

YFBCSL

Backward Curved Steel Wheel Single Inlet Centrifugal Fan-Type L

To provide the most reliable and user-friendly air movement & control and air conditioning service.

Due to continuing research, Shanghai Nautilus reserves the right to change specifications without notice.



Volume up to 418,831m³/h, Static pressure up to 3,951Pa

SHANGHAI NAUTILUS GENERAL EQUIPMENT MANUFACTURING CO LTD

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Process expert Series Principal Products

- High efficiency and liability, low noise
- Balancing level up to G4.0
- General exhaust/supply, explosion-proof exhaust/supply and smoke removal duty
- Temperture: -40°C~300°C
- New energy-saving product



Company Profile

Shanghai Nautilus General Equipment Manufacturing Co., Ltd. is a middle and high-end solution provider of air supply and gas heating and air cleaning equipment that integrates R&D, production and sales. Established in September, 2003, it is located in the Jiading District of Shanghai. The company is the member of the US Green Building Council (USGBC) and International Air Movement and Control Association (AMCA), the high and new tech enterprise of Shanghai, **INFINAIR®** won the famous trademark in Shanghai.

Vision statement: To become the most trustworthy brand of professional air movement & control and air conditioning.

Mission statement: To provide the most reliable and user-friendly air movement & control and air conditioning service.



Shanghai Nautilus General Equipment Manufacturing Co.,Ltd. certifies that the Model YFBCSL shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Laboratory Introduction

● Following methods are used to increase Infinair aerodynamic laboratory's test accuracy.

- (1) Strictly following AMCA-210 standards to design and fabricate
 - (2) Traditional Pitot tube method is replaced by high precision nozzle matrix to increase accuracy.
 - (3) State of the art instruments and equipments are widely used in the lab.
 - (4) Test instruments are strictly calibrated, the calibration is repeated in time.
- The lab assures INFINAIR is capable to test different product design, increase the accuracy and liability of products, and become a good reason why you trust INFINAIR.



These test performance date were obtained in a laboratory accredited by AMCA. Date are not certified by AMCA.

Backward Curved Steel Wheel Type L



Optimized Design

The fan adopts advanced technology. Design of backward curved centrifugal wheel is optimized by means of CFD hydro-field simulating. The design is more accordant with the aerodynamic characteristics, high efficiency, and stable airflow.

Advanced Process

Steel plasma cutting, precise positioning jig and all-welded technique are adopted for the blade to ensure smoothness of the margin of the blade. The welding angle is accurate, the whole blade is with strong strength, and the stress is evenly distributed during long-time high-speed operation. The operation is stable and reliable.

High Balancing Level

Each wheel is subjected to dynamic balance test. We insist to the balancing level of G4.0 (Typical products are balanced to G6.3 only). Long-term quiet and stable running of the fan is ensured fundamentally.

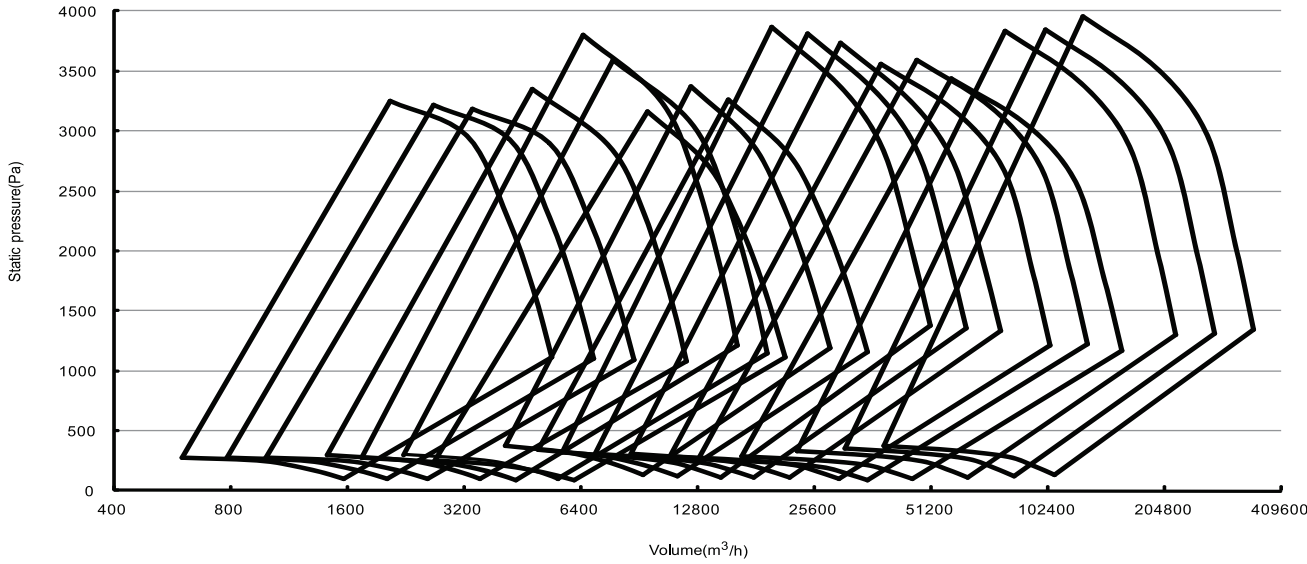
High-efficiency Range

The wheel has a stable and smooth aerodynamic performance curve and owns a wide range of high efficiency working area which can efficiently avoid fan performance decrease caused by the deviation of the working point.

Non-overload

The series wheel exist a peak value of shaft power, when the motor is selected according to the power combined with the margin factor of motor power, the fan shaft power will not exceed the motor rated power no matter on which operation point of the stable working range the is running, then the clients can use it at ease.

Performance Interval



Product Features

High Reliability

- To be adopted FEA-aided design for enhancing the reliability of structure
- Scroll and wheel with high strength and no leakage characteristics are all-steel continuous welded to improve operation safely
- New shaft and coupling technology to ensure precise assembly and high reliability
- Fan shaft is subjected to finish turning & hardening and tempering. Maximum load surpasses 35% of limit speed to ensure the long-term continuous operation of the security
- Bearing seal can be lubricated. Service life more than L10:80000 hours to ensure the reliability of long-term continuous operation
- To be configured shields and adopted bright warning color of the drive unit to ensure the personal safety of customer
- To be vibration tested before the fan leave the factory to achieve the requirements of long-term stable and reliable operation



High Efficiency

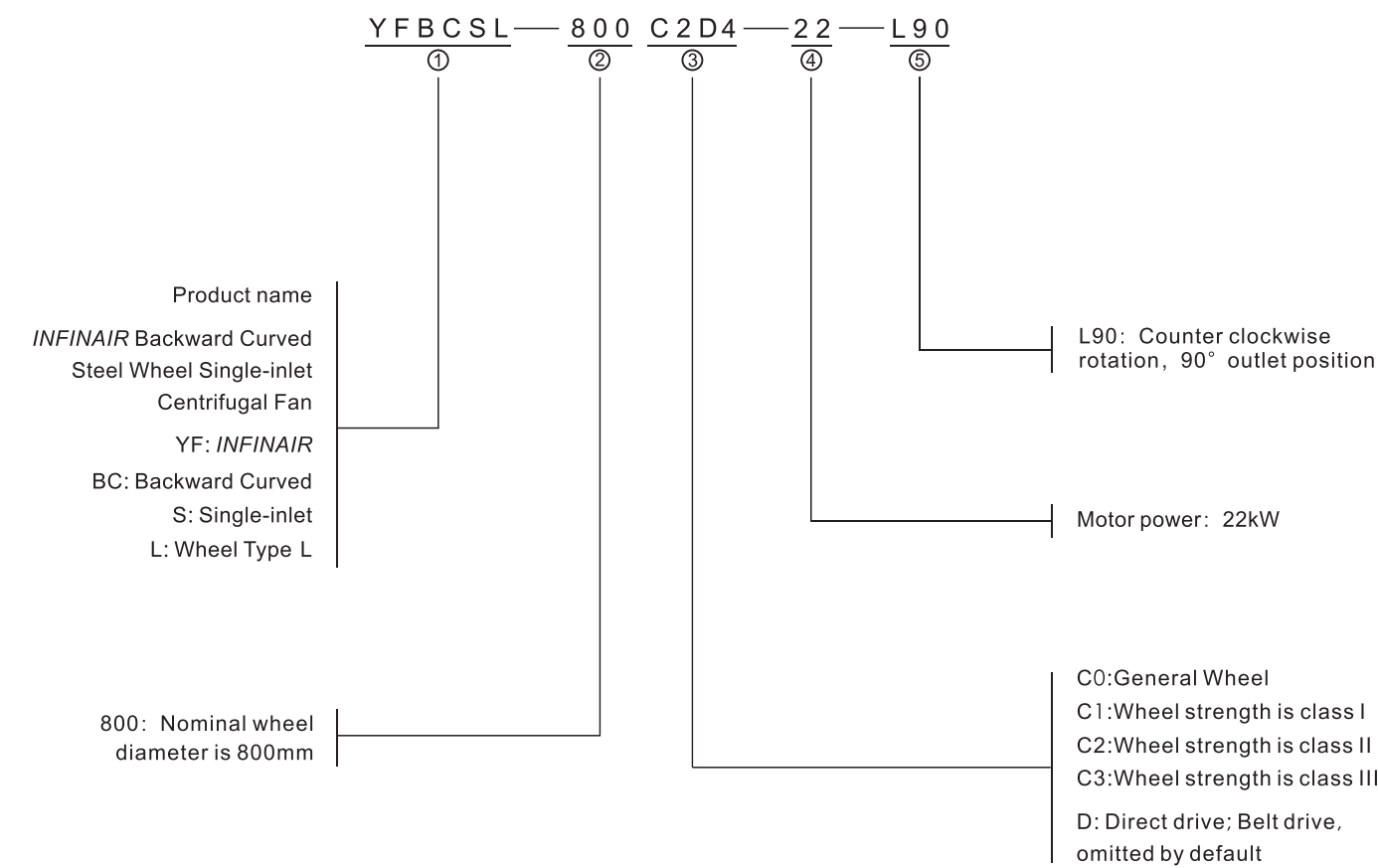
- Venturi inlet matched front disc precisely to avoid turbulent flow and air leakage, so that the air flow more smoothly to improve aerodynamic performance
- Optimized design repeatedly of CFD flow field simulation to ensure aerodynamic performance complied with the flow field characteristics
- Fan Efficiency Grades up to FEG80 (AMCA 205-10)

Convenient

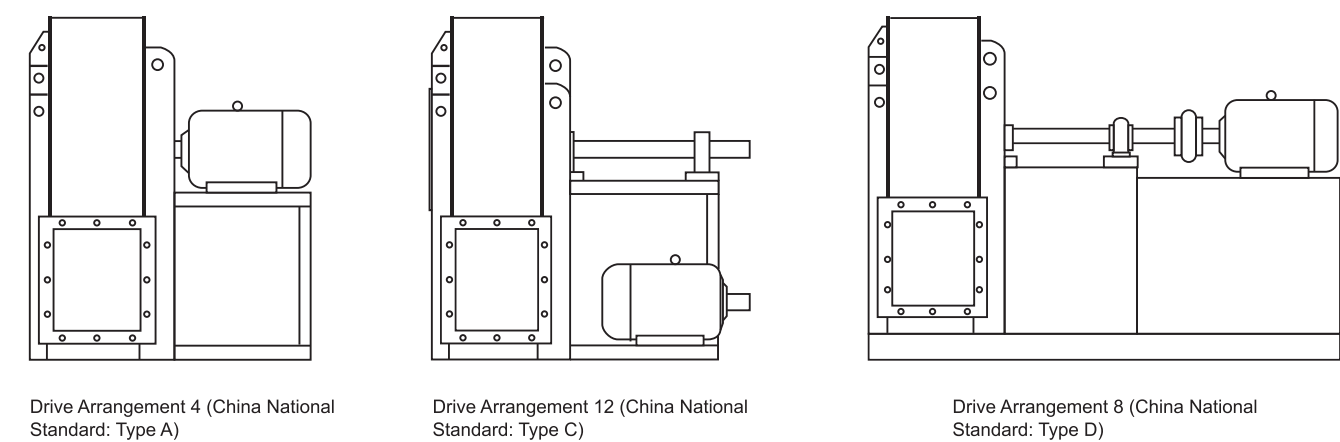
- Flexible allocation of multi-drive type
- Standard accessories for normal use
- Accessories completely to meet all kinds of application requirements



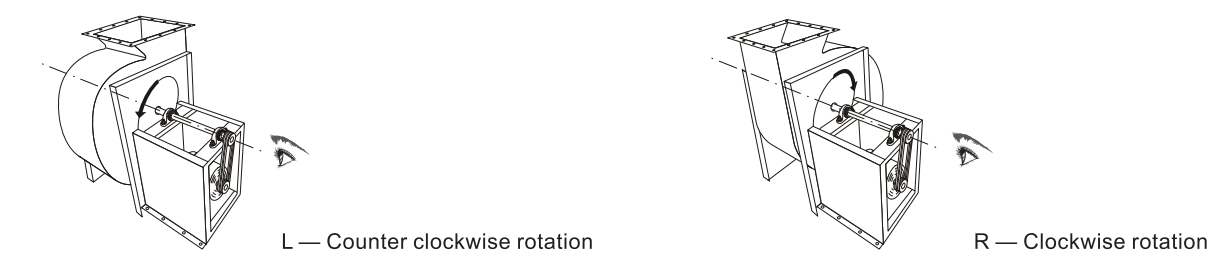
Naming Convention



Drive arrangements for centrifugal fans



Designation For Rotation



Note: The rotation is identified from the view of fan drive (as shown in the above figure)

Designation of outlet position

L0°

L45°

L90°

L135°

L180°

R0°

R45°

R90°

R135°

R180°

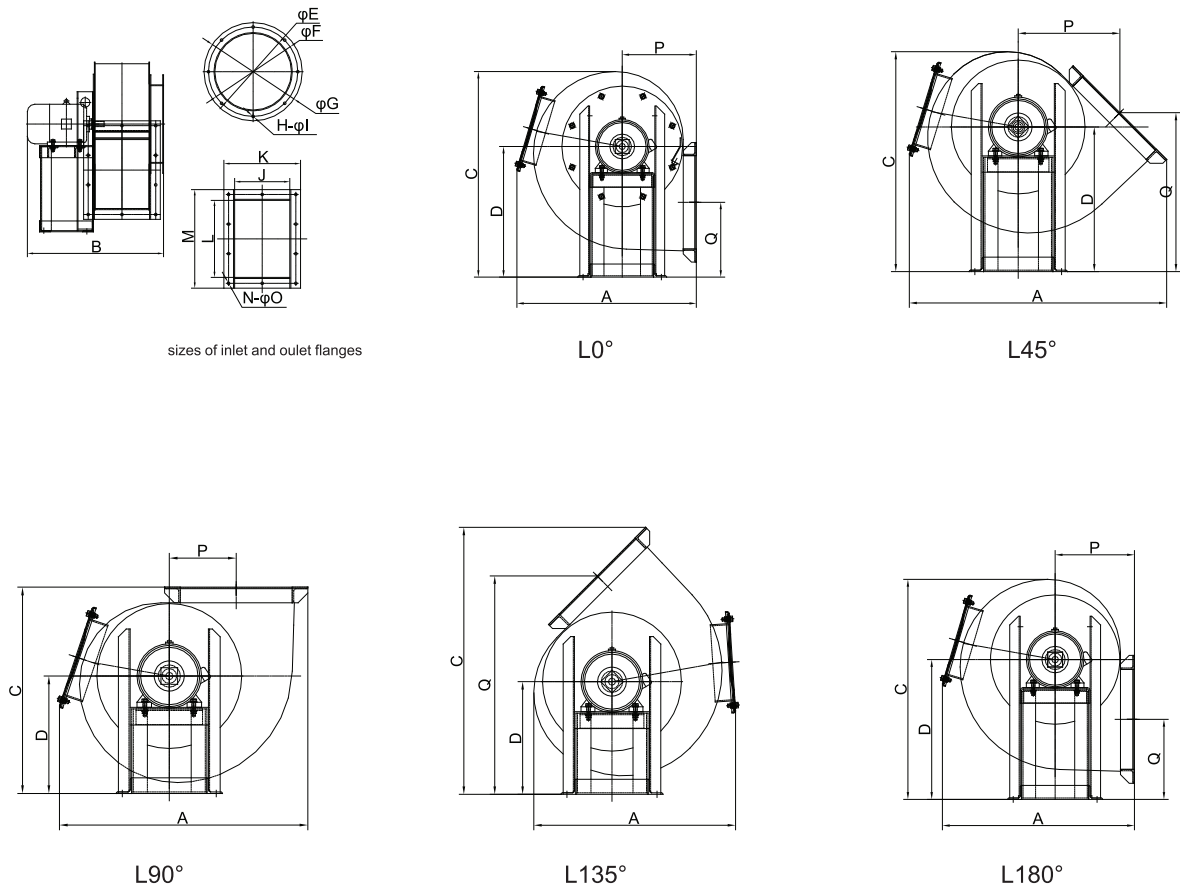
INFINAIR® standard	L	L0	L45	L90	L135	L180
China national standard	L	L0°	L45°	L90°	L135°	L180°
ISO standard	LG	LG 270	LG 315	LG 0	LG 45	LG 90
AMCA standard	CCW	CCW270	CCW315	CCW360	CCW45	CCW90

INFINAIR® standard	R	R0	R45	R90	R135	R180
China national standard	R	R0°	R45°	R90°	R135°	R180°
ISO standard	RD	RD 270	RD 315	RD 0	RD 45	RD 90
AMCA standard	CW	CW 270	CW 315	CW 360	CW 45	CW 90

Examples of naming, drive arrangements, rotating direction, outlet position

- YFBCSL-630C1-11-R0
- Name meaning: centrifugal wheel with backward curved blades, single-inlet, centrifugal fan Type L, nominal wheel diameter is 630mm, wheel strength is class I, belt drive, 11kW motor.
 - Drive arrangements: A12 (China National Standard: C Type).
 - Selection of rotating direction: R indicates right-handed rotation (clockwise).
 - Selection of outlet position: R0 indicates that 0 degree is selected for outlet position (China National Standard: right 0, ISO Standard: RD270, AMCA Standard: CW270).

Outline and Installation Dimensions of YFBCSL-280~1400 (A4)



Note: drawing in R rotating direction and drawing in L rotating direction are distributed in the form of mirror image.

L0°/R0°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
YFBCSL-280	550	510	630	400	285	332	365	8	10	201	285	282	366	10	10	227	229
YFBCSL-315	610	560	710	450	320	366	400	8	10	225	309	318	401	10	10	249	254
YFBCSL-355	670	660	740	450	361	405	441	8	10	254	336	358	441	10	10	273	235
YFBCSL-400	740	740	825	500	405	448	485	12	10	285	370	404	488	14	12	301	257
YFBCSL-450	830	880	925	560	455	497	535	12	10	320	405	454	538	14	12	333	287
YFBCSL-500	910	955	1075	610	505	551	585	12	10	356	437	504	588	14	12	365	309
YFBCSL-560	1020	811	1150	670	570	629	660	12	10	404	504	569	339	14	12	400	339
YFBCSL-630	1125	935	1270	750	640	698	730	12	10	454	554	639	739	22	12	450	375
YFBCSL-710	1250	1057	1415	850	720	775	810	16	12	514	614	720	820	24	12	500	419
YFBCSL-800	1385	1243	1585	950	810	861	902	16	12	576	702	812	938	26	12	562	468
YFBCSL-900	1550	1416	1815	1100	904	958	1004	16	12	647	773	914	1040	28	14	630	557
YFBCSL-1000	1730	1644	2000	1200	1007	1067	1107	24	12	718	844	1013	1139	32	14	710	590
YFBCSL-1120	1940	1675	2250	1350	1130	1200	1240	24	12	806	946	1136	1276	34	14	800	667
YFBCSL-1250	2165	1992	2520	1500	1260	1337	1370	24	12	898	1038	1267	1407	38	18	900	730
YFBCSL-1400	2405	2167	2725	1600	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1000	746

L45°/R45°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
YFBCSL-280	715	510	610	400	285	332	365	8	10	201	285	282	366	10	10	282	440
YFBCSL-315	795	560	685	450	320	366	400	8	10	225	309	318	401	10	10	315	486
YFBCSL-355	870	660	710	450	361	405	441	8	10	254	336	358	441	10	10	346	491
YFBCSL-400	965	740	795	500	405	448	485	12	10	285	370	404	488	14	12	385	541
YFBCSL-450	1085	880	890	560	455	497	535	12	10	320	405	454	538	14	12	429	603
YFBCSL-500	1185	955	1040	610	505	551	585	12	10	356	437	504	588	14	12	471	656
YFBCSL-560	1290	811	1070	670	570	629	660	12	10	404	504	569	339	14	12	517	719
YFBCSL-630	1440	935	1200	750	640	698	730	12	10	454	554	639	739	22	12	584	803
YFBCSL-710	1615	1057	1355	850	720	775	810	16	12	514	614	720	820	24	12	659	899
YFBCSL-800	1820	1243	1515	950	810	861	902	16	12	576	702	812	938	26	12	741	1010
YFBCSL-900	2035	1416	1740	1100	904	958	1004	16	12	647	773	914	1040	28	14	830	1162
YFBCSL-1000	2270	1644	1920	1200	1007	1067	1107	24	12	718	844	1013	1139	32	14	934	1271
YFBCSL-1120	2535	1675	2160	1350	1130	1200	1240	24	12	806	946	1136	1276	34	14	1049	1433
YFBCSL-1250	2835	1992	2420	1500	1260	1337	1370	24	12	898	1038	1267	1407	38	18	1181	1592
YFBCSL-1400	3130	2167	2620	1600	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1311	1704

L90°/R90°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
YFBCSL-280	640	510	530	300	285	332	365	8	10	201	285	282	366	10	10	171	-
YFBCSL-315	710	560	600	350	320	366	400	8	10	225	309	318	401	10	10	196	-
YFBCSL-355	780	660	625	350	361	405	441	8	10	254	336	358	441	10	10	215	-
YFBCSL-400	865	740	705	400	405	448	485	12	10	285	370	404	488	14	12	243	-
YFBCSL-450	970	880	785	450	455	497	535	12	10	320	405	454	538	14	12	273	-
YFBCSL-500	1065	955	930	500	505	551	585	12	10	356	437	504	588	14	12	301	-
YFBCSL-560	1110	811	950	550	570	629	660	12	10	404	504	569	339	14	12	331	-
YFBCSL-630	1240	935	1070	620	640	698	730	12	10	454	554	639	739	22	12	375	-
YFBCSL-710	1400	1057	1200	700	720	775	810	16	12	514	614	720	820	24	12	431	-
YFBCSL-800	1575	1243	1370	800	810	861	902	16	12	576	702	812	938	26	12	482	-
YFBCSL-900	1835	1416	1530	900	904	958	1004	16	12	647	773	914	1040	28	14	543	-
YFBCSL-1000	2045	1644	1710	1000	1007	1067	1107	24	12	718	844	1013	1139	32	14	610	-
YFBCSL-1120	2285	1675	1900	1100	1130	1200	1240	24	12	806	946	1136	1276	34	14	683	-
YFBCSL-1250	2550	1992	2200	1300	1260	1337	1370	24	12	898	1038	1267	1407	38	18	770	-
YFBCSL-1400	2860	2167	2350	1350	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	852	-

L135°/R135°Dimension table

Unit: mm

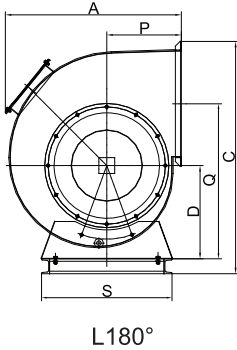
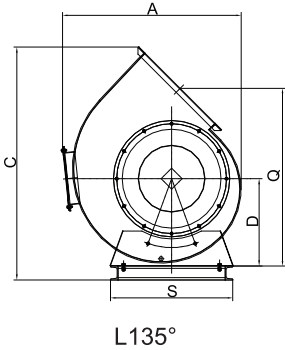
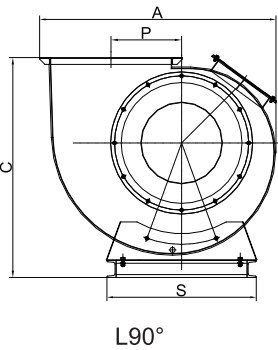
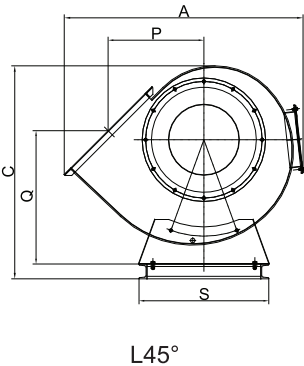
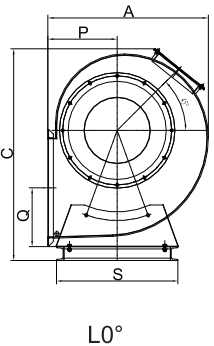
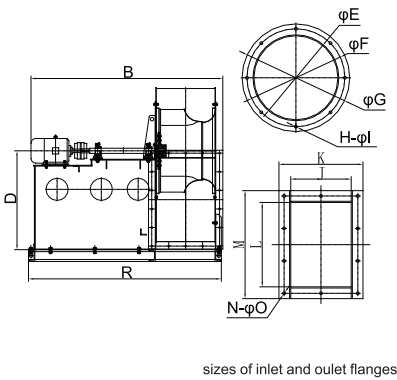
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
YFBCSL-280	540	510	715	300	285	332	365	8	10	201	285	282	366	10	10	-	582
YFBCSL-315	610	560	810	350	320	366	400	8	10	225	309	318	401	10	10	-	678
YFBCSL-355	670	660	855	350	361	405	441	8	10	254	336	358	441	10	10	-	696
YFBCSL-400	750	740	960	400	405	448	485	12	10	285	370	404	488	14	12	-	785
YFBCSL-450	840	880	1075	450	455	497	535	12	10	320	405	454	538	14	12	-	876
YFBCSL-500	930	955	1245	500	505	551	585	12	10	356	437	504	588	14	12	-	971
YFBCSL-560	1030	811	1255	500	570	629	660	12	10	404	504	569	339	14	12	-	1017
YFBCSL-630	1140	935	1415	570	640	698	730	12	10	454	554	639	739	22	12	-	1154
YFBCSL-710	1280	1057	1590	640	720	775	810	16	12	514	614	720	820	24	12	-	1299
YFBCSL-800	1425	1243	1825	750	810	861	902	16	12	576	702	812	938	26	12	-	1591
YFBCSL-900	1590	1416	2050	850	904	958	1004	16	12	647	773	914	1040	28	14	-	1680
YFBCSL-1000	1780	1644	2240	900	1007	1067	1107	24	12	718	844	1013	1139	32	14	-	1835
YFBCSL-1120	2000	1675	2500	1000	1130	1200	1240	24	12	806	946	1136	1276	34	14	-	2049
YFBCSL-1250	2250	1992	2880	1200	1260	1337	1370	24	12	898	1038	1267	1407	38	18	-	2381
YFBCSL-1400	2520	2167	3120	1250	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	-	2561

L180°/R180°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
YFBCSL-280	540	510	660	300	285	332	365	8	10	201	285	282	366	10	10	227	471
YFBCSL-315	595	560	750	350	320	366	400	8	10	225	309	318	401	10	10	249	546
YFBCSL-355	670	660	790	350	361	405	441	8	10	254	336	358	441	10	10	273	565
YFBCSL-400	730	740	890	400	405	448	485	12	10	285	370	404	488	14	12	301	643
YFBCSL-450	810	880	995	450	455	497	535	12	10	320	405	454	538	14	12	333	723
YFBCSL-500	895	955	1160	500	505	551	585	12	10	356	437	504	588	14	12	365	801
YFBCSL-560	945	811	1170	500	570	629	660	12	10	404	504	569	339	14	12	400	831
YFBCSL-630	1040	935	1315	570	640	698	730	12	10	454	554	639	739	22	12	450	945
YFBCSL-710	1165	1057	1485	640	720	775	810	16	12	514	614	720	820	24	12	500	1071
YFBCSL-800	1310	1243	1705	750	810	861	902	16	12	576	702	812	938	26	12	566	1232
YFBCSL-900	1520	1416	1915	850	904	958	1004	16	12	647	773	914	1040	28	14	630	1393
YFBCSL-1000	1700	1644	2080	900	1007	1067	1107	24	12	718	844	1013	1139	32	14	710	1510
YFBCSL-1120	1915	1675	2325	1000	1130	1200	1240	24	12	806	946	1136	1276	34	14	800	1683
YFBCSL-1250	2145	1992	2675	1200	1260	1337	1370	24	12	898	1038	1267	1407	38	18	900	1970
YFBCSL-1400	2395	2167	2890	1250	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1000	2104

Outline and Installation Dimensions of YFBCSL-560~2000 (A8)



Note: drawing in R rotating direction and drawing in L rotating direction are distributed in the form of mirror image.

L0°/R0°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-560	1020	1370	1230	670	570	629	660	12	10	404	504	569	339	14	12	400	339	1385	700
YFBCSL-630	1125	1560	1350	750	640	698	730	12	10	454	554	639	739	22	12	450	375	1515	750
YFBCSL-710	1250	1975	1495	850	720	775	810	16	12	514	614	720	820	24	12	500	419	1905	850
YFBCSL-800	1385	2120	1685	950	810	861	902	16	12	576	702	812	938	26	12	562	468	2025	950
YFBCSL-900	1550	2350	1915	1100	904	958	1004	16	12	647	773	914	1040	28	14	630	557	2250	1100
YFBCSL-1000	1730	2665	2100	1200	1007	1067	1107	24	12	718	844	1013	1139	32	14	710	590	2535	1200
YFBCSL-1120	1940	2845	2370	1350	1130	1200	1240	24	12	806	946	1136	1276	34	14	800	667	2730	1350
YFBCSL-1250	2165	3190	2640	1500	1260	1337	1370	24	12	898	1038	1267	1407	38	18	900	730	3060	1500
YFBCSL-1400	2405	3540	2865	1600	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1000	746	3385	1760
YFBCSL-1600	2740	4105	3315	1900	1610	1663	1730	32	14	1150	1290	1622	1753	28	22	1145	924	3855	1850
YFBCSL-1800	3060	4330	3715	2120	1810	1856	1930	32	14	1295	1427	1825	1946	32	22	1265	1054	4070	1950
YFBCSL-2000	3425	5165	4075	2360	2010	2073	2130	32	14	1439	1581	2028	2163	34	22	1400	1165	4665	2150

L45°/R45°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-560	1290	1370	1150	670	570	629	660	12	10	404	504	569	339	14	12	517	719	1385	700
YFBCSL-630	1440	1560	1280	750	640	698	730	12	10	454	554	639	739	22	12	584	803	1515	750
YFBCSL-710	1615	1975	1435	850	720	775	810	16	12	514	614	720	820	24	12	659	899	1905	850
YFBCSL-800	1820	2120	1615	950	810	861	902	16	12	576	702	812	938	26	12	741	1010	2025	950
YFBCSL-900	2035	2350	1840	1100	904	958	1004	16	12	647	773	914	1040	28	14	830	1162	2250	1100
YFBCSL-1000	2270	2665	2020	1200	1007	1067	1107	24	12	718	844	1013	1139	32	14	934	1271	2535	1200
YFBCSL-1120	2535	2845	2285	1350	1130	1200	1240	24	12	806	946	1136	1276	34	14	1049	1433	2730	1350
YFBCSL-1250	2835	3190	2545	1500	1260	1337	1370	24	12	898	1038	1267	1407	38	18	1181	1592	3060	1500
YFBCSL-1400	3130	3540	2760	1600	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1311	1704	3385	1760
YFBCSL-1600	3575	4105	3010	1700	1610	1663	1730	32	14	1150	1290	1622	1753	28	22	1500	1820	3855	1850
YFBCSL-1800	3935	4330	3370	1900	1810	1856	1930	32	14	1295	1427	1825	1946	32	22	1670	2020	4070	1950
YFBCSL-2000	4470	5165	3710	2100	2010	2073	2130	32	14	1439	1581	2028	2163	34	22	1875	2250	4665	2150

L90°/R90°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-560	1110	1370	1030	550	570	629	660	12	10	404	504	569	339	14	12	331	-	1385	700
YFBCSL-630	1240	1560	1150	620	640	698	730	12	10	454	554	639	739	22	12	375	-	1515	750
YFBCSL-710	1400	1975	1280	700	720	775	810	16	12	514	614	720	820	24	12	431	-	1905	850
YFBCSL-800	1575	2120	1470	800	810	861	902	16	12	576	702	812	938	26	12	482	-	2025	950
YFBCSL-900	1835	2350	1630	900	904	958	1004	16	12	647	773	914	1040	28	14	543	-	2250	1100
YFBCSL-1000	2045	2665	1810	1000	1007	1067	1107	24	12	718	844	1013	1139	32	14	610	-	2535	1200
YFBCSL-1120	2285	2845	2025	1100	1130	1200	1240	24	12	806	946	1136	1276	34	14	683	-	2730	1350
YFBCSL-1250	2550	3190	2325	1300	1260	1337	1370	24	12	898	1038	1267	1407	38	18	770	-	3060	1500
YFBCSL-1400	2860	3540	2490	1350	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	852	-	3385	1760
YFBCSL-1600	3270	4105	2865	1600	1610	1663	1730	32	14	1150	1290	1622	1753	28	22	972	-	3855	1850
YFBCSL-1800	3525	4330	3225	1800	1810	1856	1930	32	14	1295	1427	1825	1946	32	22	1098	-	4070	1950
YFBCSL-2000	4085	5165	3545	1950	2010	2073	2130	32	14	1439	1581	2028	2163	34	22	1215	-	4665	2150

L135°/R135°Dimension table

Unit: mm

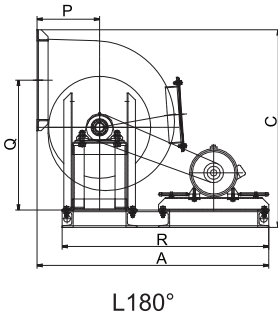
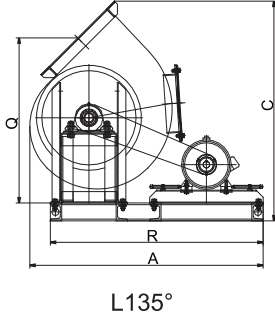
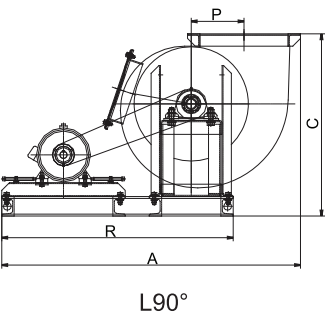
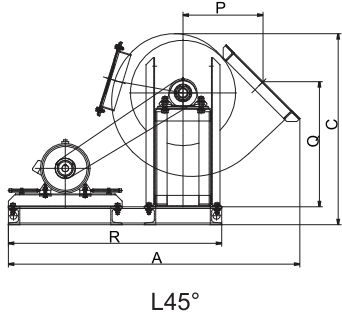
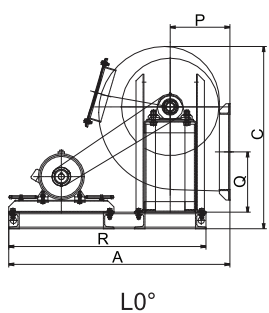
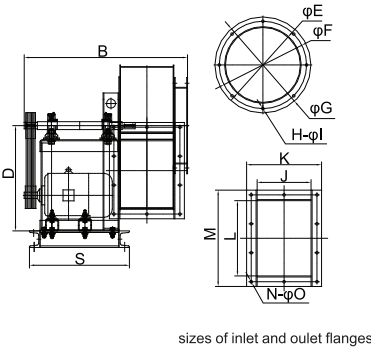
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-560	1030	1370	1335	500	570	629	660	12	10	404	504	569	339	14	12	-	1017	1385	700
YFBCSL-630	1140	1560	1495	570	640	698	730	12	10	454	554	639	739	22	12	-	1154	1515	750
YFBCSL-710	1280	1975	1670	640	720	775	810	16	12	514	614	720	820	24	12	-	1299	1905	850
YFBCSL-800	1425	2120	1925	750	810	861	902	16	12	576	702	812	938	26	12	-	1591	2025	950
YFBCSL-900	1590	2350	2150	850	904	958	1004	16	12	647	773	914	1040	28	14	-	1680	2250	1100
YFBCSL-1000	1780	2665	2340	900	1007	1067	1107	24	12	718	844	1013	1139	32	14	-	1835	2535	1200
YFBCSL-1120	2000	2845	2625	1000	1130	1200	1240	24	12	806	946	1136	1276	34	14	-	2049	2730	1350
YFBCSL-1250	2250	3190	3005	1200	1260	1337	1370	24	12	898	1038	1267	1407	38	18	-	2381	3060	1500
YFBCSL-1400	2520	3540	3260	1250	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	-	2561	3385	1760
YFBCSL-1600	2775	4105	3780	1500	1610	1663	1730	32	14	1150	1290	1622	1753	28	22	-	2999	3855	1850
YFBCSL-1800	3195	4330	4215	1650	1810	1856	1930	32	14	1295	1427	1825	1946	32	22	-	3335	4070	1950
YFBCSL-2000	3470	5165	4630	1800	2010	2073	2130	32	14	1439	1581	2028	2163	34	22	-	3670	4665	2150

L180°/R180°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-560	945	1370	1250	500	570	629	660	12	10	404	504	569	339	14	12	400	831	1385	700
YFBCSL-630	1040	1560	1395	570	640	698	730	12	10	454	554	639	739	22	12	450	945	1515	750
YFBCSL-710	1165	1975	1565	640	720	775	810	16	12	514	614	720	820	24	12	500	1071	1905	850
YFBCSL-800	1310	2120	1805	750	810	861	902	16	12	576	702	812	938	26	12	566	1232	2025	950
YFBCSL-900	1520	2350	2015	850	904	958	1004	16	12	647	773	914	1040	28	14	630	1393	2250	1100
YFBCSL-1000	1700	2665	2180	900	1007	1067	1107	24	12	718	844	1013	1139	32	14	710	1510	2535	1200
YFBCSL-1120	1915	2845	2450	1000	1130	1200	1240	24	12	806	946	1136	1276	34	14	800	1683	2730	1350
YFBCSL-1250	2145	3190	2800	1200	1260	1337	1370	24	12	898	1038	1267	1407	38	18	900	1970	3060	1500
YFBCSL-1400	2395	3540	2930	1250	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1000	2104	3385	1760
YFBCSL-1600	2645	4105	3370	1350	1610	1663	1730	32	14	1150	1290	1622	1753	28	22	1145	2326	3855	1850
YFBCSL-1800	2950	4330	3805	1550	1810	1856	1930	32	14	1295	1427	1825	1946	32	22	1265	2648	4070	1950
YFBCSL-2000	3305	5165	4210	1700	2010	2073	2130	32	14	1439	1581	2028	2163	34	22	1425	2920	4665	2150

Outline and Installation Dimensions of YFBCSL-280~2000 (A12)



Note: drawing in R rotating direction and drawing in L rotating direction are distributed in the form of mirror image.

L0°/R0°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-280	930	625	700	400	285	332	365	8	10	201	285	282	366	10	10	227	229	830	340
YFBCSL-315	950	650	770	450	320	366	400	8	10	225	309	318	401	10	10	249	254	950	430
YFBCSL-355	1170	820	800	450	361	405	441	8	10	254	336	358	441	10	10	273	235	1070	470
YFBCSL-400	1230	870	890	500	405	448	485	12	10	285	370	404	488	14	12	301	257	1100	470
YFBCSL-450	1300	905	990	560	455	497	535	12	10	320	405	454	538	14	12	333	287	1150	470
YFBCSL-500	1420	1040	1080	610	505	551	590	12	10	356	437	504	588	14	12	365	309	1280	520
YFBCSL-560	1450	1220	1195	670	570	629	660	12	10	404	504	569	669	14	12	400	339	1400	1120
YFBCSL-630	1650	1260	1325	750	640	698	730	12	10	454	554	639	739	22	12	450	375	1575	1170
YFBCSL-710	1725	1320	1488	850	720	775	810	16	12	514	614	720	820	24	12	500	419	1650	1180
YFBCSL-800	1990	1415	1675	950	810	861	902	16	12	576	702	812	938	28	12	562	468	1900	1330
YFBCSL-900	2100	1480	1905	1100	904	958	1004	16	12	647	773	914	1040	28	14	630	557	2020	1400
YFBCSL-1000	2330	1620	2095	1200	1007	1067	1107	24	12	718	844	1013	1139	32	14	710	590	2220	1510
YFBCSL-1120	2520	1900	2370	1350	1130	1200	1240	24	12	806	946	1136	1276	34	14	800	667	2395	1795
YFBCSL-1250	2750	1990	2635	1500	1260	1337	1370	24	12	898	1038	1267	1407	38	18	900	730	2600	1885
YFBCSL-1400	3020	2175	2855	1600	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1000	746	2900	2045
YFBCSL-1600	3345	2525	3315	1900	1610	1663	1730	32	14	1150	1310	1622	1753	28	22	1145	924	3210	2340
YFBCSL-1800	3860	2750	3715	2120	1810	1856	1930	32	14	1295	1455	1825	1985	32	22	1265	1054	3725	2490
YFBCSL-2000	4355	2905	4075	2360	2010	2073	2130	32	14	1439	1599	2028	2188	34	22	1400	1165	4145	2645

L45°/R45°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-280	1110	625	675	400	285	332	365	8	10	201	285	282	366	10	10	282	440	830	340
YFBCSL-315	1275	650	750	450	320	366	400	8	10	225	309	318	401	10	10	315	486	950	430
YFBCSL-355	1400	820	775	450	361	405	441	8	10	254	336	358	441	10	10	346	491	1070	470
YFBCSL-400	1490	870	860	500	405	448	485	12	10	285	370	404	488	14	12	385	541	1100	470
YFBCSL-450	1580	905	955	560	455	497	535	12	10	320	405	454	538	14	12	429	603	1150	470
YFBCSL-500	1735	1040	1040	610	505	551	590	12	10	356	437	504	588	14	12	471	656	1280	520
YFBCSL-560	1805	1220	1150	670	570	629	660	12	10	404	504	569	669	14	12	517	719	1400	1120
YFBCSL-630	2045	1260	1200	750	640	698	730	12	10	454	554	639	739	22	12	584	803	1575	1170
YFBCSL-710	2175	1320	1435	850	720	775	810	16	12	514	614	720	820	24	12	659	899	1650	1180
YFBCSL-800	2500	1415	1615	950	810	861	902	16	12	576	702	812	938	28	12	741	1010	1900	1330
YFBCSL-900	2670	1480	1840	1100	904	958	1004	16	12	647	773	914	1040	28	14	830	1162	2020	1400
YFBCSL-1000	2960	1620	2020	1200	1007	1067	1107	24	12	718	844	1013	1139	32	14	934	1271	2220	1510
YFBCSL-1120	3220	1900	2290	1350	1130	1200	1240	24	12	806	946	1136	1276	34	14	1049	1433	2395	1795
YFBCSL-1250	3530	1990	2545	1500	1260	1337	1370	24	12	898	1038	1267	1407	38	18	1181	1592	2600	1885
YFBCSL-1400	3890	2175	2760	1600	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	1311	1704	2900	2045
YFBCSL-1600	4310	2525	3010	1700	1610	1663	1730	32	14	1150	1310	1622	1753	28	22	1500	1820	3210	2340
YFBCSL-1800	4965	2750	3370	1900	1810	1856	1930	32	14	1295	1455	1825	1985	32	22	1670	2020	3725	2490
YFBCSL-2000	5595	2905	3710	2100	2010	2073	2130	32	14	1439	1599	2028	2188	34	22	1875	2250	4145	2645

L90°/R90°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-280	1050	625	590	300	285	332	365	8	10	201	285	282	366	10	10	171	-	830	340
YFBCSL-315	1215	650	665	350	320	366	400	8	10	225	309	318	401	10	10	196	-	950	430
YFBCSL-355	1335	820	690	350	361	405	441	8	10	254	336	358	441	10	10	215	-	1070	470
YFBCSL-400	1420	870	770	400	405	448	485	12	10	285	370	404	488	14	12	243	-	1100	470
YFBCSL-450	1505	905	850	450	455	497	535	12	10	320	405	454	538	14	12	273	-	1150	470
YFBCSL-500	1650	1040	930	500	505	551	590	12	10	356	437	504	588	14	12	301	-	1280	520
YFBCSL-560	1720	1220	1030	550	570	629	660	12	10	404	504	569	669	14	12	331	-	1400	1120
YFBCSL-630	1945	1260	1150	620	640	698	730	12	10	454	554	639	739	22	12	375	-	1575	1170
YFBCSL-710	2070	1320	1280	700	720	775	810	16	12	514	614	720	820	24	12	431	-	1650	1180
YFBCSL-800	2330	1415	1470	800	810	861	902	16	12	576	702	812	938	28	12	482	-	1850	1330
YFBCSL-900	2535	1480	1630	900	904	958	1004	16	12	647	773	914	1040	28	14	543	-	2020	1400
YFBCSL-1000	2800	1620	1810	1000	1007	1067	1107	24	12	718	844	1013	1139	32	14	610	-	2220	1510
YFBCSL-1120	3070	1900	2030	1100	1130	1200	1240	24	12	806	946	1136	1276	34	14	683	-	2420	1795
YFBCSL-1250	3325	1990	2330	1300	1260	1337	1370	24	12	898	1038	1267	1407	38	18	770	-	2600	1885
YFBCSL-1400	3665	2175	2495	1350	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	852	-	2900	2045
YFBCSL-1600	4080	2525	2865	1600	1610	1663	1730	32	14	1150	1310	1622	1753	28	22	972	-	3210	2340
YFBCSL-1800	4685	2750	3225	1800	1810	1856	1930	32	14	1295	1455	1825	1985	32	22	1098	-	3725	2490
YFBCSL-2000	5250	2905	3545	1950	2010	2073	2130	32	14	1439	1599	2028	2188	34	22	1215	-	4145	2645

L135°/R135°Dimension table

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
YFBCSL-280	1030	625	780	300	285	332	365	8	10	201	285	282	366	10	10	-	582	830	340
YFBCSL-315	1185	650	870	350	320	366	400	8	10	225	309	318	401	10	10	-	678	950	430
YFBCSL-355	1305	820	915	350	361	405	441	8	10	254	336	358	441	10	10	-	696	1070	470
YFBCSL-400	1385	870	1025	400	405	448	485	12	10	285	370	404	488	14	12	-	785	1100	470
YFBCSL-450	1470	905	1135	450	455	497	535	12	10	320	405	454	538	14	12	-	876	1150	470
YFBCSL-500	1620	1040	1245	500	505	551	590	12	10	356	437	504	588	14	12	-	971	1280	520
YFBCSL-560	1450	1220	1335	500	570	629	660	12	10	404	504	569	669	14	12	-	1017	1400	1120
YFBCSL-630	1650	1260	1495	570	640	698	730	12	10	454	554	639	739	22	12	-	1154	1575	1170
YFBCSL-710	1780	1320	1670	640	720	775	810	16	12	514	614	720	820	24	12	-	1299	1700	1180
YFBCSL-800	1965	1415	1925	750	810	861	902	16	12	576	702	812	938	28	12	-	1591	1875	1330
YFBCSL-900	2260	1480	2150	850	904	958	1004	16	12	647	773	914	1040	28	14	-	1680	2170	1400
YFBCSL-1000	2390	1620	2340	900	1007	1067	1107	24	12	718	844	1013	1139	32	14	-	1835	2270	1510
YFBCSL-1120	2605	1900	2630	1000	1130	1200	1240	24	12	806	946	1136	1276	34	14	-	2049	2470	1795
YFBCSL-1250	2970	1990	3005	1200	1260	1337	1370	24	12	898	1038	1267	1407	38	18	-	2381	2800	1885
YFBCSL-1400	3070	2175	3265	1250	1410	1471	1520	32	12	1006	1166	1421	1581	44	18	-	2561	2930	2045
YFBCSL-1600	3340	2525	3780	1500	1610	1663	1730	32	14	1150	1310	1622	1753	28	22	-	2999	3180	2340
YFBCSL-1800	4015	2750	4215	1650	1810	1856	1930	32	14	1295	1455	1825	1985	32	22	-	3335	3765	2490
YFBCSL-2000	4380	2905	4630	1800	2010	2073	2130	32	14	1439	1599	2028	2188	34	22	-	3670	4185	2645

Fan approx. weight (kg)

Model \ Drive arr.	A4	A8	A12
YFBCSL-280	59	-	68
YFBCSL-315	72	-	84
YFBCSL-355	79	-	88
YFBCSL-400	101	-	115
YFBCSL-450	114	-	134
YFBCSL-500	125	-	160
YFBCSL-560	149	207	225
YFBCSL-630	175	262	258
YFBCSL-710	247	408	328
YFBCSL-800	355	526	490
YFBCSL-900	440	715	580
YFBCSL-1000	556	905	720
YFBCSL-1120	806	1345	1140
YFBCSL-1250	998	1480	1290
YFBCSL-1400	1350	2526	1920
YFBCSL-1600	-	3215	2308
YFBCSL-1800	-	3925	2776
YFBCSL-2000	-	5246	3390

Notes: Motor weight is not included in the table

Motor approx. weight (kg)

Power(kW) \ Poles	2P	4P	6P	8P	10P
0.18	14	13.5	14	16	
0.25	14.5	14	14.5	17	
0.37	15	14.5	16	24	
0.55	15.5	15	17	28	
0.75	15	16	22	30	
1.1	16	21	24	32	
1.5	21	23	32	40	
2.2	24	33	41	64	
3	33	35	63	78	
4	41	41	72	105	
5.5	63	65	81	115	
7.5	70	76	118	145	
11	110	118	145	160	
15	120	132	178	228	
18.5	135	164	200	242	
22	165	182	228	265	
30	218	245	265	368	
37	230	258	370	470	
45	280	290	490	538	818
55	365	388	540	900	928
75	495	510	900	1000	1080
90	565	606	980	1055	1200
110	890	910	1045	1118	1800
132	980	1000	1100	2000	2000
160	1055	1055	1550	2150	2500
200	1110	1178	1600	2250	
250	1900	1700	1700		
315	2300	1900	1900		

Notes: Due to different weights of motors of different brands, motor weights in the table are only for reference.

Standard Accessories

- Access door

Check the rotation of the wheel, and clear attachments on the wheel to ensure the dynamic balance of the wheel.
- Full-closed shaft cover

Protect the shaft from external damage so as to reduce the maintenance cost and improve the operating efficiency.
- Half-closed belt cover

Guarantee the personnel security make sure that the belt can operate normally.
- Absorber pedestal

Realizing even distribution of the weight of the fan, so as to avoid local stress concentration and ensure smooth operation of the fan.
- Shear-proof spring absorber

Down-load fan dynamic load to prevent fan from moving horizontally and make sure that the fan operate smoothly and decrease the fan running noise.

Optional Accessories

- Full-closed belt cover

Guarantee the personnel security make sure that the belt can operate normally.
- Epoxy motor weather hood

Protect motor from rain and snow assault and extend the motor life.
- Outlet/inlet companion flange

It is a necessary part for connection of the fan and the air duct, and conducive to installation and removal of the air duct.
- Outlet/inlet silencer

Be installed at the inlet or outlet and is made of galvanized steel. By adopting the silencer, the noise of the fan can be reduced effectively, and the operating efficiency of the fan can be increased.
- Stainless wheel

Stainless steel material with high capability of corrosion resistance and good mechanical performance, the temperature can be up to 400°C. Thus it's suitable for cases of corrosion resistance and high temperature.

● Outlet/inlet flexible duct connector

A flexible connector between the fan and the air duct, and can be applied to prevent transmission of vibration of the fan to the whole system. Meanwhile, it can be used for butting of the fan and air ducts with different diameters and different center heights.

● Outlet/inlet protective screening

Protect fan and prevent accidental personal injure while wheel is operating.

● Inlet guide valve

Be installed at the inlet to ensure safety startup of the fan. The required air volume can be adjusted freely.

● Outlet adjusting damper

Be installed at the outlet of the fan to control air speed and adjust airflow.

● Housing drain

Be installed at the bottom of the volute to facilitate timely discharge of liquid-state waste, such as condensed water, etc.

● Anti-explosion copper loop

Be arranged at the inlet. When it is used along with the explosion-proof motor, the explosion-proof level can be achieved Spark C in accordance with standard AMCA-99.

● Second-floor absorber pedestal

Local stress on the pedestal can be decomposed more effectively based on the first shock absorber pedestal, and problems caused by the uneven surface can be solved.

Technical Specifications

● Fan type

The fan wheel shall be single-inlet centrifugal with backward curved centrifugal wheel. The drive type shall be direct drive, coupling drive or belt drive.

● Standards and codes

The design and manufacture of fan shall be subject to JB/T 10563-2006 *Technical Specification for General Purposes Centrifugal Fans*. The dynamic balancing of wheel shall be subject to JB/T 9101-1999 *Fan Rotor Balance*. The over-speed test on wheel shall be subject to JB/T 6445-2005 *Over-speed Test for Industrial Fan Impeller*. The air performance test of fan shall be subject to AMCA201 *Methods for Laboratory Testing and Evaluation of Fans*. Welding shall be subject to JB/T 10213-2000 *Technical Specification for Fan Welding Inspection*, and the safety shall be subject to GB/T 19074-2003 *Industrial Fans - Mechanical Safety of Fans - Guarding*.

● Wheel

The wheel shall be steel backward-bladed centrifugal and shall be adopted as the wheel by all-welding. The wheel shall be statically and dynami-cally balanced to level G4.0 in accordance with ISO standard NO.1940. When the wheel is operating at the highest allowable speed, the volume shall be stable and the noise shall be low. Wheel features shall be able to avoid performance downgrade resulting from sliding of the working points. Structure of the fan shall allow convenient withdrawal of the wheel for maintenance and cleaning.

● Fan Housing

Housing of the fan shall be made of steel. Its thickness and strength shall be able to bear the maximum operation weight of the fan. Housing of the fan shall be made through continuous welding. The housing of the fan must be equipped with a manhole for removing of foreign matters entering the fan.

● Inlet

Fan inlet shall be steel and aerodynamic design round curved section to smoothly transit the air to the wheel cone, it will have well commutate effect to effectively reduce turbulence, improve fan efficiency and reduce noise.

● Surface processing

The fan surface shall be first polished to clear protruding foreign matters, welding slag, burrs, sharp edges, iron scraps, oil stain, and then be electrostatic sprayed with epoxy resin in silver gray. The surface after being painted shall have glossiness no less than 70% and shall be free from bump, sag, crack, wrinkled skin or shedding. Under the equipment allowable working conditions, it shall guarantee that the fan not be corroded or rusted in at least ten years.

● Belt drives and coupling drives

The fan shaft shall be treated through soaking furnace to the hardness of HB250 to 280. The maximum velocity shall be designed to at least exceed 35% of the maximum fan operation speed. Two bearings shall be used to support the fan shaft. The service life of the bearing shall be more than L10:80000h. At normal temperature, it shall be sealed and lubricated. The pulley shall be constructed of cast-iron, with a dimension selected corresponding to 150% of the driving power. The pulley and belt shall be provided with shield. The coupling shall be elastic coupling. Its safety of conveying power and torsion shall meet the design requirements.

● Motor

The motor shall be closely matched to the fan load, IP 54, and insulation class F, and the motor bearings shall be ball-bearings and could be lubricated. The motor and the driving mechanism shall be located out of the air flow to avoid accumulation of grease or dust from the air flow.

● Nameplate

Permanently fixed aluminum nameplate shall be fixed on fan body clearly display fan mark, product model and serial number. The serial numbershall be a unique ID for each fan, so that the customer can use this number to find out the parts used to build this fan.

● Acceptable Manufacturers

INFINAIR® or equivalent. Design based on YFBCSL from **INFINAIR®**.