

LKZS SERIES FORWARD-CURVED BLADE DOUBLE-INLET SHAFT-DRIVEN CENTRIFUGAL FAN



LKZS series double volute forward shaft drive centrifugal fan adopts the special structure that **the impellers of two double inlet centrifugal fans are directly connected to the long shaft of the same motor**, reduces the volume of the whole machine, and can obtain larger ventilation volume under the condition of small installation space.

The **fluid model** of this series of fans has been optimized by **CFD** advanced technology, which not only increases the output pressure, but also reduces the noise and improves the efficiency. It has the characteristics of energy saving and low noise. It is especially suitable for **supporting various air conditioning, refrigeration, purification, fresh air units, air curtain machines** and other products, and has been widely used in hotels, hotels, schools, hospitals, factories, refrigerators, cinemas, high-speed rail, urban rail transit, buses, ships and other fields.

LKZS series of fans has the following remarkable advantages

1. Compact structure, small dimension, large air volume, flexible and simple to install;
2. The optimized forward multi blade impeller is adopted, which has high pressure, low noise, high efficiency, low noise, environmental protection and energy saving;
3. Our **self-developed matching motors** have better reliability and service life than ordinary motors after with optimization of power;

Model Definition

Example: LKW 250 M 2- 4 C3 X

Model Number consists of seven parts.

Part 1: Model Code;

No. 1 L: centrifugal fan;

No.2 K: air ventilation;

No. 3 P: belt driven; W: external rotor motor drive; Z: shaft drive;

No. 4 None: single-case, double inlet; D: single-case, single-inlet; S: double-case, double-inlet; W: single-inlet without case; G: duct fan; H: back curved blade;

Part 2: wheel diameter code, unit is mm;

Part 3: case width code, up to 2 bits;

SS: tiny width; S: small width; M: medium width; L: large width;

Part 4: designing sequence codes in numbers;

Part 5: motor pole, EC means brushless DC motor;

code	2	4	6	4/6
meaning to	2-pole motor	4-pole motor	6-pole motor	4/6-pole double-speed motor
code	6/8	4/6/8	EC	
meaning to	6/8-pole double-speed	4/6/8-pole three-speed motor	BLDC motor	

Part 6: specific code for single-phase motor

code	none	C	C2	C3
meaning to	non-single-phase motor	single-phase single-speed motor	single-phase two-speed motor	single-phase three-speed motor

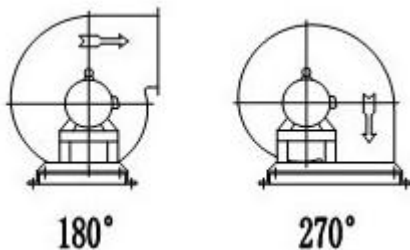
Part 7: motor installation types

code	meaning to
none	b3 motor; belt-drive rear installation or shaft-drive horizontal installation
l	b5 motor, shaft-drive vertical installation
x	b3 motor, belt-drive down installation
d	b3 motor, belt-drive top installation
e	b3 motor, belt-drive side installation

Such as LKZS150M – 4C2 is double volute forward shaft drive centrifugal fan, blade diameter 150mm with medium width, motor poles 4 ,single-phase two-speed.

Installation Method

LKZS series has two main types according to the **outlet angle**: 180 °, 270 °. It can also be customized to other directions according to the needs of users.





Technical Parameters

Fan frame size	Rated performance			Volume Range (m³/h)	Voltage (V)	freq. (Hz)	Power (kW)	Current (A)	Weight (kg)
	Volume (m³/h)	Pressure (Pa)	Noise [dB(A)]						
LKZS145S-4	810	135	57	600~900	380	50	0.12	0.5	11
LKZS145S-4C	810	135	57	600~900	220	50	0.12	0.75	12
LKZS145S-4C2	810 550	135 90	57	400~900	220	50	0.12	0.75	12
LKZS145S-4/6	810 480	135 60	57	350~900	380	50	0.12 0.04	0.75 0.24	12
LKZS145M-4	1000	135	58	800~1100	380	50	0.12	0.5	12
LKZS145M-4C	1000	135	58	800~1100	220	50	0.12	0.75	13
LKZS145M-4C2	1000 650	135 90	58	500~1100	220	50	0.12	0.75	13
LKZS145M-4/6	1000 600	135 60	58	450~1100	380	50	0.12 0.04	0.75 0.24	13
LKZS150S-4	800	145	57	600~900	380	50	0.12	0.5	13
LKZS150S-4C	800	145	57	600~900	220	50	0.12	0.75	14
LKZS150S-4C2	800 550	145 95	57	400~900	220	50	0.12	0.75	14
LKZS150S-4/6	800 480	145 65	57	350~900	380	50	0.12 0.04	0.75 0.24	14
LKZS150M-4	1000	145	58	800~1100	380	50	0.12	0.5	14
LKZS150M-4C	1000	145	58	800~1100	220	50	0.12	0.75	15
LKZS150M-4C2	1000 650	145 95	58	500~1100	220	50	0.12	0.75	15
LKZS150M-4/6	1000 600	145 65	58	450~1100	380	50	0.12 0.04	0.75 0.24	15
LKZS150L-4	1200	145	59	900~1300	380	50	0.15	0.6	15
LKZS160M-4	1100	160	59	800~1200	380	50	0.15	0.6	15
LKZS160L-4	1300	160	60	1000~1400	380	50	0.15	0.6	16
LKZS180S-4	1400	200	60	1100~1600	380	50	0.25	1	30
LKZS180S-6	900	90	52	700~1000	380	50	0.12	0.36	30
LKZS180M-4	1900	200	62	1600~2100	380	50	0.25	1	32
LKZS180M-6	1300	90	53	1100~1400	380	50	0.12	0.36	32
LKZS200S-4	2400	300	65	1800~2600	380	50	0.45	1.22	35
LKZS200S-6	2000	150	58	1500~2200	380	50	0.25	0.75	35
LKZS200M-4	3000	300	66	2500~3300	380	50	0.45	1.22	38
LKZS200M-6	2600	150	60	2000~2800	380	50	0.32	0.96	38
LKZS225S-4	3600	320	67	3000~4000	380	50	0.75	2	40



LKZS225S2-4	3600	360	68	3000~4000	380	50	0.75	2	40
LKZS225S-6	3000	160	60	2500~3300	380	50	0.37	1.12	40
LKZS225M-4	4400	320	67	3500~4800	380	50	0.75	2	42
LKZS225M2-4	4400	360	68	3500~4800	380	50	0.75	2	42
LKZS225M-6	3600	160	61	3000~4000	380	50	0.45	1.37	42
LKZS250S-4	3200	350	67	2500~3500	380	50	0.75	2	55
LKZS250S2-4	4000	420	69	3200~4500	380	50	LI	2.7	55
LKZS250S3-4	4000	500	71	3200~4500	380	50	L 1	2.7	55
LKZS250S-6	3600	180	62	3000~4000	380	50	0.45	1.37	55
LKZS250S2-6	3600	210	63	3000~4000	380	50	0.45	1.37	55
LKZS250S3-6	3600	240	64	3000~4000	380	50	0.45	1.37	55
LKZS250M-4	5600	350	69	4500~6200	380	50	1.1	2.7	60
LKZS250M2-4	6000	420	71	4800~6600	380	50	1.5	3.7	60
LKZS250M3-4	6000	500	73	4800~6600	380	50	1.5	3.7	60
LKZS250M-6	4800	180	63	3800~5200	380	50	0.55	1.68	60
LKZS250M2-6	5200	210	64	4200~5700	380	50	0.55	1.68	60
LKZS250M3-6	5200	240	66	4200~5700	380	50	0.75	2.3	60
LKZS280S-4	8500	650	75	6000~9000	380	50	3	6.8	76
LKZS280S-6	6000	320	68	4000~6600	380	50	1.1	3.2	76
LKZS280M-4	11000	650	77	7000~12000	380	50	4	8.8	88
LKZS280M-6	8000	320	69	6000~9000	380	50	1.5	4	85
LKZS300S-4	10000	800	78	7000~11000	380	50	4	8.8	90
LKZS300S-6	6000	380	69	4000~6600	380	50	1.5	4	90
LKZS300M-4	13000	800	79	9000~14000	380	50	5.5	11.6	105
LKZS300M-6	8000	380	71	6000~9000	380	50	2.2	5.6	100
LKZS315S-4	11000	900	79	8000~12000	380	50	5.5	11.6	110
LKZS315S-6	8000	420	71	6000~9000	380	50	2.2	5.6	100
LKZS315M-4	15000	900	81	11000~16000	380	50	7.5	15.4	130
LKZS315M-6	10000	420	72	8000~11000	380	50	2.2	5.6	110

Work Environment

- 1) Altitude not more than 1000 meters;
- 2) The ambient temperature is not lower than - 25 °C, not higher than 40 °C;
- 3) The relative humidity of the environment shall not exceed 90%;
- 4) The conveying gas does not contain acid, alkaline and corrosive medium, and the dust content is not more than 150mg / m³.

When the working environment does not meet the above requirements, it needs to be explained when ordering. We can customize the product according to the specific site conditions.



Performance Range

Flow: 350~16000 m³/h

Total pressure: 90~900 pa

Beyond this range, please choose other series of our fan products, or contact our technical department for customization.

Matters Needing Attention

1. Before use, please check carefully:

- (1) Whether the motor lead wires are intact;
- (2) Whether the connecting bolts are loose;
- (3) Whether there is serious deformation of fan volute, impeller, fan shaft and other components;
- (4) Rotate the fan impeller by hand, the hand induction rotation is stable, without obvious stuck phenomenon.

2. Installation

- (1) The fan chassis must be installed horizontally, and it is strictly prohibited to install vertically or obliquely;
- (2) The grounding bolt of the fan shall be connected reliably;
- (3) The fan shall be equipped with phase loss and overload protection devices;

3. Start up and Operation

- (1) Before starting the fan, check the working power supply, which must be within $\pm 5\%$ of the rated voltage and $\pm 1\%$ of the rated frequency;
- (2) The rotation direction of the fan impeller shall be the same as that of the turning mark;
- (3) The operating current of the fan shall not exceed the defined current, otherwise the motor will be damaged or burnt;
- (4) When the fan is running, it is strictly prohibited to extend the body or foreign matters to the inside of the fan, and it is strictly prohibited to approach the belt and pulley to avoid danger;
- (5) Before starting the single-phase fan, close the air valve of the outlet channel, otherwise it may be difficult to start;