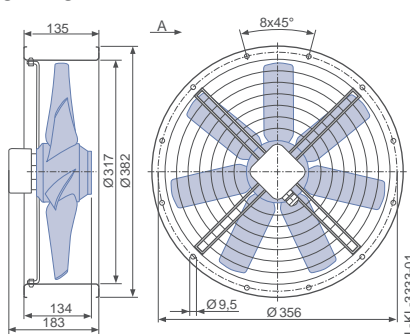
Dimensions mm

Airflow direction A

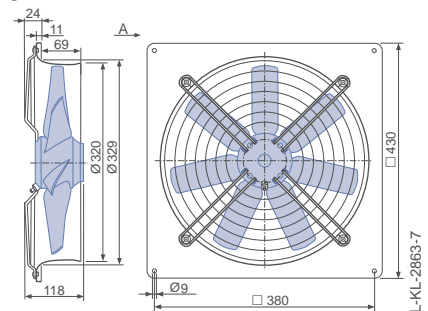
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC031-2D_3B.A7	I	400*	②	0.79*	510*	2690*	84
		400	③	0.68	430	2760	80

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC031-2DF.3B.A7	FC031-2DF.3B.A7	FC031-2DQ.3B.A7
Article no.	132975	132420	129782
Weight kg	8.50	8.50	8.30
Electrical connection	Terminal box	Terminal box	Supply cable lateral diagonal

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 4 pole

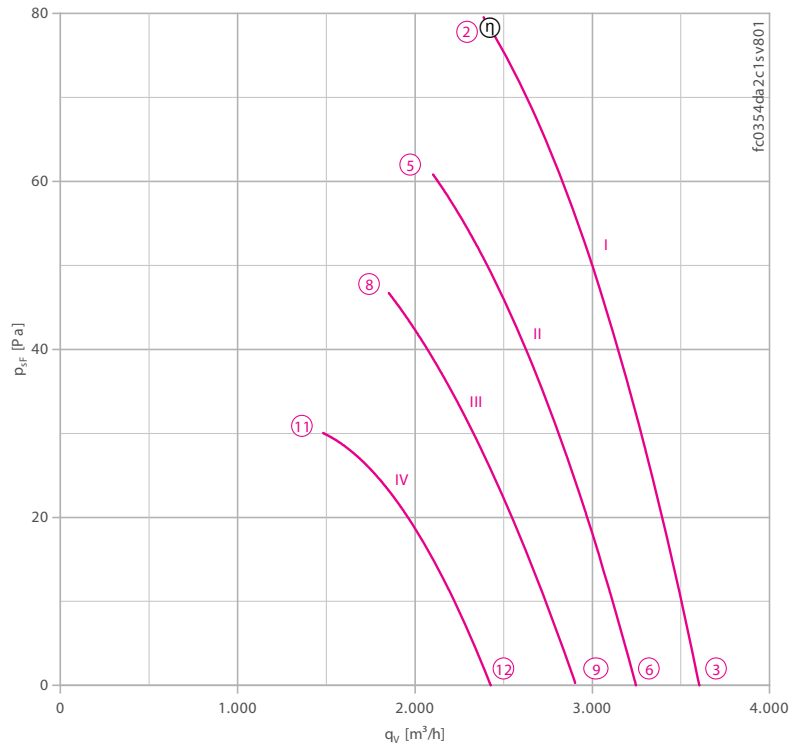
FCO35-4D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 170 W*
 Rated current I_N : 0.64/0.37 A*
 Rated speed n_N : 1370 min⁻¹*
 Starting current I_s : 2.20 / 1.30 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Supply cable lateral-diagonal 65 cm
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 30.8 %
 Efficiency: $N_{actual} = 41.9 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

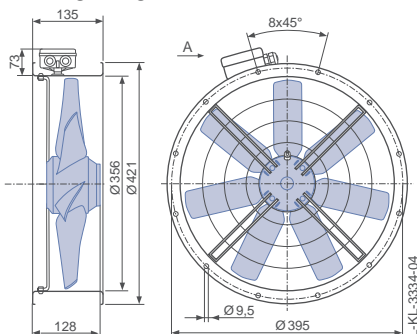
Connection diagram

Page 192
1360-106XB

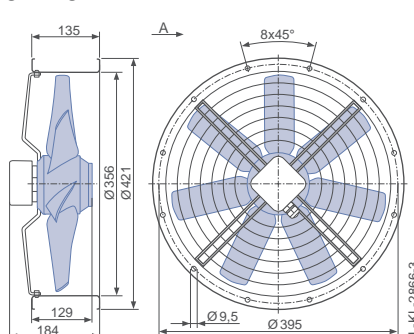
Dimensions mm

Airflow direction A

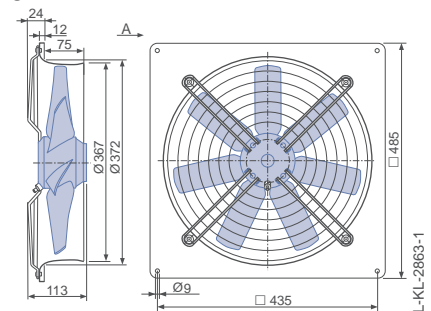
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC035-4D_2C.A7	I	400*	②	0.39*	175*	1390*	74
		400	③	0.38	155	1410	76
	II	230	⑤	0.34	130	1220	71
		230	⑥	0.31	115	1260	73
	III	180	⑧	0.35	110	1070	67
		180	⑨	0.33	100	1130	71
	IV	140	⑪	0.35	83	890	63
		140	⑫	0.32	79	940	66

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC035-4DF.2C.A7	FC035-4DF.2C.A7	FC035-4DQ.2C.A7
Article no.	132990	132992	125090
Weight kg	7.20	9.10	7.30
Electrical connection	Terminal box	Terminal box	Supply cable lateral diagonal

Control technology

Frequency inverter Fcontrol 3~ 	Motor protection units 3~ 	Electronic voltage controllers 3~ 
--	---	--

FC

for single phase alternating current, 4 pole

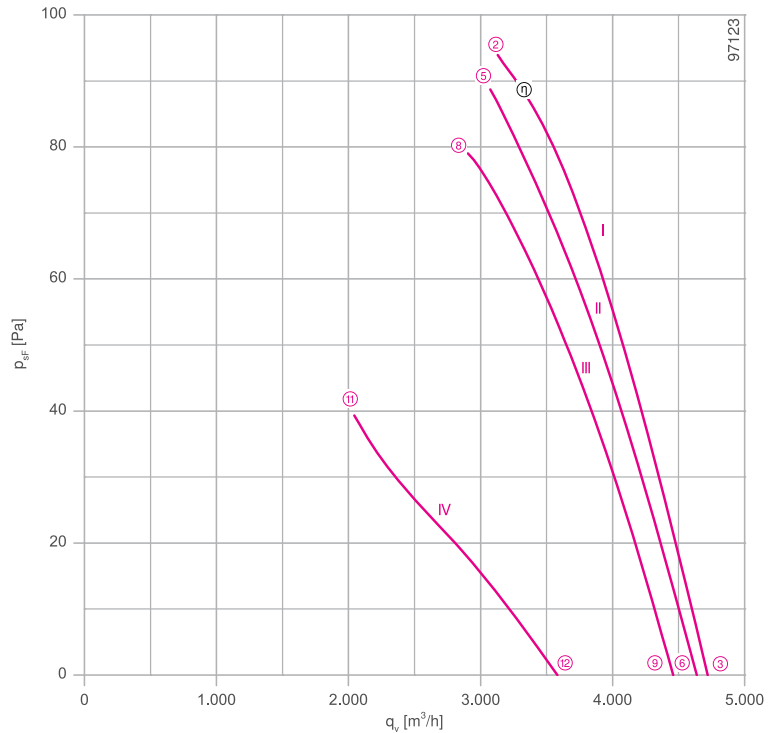
FCO40-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 270 W*
 Rated current I_N : 1.30 A*
 Rated speed n_N : 1400 min⁻¹*
 Starting current I_s : 3.80 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 6.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Degree of protection : IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 31.6 %
 Efficiency: $N_{actual} = 41.6 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



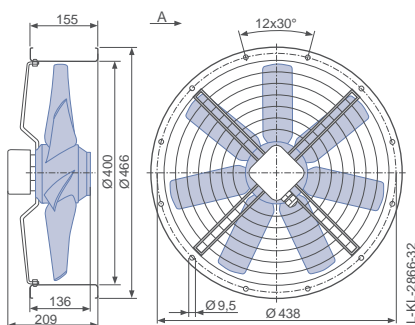
Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

Connection diagram Page 192
 for airflow direction A 1360-104XB
 for airflow direction V 1360-104XA

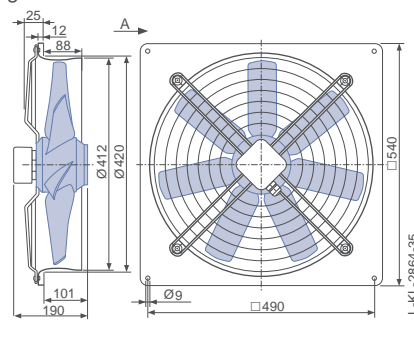
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, guard grille suction side

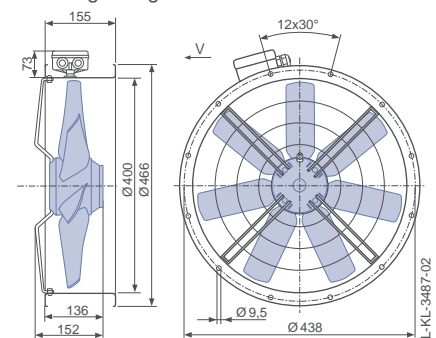


Design Q - square full bell mouth, guard grille suction side



Airflow direction V

Design F - flange ring with two flanges, without guard grille



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC040-4E_4C_7	I	230*	②	1.30*	270*	1400*	77
		230	③	1.20	230	1410	75
	II	200	⑤	1.30	240	1360	76
		200	⑥	1.15	210	1390	74
	III	170	⑧	1.40	220	1280	74
		170	⑨	1.20	190	1330	73
	IV	135	⑪	1.60	180	930	66
		135	⑫	1.45	170	1080	69

*rated data

Fan ordering information

Design	Airflow direction A			Airflow direction V		
	F (guard grille suction side)	Q (guard grille suction side)	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)	F (without guard grille)
Type	FC040-4EF.4C.A7	FC040-4EQ.4C.A7	FC040-4EF.4C.V7	FC040-4EF.4C.A7	FC040-4EQ.4C.A7	FC040-4EF.4C.V7
Article no.	160077	160076	160075	160077	160076	160075
Weight kg	10.50	10.50	10.40	10.50	10.50	10.40

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~

FC

for single phase alternating current, 6 pole

FCO40-6E



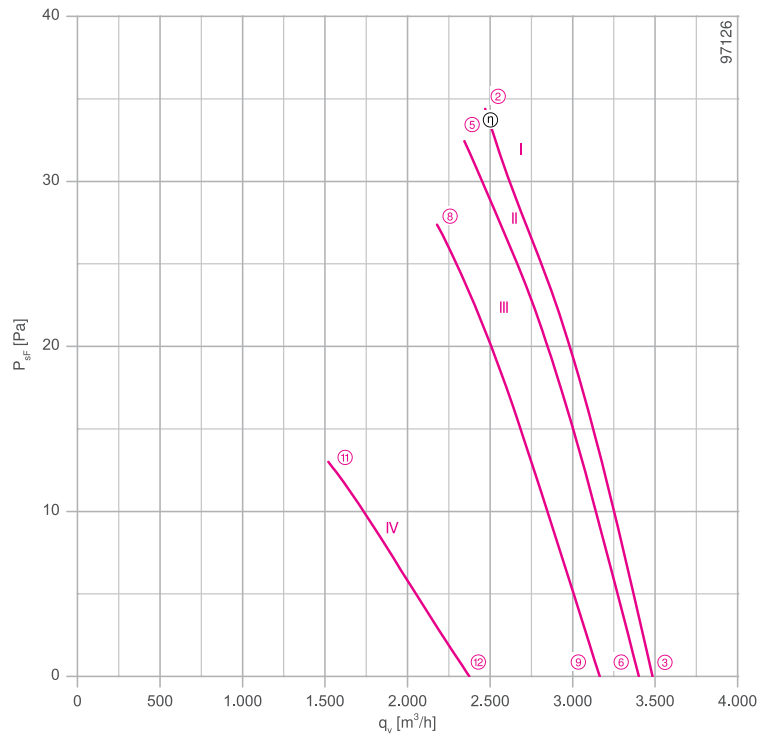
Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V±10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 100 W*
 Rated current I_N : 0.48 A*
 Rated speed n_N : 920 min⁻¹*
 Starting current I_s : 1.00 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 2.5 µF
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: CE

ErP-data

Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

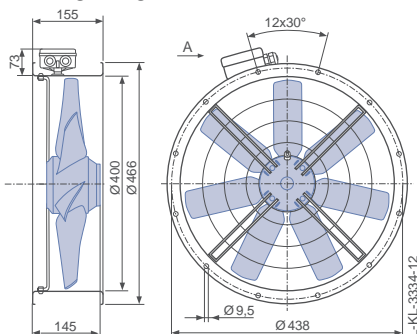
Connection diagram

Page 192
1360-104XB

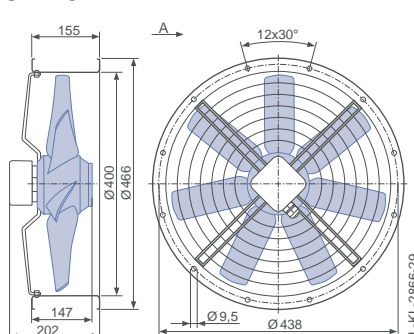
Dimensions mm

Airflow direction A

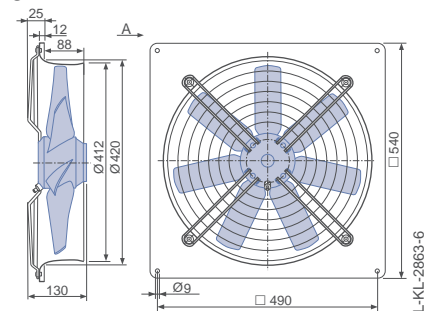
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC040-6E_2F_7	I	230*	②	0.48*	100*	920*	65
		230	③	0.46	100	930	64
	II	200	⑤	0.48	90	890	64
		200	⑥	0.46	85	900	64
	III	170	⑧	0.50	80	820	62
		170	⑨	0.46	75	840	62
	IV	135	⑪	0.52	60	570	53
		135	⑫	0.50	60	630	56

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC040-6EF.2F.A7	FC040-6EF.2F.A7	FC040-6EQ.2F.A7
Article no.	160081	160082	160080
Weight kg	9.00	9.30	9.50

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~
		

FC

for three phase alternating current, 4 pole

FCO4O-4D

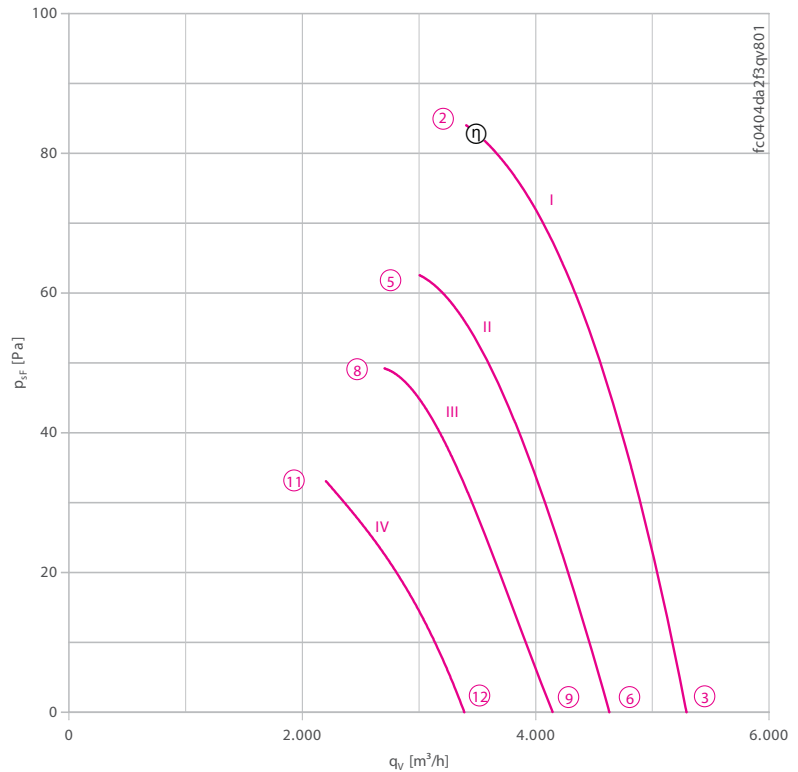


Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 260 W*
 Rated current I_N : 0.97/0.56 A*
 Rated speed n_N : 1350 min⁻¹*
 Starting current I_s : 3.60 / 2.00 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Supply cable lateral-diagonal 65 cm
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 31.7 %
 Efficiency: $N_{actual} = 41.7 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

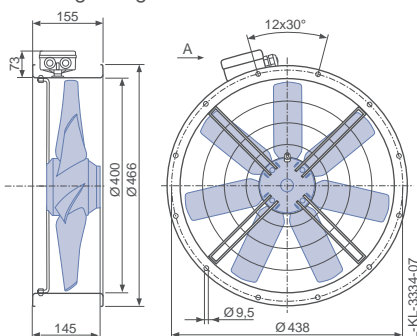
Connection diagram

Page 192
1360-106XB

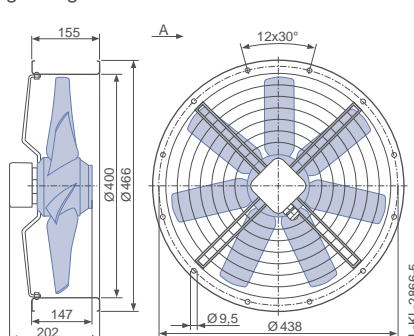
Dimensions mm

Airflow direction A

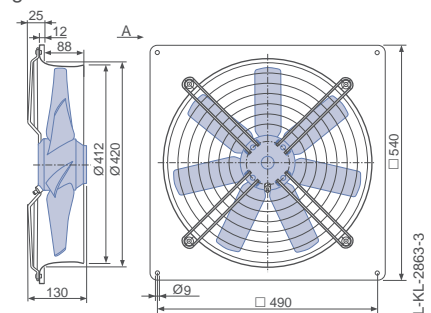
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side

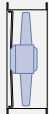

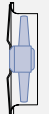


Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC040-4D_2F.A7	I	400*	②	0.60*	280*	1380*	79
		400	③	0.58	260	1390	81
	II	230	⑤	0.55	210	1200	75
		230	⑥	0.51	195	1240	78
	III	180	⑧	0.56	170	1050	71
		180	⑨	0.53	165	1100	75
	IV	140	⑪	0.54	130	870	66
		140	⑫	0.52	125	910	69

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC040-4DF.2F.A7	FC040-4DF.2F.A7	FC040-4DQ.2F.A7
Article no.	132144	132146	125094
Weight kg	9.00	9.30	9.30
Electrical connection	Terminal box	Terminal box	Supply cable lateral diagonal

Control technology

Frequency inverter Fcontrol 3~ 	Motor protection units 3~ 	Electronic voltage controllers 3~ 
--	---	---

FC

for three phase alternating current, 6 pole

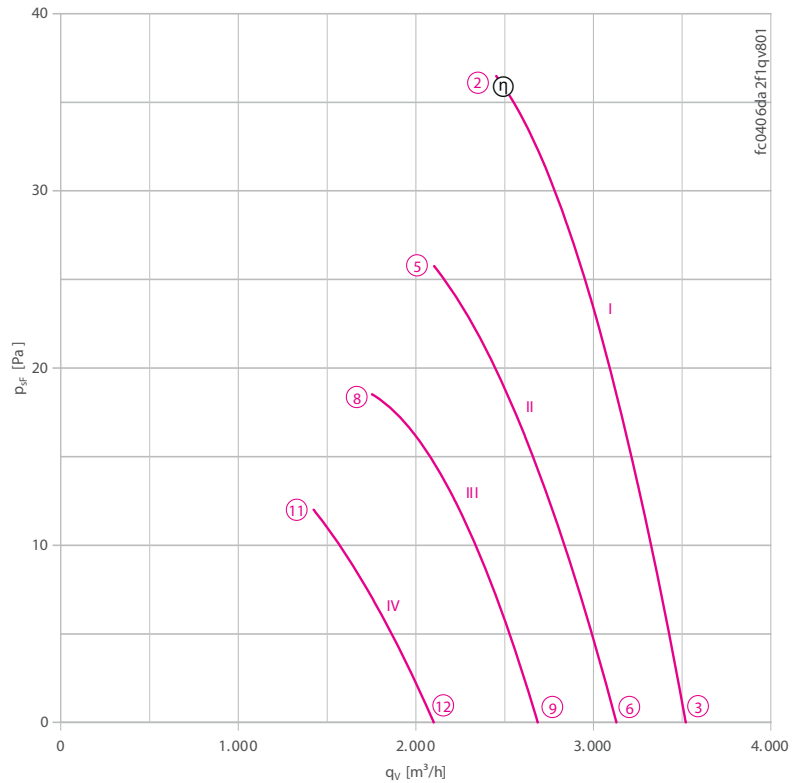
FC040-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 110 W*
 Rated current I_N : 0.49/0.28 A*
 Rated speed n_N : 920 min⁻¹*
 Starting current I_s : 1.60 / 0.90 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Supply cable lateral-diagonal 65 cm
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

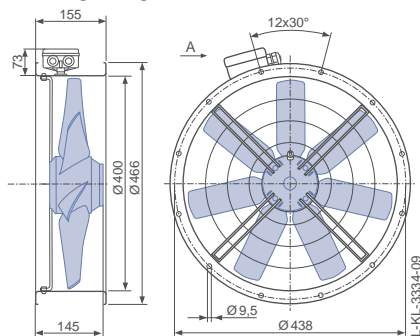
Connection diagram

Page 192
1360-106XB

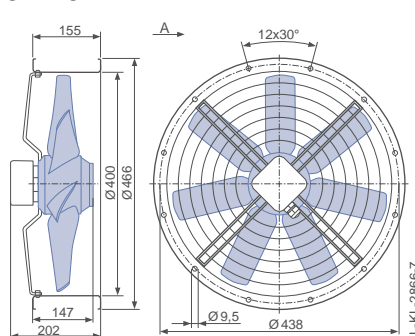
Dimensions mm

Airflow direction A

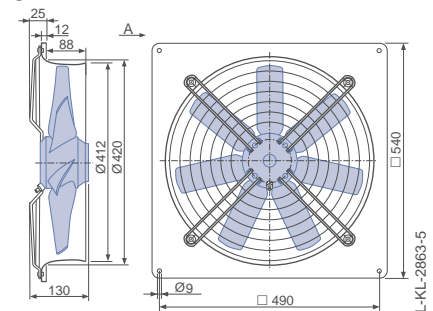
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side

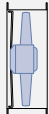



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC040-6D_2F.A7	I	400*	②	0.28*	110*	920*	68
		400	③	0.27	97	940	70
	II	230	⑤	0.24	73	810	64
		230	⑥	0.23	69	830	67
	III	180	⑧	0.23	57	680	59
		180	⑨	0.23	56	710	62
	IV	140	⑪	0.21	41	540	53
		140	⑫	0.21	40	570	56

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC040-6DF.2F.A7	FC040-6DF.2F.A7	FC040-6DQ.2F.A7
Article no.	132213	132215	125146
Weight kg	9.00	9.30	9.30

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for single phase alternating current, 4 pole

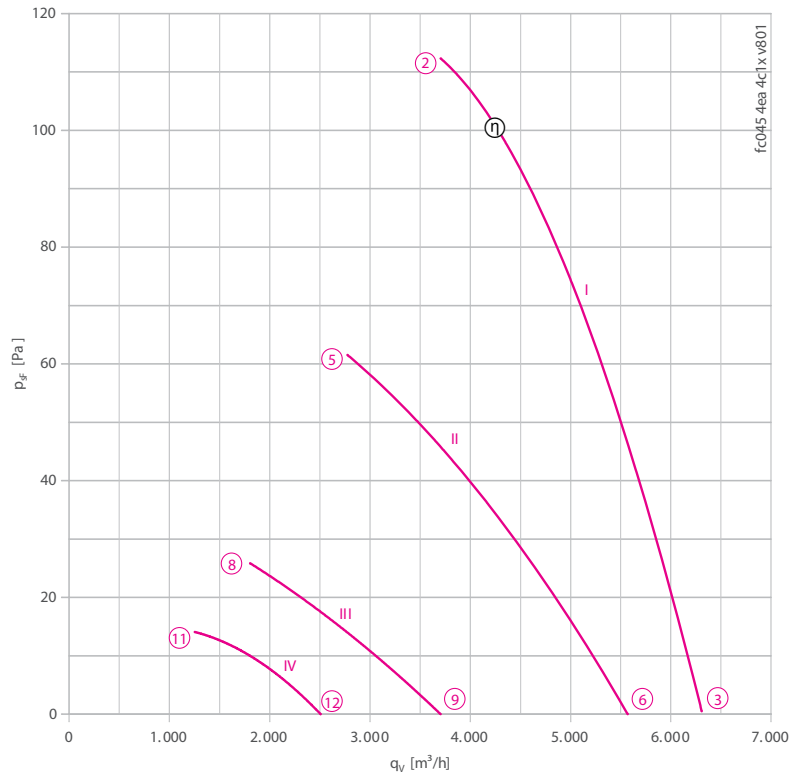
FCO45-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 360 W*
 Rated current I_N : 1.60 A*
 Rated speed n_N : 1370 min⁻¹*
 Starting current I_s : 3.40 A
 Current increase ΔI : 30 %
 Service capacitor C_{400V} : 6.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 32.3 %
 Efficiency: $N_{actual} = 41.5 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

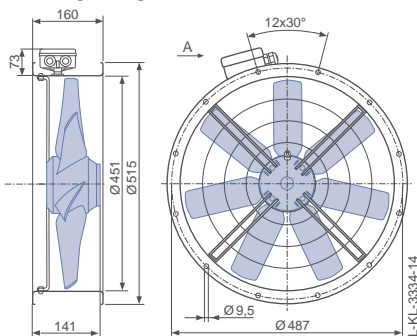
Connection diagram

Page 192
1360-104XB

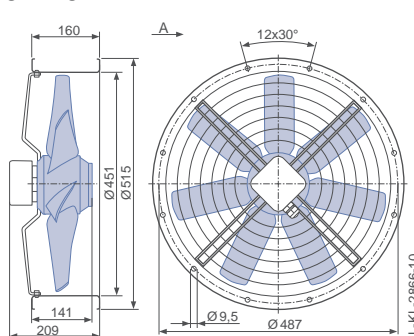
Dimensions mm

Airflow direction A

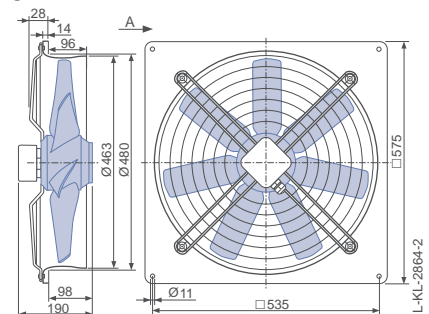
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side

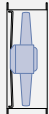

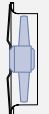


Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC045-4E_4C.A7	I	230*	②	1.60*	360*	1370*	78
		230	③	1.40	320	1390	78
	II	160	⑤	1.95	300	1060	72
		160	⑥	1.65	270	1220	75
	III	130	⑧	1.75	210	700	63
		130	⑨	1.70	200	820	66
	IV	105	⑪	1.50	135	530	56
		105	⑫	1.45	135	570	58

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC045-4EF.4C.A7	FC045-4EF.4C.A7	FC045-4EQ.4C.A7
Article no.	132225	132227	125166
Weight kg	10.90	11.40	11.10

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~
		

FC

for three phase alternating current, 4 pole

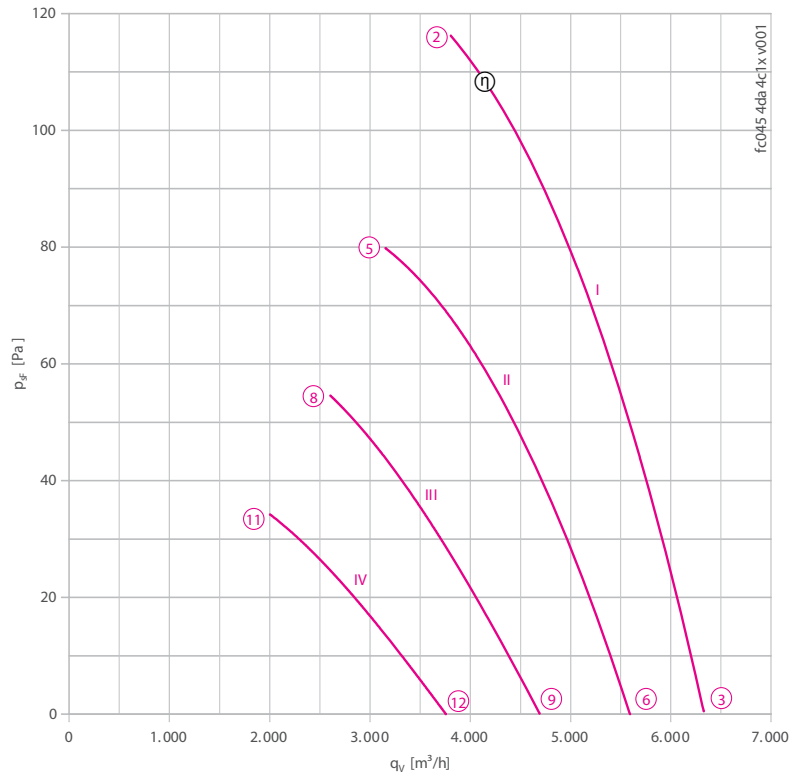
FCO45-4D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.36 kW*
 Rated current I_N : 1.40/0.80 A*
 Rated speed n_N : 1380 min⁻¹*
 Starting current I_s : 4.60 / 2.60 A
 Current increase ΔI : 0 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 36.8 %
 Efficiency: $N_{actual} = 46.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

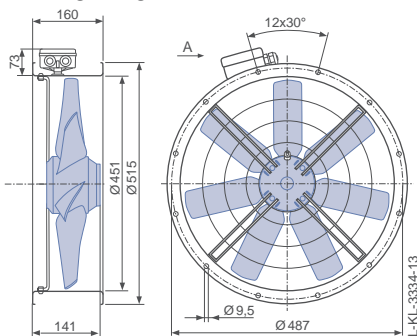
Connection diagram

Page 192
1360-106XB

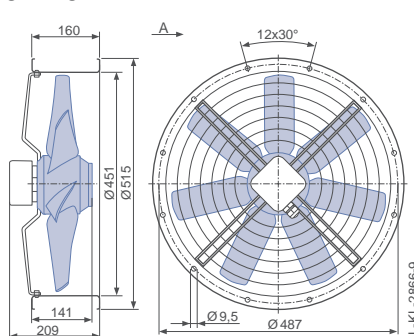
Dimensions mm

Airflow direction A

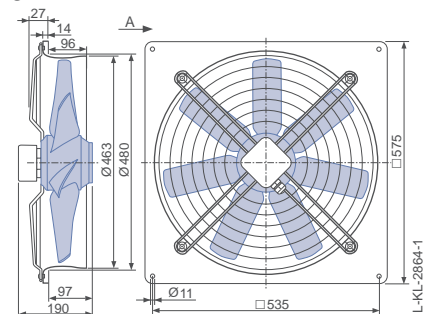
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side

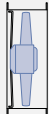

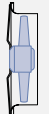


Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC045-4D_4C.A7	I	400*	②	0.75*	360*	1390*	78
		400	③	0.74	310	1410	78
	II	230	⑤	0.75	270	1150	74
		230	⑥	0.66	240	1230	75
	III	180	⑧	0.74	210	950	69
		180	⑨	0.68	195	1050	72
	IV	140	⑪	0.66	140	750	64
		140	⑫	0.63	135	830	66

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC045-4DF.4C.A7	FC045-4DF.4C.A7	FC045-4DQ.4C.A7
Article no.	132221	132223	125158
Weight kg	10.90	11.40	11.10

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6 pole

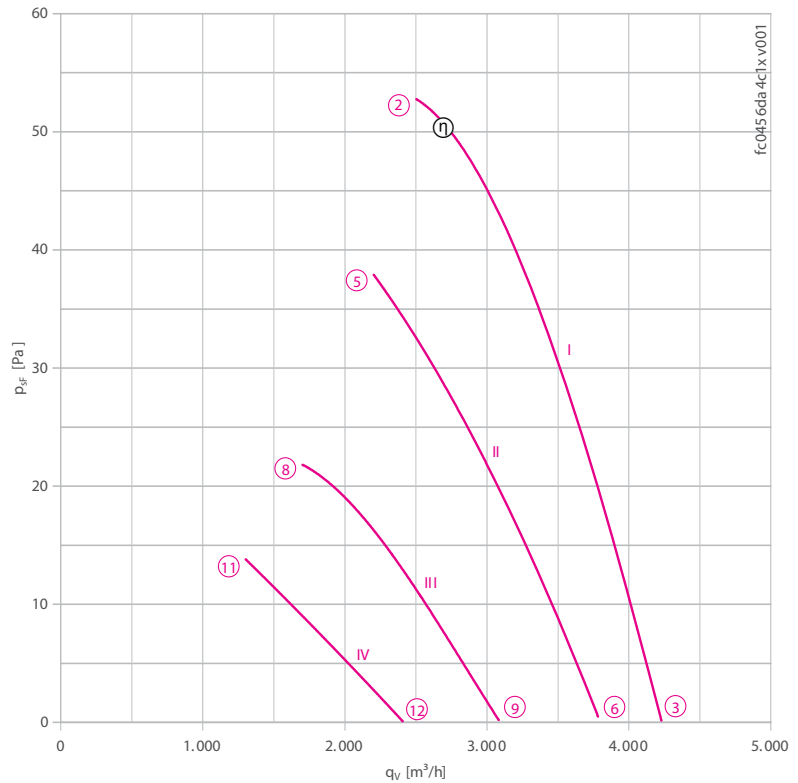
FC045-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 120 W*
 Rated current I_N : 0.48/0.28 A*
 Rated speed n_N : 890 min⁻¹*
 Starting current I_s : 1.30 / 0.75 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: CE
ErP-data
 Not subject to the regulations of ErP directive ($P_i < 125$ W)
 * Rated data

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

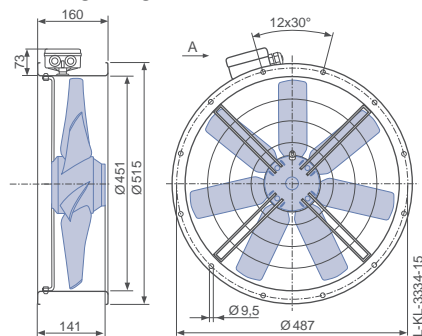
Connection diagram

Page 192
1360-106XB

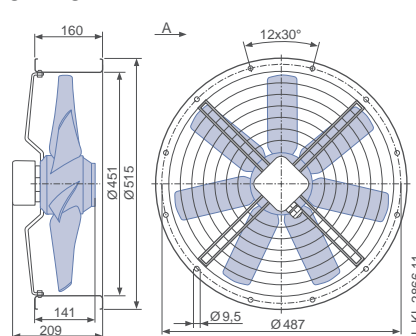
Dimensions mm

Airflow direction A

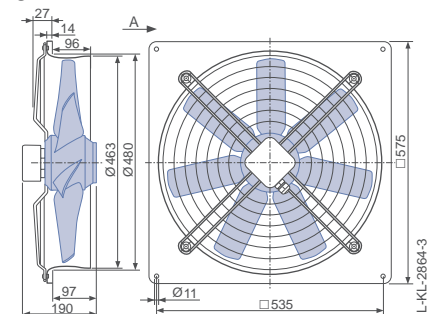
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side

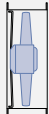

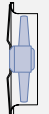


Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC045-6D_4C.A7	I	400*	②	0.35*	125*	940*	69
		400	③	0.34	110	950	69
	II	230	⑤	0.32	92	790	65
		230	⑥	0.29	81	840	67
	III	180	⑧	0.31	68	620	60
		180	⑨	0.29	64	700	63
	IV	140	⑪	0.27	44	470	54
		140	⑫	0.26	43	540	57

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC045-6DF.4C.A7	FC045-6DF.4C.A7	FC045-6DQ.4C.A7
Article no.	132229	132231	125162
Weight kg	10.90	11.40	11.10

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for single phase alternating current, 4 pole

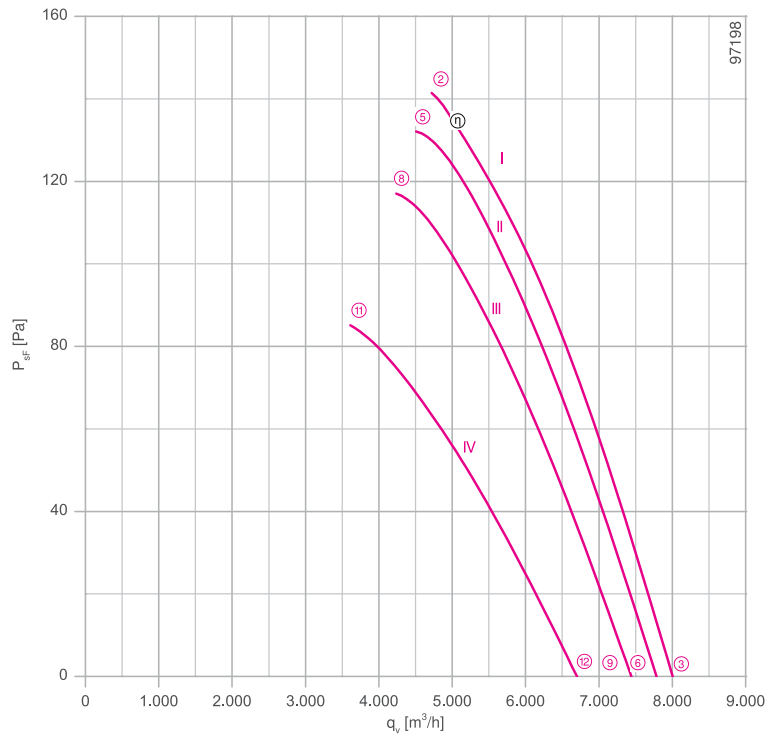
FCO50-4E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.59 kW*
 Rated current I_N : 2.60 A*
 Rated speed n_N : 1340 min⁻¹*
 Current increase ΔI : 10 %
 Service capacitor C_{400V} : 14.0 μ F
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 32.8 %
 Efficiency: $N_{actual} = 40.6 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

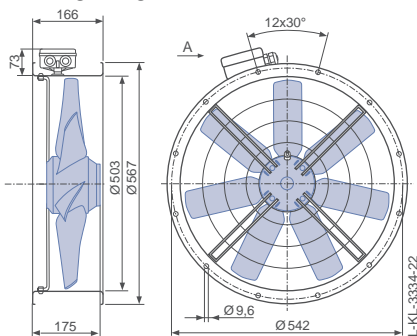
Connection diagram

Page 192
1360-104XB

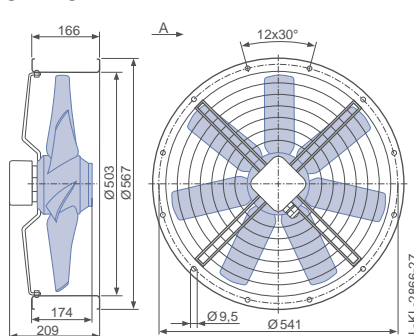
Dimensions mm

Airflow direction A

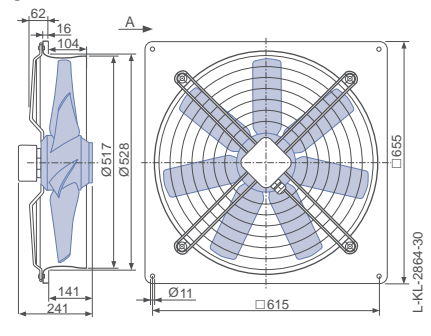
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC050-4E_4I_7	I	230*	②	2.60*	580*	1340*	82
		230	③	2.30	500	1380	79
	II	200	⑤	2.60	520	1290	81
		200	⑥	2.20	440	1340	79
	III	170	⑧	2.70	460	1220	80
		170	⑨	2.30	390	1280	78
	IV	135	⑪	2.80	370	1040	76
		135	⑫	2.40	320	1160	75

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC050-4EF.4I.A7	FC050-4EF.4I.A7	FC050-4EQ.4I.A7
Article no.	160112	160113	160111
Weight kg	15.20	15.90	18.40

Control technology

Frequency inverter Fcontrol 1~ 	Motor protection units 1~ 	Electronic voltage controllers 1~ 
---	--	--

FC

for single phase alternating current, 6 pole

FCO50-6E



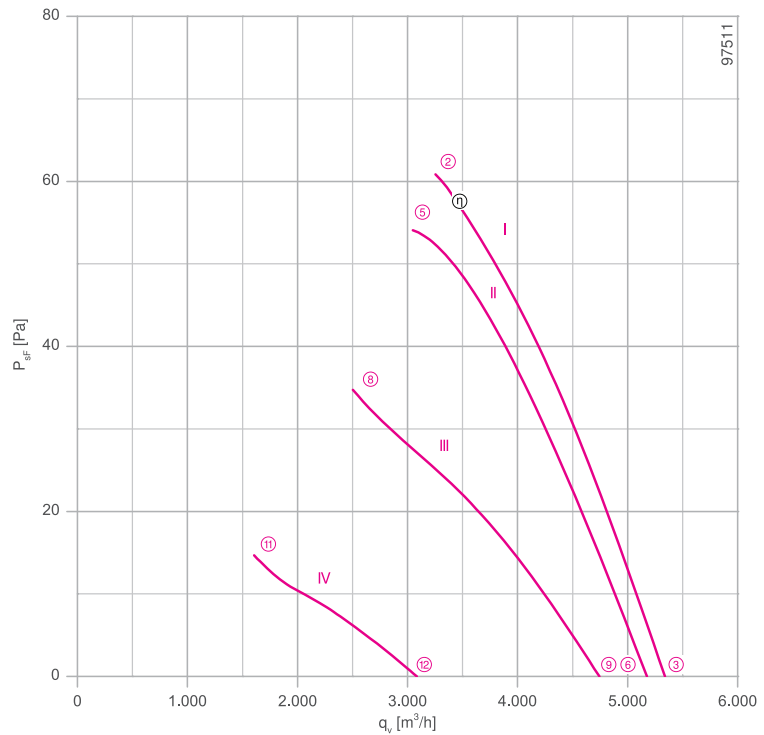
Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V±10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 180 W*
 Rated current I_N : 0.84 A*
 Rated speed n_N : 890 min⁻¹*
 Starting current I_s : 1.60 A
 Current increase ΔI : 0 %
 Service capacitor C_{400V} : 6.0 µF
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 30.8 %
 Efficiency: $N_{actual} = 41.8 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

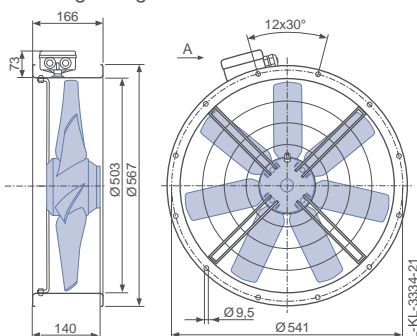
Connection diagram

Page 192
1360-104XB

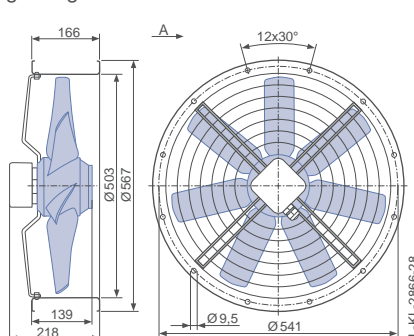
Dimensions mm

Airflow direction A

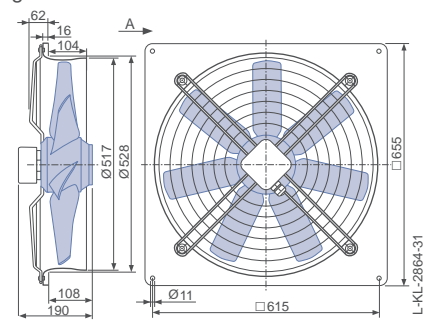
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side




Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC050-6E_.4C_.7	I	230*	②	0.84*	180*	890*	71
		230	③	0.72	160	920	70
	II	200	⑤	0.84	160	840	70
		200	⑥	0.70	140	900	69
	III	170	⑧	0.88	140	690	67
		170	⑨	0.74	120	830	68
	IV	135	⑪	0.76	90	440	62
		135	⑫	0.74	85	540	63

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC050-6EF.4C.A7	FC050-6EF.4C.A7	FC050-6EQ.4C.A7
Article no.	160086	160087	160085
Weight kg	12.10	12.80	15.30

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~
		

FC

for three phase alternating current, 4 pole

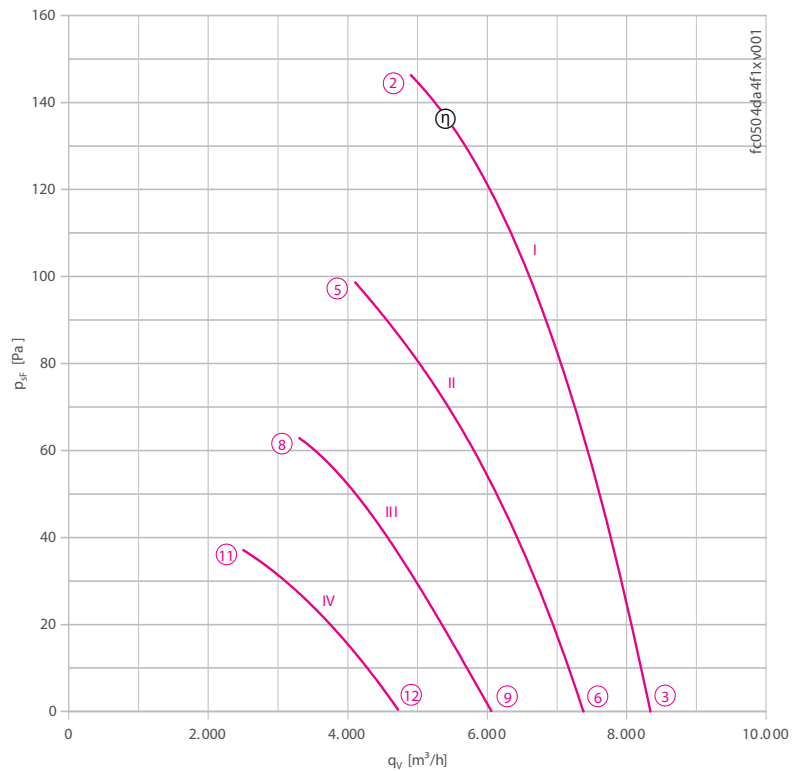
FC050-4D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.55 kW*
 Rated current I_N : 1.80/1.05 A*
 Rated speed n_N : 1380 min⁻¹*
 Starting current I_s : 7.00 / 4.20 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 39.9 %
 Efficiency: $N_{actual} = 48.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

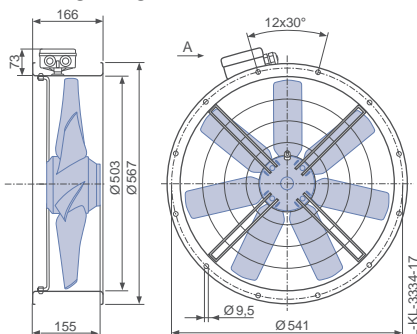
Connection diagram

Page 192
1360-106XB

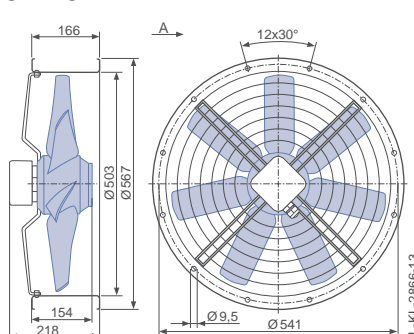
Dimensions mm

Airflow direction A

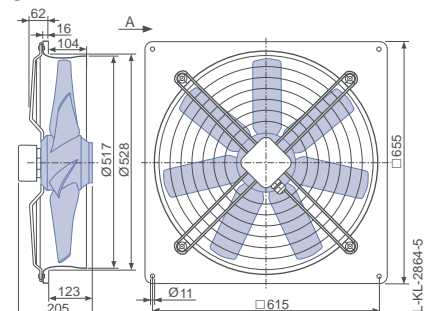
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC050-4D_4F.A7	I	400*	②	1.05*	550*	1380*	81
		400	③	0.92	430	1410	84
	II	230	⑤	1.20	430	1140	77
		230	⑥	1.00	360	1240	81
	III	180	⑧	1.20	320	910	72
		180	⑨	1.05	290	1040	77
	IV	140	⑪	1.00	200	710	67
		140	⑫	0.97	220	820	72

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC050-4DF.4F.A7	FC050-4DF.4F.A7	FC050-4DQ.4F.A7
Article no.	132283	132285	130753
Weight kg	13.50	14.20	16.60

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6 pole

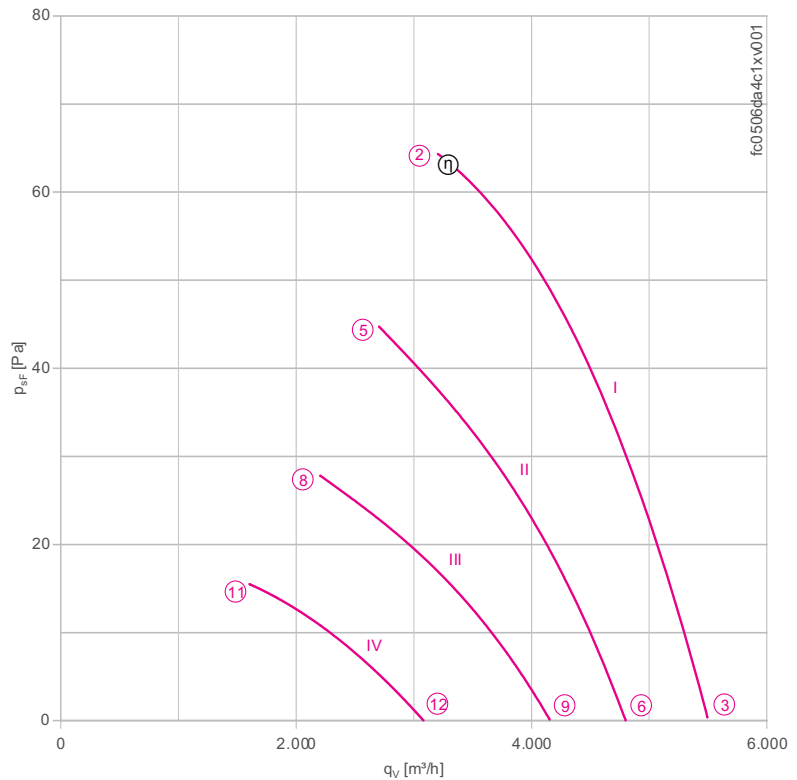
FC050-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 200 W*
 Rated current I_N : 0.97/0.56 A*
 Rated speed n_N : 920 min⁻¹*
 Starting current I_s : 2.80 / 1.60 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 31.1 %
 Efficiency: $N_{actual} = 41.8 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

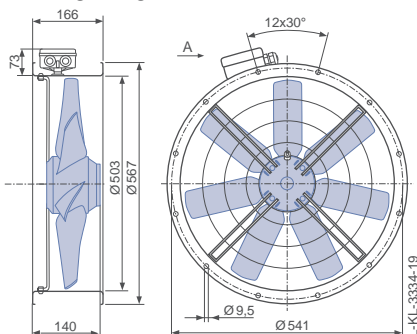
Connection diagram

Page 192
1360-106XB

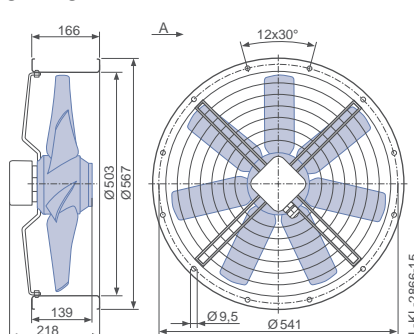
Dimensions mm

Airflow direction A

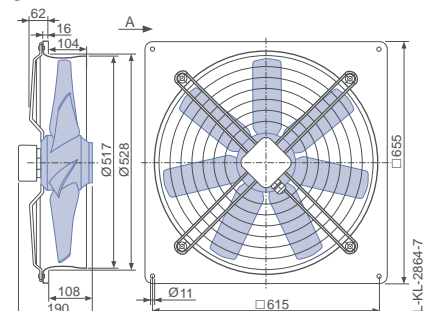
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC050-6D_4C.A7	I	400*	②	0.56*	200*	920*	72
		400	③	0.53	170	940	75
	II	230	⑤	0.49	140	770	68
		230	⑥	0.43	120	830	72
	III	180	⑧	0.47	105	610	63
		180	⑨	0.43	91	700	68
	IV	140	⑪	0.40	64	470	58
		140	⑫	0.38	62	530	62

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC050-6DF.4C.A7	FC050-6DF.4C.A7	FC050-6DQ.4C.A7
Article no.	132291	132293	132303
Weight kg	12.10	12.80	15.30

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 4 pole

FC056-4D

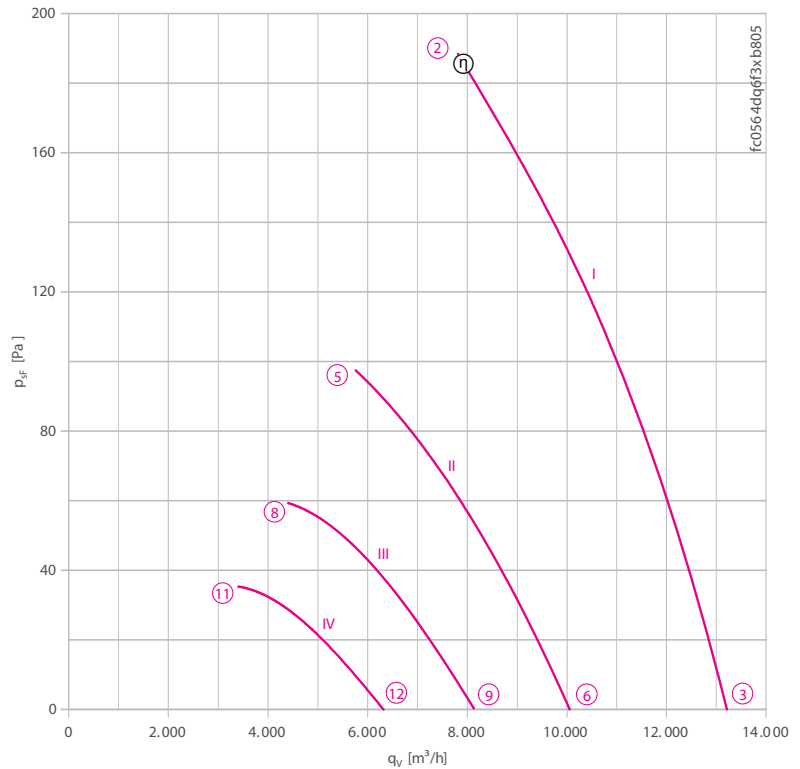


Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.25 kW*
 Rated current I_N : 3.80/2.20 A*
 Rated speed n_N : 1300 min⁻¹*
 Starting current I_s : 16.00 / 9.50 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 34.6 %
 Efficiency: $N_{actual} = 40.4 / N_{target} = 40^{**}$
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

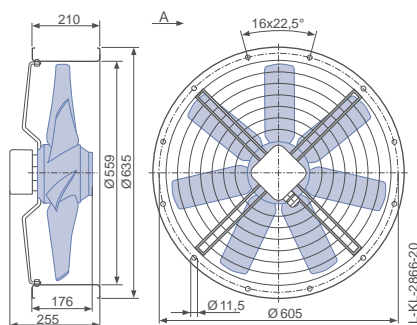
Connection diagram

Page 192
1360-106XB

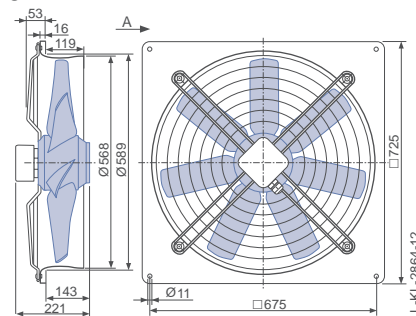
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC056-4D_.6F.A7	I	400*	②	2.20*	1250*	1300*	83
		400	③	1.90	1050	1340	83
	II	230	⑤	2.40	780	950	76
		230	⑥	2.20	720	1030	78
	III	180	⑧	2.20	550	760	71
		180	⑨	2.10	530	830	73
	IV	140	⑪	1.90	360	600	66
		140	⑫	1.80	350	660	68

*rated data

Fan ordering information

Airflow direction A

Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC056-4DF.6F.A7	FC056-4DQ.6F.A7
Article no.	132422	125189
Weight kg	23.40	25.00

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6 pole

FC056-6D



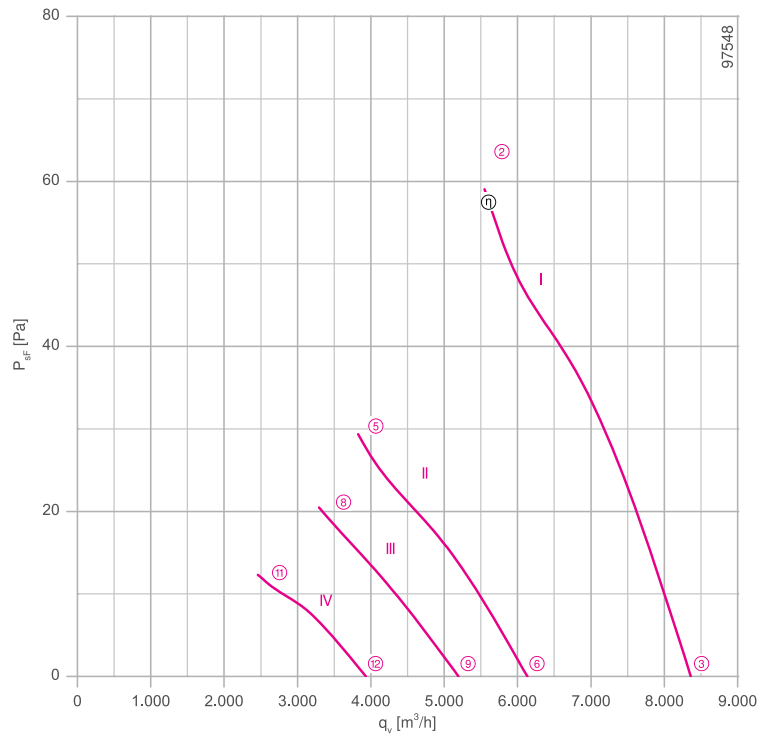
Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 310 W*
 Rated current I_N : 1.05/0.60 A*
 Rated speed n_N : 840 min⁻¹*
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 31.0 %
 Efficiency: $N_{actual} = 40.6 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

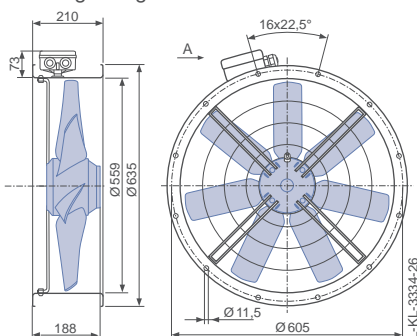
Connection diagram

Page 192
1360-106XB

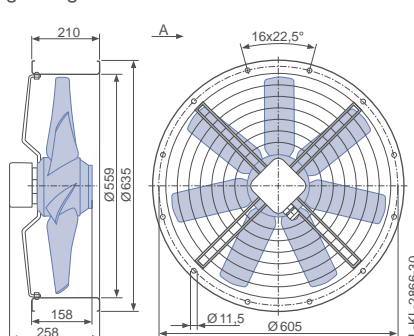
Dimensions mm

Airflow direction A

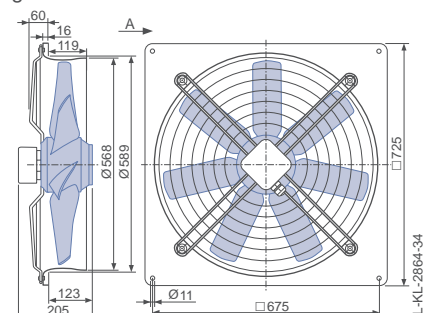
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC056-6D_4F_7	I	400*	②	0.60*	310*	840*	71
		400	③	0.56	270	870	72
	II	230	⑤	0.56	170	590	63
		230	⑥	0.54	160	640	64
	III	190	⑧	0.50	130	500	59
		190	⑨	0.48	120	540	60
	IV	145	⑪	0.42	80	390	52
		145	⑫	0.42	80	410	54

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC056-6DF.4F.A7	FC056-6DF.4F.A7	FC056-6DQ.4F.A7
Article no.	160100	160101	160099
Weight kg	16.00	16.80	19.10

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 4-4 pole

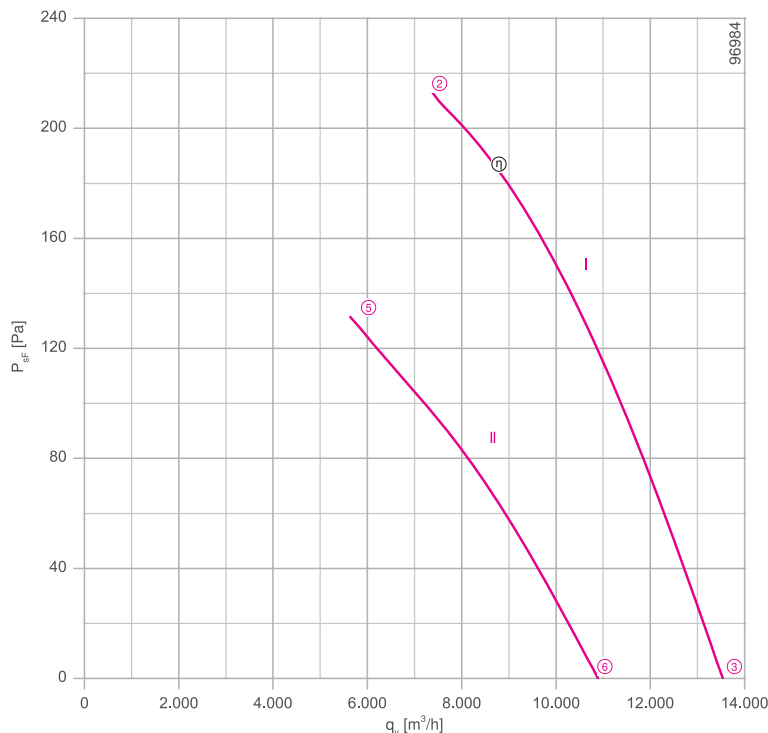
FC056-VD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.30/0.88 kW*
 Rated current I_N : 2.50/1.50 A*
 Rated speed n_N : 1340/1040 min⁻¹*
 Starting current I_s : 9.50 / 3.00 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 35.9 %
 Efficiency: $N_{actual} = 41.5 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

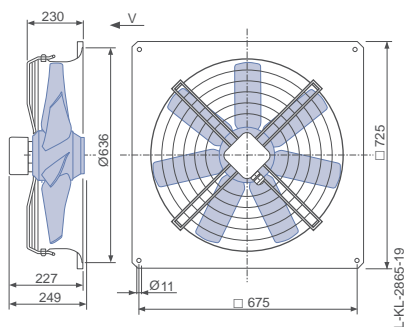
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

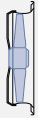
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC056-VD_6F.V7	Δ	I	400*	②	2.50*	1300*	1340*	82
			400	③	2.30	1100	1370	81
	Y	II	400*	⑤	1.50*	860*	1040*	76
			400	⑥	1.35	800	1100	76

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC056-VDQ.6F.V7
Article no. 160094

Weight kg 28.05

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FC

for three phase alternating current, 4-4 pole

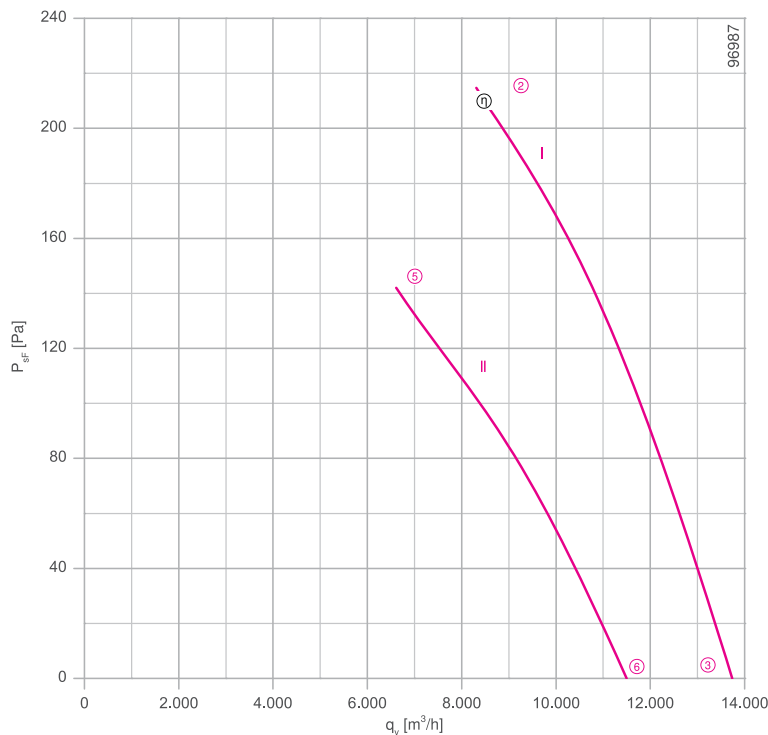
FC056-VD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 1.30/0.86 kW*
 Rated current I_N : 3.10/1.65 A*
 Rated speed n_N : 1360/1100 min⁻¹*
 Starting current I_s : 13.00 / 3.80 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 39.6 %
 Efficiency: $N_{actual} = 45.2 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

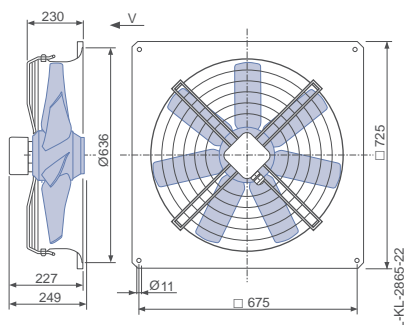
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

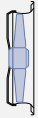
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC056-VD_6K.V7	Δ	I	400*	②	3.10*	1300*	1360*	83
			400	③	2.90	1100	1380	82
	Y	II	400*	⑤	1.65*	860*	1100*	78
			400	⑥	1.50	760	1170	78

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC056-VDQ.6K.V7
Article no. 160096

Weight kg 31.30

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6-6 pole

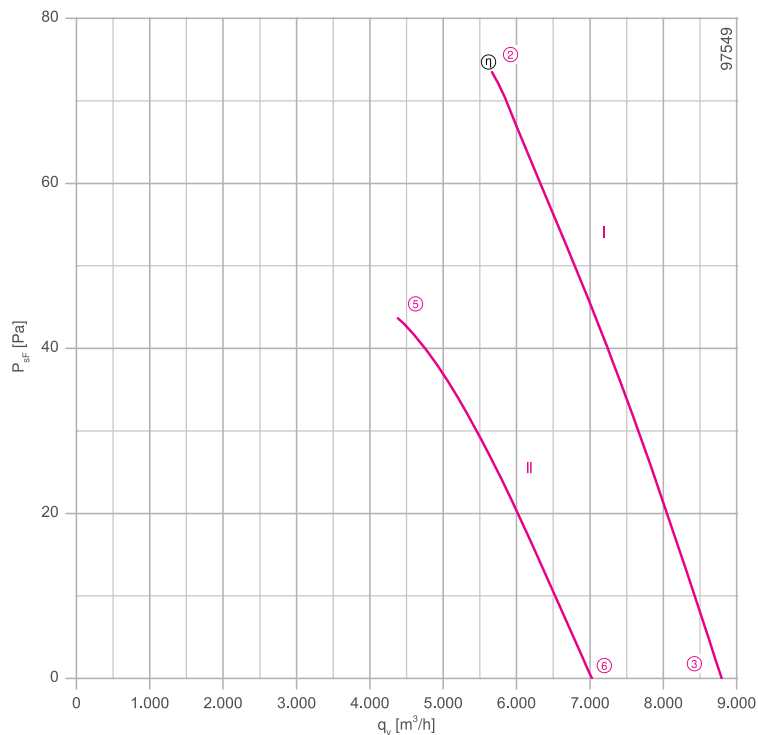
FC056-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.36/0.23 kW*
 Rated current I_N : 0.82/0.42 A*
 Rated speed n_N : 890/ 690 min⁻¹*
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 32.7 %
 Efficiency: $N_{actual} = 41.8 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

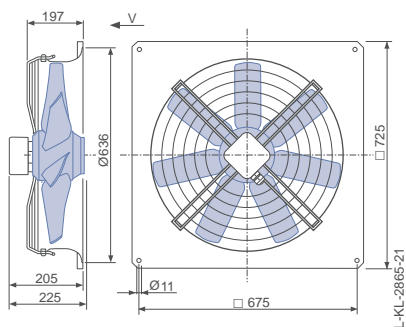
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

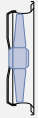
Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FC056-SD_4F.V7	Δ	I	400*	②	0.82*	360*	890*	74
			400	③	0.78	320	910	72
	Y	II	400*	⑤	0.42*	230*	690*	67
			400	⑥	0.40	210	730	68

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC056-SDQ.4F.V7
Article no. 160103

Weight kg 19.00

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 4 pole

FC063-4D



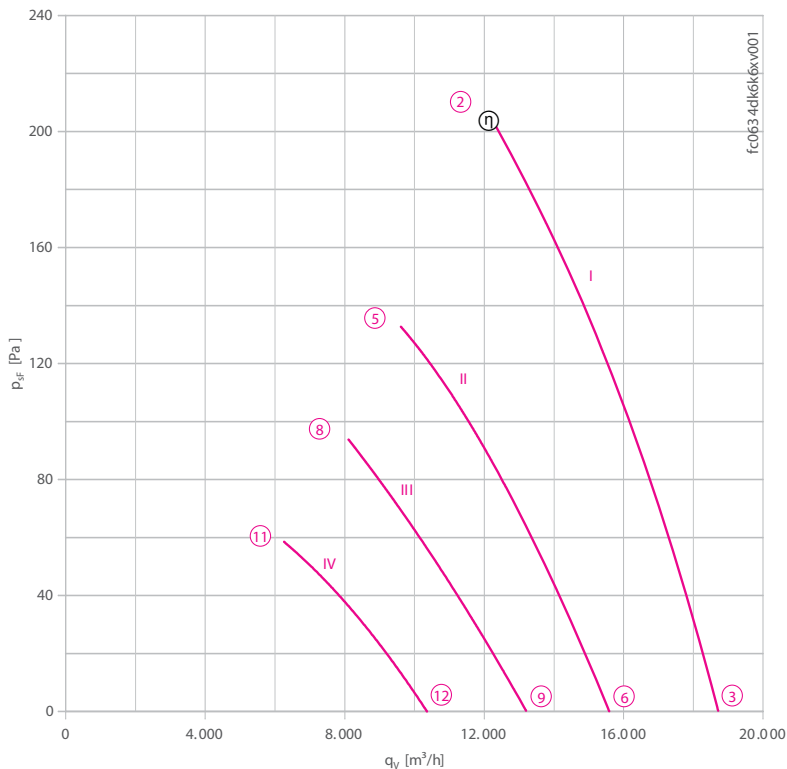
Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.90 kW*
 Rated current I_N : 5.50/3.20 A*
 Rated speed n_N : 1360 min⁻¹*
 Starting current I_s : 30.00 / 17.00 A
 Current increase ΔI : 15 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 36.9 %
 Efficiency: $N_{actual} = 41.5 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

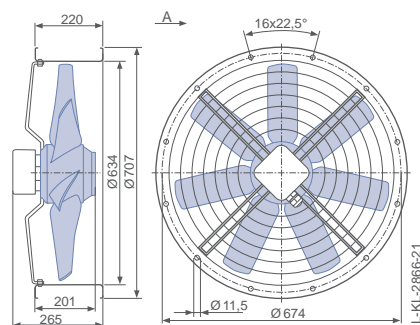
Connection diagram

Page 192
1360-106XB

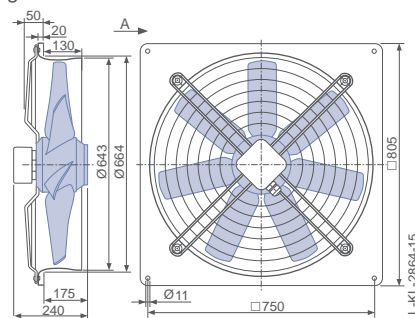
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side


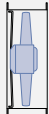



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC063-4D_6K.A7	I	400*	②	3.20*	1900*	1360*	90
		400	③	3.10	1800	1380	90
	II	230	⑤	3.80	1350	1110	85
		230	⑥	3.70	1350	1130	86
	III	180	⑧	3.80	1050	920	80
		180	⑨	3.70	1000	950	81
	IV	140	⑪	3.40	730	740	75
		140	⑫	3.40	730	770	76

*rated data

Fan ordering information

Airflow direction A 		
Design	F (guard grille suction side)	Q (guard grille suction side)
		
Type	FC063-4DF.6K.A7	FC063-4DQ.6K.A7
Article no.	132517	125205
Weight kg	29.00	31.50

Control technology

Frequency inverter Fcontrol 3~ 	Motor protection units 3~ 	Electronic voltage controllers 3~ 
---	--	--

FC

for three phase alternating current, 6 pole

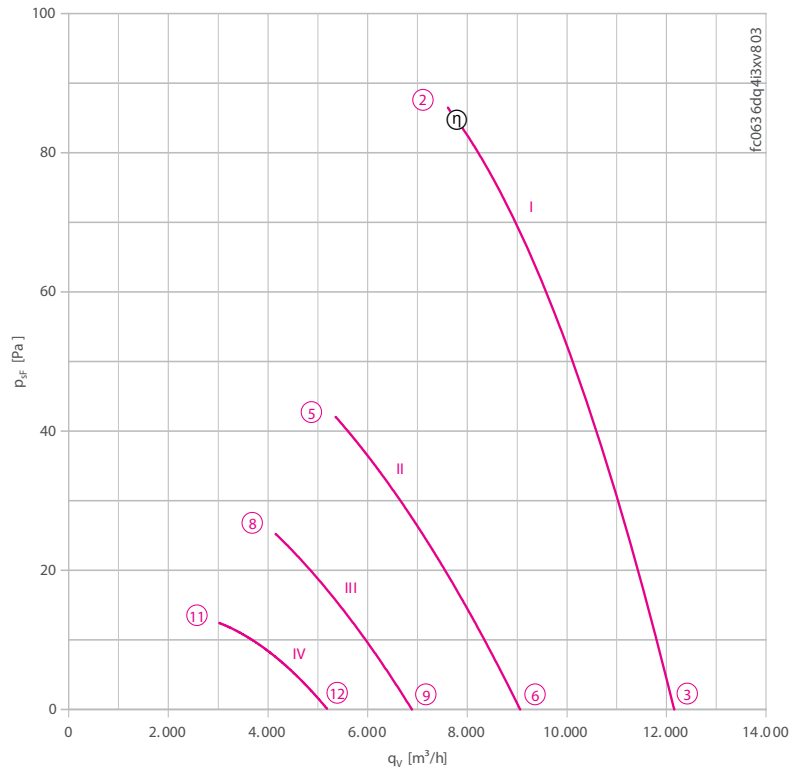
FC063-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) $\pm 10\%$ *
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.59 kW*
 Rated current I_N : 2.30/1.30 A*
 Rated speed n_N : 890 min⁻¹*
 Starting current I_A : 6.00 / 3.60 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 32.2 %
 Efficiency: $N_{actual} = 40.1 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

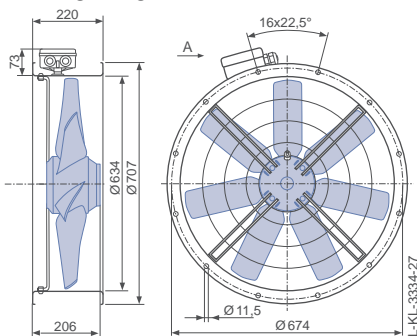
Connection diagram

Page 192
1360-106XB

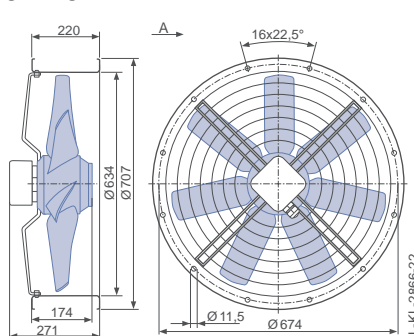
Dimensions mm

Airflow direction A

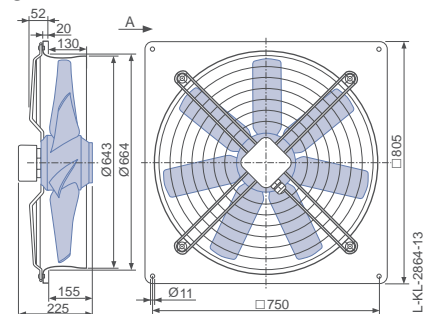
Design F - flange ring with two flanges, without guard grille



Design F - flange ring with two flanges, guard grille suction side



Design Q - square full bell mouth, guard grille suction side


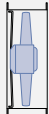



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC063-6D_4I.A7	I	400*	②	1.30*	590*	890*	80
		400	③	1.20	510	910	80
	II	230	⑤	1.30	360	610	70
		230	⑥	1.25	340	680	73
	III	180	⑧	1.10	230	480	64
		180	⑨	1.10	230	520	66
	IV	140	⑪	0.90	140	360	57
		140	⑫	0.89	140	390	59

*rated data

Fan ordering information

Airflow direction A			
Design	F (without guard grille)	F (guard grille suction side)	Q (guard grille suction side)
			
Type	FC063-6DF.4I.A7	FC063-6DF.4I.A7	FC063-6DQ.4I.A7
Article no.	124983	132353	130751
Weight kg	19.40	20.30	24.00

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 4-4 pole

FC063-VD



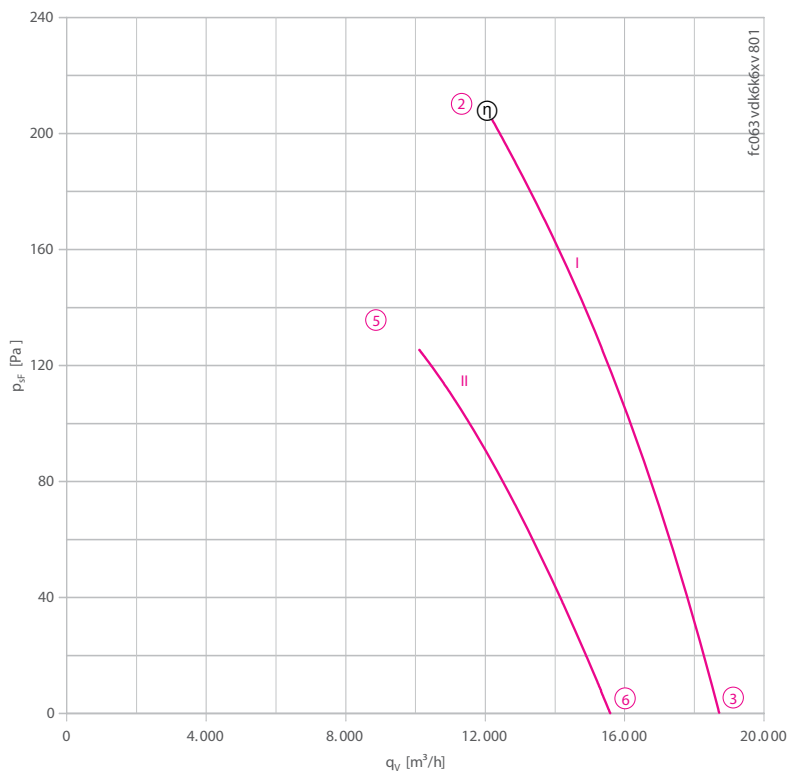
Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.90/1.35 kW*
 Rated current I_N : 3.20/2.20 A*
 Rated speed n_N : 1340/1070 min⁻¹*
 Starting current I_s : 15.00 / 4.80 A
 Current increase ΔI : 15 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 37.2 %
 Efficiency: $N_{actual} = 41.8 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

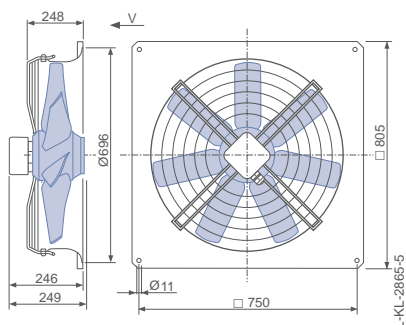
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC063-VD_6K.V7	Δ	I	400*	②	3.20*	1900*	1340*	90
			400	③	2.90	1650	1380	90
	Y	II	400*	⑤	2.20*	1350*	1070*	84
			400	⑥	2.00	1240	1150	86

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC063-VDQ.6K.V7
Article no. 123995

Weight kg 34.20

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6-6 pole

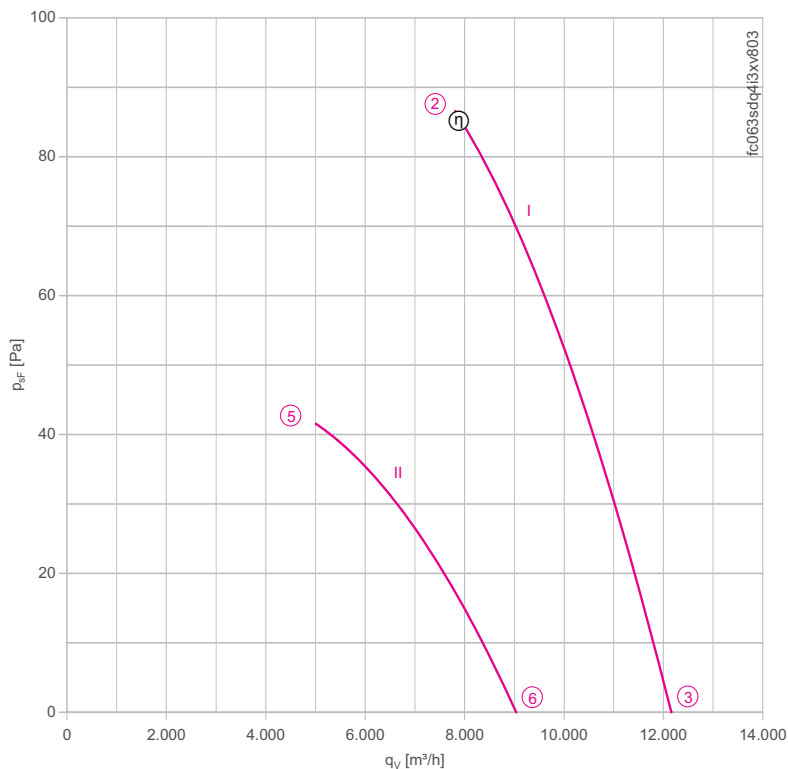
FC063-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.60/0.40 kW*
 Rated current I_N : 1.35/0.78 A*
 Rated speed n_N : 900/ 650 min⁻¹*
 Starting current I_s : 4.00 / 1.35 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 32.2 %
 Efficiency: $N_{actual} = 40.3 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

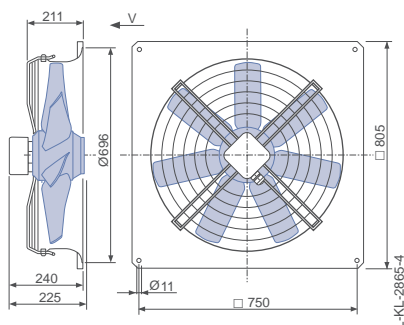
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

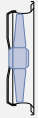
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC063-SD_4I.V7	Δ	I	400*	②	1.35*	600*	900*	81
			400	③	1.30	550	920	80
	Y	II	400*	⑤	0.78*	400*	680*	74
			400	⑥	0.75	380	720	74

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC063-SDQ.4I.V7
Article no. 123996

Weight kg 23.40

Control technology

Frequency inverter Fcontrol 3~

Motor protection units 3~

Electronic voltage controllers 3~



FC

for single phase alternating current, 6 pole

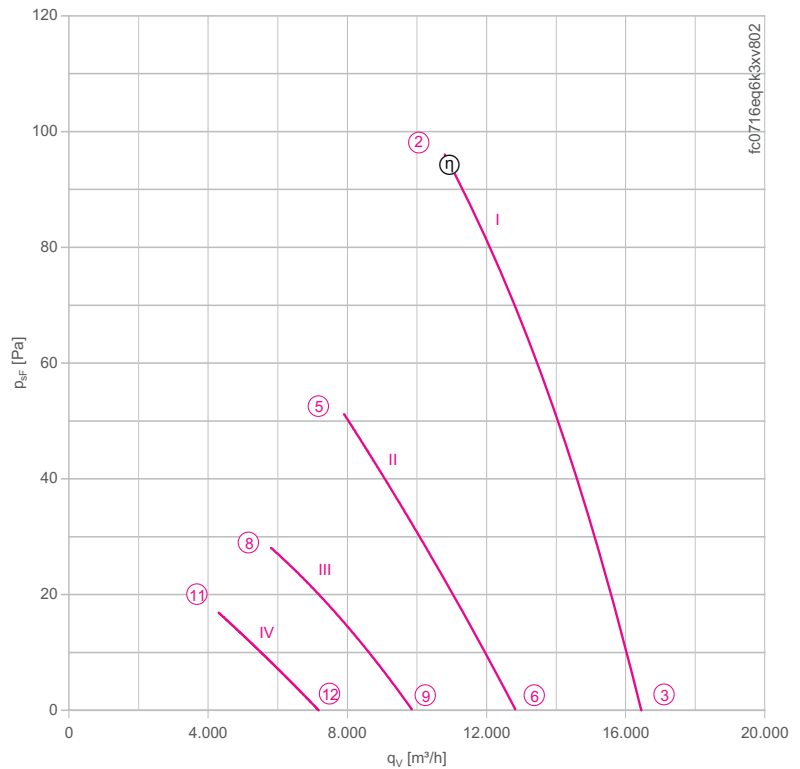
FC071-6E



Description

Motor technology: AC
 Rated voltage U_N : 1~ 230 V \pm 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 0.89 kW*
 Rated current I_N : 4.10 A*
 Rated speed n_N : 850 min⁻¹*
 Starting current I_s : 8.00 A
 Current increase ΔI : 10 %
 Service capacitor C_{400V} : 16.0 μ F
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -25 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 33.4 %
 Efficiency: $N_{actual} = 40.1 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

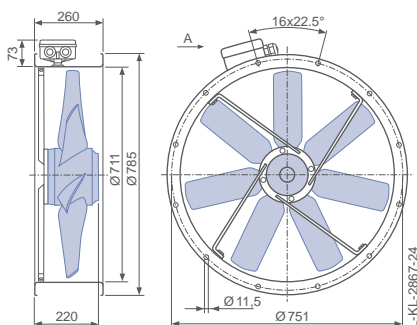
Connection diagram

Page 192
1360-104XB

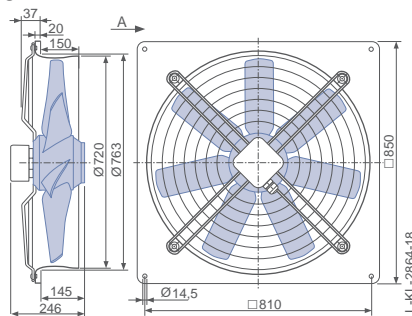
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side




Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC071-6E_6K.A7	I	230*	②	4.10*	890*	850*	81
		230	③	3.70	780	880	82
	II	160	⑤	4.50	650	620	74
		160	⑥	4.10	610	690	77
	III	130	⑧	4.20	470	460	67
		130	⑨	4.10	470	530	71
	IV	105	⑪	3.50	310	350	61
		105	⑫	3.50	310	380	63

*rated data

Fan ordering information

Airflow direction A		
Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC071-6EF.6K.A7	FC071-6EQ.6K.A7
Article no.	125029	125006
Weight kg	34.30	33.00

Control technology

Frequency inverter Fcontrol 1~	Motor protection units 1~	Electronic voltage controllers 1~
		

FC

for three phase alternating current, 4 pole

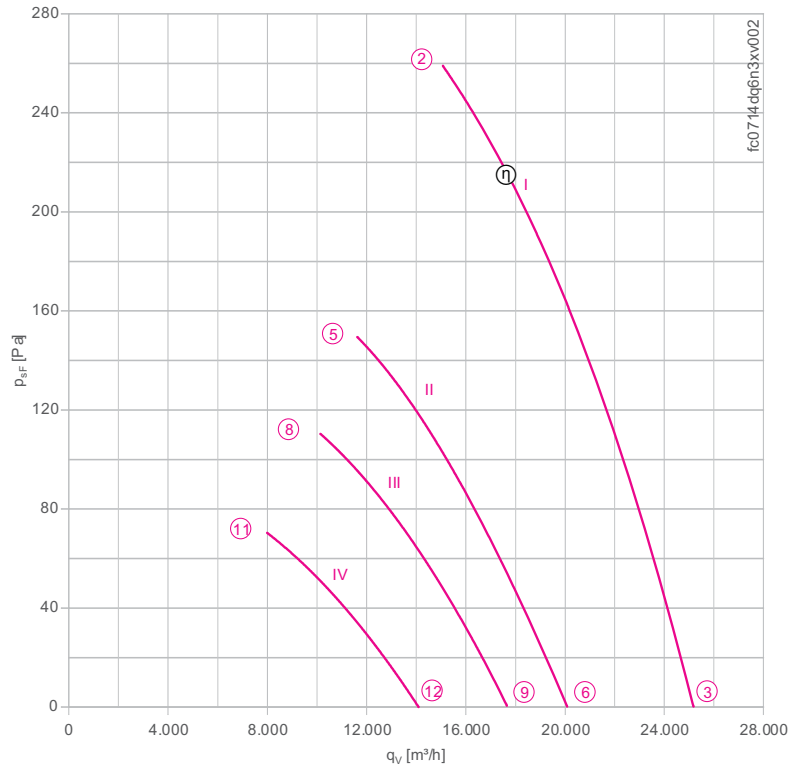
FC071-4D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 2.90 kW*
 Rated current I_N : 9.20/5.30 A*
 Rated speed n_N : 1290 min⁻¹*
 Starting current I_s : 34.00 / 20.00 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 65 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 36.5 %
 Efficiency: $N_{actual} = 40.1 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

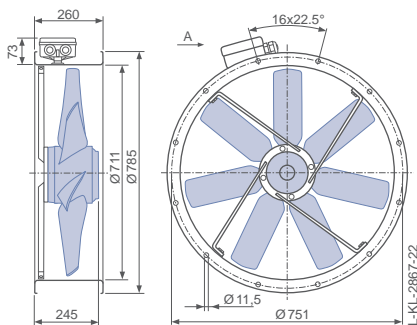
Connection diagram

Page 192
1360-106XB

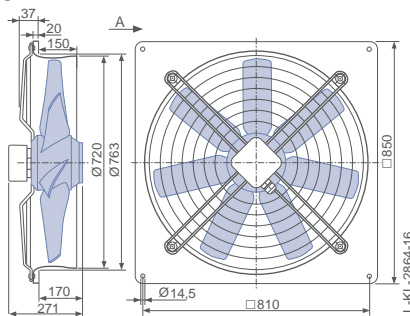
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side

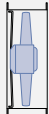



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC071-4D_6N.A7	I	400*	②	5.30*	2900*	1290*	91
		400	③	4.60	2400	1340	90
	II	230	⑤	5.30	1800	990	84
		230	⑥	4.80	1650	1070	84
	III	180	⑧	5.00	1400	860	81
		180	⑨	4.60	1300	940	81
	IV	140	⑪	4.40	910	680	75
		140	⑫	4.20	870	750	75

*rated data

Fan ordering information

Airflow direction A 		
Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC071-4DF.6N.A7	FC071-4DQ.6N.A7
Article no.	135061	135060
Weight kg	39.80	38.50

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6 pole

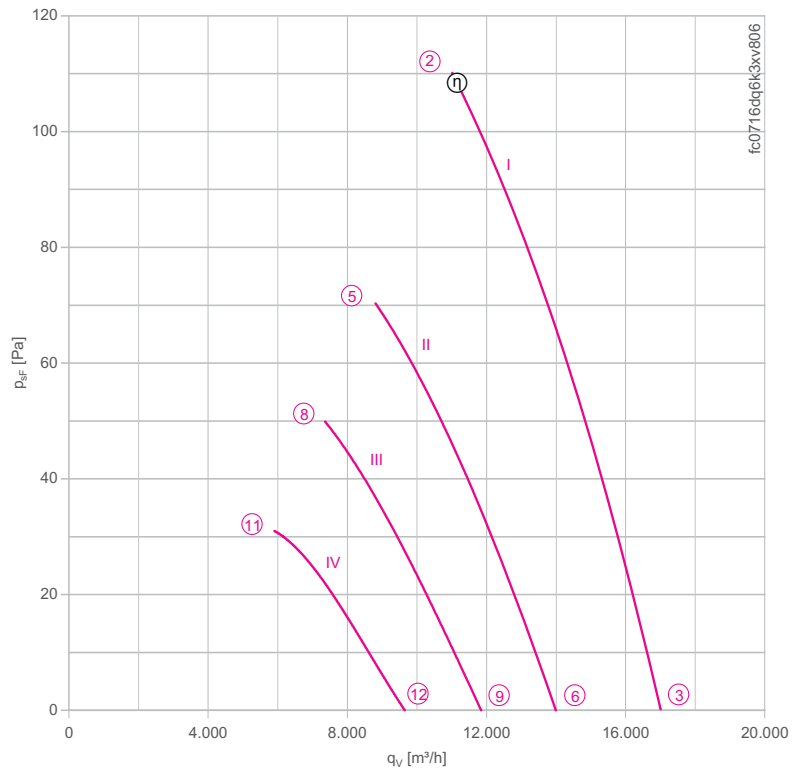
FC071-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.89 kW*
 Rated current I_N : 3.10/1.80 A*
 Rated speed n_N : 890 min⁻¹*
 Starting current I_s : 12.00 / 7.00 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 37.1 %
 Efficiency: $N_{actual} = 43.9 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

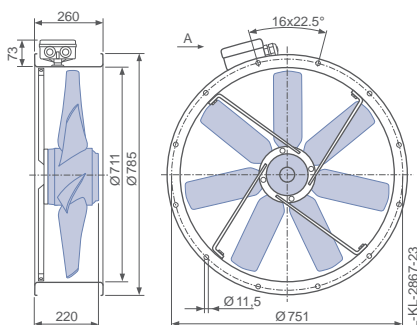
Connection diagram

Page 192
1360-106XB

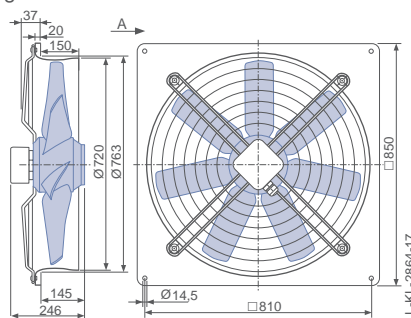
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side



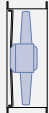

Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC071-6D_6K.A7	I	400*	②	1.80*	890*	890*	82
		400	③	1.65	780	900	82
	II	230	⑤	1.80	600	710	76
		230	⑥	1.70	550	750	78
	III	180	⑧	1.75	440	600	72
		180	⑨	1.65	420	630	73
	IV	140	⑪	1.55	300	480	67
		140	⑫	1.50	290	520	69

*rated data

Fan ordering information

Airflow direction A

Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC071-6DF.6K.A7	FC071-6DQ.6K.A7
Article no.	125027	125004
Weight kg	34.30	33.00

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 4-4 pole

FCO71-VD

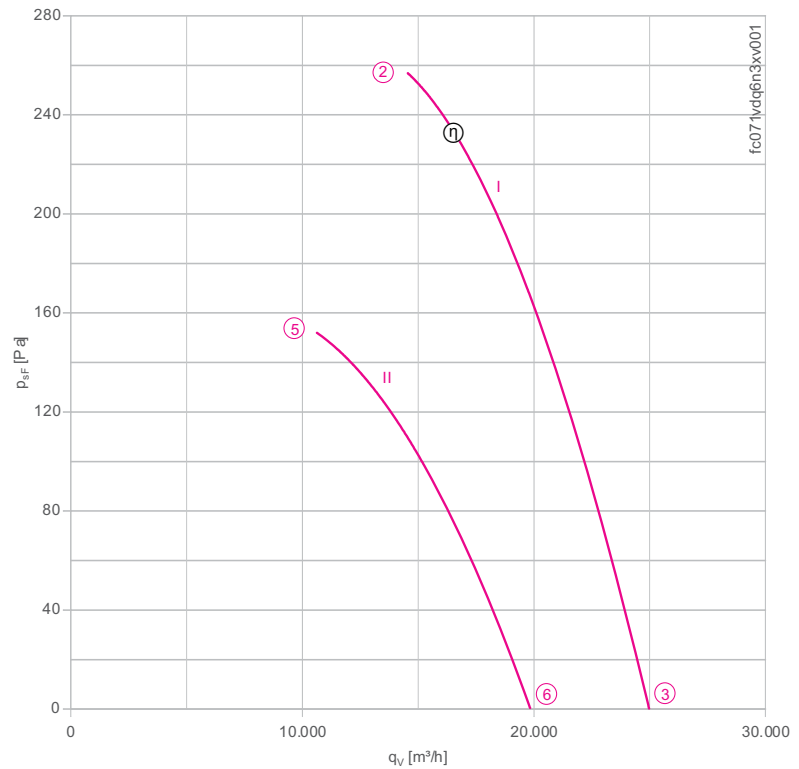


Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 2.90/1.80 kW*
 Rated current I_N : 5.30/3.00 A*
 Rated speed n_N : 1290/ 990 min⁻¹*
 Starting current I_s : 19.00 / 6.00 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 65 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 36.4 %
 Efficiency: $N_{actual} = 40.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

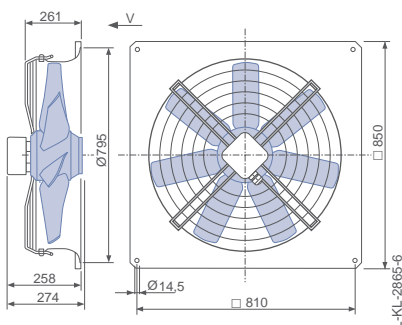
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

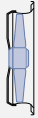
Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FC071-VD_6N.V7	Δ	I	400*	②	5.10*	2800*	1300*	90
			400	③	4.50	2400	1330	90
	Y	II	400*	⑤	3.00*	1800*	990*	83
			400	⑥	2.80	1600	1060	84

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC071-VDQ.6N.V7
Article no. 132521

Weight kg 41.20

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6-6 pole

FC071-SD



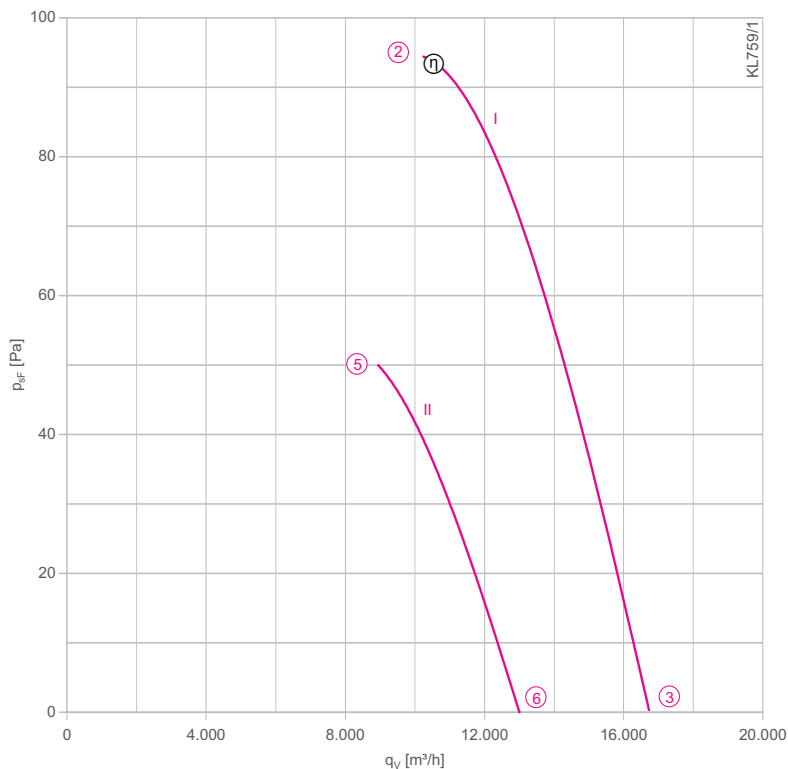
Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.91/0.62 kW*
 Rated current I_N : 2.00/1.10 A*
 Rated speed n_N : 890/ 710 min⁻¹*
 Starting current I_s : 6.50 / 2.20 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 37.1 %
 Efficiency: $N_{actual} = 43.9 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

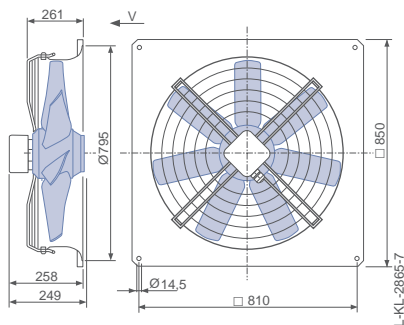
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

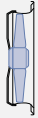
Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P _i W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FC071-SD_6K.V7	Δ	I	400*	②	2.00*	910*	890*	82
			400	③	1.75	800	900	82
	Y	II	400*	⑤	1.10*	620*	710*	76
			400	⑥	1.10	550	730	78

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC071-SDQ.6K.V7
Article no. 123999

Weight kg 35.70

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6 pole

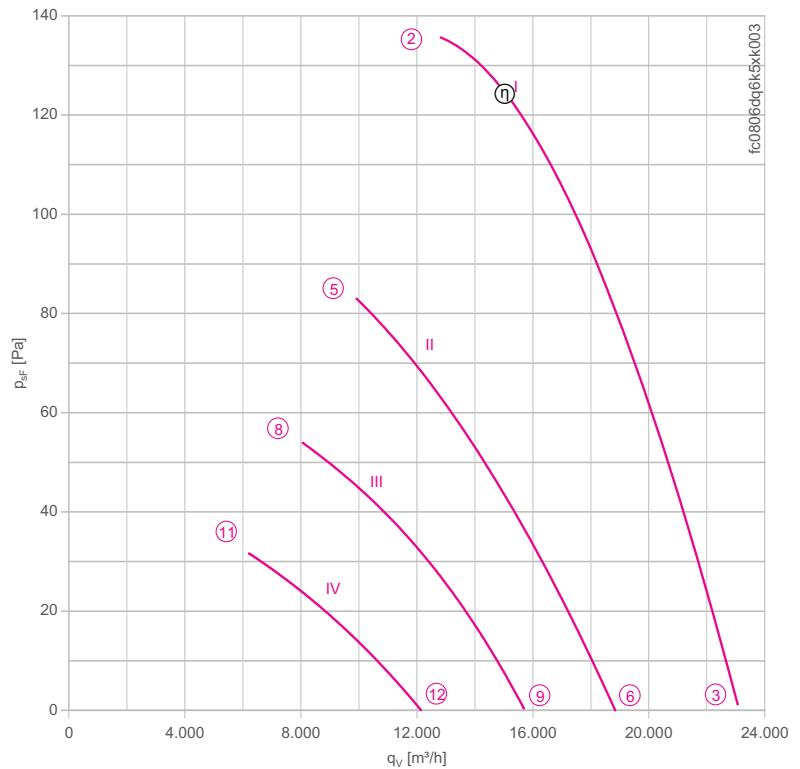
FC080-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.40 kW*
 Rated current I_N : 4.70/2.70 A*
 Rated speed n_N : 900 min⁻¹*
 Starting current I_s : 16.00 / 9.00 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 38.0 %
 Efficiency: $N_{actual} = 43.4 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

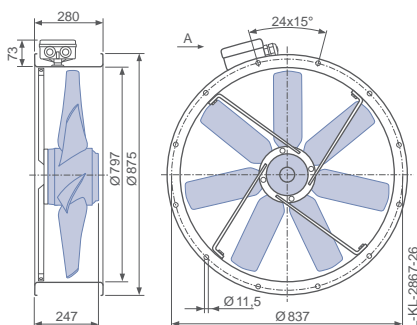
Connection diagram

Page 192
1360-106XB

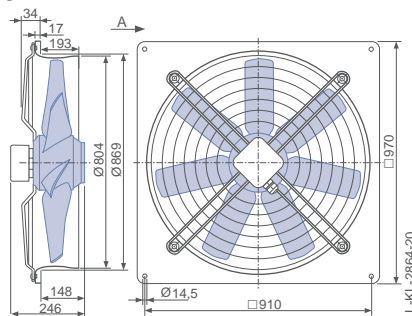
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side




Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC080-6D_6K.A7	I	400*	②	2.70*	1400*	900*	82
		400	③	2.40	1150	920	81
	II	230	⑤	3.00	940	690	76
		230	⑥	2.60	840	750	77
	III	180	⑧	2.80	670	560	71
		180	⑨	2.60	640	630	73
	IV	140	⑪	2.40	430	430	65
		140	⑫	2.30	420	490	67

*rated data

Fan ordering information

Airflow direction A

Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC080-6DF.6K.A7	FC080-6DQ.6K.A7
Article no.	125030	125009
Weight kg	39.10	38.60

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 8 pole

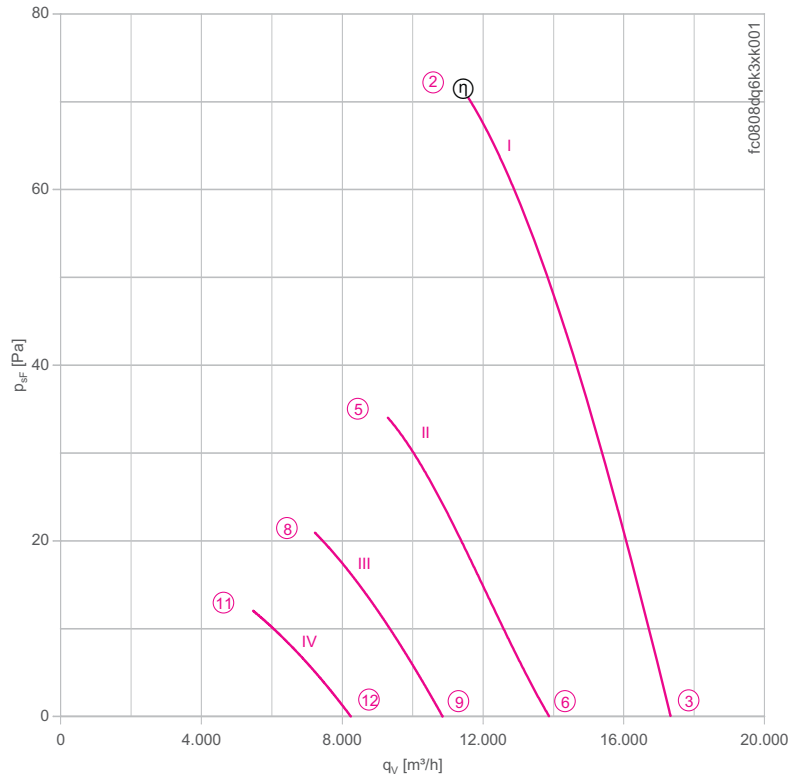
FC080-8D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.69 kW*
 Rated current I_N : 3.00/1.75 A*
 Rated speed n_N : 670 min⁻¹*
 Starting current I_s : 7.50 / 4.40 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 65 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 33.5 %
 Efficiency: $N_{actual} = 40.9 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

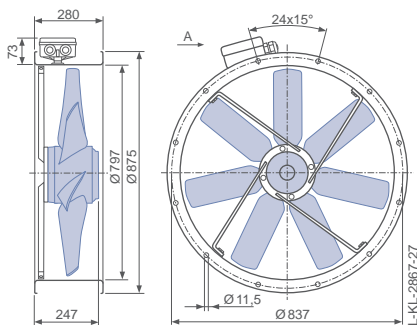
Connection diagram

Page 192
1360-106XB

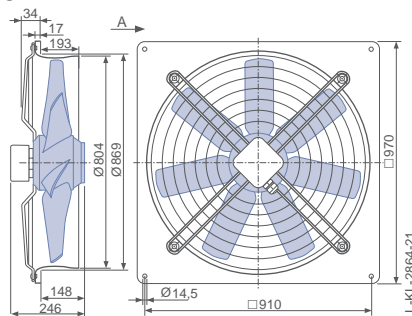
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side





Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC080-8D_6K.A7	I	400*	②	1.75*	690*	670*	75
		400	③	1.65	590	690	75
	II	230	⑤	1.60	430	500	70
		230	⑥	1.45	390	550	71
	III	180	⑧	1.45	290	390	64
		180	⑨	1.40	280	440	66
	IV	140	⑪	1.20	180	300	
		140	⑫	1.20	180	330	

*rated data

Fan ordering information

Airflow direction A 		
Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC080-8DF.6K.A7	FC080-8DQ.6K.A7
Article no.	125031	125010
Weight kg	39.10	38.60

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6-6 pole

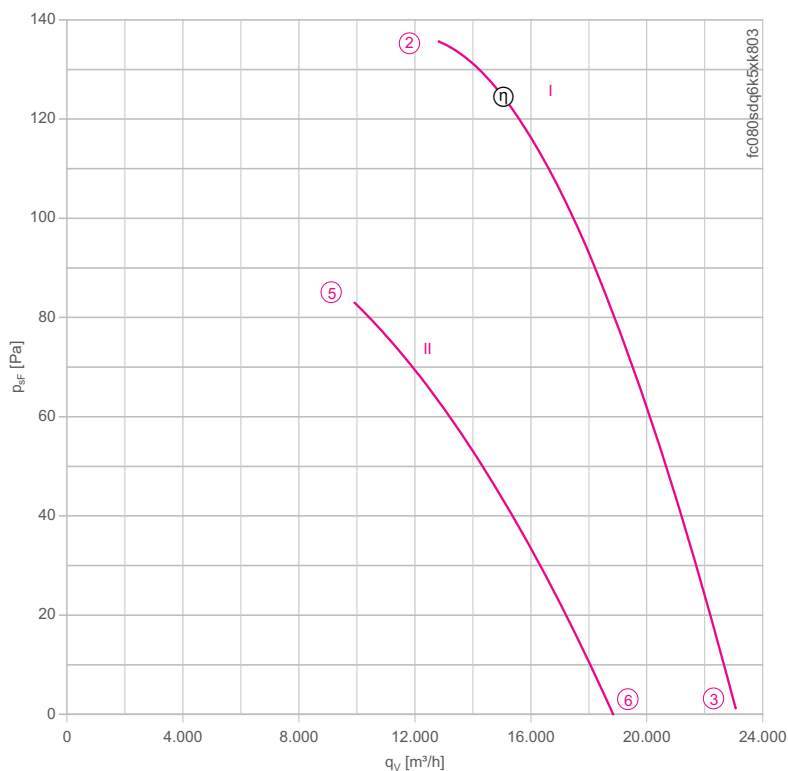
FC080-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 1.40/0.94 kW*
 Rated current I_N : 2.70/1.70 A*
 Rated speed n_N : 900/ 690 min^{-1} *
 Starting current I_s : 9.00 / 2.60 A
 Current increase ΔI : 10 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 38.0 %
 Efficiency: $N_{\text{actual}} = 43.4 / N_{\text{target}} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

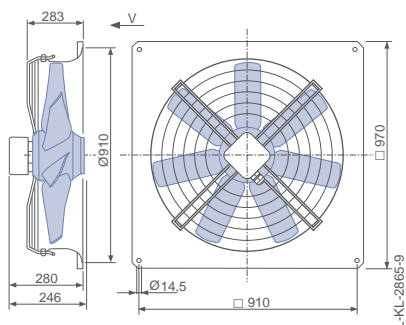
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

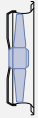
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC080-SD_6K.V7	Δ	I	400*	②	2.70*	1400*	900*	82
			400	③	2.40	1150	920	81
			400*	⑤	1.70*	940*	690*	76
	Y	II	400	⑥	1.50	840	750	77

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC080-SDQ.6K.V7
Article no. 132888

Weight kg 41.00

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 8-8 pole

FC080-AD



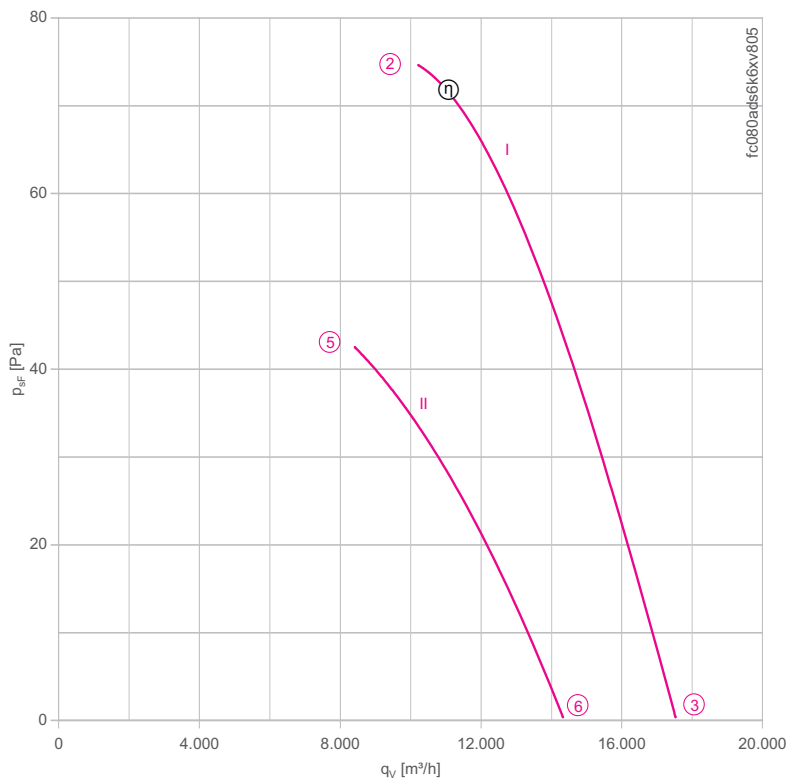
Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.72/0.44 kW*
 Rated current I_N : 1.80/0.90 A*
 Rated speed n_N : 680/ 490 min⁻¹*
 Starting current I_s : 4.40 / 1.20 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 33.5 %
 Efficiency: $N_{actual} = 40.9 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

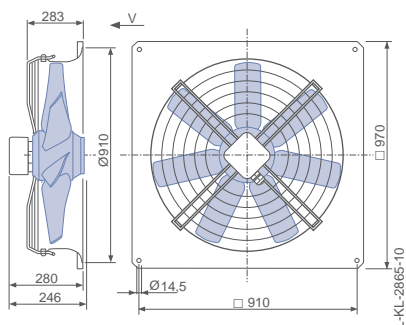
Connection diagram

Page 192
1360-108XA

Dimensions mm



Design Q - square full bell mouth, guard grille pressure side



Performance data

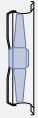
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC080-AD_6K.V7	Δ	I	400*	②	1.80*	720*	680*	75
			400	③	1.70	600	700	75
			400*	⑤	0.98*	470*	520*	70
	Y	II	400	⑥	0.87	420	580	71

*rated data

Fan ordering information

Airflow direction V

Design Q (guard grille pressure side)



Type FC080-ADQ.6K.V7
Article no. 132884

Weight kg 41.00

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6-6 pole

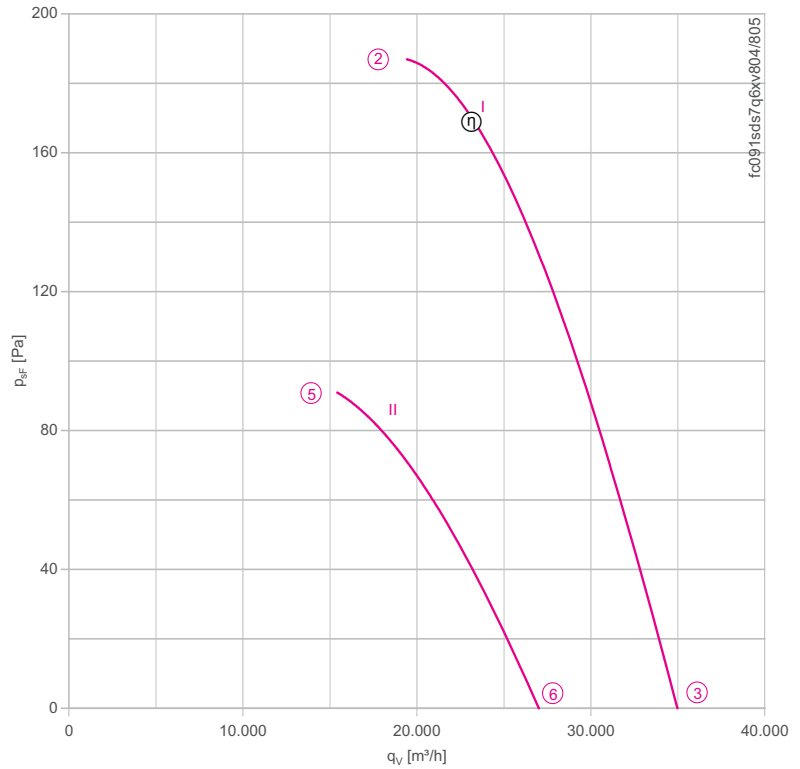
FCO91-SD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 3.30/1.90 kW*
 Rated current I_N : 6.30/3.50 A*
 Rated speed n_N : 850/ 610 min⁻¹*
 Starting current I_A : 22.00 / 6.50 A
 Current increase ΔI : 10 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 40.1 %
 Efficiency: $N_{actual} = 43.3 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



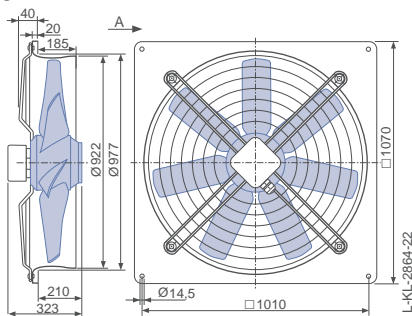
Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

Connection diagram Page 192
 for airflow direction A 1360-108XA
 for airflow direction V 1360-108XB

Dimensions mm

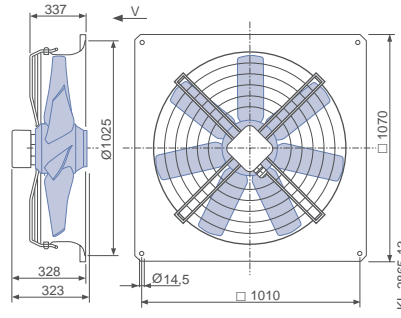
Airflow direction A

Design Q - square full bell mouth, guard grille suction side



Airflow direction V

Design Q - square full bell mouth, guard grille pressure side





Performance data

Type	Connection	Characteristic curve	Voltage U V	Operating point	Current I A	Input power P ₁ W	Speed n min ⁻¹	Suction side sound power level L _{WA5} dB(A)
FC091-SD_7Q_7	Δ	I	400*	②	6.30*	3300*	850*	88
			400	③	6.00	2900	890	89
	Y	II	400*	⑤	3.50*	1900*	610*	81
			400	⑥	3.20	1750	680	85

*rated data

Fan ordering information

	Airflow direction A	Airflow direction V
Design	Q (guard grille suction side)	Q (guard grille pressure side)
		
Type	FC091-SDQ.7Q.A7	FC091-SDQ.7Q.V7
Article no.	125011	124407
Weight kg	64.90	69.40

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 6 pole

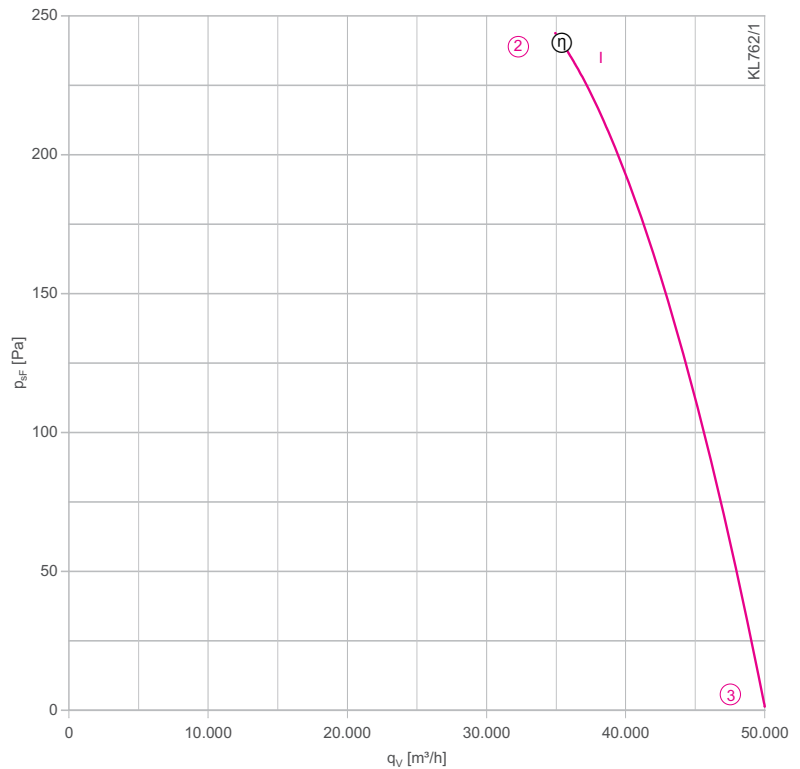
FC100-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 5.50 kW*
 Rated current I_N : 18.00/10.50 A*
 Rated speed n_N : 935 min⁻¹*
 Starting current I_s : 120.00 / 67.00 A
 Current increase ΔI : - %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 38.5 %
 Efficiency: $N_{actual} = 40.2 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.
 Not voltage controllable fan.

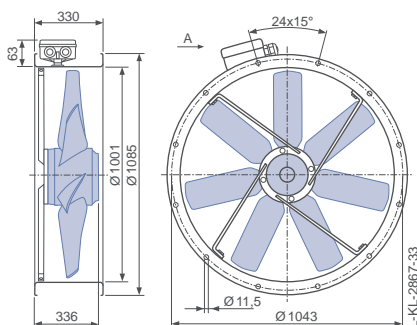
Connection diagram

Page 192
1360-106XB

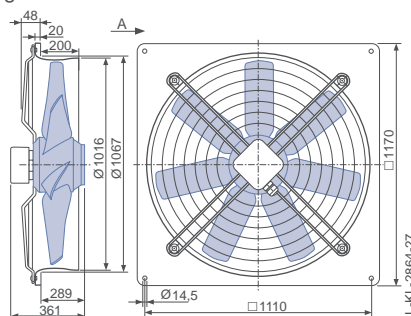
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side



Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC100-6D_8P.A7	I	400*	②	10.50*	5500*	935*	98
		400	③	9.50	5000	945	98

*rated data

Fan ordering information

Airflow direction A		
Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC100-6DF.8P.A7	FC100-6DQ.8P.A7
Article no.	125050	125014
Weight kg	99.30	93.80

Control technology

Frequency inverter Fcontrol 3~ 	Motor protection units 3~ 	Electronic voltage controllers 3~ 
--	---	---

FC

for three phase alternating current, 6 pole

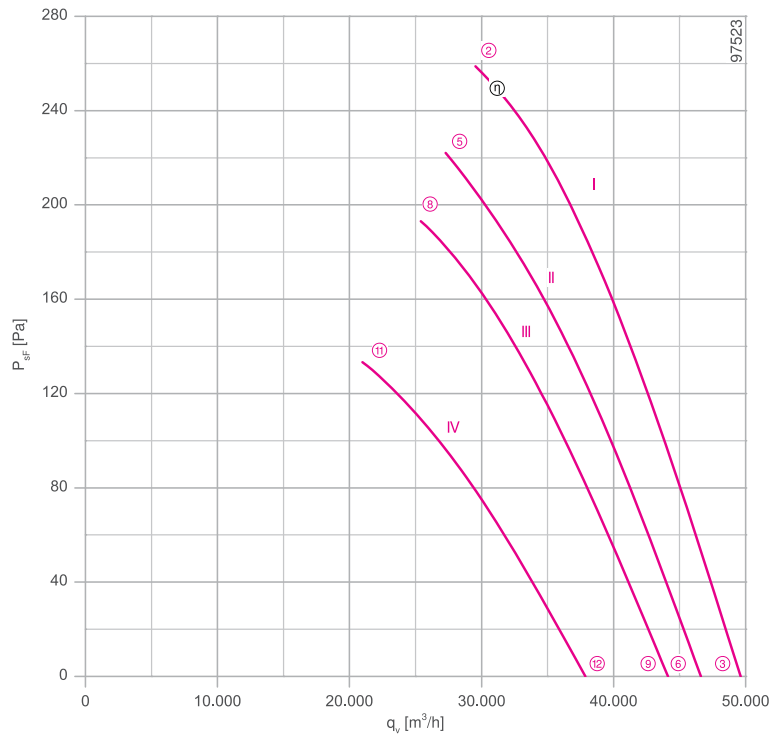
FC100-6D



Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 5.00 kW*
 Rated current I_N : 18.50/11.00 A*
 Rated speed n_N : 970 min⁻¹*
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 5
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 44.1 %
 Efficiency: $N_{actual} = 46.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

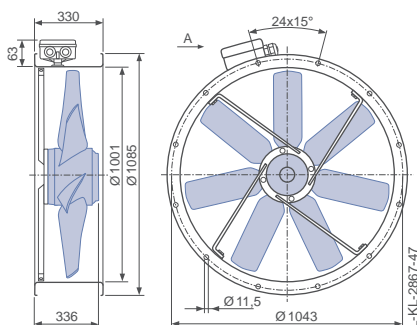
Connection diagram

Page 192
1360-106XB

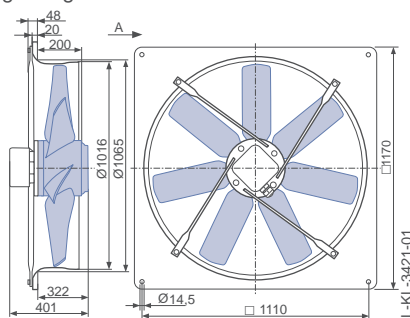
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, without guard grille




Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC100-6D_8S_5	I	400*	②	11.00*	5000*	970*	93
		400	③	10.00	4400	970	91
	II	300	⑤	11.00	4800	940	94
		300	⑥	9.80	4200	950	91
	III	230	⑧	13.00	4400	900	92
		230	⑨	11.50	3900	910	90
	IV	190	⑪	14.50	4200	840	90
		190	⑫	13.00	3700	870	89
	V	145	⑭	16.50	3400	690	86
		145	⑮	15.00	3200	740	85

*rated data

Fan ordering information

Airflow direction A ➔

Design	F (without guard grille)	Q (without guard grille)
		
Type	FC100-6DF.8S.A5	FC100-6DQ.8S.A5
Article no.	160115	160114
Weight kg	109.50	104.20

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 8 pole

FC100-8D

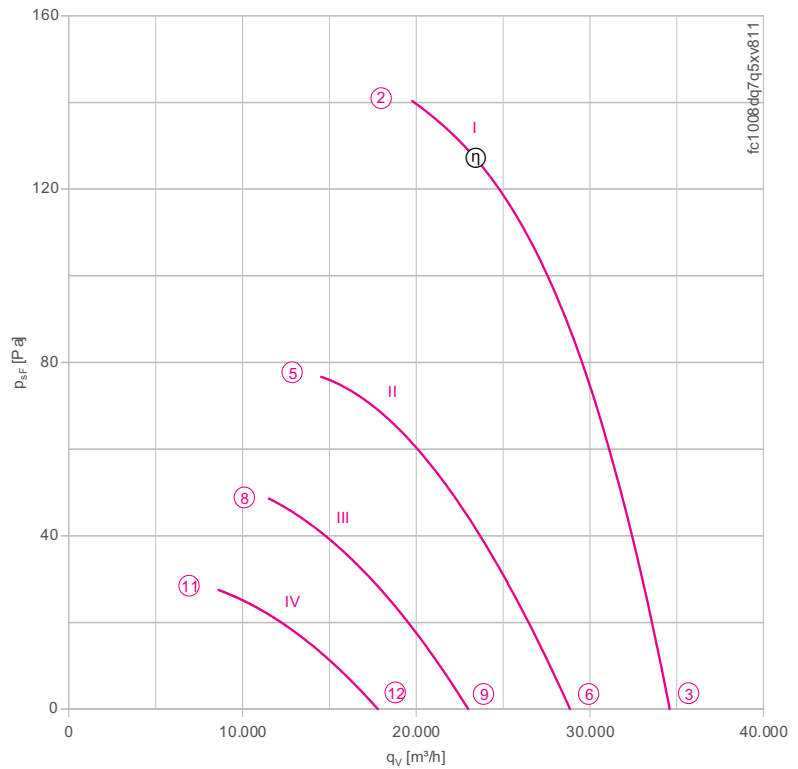


Description

Motor technology: AC
 Rated voltage U_N : 3~ 230/400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 2.20 kW*
 Rated current I_N : 7.30/4.20 A*
 Rated speed n_N : 670 min⁻¹*
 Starting current I_s : 24.00 / 14.00 A
 Current increase ΔI : 10 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data
 Efficiency η_{statA} : 36.5 %
 Efficiency: $N_{actual} = 40.7 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

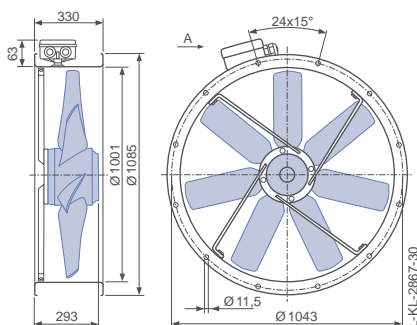
Connection diagram

Page 192
1360-106XB

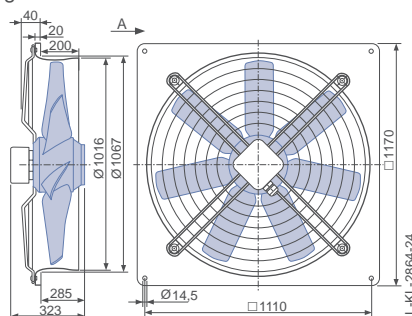
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Design Q - square full bell mouth, guard grille suction side




Performance data

Type	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WAS} dB(A)
		U V		I A	P_1 W	n min ⁻¹	
FC100-8D_7Q.A7	I	400*	②	4.20*	2200*	670*	86
		400	③	3.80	1800	690	87
	II	230	⑤	4.70	1500	530	80
		230	⑥	4.20	1350	570	82
	III	180	⑧	3.70	930	420	74
		180	⑨	3.50	900	460	77
	IV	140	⑪	3.10	600	340	69
		140	⑫	3.00	580	370	71

*rated data

Fan ordering information

Airflow direction A

Design	F (without guard grille)	Q (guard grille suction side)
		
Type	FC100-8DF.7Q.A7	FC100-8DQ.7Q.A7
Article no.	125051	125015
Weight kg	76.10	74.60

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 8-8 pole

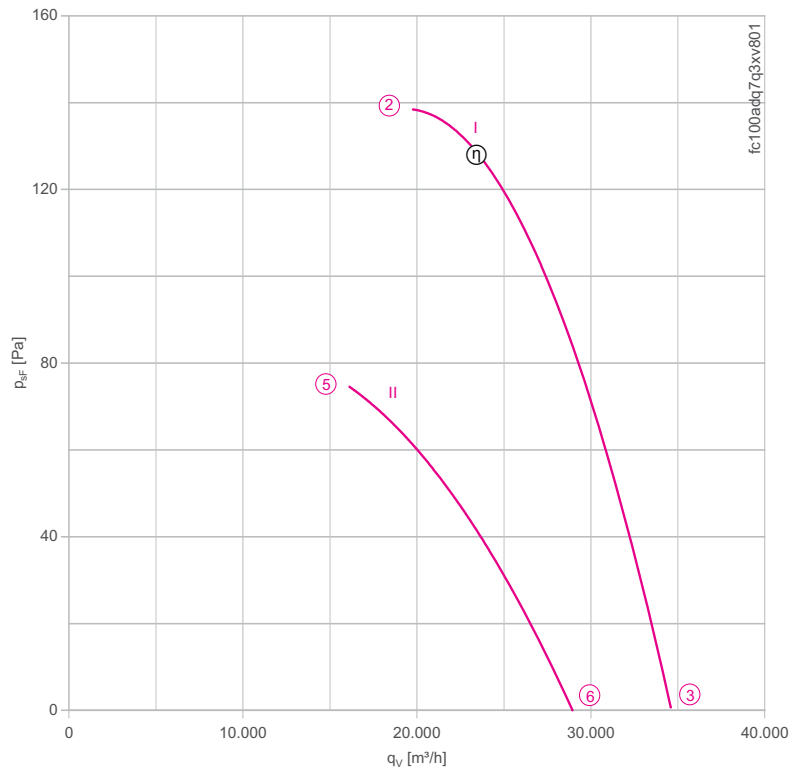
FC100-AD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 2.20/1.50 kW*
 Rated current I_N : 4.20/2.70 A*
 Rated speed n_N : 670/530 min⁻¹*
 Starting current I_s : 17.00 / 5.00 A
 Current increase ΔI : 10 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 38.2 %
 Efficiency: $N_{actual} = 42.4 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



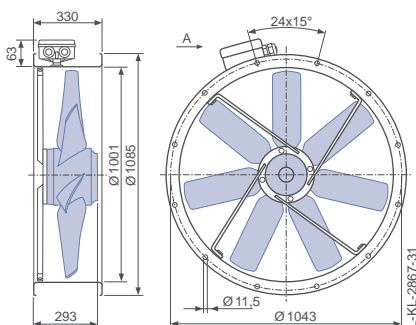
Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

Connection diagram Page 192
 for airflow direction A 1360-108XB
 for airflow direction V 1360-108XA

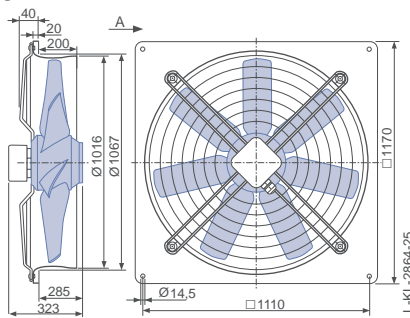
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille

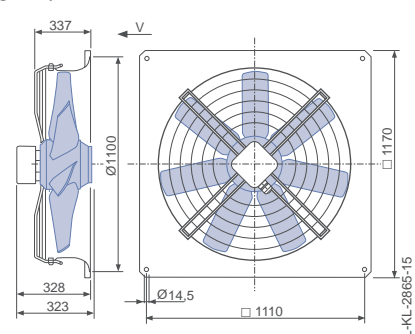


Design Q - square full bell mouth, guard grille suction side



Airflow direction V

Design Q - square full bell mouth, guard grille pressure side

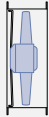
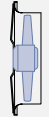
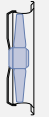


Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
			U V					
FC100-AD_7Q_7	Δ	I	400*	②	4.20*	2200*	670*	86
			400	③	3.80	1800	690	87
			400*	⑤	2.70*	1500*	530*	80
	Y	II	400	⑥	2.40	1350	570	82

*rated data

Fan ordering information

Airflow direction A		Airflow direction V	
Design	F (without guard grille)	Q (guard grille suction side)	Q (guard grille pressure side)
			
Type	FC100-ADF.7Q.A7	FC100-ADQ.7Q.A7	FC100-ADQ.7Q.V7
Article no.	124449	125016	208866
Weight kg	76.10	74.60	74.80

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 12-12 pole

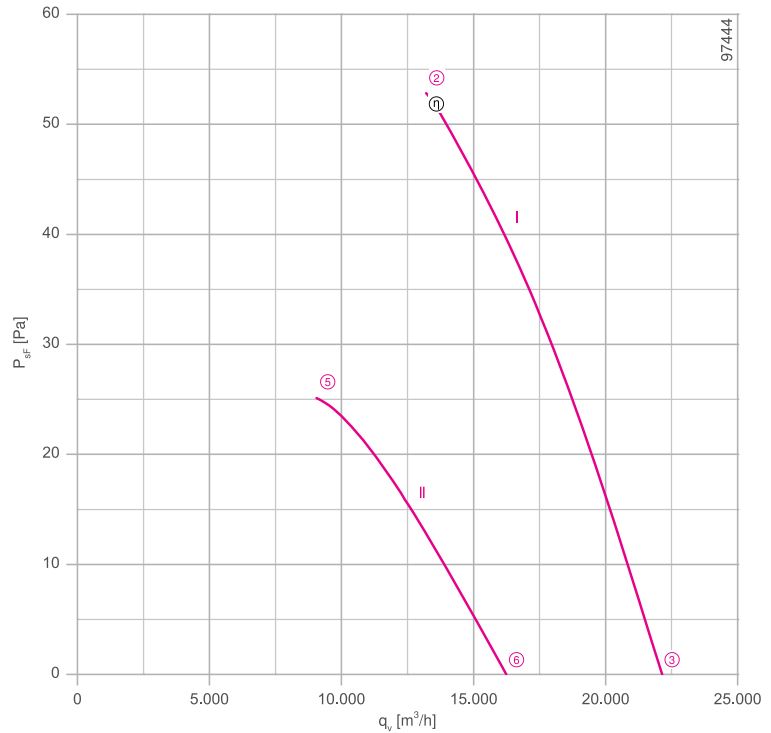
FC 100-ND



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz* (60Hz data available)
 Input power P_i : 0.64/0.34 kW*
 Rated current I_N : 1.45/0.72 A*
 Rated speed n_N : 410/290 min⁻¹*
 Starting current I_s : 3.00 / 0.95 A
 Current increase ΔI : 0 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 70 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 34.2 %
 Efficiency: $N_{actual} = 41.9 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



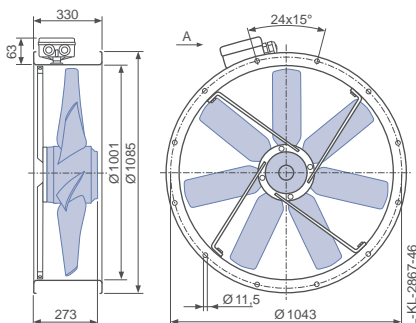
Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

Connection diagram Page 192
 for airflow direction A 1360-108XB
 for airflow direction V 1360-108XA

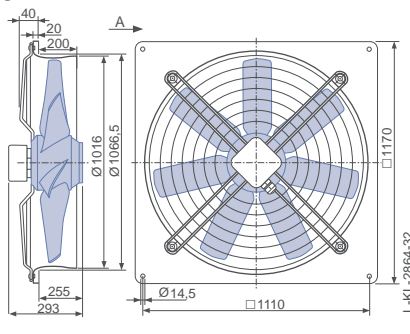
Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille

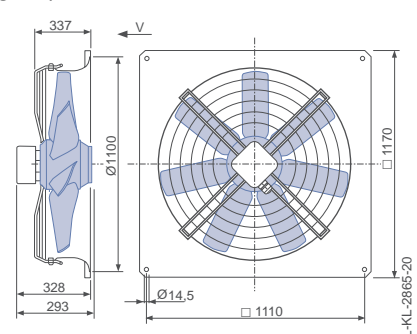


Design Q - square full bell mouth, guard grille suction side



Airflow direction V

Design Q - square full bell mouth, guard grille pressure side

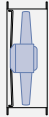
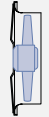
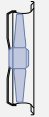


Performance data

Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level L_{WA5} dB(A)
			U V					
FC100-ND_7M_7	Δ	I	400*	②	1.45*	640*	410*	75
			400	③	1.30	540	430	73
			400*	⑤	0.72*	340*	290*	64
	Y	II	400	⑥	0.68	320	310	65

*rated data

Fan ordering information

Airflow direction A		Airflow direction V	
Design	F (without guard grille)	Q (guard grille suction side)	Q (guard grille pressure side)
			
Type	FC100-NDF.7M.A7	FC100-NDQ.7M.A7	FC100-NDQ.7M.V7
Article no.	160106	160105	160108
Weight kg	69.10	67.60	67.90

Control technology

Frequency inverter Fcontrol 3~	Motor protection units 3~	Electronic voltage controllers 3~
		

FC

for three phase alternating current, 8-8 pole

FC 1 1 2-AD



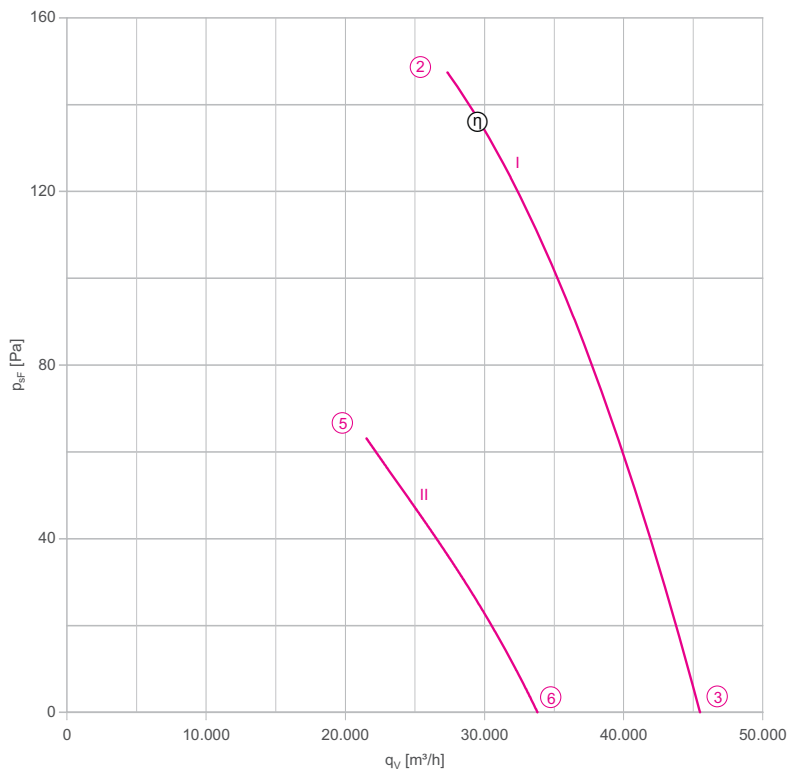
Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 3.0/1.75 kW*
 Rated current I_N : 5.20/2.90 A*
 Rated speed n_N : 620/ 440 min⁻¹*
 Starting current I_s : 17.00 / 5.00 A
 Current increase ΔI : 0 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE

ErP-data

Efficiency η_{statA} : 36.8 %
 Efficiency: $N_{actual} = 40.3 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

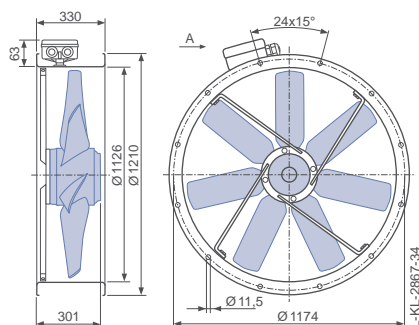
Connection diagram

Page 192
1360-108XB

Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Performance data

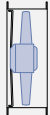
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC112-AD_7Q.A7	Δ	I	400*	②	5.20*	3050*	620*	89
			400	③	4.50	2590	650	92
	Y	II	400*	⑤	2.90*	1750*	440*	81
			400	⑥	2.70	1620	480	86

*rated data

Fan ordering information

Airflow direction A 

Design F (without guard grille)



Type FC112-ADF.7Q.A7
Article no. 132552

Weight kg 79.70

Control technology

Frequency inverter
Fcontrol 3~



Motor protection units
3~



Electronic voltage
controllers 3~



FC

for three phase alternating current, 8-8 pole

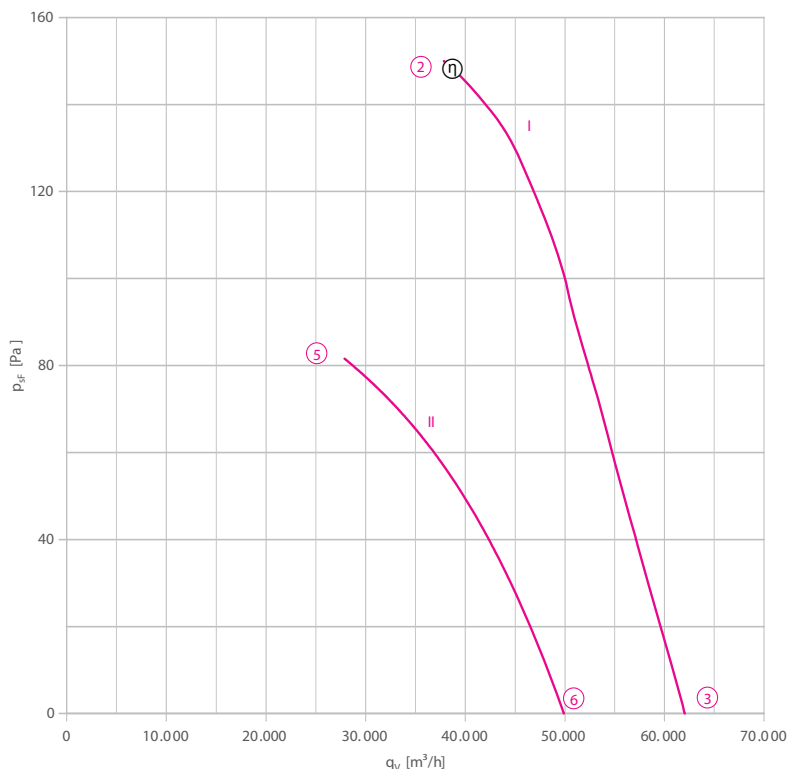
FC 125-AD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 4.30/2.60 kW*
 Rated current I_N : 9.00/4.90 A*
 Rated speed n_N : 640/ 490 min^{-1} *
 Starting current I_s : 30.00 / 10.00 A
 Current increase ΔI : 0 %
 Thermal class: **THCL155***
 Min. permitted ambient temperature $t_{R(\text{min})}$: -40 °C
 Max. permitted ambient temperature $t_{R(\text{max})}$: 40 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 37.7 %
 Efficiency: $N_{\text{actual}} = 40.0 / N_{\text{target}} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

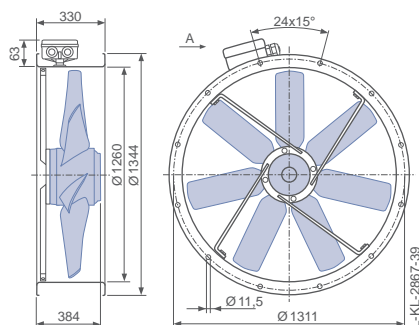
Connection diagram

Page 192
1360-108XB

Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Performance data

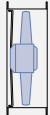
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC125-AD_.8S.A7	Δ	I	400*	②	9.00*	4300*	640*	96
			400	③	8.10	3600	660	92
	Y	II	400*	⑤	4.90*	2600*	490*	88
			400	⑥	4.50	2300	530	85

*rated data

Fan ordering information

Airflow direction A 

Design F (without guard grille)



Type **FC125-ADF.8S.A7**
Article no. **125053**

Weight kg 123.40

Control technology

Frequency inverter
Fcontrol 3~



Motor protection units
3~



Electronic voltage
controllers 3~



FC

for three phase alternating current, 10-10 pole

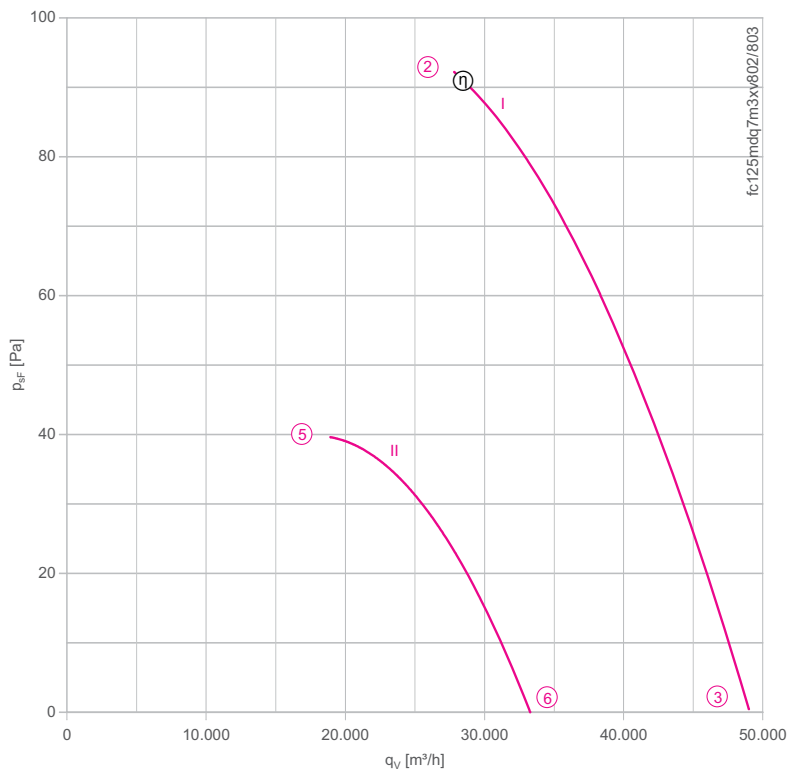
FC1 25-MD



Description

Motor technology: AC
 Rated voltage U_N : 3- 400 V (Δ/Y) ± 10 %*
 Rated frequency f_N : 50 Hz*
 Input power P_i : 2.20/1.20 kW*
 Rated current I_N : 4.50/2.50 A*
 Rated speed n_N : 500/ 330 min⁻¹*
 Starting current I_s : 14.00 / 4.00 A
 Current increase ΔI : 0 %
 Thermal class: THCL155*
 Min. permitted ambient temperature $t_{R(min)}$: -40 °C
 Max. permitted ambient temperature $t_{R(max)}$: 60 °C
 Electrical connection: Terminal box
 Number of blades: 7
 Protection class: IP54
 Motor protection: thermal contact
 Blades: Aluminium, 1 coat paint, jet black
 Rotor: Aluminium, 1 coat paint, jet black
 Conformity: ErP 2015, CE
ErP-data
 Efficiency η_{statA} : 35.8 %
 Efficiency: $N_{actual} = 40.0 / N_{target} = 40$ **
 * Rated data
 **ErP 2015

Characteristic curve



Measured in full bell mouth without guard grille in installation type A according to ISO 5801.

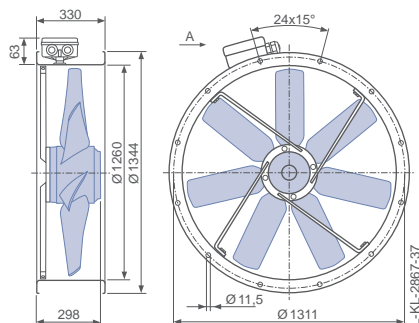
Connection diagram

Page 192
1360-108XB

Dimensions mm

Airflow direction A

Design F - flange ring with two flanges, without guard grille



Performance data

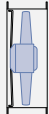
Type	Connection	Characteristic curve	Voltage	Operating point	Current	Input power	Speed	Suction side sound power level
			U V		I A	P ₁ W	n min ⁻¹	L _{WA5} dB(A)
FC125-MD_7Q.A7	Δ	I	400*	②	4.50*	2200*	500*	90
			400	③	4.20	1800	520	90
	Y	II	400*	⑤	2.50*	1200*	330*	78
			400	⑥	2.30	1100	370	80

*rated data

Fan ordering information

Airflow direction A

Design F (without guard grille)



Type FC125-MDF.7Q.A7
Article no. 125054

Weight kg 85.50

Control technology

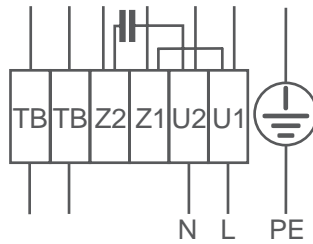
Frequency inverter Fcontrol 3~ 	Motor protection units 3~ 	Electronic voltage controllers 3~ 
---	--	--

Connection diagrams

AC technology

104XA

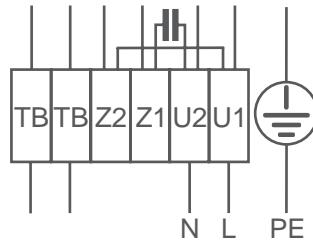
For 1~motor with capacitor and thermostatic switch (if built in).
Airflow direction: V
Direction of rotation: clockwise



Cable colours:
 U1 brown
 U2 blue
 Z1 black
 Z2 orange
 TB white

104XB

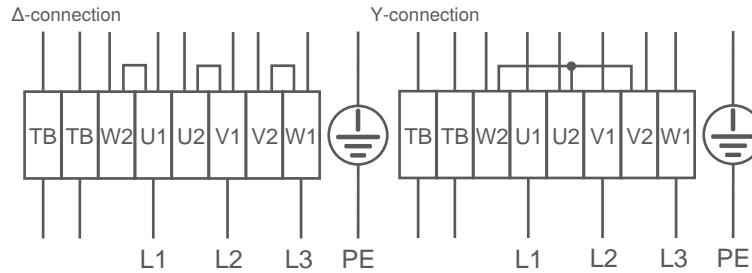
For 1~motor with capacitor and thermostatic switch (if built in).
Airflow direction: A
Direction of rotation: counter clockwise



Cable colours:
 U1 brown
 U2 blue
 Z1 black
 Z2 orange
 TB white

106XA

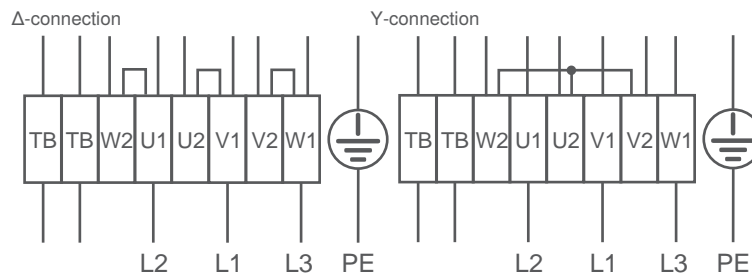
For 3~motor with one speed and thermostatic switch (if built in).
Airflow direction: V
Direction of rotation: clockwise



Cable colours:
 U1 brown
 V1 blue
 W1 black
 U2 red
 V2 grey
 W2 orange
 TB white

106XB

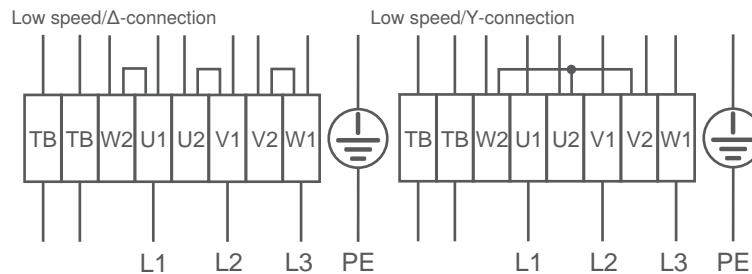
For 3~motor with one speed and thermostatic switch (if built in).
Airflow direction: A
Direction of rotation: clockwise



Cable colours:
 U1 brown
 V1 blue
 W1 black
 U2 red
 V2 grey
 W2 orange
 TB white

108XA

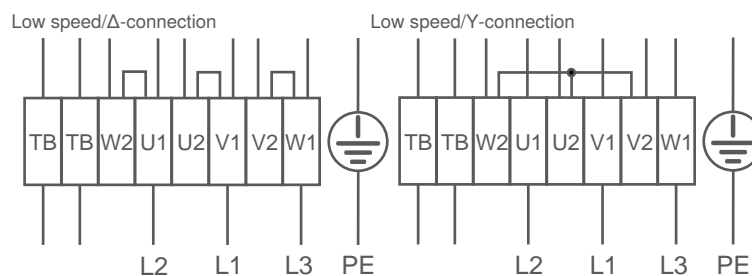
For 3~Motor with 2 speeds (Δ-Y switch over) and thermostatic switch (if built in). Without bridge when using speed change-over switch.
Direction of air flow: V
Direction of rotation: Clockwise



Cable colours:
 U1 brown
 V1 blue
 W1 black
 U2 red
 V2 grey
 W2 orange
 TB white

108XB

For 3~ motor with 2 speeds (Δ-Y switch over) and thermostatic switch (if built in). Without bridge when using speed change-over switch.
Direction of airflow: A
Direction of rotation: Counter clockwise



Cable colours:
 U1 brown
 V1 blue
 W1 black
 U2 red
 V2 grey
 W2 orange
 TB white



177X

1~ Motor with condenser and thermostat switch.

FN Series

Airflow direction: A

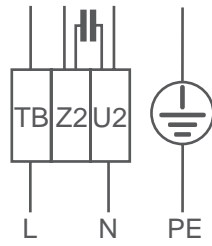
Direction of rotation: Counter-clockwise rotation (looking at rotor)

FB Series

Airflow direction: A

Direction of rotation: clockwise rotation (looking at rotor)

Other speeds possible with capacitors connected in series.



Cable colours:
U2 blue or grey
Z2 black
TB brown



General notes

The information and data contained in this catalogue were composed to the best of our best ability and do not absolve the user from its duty to check the suitability of the products with respect to its intended application.

ZIEHL-ABEGG SE reserves the right to make design changes, which are used for continuous technical improvement.

The customer is obligated to inform the supplier about general information concerning the intended use, the type of installation, the operating conditions and any other conditions that need to be taken into consideration if the order is not based on catalogue information.

Copyright

ZIEHL-ABEGG SE reserves in its entirety the copyright of this catalogue. The catalogue is intended for proper use as intended and neither the catalogue, its content nor extracts may be passed on to third parties without our express written consent.

The Royal League



© ZIEHL-ABEGG SE - EN - MA - 11/2015 - Subject to technical modifications