



## Mini sirocco fan

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# INSTRUCTION MANUAL

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K10CG1

K12CG1

K14CG1

K16CG1

K17CG1

K17CT1

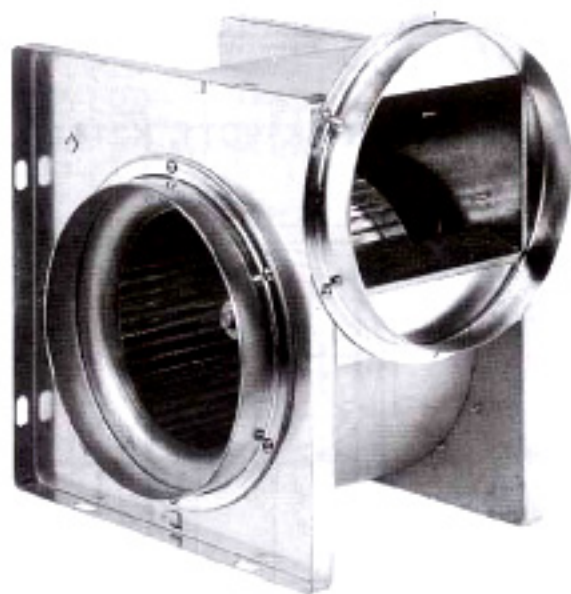
K19CG1

K19CT1

K21CG1

K21CT1

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Thank you for purchasing the **KDK** Mini sirocco fan.

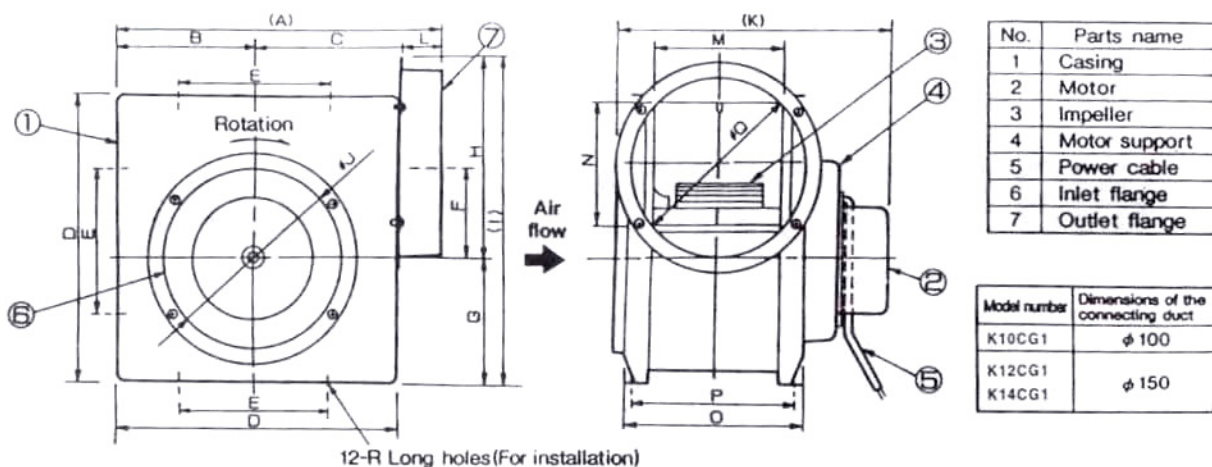
Please be sure to always follow the details of these instructions in installing and using your unit otherwise sudden accidents or breakdowns occur.

Please check whether there are any breakage or deformation or not before be installed.

# 1. Names and Dimensions of Components

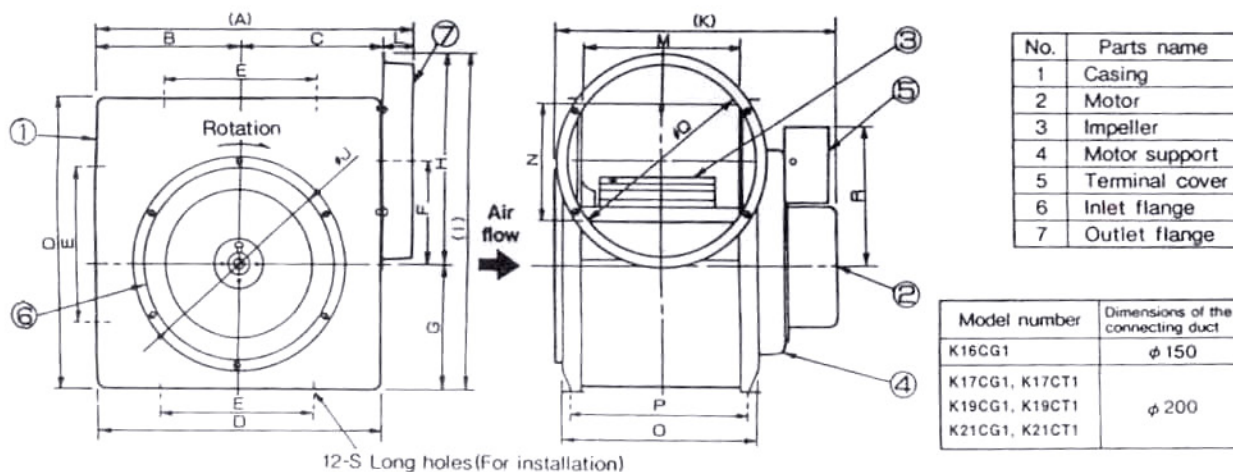
Dimensions mm.

## K10CG1, K12CG1, K14CG1



Model number	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Long holes
K10CG1	206	86	95	180	120	56	82	117	199	98	196	24	80	74	120	106	98	6	6 × 20
K12CG1	261	112	119	230	120	76	100	161	261	148	226	29	105	98	145	131	148	6	6 × 20
K14CG1	261	112	119	230	120	76	100	161	261	148	224	29	105	98	145	131	148	6	6 × 20

## K16CG1, K17CG1, K17CT1, K19CG1, K19CT1, K21CG1, K21CT1



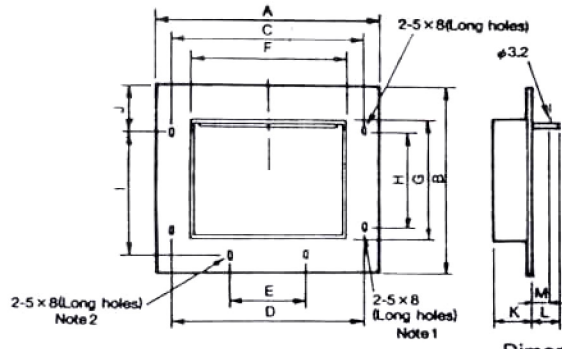
Model number	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Long holes
K16CG1	281	125	126	250	160	85	108	171	279	148	237	29	117	102	157	143	148	128	6	6 × 20
K17CG1, K17CT1	331	151	150	300	160	106	130	216	346	198	281	29	165	116	205	187	198	142	10	10 × 20
K19CG1, K19CT1	331	151	150	300	160	106	130	216	346	198	296	29	165	116	205	187	198	142	10	10 × 20
K21CG1, K21CT1	361	166	165	330	200	121	145	233	378	198	373	29	190	110	250	226	198	161	12	12 × 24

## Angular flange ( Optional )

- The fan is equipped with a circular flange. Use an angular flange for connection to an angular duct.

Note 1. Applied for K10CG1-KF, K12CG1-KF  
K16CG1-KF and K17CG1-KF

Note 2. Applied for K21CG1-KF



Dimensions mm.

Model number	Applied model number	A	B	C	D	E	F	G	H	I	J	K	L	M	Plank
K10CG1-KF	K10CG1	120	94	96.2	96.2	—	81.5	75.5	55.5	—	19.1	25	15	11	0.8
K12CG1-KF	K12CG1, K14CG1	145	128	131.8	131.8	—	106.5	100	92.3	—	19.1	25	15	11	
K16CG1-KF	K16CG1	157	142	131.8	131.8	—	118.5	104	92.3	—	22	25	15	11	
K17CG1-KF	K17CG1, K17CT1, K19CG1, K19CT1	205	156	182.8	182.8	—	166.5	118	105.5	—	25.8	30	25	16	
K21CG1-KF	K21CG1, K21CT1	250	170	211	—	105.5	191.5	112	—	91.4	67.5	30	25	16	

## 2. Installation Cautions

- Observe the following precautions as to the place of installation and the installation procedure.

<p>Do not use the fan in any place where an excessive temperature rise is expected or soot is being produced.</p>	<p>Do not use the fan in the place where humidity is high.</p>	<p>The room shall have an air supply port for effective ventilation. (Do not use the fan for ventilation of flammable gases or dust.)</p>	<p>Provide an access door for inspection and maintenance.</p>
<p>Connect the duct avoiding the following cases.</p> <p>(1) Sharp bending angle. (2) Bended more than once. (3) Reduced diameter at the connection. (4) Bending near the discharge port or suction port.</p>	<p>Install a fan protection device like a motor over-load breaker in the wiring.</p>	<p>When connecting an electric flow rate control unit (inverter, slidac, etc.) be sure to check the safety of the equipment. (The motor may be burned.)</p>	

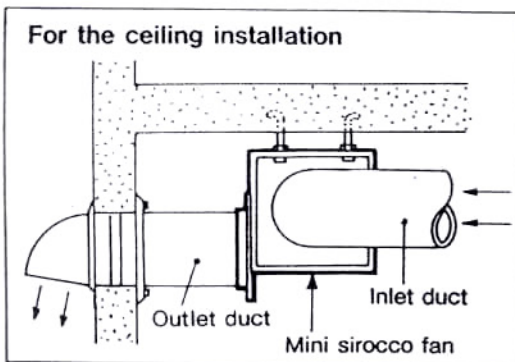
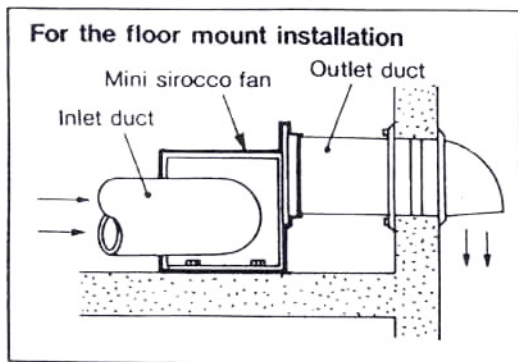
- The fan houses thermal protectors for the prevention of overheating. The protector functions in the event of an overload, phase interruption or stall. (When the thermal protector has functioned, turn the power off and contact the place you purchased it or installation shop.)

## 3. Maintenance Cautions

- Inspect and clean the fan every year for extended and safe use of it.
- The motor bearing is a sealed ball bearing. The grease life expectancy is about 20,000 hours. When abnormal noises or a reduction in air flow is observed, inspect the bearing and replace it if necessary.
- For maintenance and inspection work including the replacement of bearings and other parts, contact your professional service shop.

# 4. Installation Instructions

## 1. Installation



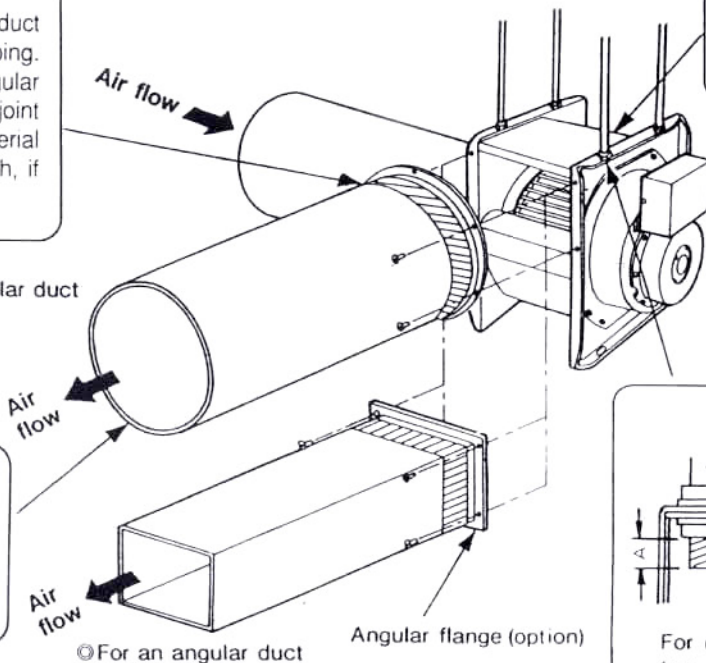
Prepare mounting bolts, nuts and plain washers while referring to the table below.

Model number	Bolts, nuts, plain washers
K10CG1, K12CG1 K14CG1, K16CG1	M5
K17CG1, K17CT1 K19CG1, K19CT1	M8
K21CG1, K21CT1	M10

Connect the circular duct to the adaptor by taping. Connect the rectangular duct with a flexible joint of non-flammable material such as a canvas cloth, if necessary.

Install the body horizontally.

Install the outdoor duct so that it is inclined at a gradient of 1/100 or more, with the outer side being lower.



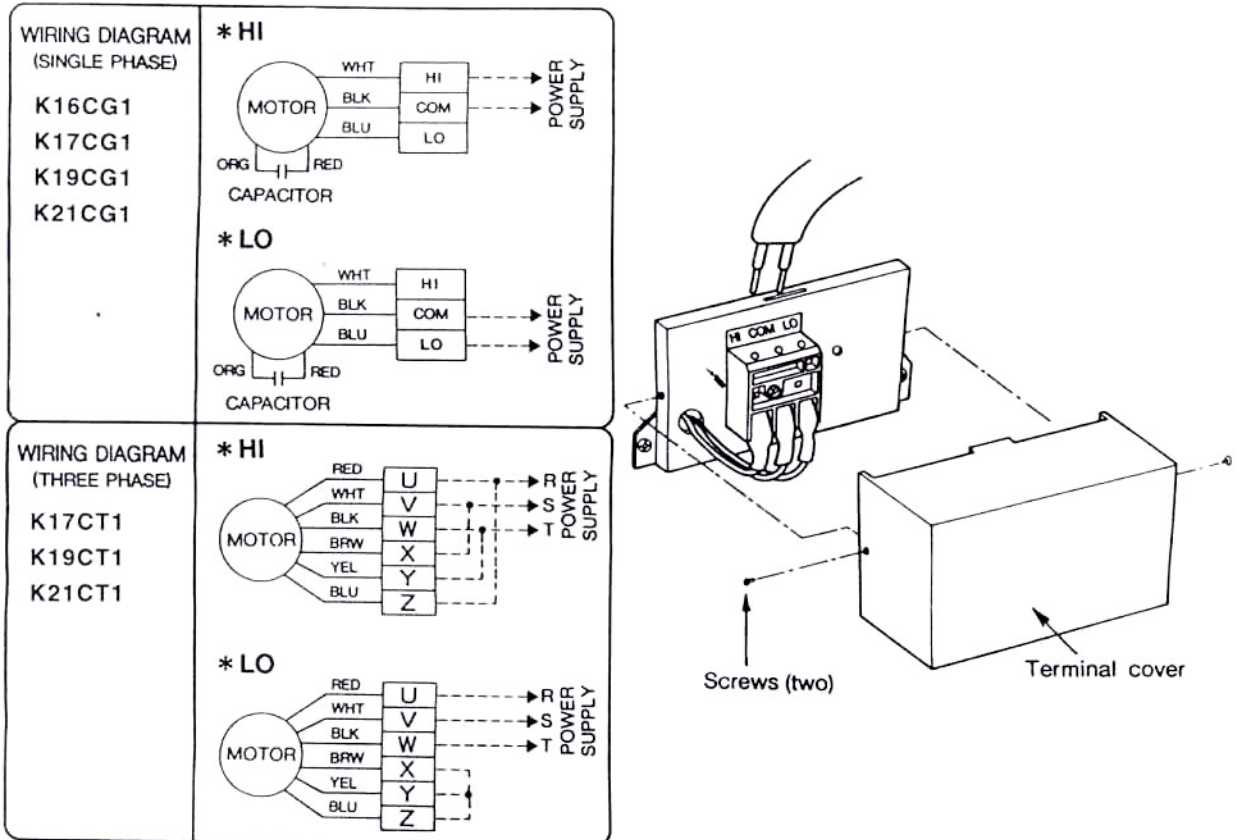
Installation bolt  
Nut  
Plain washer  
Plain washer  
Nut

For dimension A, have two or three threads protruding from the nut.

## 2. Electric Wiring Caution

Ask the electrical shop for wiring.

- To the electrical shop who makes wiring.
- Kindly work in accordance with the electric equipment engineering standards and the working standard specified by the power company.
- According to the electrical installation standard, perform the grounding work.
- Connect the line after opening the terminal cover.
- Kindly connect as indicated in the following drawings.
- After wiring, check the rotation direction.
- For K10CG1, K12CG1 and K14CG1 which do not have two-speed motor, connect the lead wire the power line.



## 5. After - sale Service

### 1. Complete after-sale service

Upon trouble, inspect the items listed in the following table. If anything is found defective, be sure to turn the power off and contact the place you purchased it.

Problem	Cause	Inadequate air flow	Excessive noise	Excessive vibration	Overheated motor	Countermeasure
Poor foundation			○	○		Reinforce foundation
Faulty installation			○	○		Recheck installation
Reverse fan rotation		○				Change motor wiring
Inadequate fan speed		○				Check power source
Contact between rotary and stationary parts			○	○	○	Inspection
Impurities sucked in/dust adherence			○	○	○	Inspection/cleaning
Faulty ducting		○	○	○		Duct inspection

### 2. Replacement parts kept for at least six years

The company will have available replacement operational parts for the Mini sirocco fan for at least six years after these models are no longer sold.

Operational parts refers to those parts which are essential for maintaining the functions of the Product.

## 6. Specifications

Model number	Impeller diameter (cm)	Power supply	Number of poles	Out put (W)	Frequency	Air volume (m <sup>3</sup> /h)		Input (W)		Noise level (dB(A))						Weight (kg)
						High	Low	High	Low	Side		Suction side		Discharge side		
										High	Low	High	Low	High	Low	
K10CG1	10	Single-phase	4	10	50Hz	144	-	11	-	32	-	40	-	38	-	2.1
					60Hz	143	-	13	-	32	-	40	-	38	-	
K12CG1	12	Single-phase	4	25	50Hz	258	-	21	-	34	-	39	-	39	-	3.1
					60Hz	242	-	22	-	32	-	38	-	38	-	
K14CG1	12	Single-phase	4	50	50Hz	308	-	30	-	39	-	44.5	-	44.5	-	3.5
					60Hz	284	-	40	-	36	-	41.5	-	41.5	-	
K16CG1	15	Single-phase	4	75	50Hz	495	365	49	41	43.5	38	50	44.5	50	44.5	5.1
					60Hz	470	335	59	40	42.5	36	49	42.5	49	42.5	
K17CG1	18	Single-phase	4	100	50Hz	763	640	87	74	46	42.5	51	47	51	47	8.1
					60Hz	722	593	95	79	44.5	40	49	45	49	45	
K17CT1	18	Three-phase	4	100	50Hz	766	480	89	40	46	34	51	39	51	39	8.5
					60Hz	721	407	99	38	44.5	31	49.5	35	49.5	35	
K19CG1	18	Single-phase	4	200	50Hz	947	821	117	109	50.5	49	55.5	54	55.5	54	9.1
					60Hz	931	791	143	127	50	48	55	53	55	53	
K19CT1	18	Three-phase	4	200	50Hz	1020	620	138	71	52	40.5	57	45.5	57	45.5	9.1
					60Hz	954	512	168	68	50.5	37.5	55.5	41.5	55.5	41.5	
K21CG1	20	Single-phase	4	300	50Hz	1420	1260	240	220	57	56	61	59.5	61	59.5	15.0
					60Hz	1540	1230	340	300	59	54	63	58.5	63	58.5	
K21CT1	20	Three phase	4	300	50Hz	1450	1090	253	175	57.5	51.5	61.5	55.5	61.5	55.5	15.5
					60Hz	1590	1020	370	215	59.5	50	63.5	54	63.5	54	

(Note) 1. Values are specified at the static pressure of 0 Pa.

2. The air volume is measured according to the chamber method (JIS C9603).

Noise : Suction side - Noise level measured at 1.5m from the suction side in front.

Casing side - Noise level measured at 1.5m from the discharge side in rear.

Discharge side - Noise level measured at 1.5m from the discharge side in front.