

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



LKZ series forward-curved blade double-inlet shaft-driven centrifugal fan adopts a forward impeller directly connected with motor located outside through long shaft. The air enters from both sides at the same time. The structure is simple and reliable. At the same time, the resistance at the inlet of the fan is reduced, and the rated air volume and efficiency of the fan are increased .

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.

LKZ series of fans has the following remarkable advantages

1. The air enters from both sides at the same time, and the motor is located outside the fan and connected with the impeller of the fan through the long shaft, so the structure is simple and reliable. At the same time, the resistance at the inlet of the fan is reduced, and the rated air volume and efficiency of the fan are increased;;
2. The forward multi wing impeller with high pressure, low noise, high efficiency and low noise is adopted;
3. The **direction of the air outlet and the installation position of the motor** can be specially customized, and the installation form is flexible and convenient;
4. 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

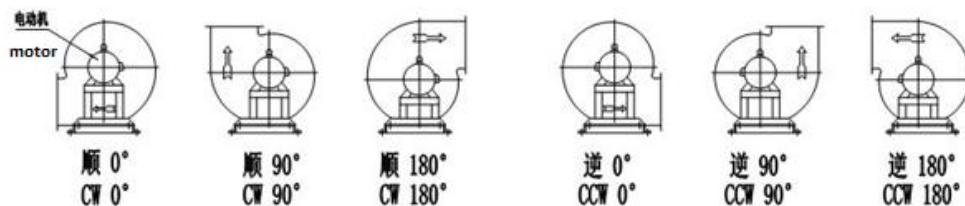
Part 7: motor installation types

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 LKZ250M – 4 is forward-curved blade double-inlet shaft-driven centrifugal fan, blade diameter 250mm with medium width, motor poles 4.

Installation Method

- 1) The **rotating direction** of centrifugal fan is divided into CW and CCW according to the rotating direction of impeller. To LKZ Centrifugal Fans: facing the motor, the clockwise direction of impeller rotation is called CW, and the counter-clockwise direction of impeller rotation is called CCW.
- 2) Air outlet angle: the angle between the air outlet and the installation surface. LKZ series has three main types according to the **outlet angle**: 0 °, 90 °, 180 °. It can also be customized to other directions according to the needs of users.



Technical Parameters

Fan frame size	Rated performance			Volume Range (m ³ /h)	Voltage (V)	freq. (Hz)	Power (kW)	Current (A)	Weight (kg)
	Volume (m ³ /h)	Pressure (Pa)	Noise [dB(A)]						
LKZ150S-4C	400	145	60	300~400	220	50	0.05	0.53	7
LKZ150M-4C	500	145	61	400~600	220	50	0.05	0.53	8
LKZ150L-4C	600	145	62	500~700	220	50	0.07	0.70	9
LKZ150S-4C3	400	145	52	50~400	220	50	0.05	0.53	7
	250	75	50						
	100	30	48						
LKZ150M-4C3	500	145	53	100~600	220	50	0.05	0.53	8
	350	75	51						
	150	30	49						
LKZ150L-4C3	600	145 75 30	54	150~700	220	50	0.07	0.70	9
	450		52						
	200		50						
LKZ180S-4	700	200	59	550~800	380	50	0.55	1.5	25
LKZ180M-4	950	200	60	800~000	380	50	0.55	1.5	26
LKZ180L-4	1200	200	61	100~1300	380	50	0.55	1.5	27
LKZ180S-6	450	90	56	350~500	380	50	0.37	1.24	25
LKZ180M-6	650	90	57	550~700	380	50	0.37	1.24	26
LKZ180L-6	800	90	58	650~900	380	50	0.37	1.24	27
LKZ200S-4	1200	300	60	100~1300	380	50	0.55	1.5	26
LKZ200M-4	1500	300	61	125~1700	380	50	0.55	1.5	27
LKZ200L-4	1800	300	62	1500~2000	380	50	0.55	1.5	28
LKZ200S-6	1000	150	57	850~1100	380	50	0.37	1.24	26
LKZ200M-6	1300	150	58	1100~1400	380	50	0.37	1.24	27
LKZ200L-6	1600	150	59	1350~1800	380	50	0.37	1.24	28
LKZ225S-4	1800	320	63	1500~2000	380	50	0.55	1.5	29
LKZ225M-4	2200	320	64	1850~2400	380	50	0.55	1.5	30
LKZ225L-4	2600	320	65	2200~2900	380	50	0.55	1.5	31
LKZ225S2-4	1800	360	63	1500~2000	380	50	0.55	1.5	29
LKZ225M2-4	2200	360	64	1850~2400	380	50	0.55	1.5	30

LKZ225L2-4	2600	360	65	2200~290	380	50	0.55	1.5	31
LKZ225S-6	1500	160	61	1250~1700	380	50	0.37	1.24	29
LKZ225M-6	1800	160	62	1500~200	380	50	0.37	1.24	30
LKZ225L-6	2000	160	63	1700~2200	380	50	0.37	1.24	31
LKZ250S-4	1600	250	65	1350~1800	380	50	0.55	1.5	35
LKZ250M-4	2800	350	66	2350~3100	380	50	0.55	1.5	36
LKZ250L-4	3500	350	67	2950~3900	380	50	0.75	2	38
LKZ250S-6	1800	180	63	1500~2000	380	50	0.37	1.24	35
LKZ250M-6	2400	180	64	2000~2600	380	50	0.37	1.24	36
LKZ250L-6	3000	180	65	2550~3300	380	50	0.37	1.24	37
LKZ250S2-4	2000	420	66	1700~2200	380	50	0.55	1.5	35
LKZ250M2-4	3000	420	67	2550~3300	380	50	0.75	2	37
LKZ250L2-4	4000	420	68	3400~4400	380	50	1.1	2.7	40
LKZ250S2-6	1800	210	64	1500~2000	380	50	0.37	1.24	35
LKZ250M2-6	2600	210	65	2200~2900	380	50	0.37	1.24	36
LKZ250L2-6	3200	210	66	2700~3500	380	50	0.37	1.24	37
LKZ250S3-4	2000	500	67	1700~2200	380	50	0.55	1.5	35
LKZ250M3-4	3000	500	69	2550~3300	380	50	0.75	2	37
LKZ250L3-4	4000	500	70	3400~4400	380	50	1.1	2.7	40
LKZ250S3-6	1800	240	65	1500~2000	380	50	0.37	1.24	35
LKZ250M3-6	2600	240	66	2200~2900	380	50	0.37	1.24	36
LKZ250L3-6	3200	240	67	2700~3500	380	50	0.37	1.24	37
LKZ280SS-4	3500	500	68	2950~3900	380	50	1.1	2.7	40
LKZ280S-4	4000	500	69	3400~4400	380	50	1.1	2.7	43
LKZ280M-4	5000	500	70	4250~5500	380	50	1.5	3.7	49
LKZ280L-4	6000	500	71	5100~6600	380	50	2.2	5	63
LKZ280SS-6	2500	320	64	2100~2800	380	50	0.55	1.7	37
LKZ280S-6	3000	320	65	2550~3300	380	50	0.55	1.7	40
LKZ280M-6	4000	320	66	3400~4400	380	50	0.75	2.2	43
LKZ280L-6	5000	320	67	4250~5500	380	50	1.1	3.2	52
LKZ300SS-4	4000	550	71	3400~4400	380	50	1.1	2.7	41
LKZ300S-4	4500	550	72	3800~5000	380	50	1.5	3.7	49
LKZ300M-4	5500	550	73	4650~6100	380	50	1.5	3.7	52
LKZ300L-4	6500	550	75	5500~7200	380	50	2.2	5	62
LKZ300SS-6	2500	380	65	2100~2800	380	50	0.55	1.7	35
LKZ300S-6	3000	380	66	2550~3300	380	50	0.75	2.2	45
LKZ300M-6	4000	380	67	3400~4400	380	50	1.1	3.2	52
LKZ300L-6	5000	380	68	4250~5500	380	50	1.1	3.2	55
LKZ315SS-4	4000	600	73	3400~4400	380	50	1.5	3.7	47
LKZ315S-4	5000	600	75	4250~5500	380	50	2.2	5	59

LKZ315M-4	6500	600	76	5500~7200	380	50	2.2	5	63
LKZ315L-4	8000	600	77	6800~8800	380	50	3	6.8	68
LKZ315SS-6	3000	420	65	2550~3300	380	50	1.1	3.2	45
LKZ315S-6	4000	420	66	3400~4400	380	50	1.1	3.2	49
LKZ315M-6	5000	420	67	4250~5500	380	50	1.1	3.2	53
LKZ315L-6	6000	420	68	5100~6600	380	50	1.5	4	65
LKZ355SS-4	4500	800	74	3800~5000	380	50	2.2	5	60
LKZ355S-4	7000	800	76	5950~7700	380	50	3	6.8	66
LKZ355M-4	10000	800	78	8500~11000	380	50	4	8.4	80
LKZ355L-4	12500	800	79	1060~13800	380	50	5.5	11.6	105
LKZ355SS-6	3500	500	70	2950~3900	380	50	1.1	3.2	51
LKZ355S-6	6000	500	71	5100~6600	380	50	2.2	5	70
LKZ355M-6	7000	500	72	5950~7700	380	50	2.2	5	75
LKZ355L-6	8500	500	73	7200~9400	380	50	3	7.2	100
LKZ400SS-4	6500	1000	75	3400~4400	380	50	4	8.4	84
LKZ400S-4	10000	1000	76	4250~5500	380	50	5.5	11.6	105
LKZ400M-4	12500	1000	77	5500~7200	380	50	7.5	15.4	126
LKZ400L-4	15000	1000	77	5500~7200	380	50	11	22.6	160
LKZ400SS-6	4000	600	67	3400~4400	380	50	2.2	5	78
LKZ400S-6	5000	600	68	4250~5500	380	50	2.2	5	85
LKZ400M-6	6000	610	70	5100~6600	380	50	3	7.2	109
LKZ400L-6	8000	600	72	6800~8800	380	50	3	7.2	116

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: 300~16500 m³/h

Total pressure: 90~1000 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;