

Silent Fan

LCF2

TERAL

50Hz/60Hz



*Silent
Intelligence*

TERAL INC.

Silent Fan

Features

1 Noiseless operation.

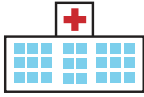
Example: 20LCF2-65S: 600m³/h × 220pa **38.1dB(A)** side noise. Especially, it is most suitable for the places such as conference room, hospitals, and schools where noiseless operation is a basic requirement. No trouble of the noise after delivery.

In addition, a model with silencer is also made available for situation where noiseless operation is a basic requirement.

(In our catalog, the noise level is displayed with 1.5m on the machine side.)



Conference Room



Hospital

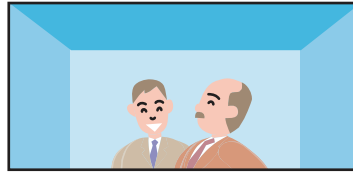


School

Conventional



TERAL=Silent

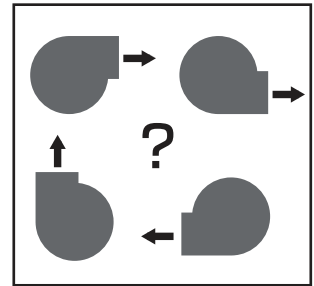


Features

2 Straight suction

1. It can be installed in the middle
2. Its enforcement is easy because discharge directions like Sirocco

Conventional



Silent Fan (connectible to 9 kinds of round ducts)

P3

A very silent and compact fan, with a very high suction and discharge power.



Diameter 150mm

Single phase 200-240V
18LCF2-40S
18LCF2-50S

Diameter 200mm

Single phase 200-240V
20LCF2-65S
22LCF2-90S
22LCF2-100S
Three phase 380-415V
22LCF2-100

Diameter 250mm

Single phase 200-240V
25LCF2-120S
25LCF2-150S
Three phase 380-415V
25LCF2-180

Features

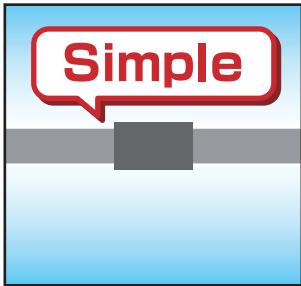
Silent type/Muted type

Environmental conditions	Air temperature from 0 to 40°C Humidity below 85% (except for condensation)
Horizontal structure	Impeller : Multi blade (Sirocco) Bearing : Sealed ball bearing motor
Material	Casing -- SGCC-SGHC Impeller --- SGCC Motor shaft---S45C
Installation	Ceiling - indoors
Motor	Open type Power :Single phase 200-240V Three phase 380-415V
Transmission	Direct motor propulsion

and discharge duct.

of the duct.
it does not have multiple fan.

TERAL=Straight

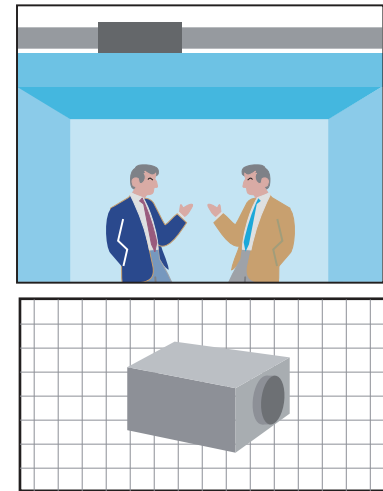
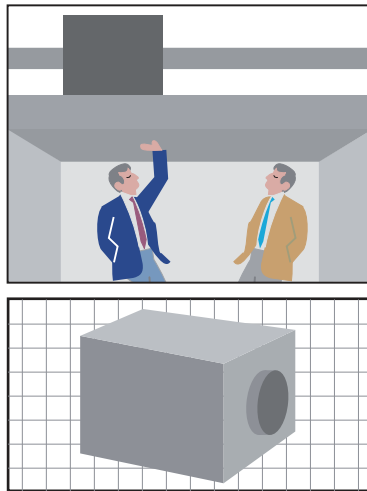


Features **3** Thin model, compact and light in weight.

Example:LCF22LCF2-100S:100m³/h × 250pa h:320mm

TERAL=Thin & Light weight

Conventional



Mute Fan (connectible to 9 kinds of round ducts)

P6

An other level of silence thanks to a new system of silencer.



Diameter 150mm

Single phase 200-240V
18LCF2-40SU
18LCF2-50SU

Diameter 200mm

Single phase 200-240V
20LCF2-65SU
22LCF2-90SU
22LCF2-100SU
Three phase 380-415V
22LCF2-100U

Diameter 250mm

Single phase 200-240V
25LCF2-120SU
25LCF2-150SU
Three phase 380-415V
25LCF2-180U

Special features

Standard accessories

Companion Flange (suction/discharge) one of each

Dimensions explanations

22 **LCF2** - **100** **S** **U**
① ② ③ ④ ⑤

- ① Impeller size (cm)
- ② Silent fan
- ③ Air volume features
- ④ S : simple pahse power - nothing : triple phase power
- ⑤ U : Mute type - nothing : Silent type



Duct Diameter 150mm

Single phase 200-240V
18LCF2-40S
18LCF2-50S

Duct Diameter 200mm

Single phase 200-240V
20LCF2-65S
22LCF2-90S
22LCF2-100S
 Three phase 380-415V
22LCF2-100

Duct Diameter 250mm

Single phase 200-240V
25LCF2-120S
25LCF2-150S
 Three phase 380-415V
25LCF2-180

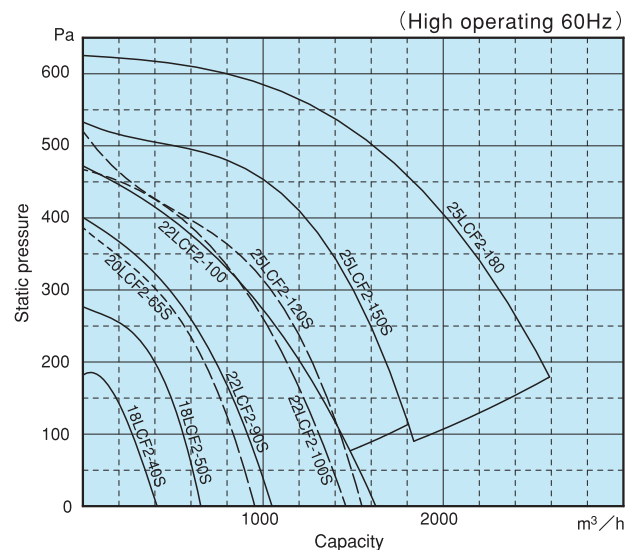
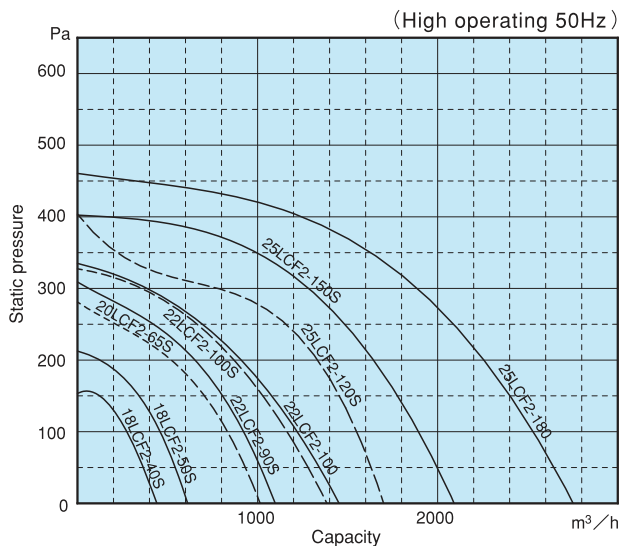
Specification Table

impeller size		Model	Power (Phase; V)	Poles	Nominal output (W)	Frequency (Hz)	Air control (High)			Air control (Low)			Noise level(High) dB (A) at 1.5m			Noise level(Low) dB (A) at 1.5m			Weight (kg)
cm	size code						Max capacity (m ³ /h)	Max Current (A)	Input (W)	Max capacity (m ³ /h)	Max Current (A)	Input (W)	Side	Suc.side	Dis.side	Side	Suc.side	Dis.side	
18	#1 ¼	18LCF2-40S	Single 200-240V	4	19	50	440	0.58	53	314	0.38	36	26.0	31.2	42.1	21.9	26.5	36.9	10.5
						60	411	0.64	62	309	0.41	39	25.7	32.2	43.5	23.3	28.5	38.6	
18	#1 ¼	18LCF2-50S	Single 200-240V	4	48	50	611	0.84	72	565	0.80	64	29.7	38.8	49.3	29.4	37.4	48.3	11.0
						60	654	1.16	107	557	1.03	89	34.6	42.5	52.1	32.2	40.2	50.6	
20	#1 ½	20LCF2-65S	Single 200-240V	4	90	50	1,020	2.1	149	696	1.8	138	36.5	42.7	53.6	33.1	38.9	48.4	17.0
						60	948	2.3	181	600	1.6	150	38.1	44.4	55.0	35.9	40.9	49.7	
22	#1 ½	22LCF2-90S	Single 200-240V	4	90	50	1,098	2.0	167	966	1.8	147	40.1	44.5	56.4	39.1	43.4	55.0	17.0
						60	1,050	2.3	217	918	2.0	183	42.1	45.6	58.0	41.6	44.8	56.1	
22	#1 ½	22LCF2-100S	Single 200-240V	4	210	50	1,392	2.8	207	1,134	2.8	197	41.6	46.9	57.6	40.1	45.4	55.9	21.2
						60	1,458	4.1	298	966	3.3	263	46.4	50.3	61.2	44.4	49.1	60.0	
22	#1 ½	22LCF2-100	Three 380-415V	4	265	50	1,452	1.4	223	1,182	0.7	152	40.9	46.3	58.8	37.8	43.4	55.6	20.2
						60	1,620	1.5	314	1,212	0.9	203	43.4	49.1	62.2	40.5	46.3	58.2	
25	#1 ¾	25LCF2-120S	Single 200-240V	4	190	50	1,698	4.2	324	1,500	3.4	282	38.9	47.4	60.1	37.1	46.2	57.9	26.0
						60	1,548	4.5	385	1,374	3.6	325	42.7	48.5	60.4	37.9	47.1	58.8	
25	#1 ¾	25LCF2-150S	Single 200-240V	4	320	50	2,088	5.9	436	1,860	5.3	388	42.4	51.6	63.1	40.8	49.7	61.1	26.4
						60	1,806	6.2	614	1,648	5.2	502	43.4	52.3	64.9	42.4	50.2	61.8	
25	#1 ¾	25LCF2-180	Three 380-415V	4	670	50	2,748	2.9	538	—	—	—	41.9	50.1	62.6	—	—	—	28.0
						60	2,590	3.1	792	—	—	—	46.3	53.2	66.5	—	—	—	

Attention

- The maximum air volume is the value measured by the discharge and suction duct test by chamber method (JIS B 8330).
- The input is the value for a standalone product in an open state.
- The noise value is measured at the location of the best efficiency point, the measuring conditions are as shown below : (The values of A)
 - Side - 1.5m from the side of the machine, value affected by the sound of suction noise (linked with duct at both sides), without influence of the suction noise the value decreases to 5 to 8 dB (A)
 - Suction side - Value taken 1.5m from the suction side (discharge side linked to duct)
 - Discharge side - Value taken 1.5m from the discharge side (suction side linked to duct)
- The maximum current is the value at the time of maximum air volume.
- The specifications above are the values at room temperature (20°C)

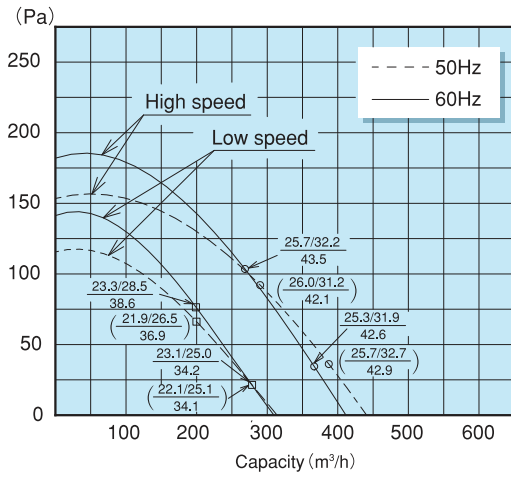
Selection chart



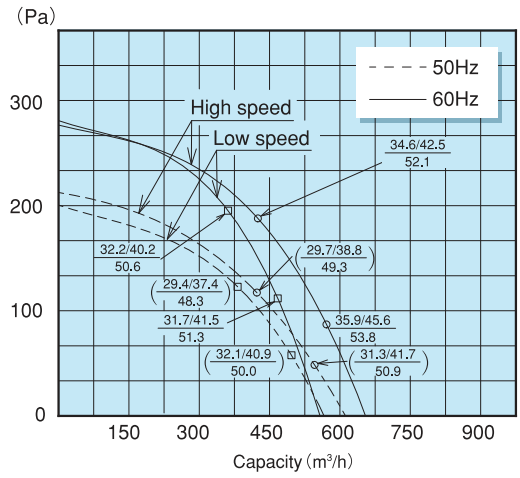
- Attention**
- Should not be used for exhaust in places producing heat, smoke, steam or humidity like pools or hot springs. (Environmental conditions: 0 to +40 °C, relative humidity 85%².)
 - For maintenance reasons, please have an access panel of 450-600mm at the bottom left of the body (seen from the discharge side)
 - Please set circuit breakers or motor breakers on the power supply side.
 - Please attached the body at the horizontal.
 - When the cold winter air supplies the room, condensation may occur on the external side of the product itself and of the duct connections. Please use some insulation material
 - To prevent dust adherence to the impeller on the suction side, we recommend the use of filters commonly on the market.

Characteristic Curve

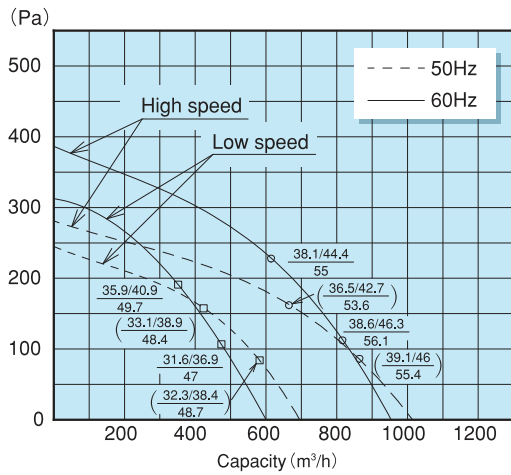
18LCF2-40S



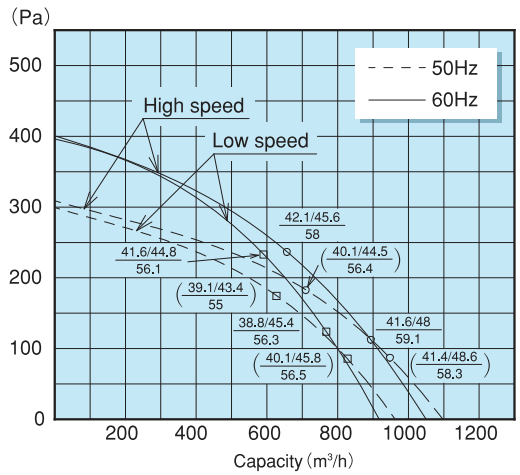
18LCF2-50S



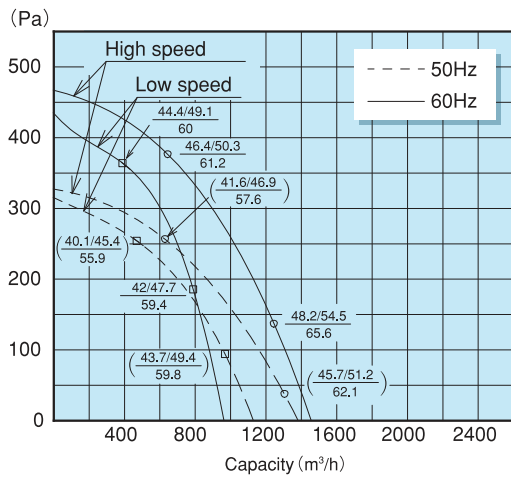
20LCF2-65S



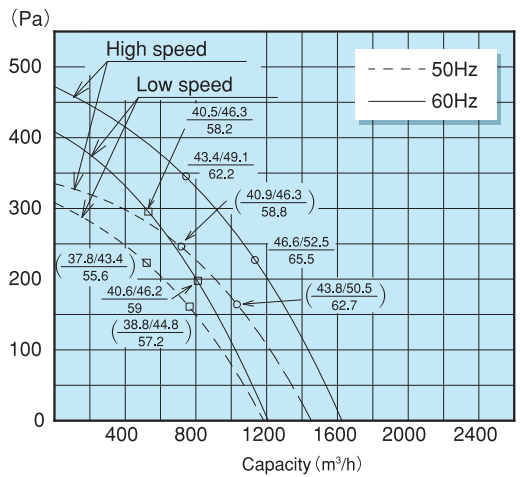
22LCF2-90S



22LCF2-100S

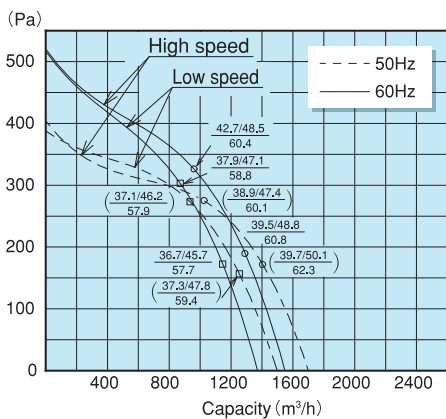


22LCF2-100

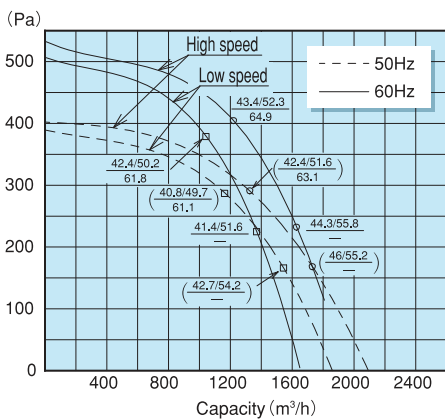


Characteristic Curve

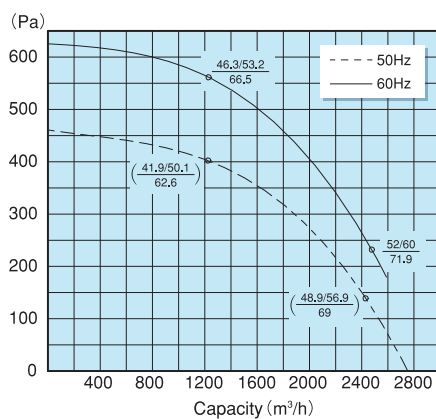
25LCF2-120S



25LCF2-150S



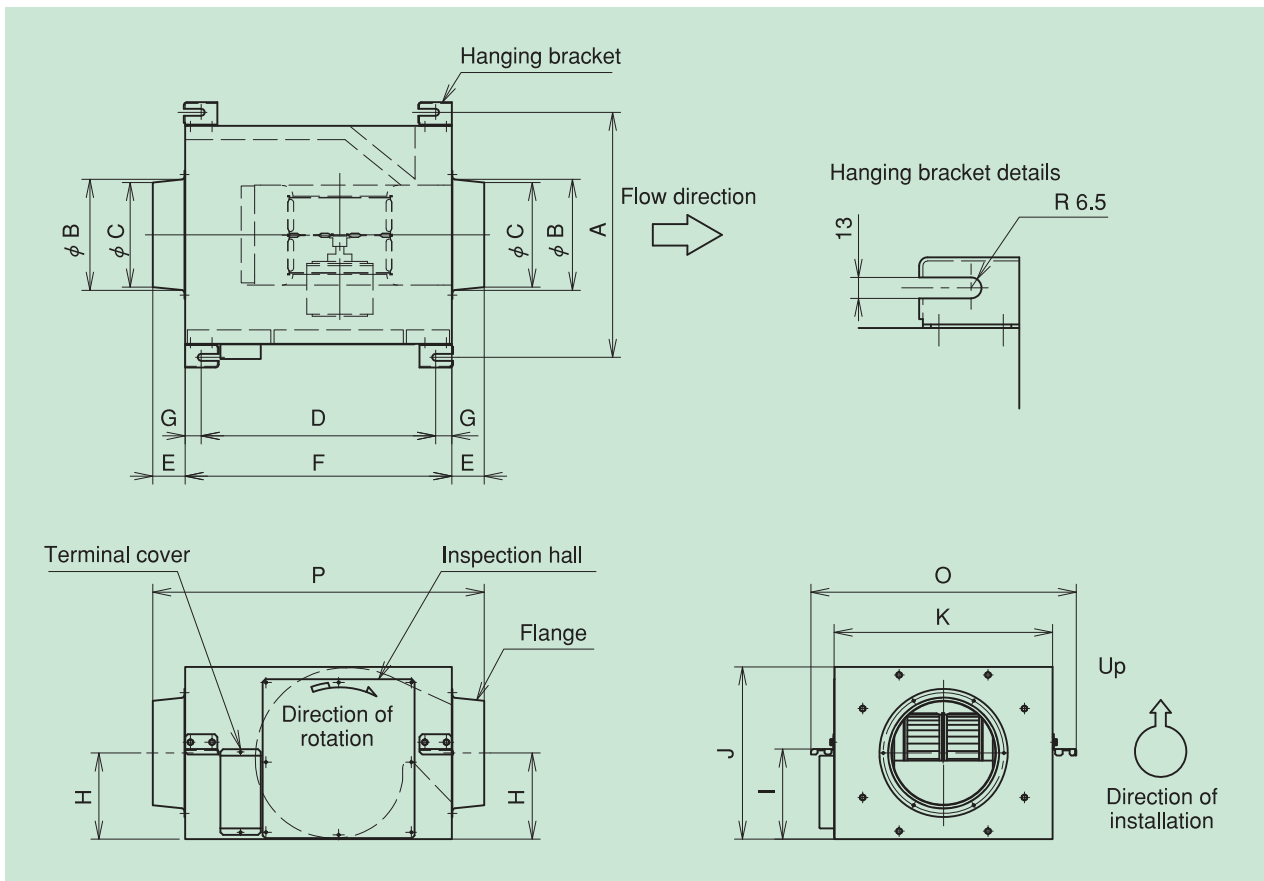
25LCF2-180



※ Value on the characteristic curve show a noise level (dB(A)) in the location 1.5m away from Fan Body.

Side / Suction side () Values between () correspond to the 50Hz curve.
Discharge side

Dimensions



(Unit : mm)

Model	A	B	C	D	E	F	G	H	I	J	K	O	P
18LCF2-40S	335	156	144	330	78	390	30	140	147	280	285	374	546
18LCF2-50S													
20LCF2-65S													
22LCF2-90S													
22LCF2-100S													
22LCF2-100	455	206	194	435	60	495	30	160	167	320	405	493	615
25LCF2-120S													
25LCF2-150S													
25LCF2-180													



Duct Diameter 150mm

Single phase 200-240V
18LCF2-40SU
18LCF2-50SU

Duct Diameter 200mm

Single phase 200-240V
20LCF2-65SU
22LCF2-90SU
22LCF2-100SU
Three phase 380-415V
22LCF2-100U

Duct Diameter 250mm

Single phase 200-240V
25LCF2-120SU
25LCF2-150SU
Three phase 380-415V
25LCF2-180U

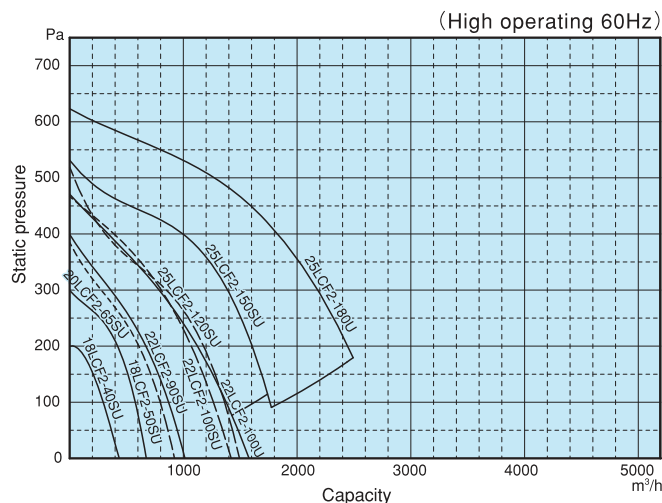
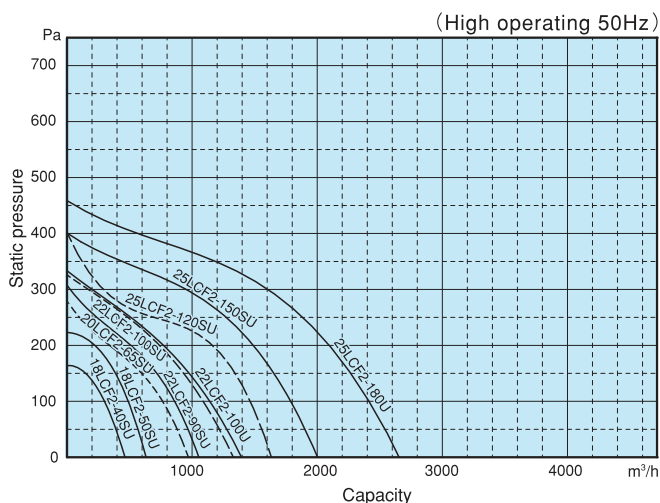
Specification Table

impeller size		Model	Power (Phase; V)	Poles	Nominal output (W)	Frequency (Hz)	Air control (High)			Air control (Low)			Noise level (High) dB (A) at 1.5m			Noise level (Low) dB (A) at 1.5m			Weight (kg)
cm	size code						Max capacity (m3/h)	Max Current (A)	Input (W)	Max capacity (m3/h)	Max Current (A)	Input (W)	Side	Suc.side	Dis.side	Side	Suc.side	Dis.side	
18	#1 1/4	18LCF2-40SU	Single 200-240V	4	19	50	463	0.58	53	316	0.38	36	26.0	30.6	42.1	21.9	25.9	36.9	11.7
						60	436	0.64	62	315	0.41	39	25.7	31.5	43.5	23.3	27.8	38.6	
18	#1 1/4	18LCF2-50SU	Single 200-240V	4	48	50	632	0.84	72	576	0.80	64	29.7	37.3	49.3	29.4	36.2	48.3	12.2
						60	673	1.16	107	586	1.03	89	34.6	40.9	52.1	32.2	38.9	50.6	
20	#1 1/2	20LCF2-65SU	Single 200-240V	4	90	50	972	2.1	149	660	1.8	138	36.5	37.9	53.6	33.1	34.1	48.4	19.3
						60	918	2.3	181	570	1.6	150	38.1	39.6	55.0	35.9	36.1	49.7	
22	#1 1/2	22LCF2-90SU	Single 200-240V	4	90	50	1,050	2.0	167	924	1.8	147	40.1	39.7	56.4	39.1	38.6	55.0	19.3
						60	1,008	2.3	217	888	2.0	183	42.1	40.8	58.0	41.6	40.0	56.1	
22	#1 1/2	22LCF2-100SU	Single 200-240V	4	210	50	1,320	2.8	207	1,092	2.8	197	41.6	42.1	57.6	40.1	40.6	55.9	23.5
						60	1,422	4.1	298	942	3.3	263	46.4	45.5	61.2	44.4	44.3	60.0	
22	#1 1/2	22LCF2-100U	Three 380-415V	4	265	50	1,380	1.4	223	1,128	0.7	152	40.9	41.5	58.8	37.8	38.6	55.6	22.5
						60	1,560	1.5	314	1,164	0.9	203	43.4	44.3	62.2	40.5	41.5	58.2	
25	#1 3/4	25LCF2-120SU	Single 200-240V	4	190	50	1,638	4.2	324	1,434	3.4	282	38.9	42.9	60.1	37.1	41.7	57.9	29.0
						60	1,494	4.5	385	1,320	3.6	325	42.7	44.0	60.4	37.9	42.6	58.8	
25	#1 3/4	25LCF2-150SU	Single 200-240V	4	320	50	2,004	5.9	436	1,782	5.3	388	42.4	47.1	63.1	40.8	45.2	61.1	30.0
						60	1,741	6.2	614	1,596	5.2	502	43.4	47.8	64.9	42.4	45.7	61.8	
25	#1 3/4	25LCF2-180U	Three 380-415V	4	670	50	2,658	2.9	538	—	—	—	41.9	45.6	62.6	—	—	—	31.1
						60	2,493	3.1	792	—	—	—	46.3	48.7	66.5	—	—	—	

Attention)

- The maximum air volume is the value measured by the discharge and suction duct test by chamber method (JIS B 8330). (The values for the angular duct type were measured by chamber method JIS C 9603)
- The input is the value for a standalone product in an open state.
- The noise value is measured at the location of the best efficiency point, the measuring conditions are as shown below : (The values of A)
Side - 1.5m from the side of the machine, value affected by the sound of suction noise (linked with duct at both sides), without influence of the suction noise the value decreases to 5 to 8 dB (A). (For the angular duct type, the sound of suction is unlikely to affect the value of noise.)
Suction side - Value taken 1.5m from the suction side (discharge side linked to duct)
Discharge side - Value taken 1.5m from the discharge side (suction side linked to duct)
- The maximum current is the value at the time of maximum air volume.
- The specifications above are the values at room temperature (20°C)

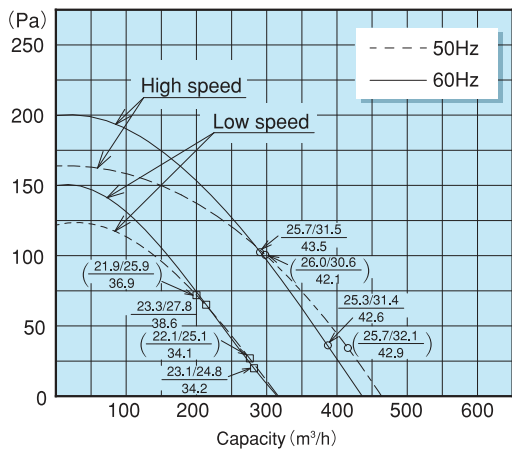
Selection chart



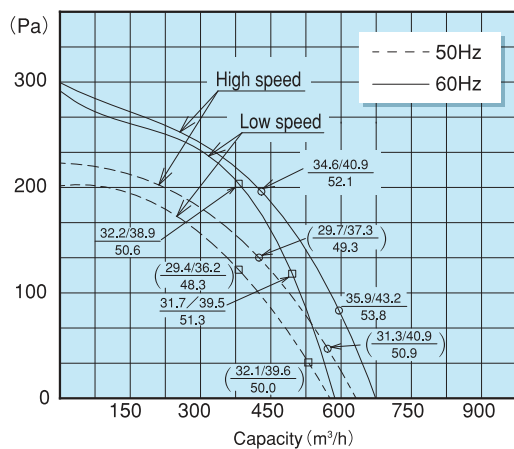
- Attention**
- Should not be used for exhaust in places producing heat, smoke, steam or humidity like pools or hot springs. (Environmental conditions: 0 to +40 °C, relative humidity 85%)
 - For maintenance reasons, please have an access panel of 450-600mm at the bottom left of the body (seen from the discharge side)
 - Please set circuit breakers or motor breakers on the power supply side.
 - Please attached the body at the horizontal.
 - When the cold winter air supplies the room, condensation may occur on the external side of the product itself and of the duct connections. Please use some insulation material
 - To prevent dust adherence to the impeller on the suction side, we recommend the use of filters commonly on the market.

Characteristic Curve

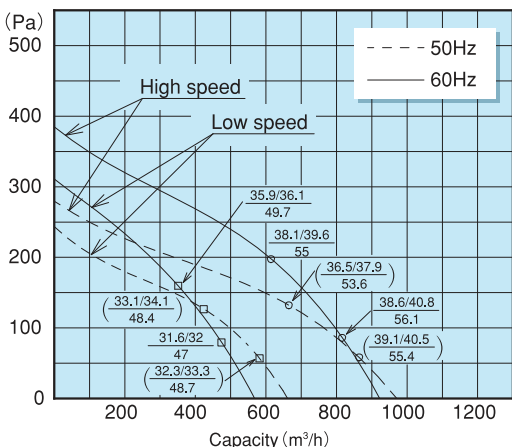
18LCF2-40SU



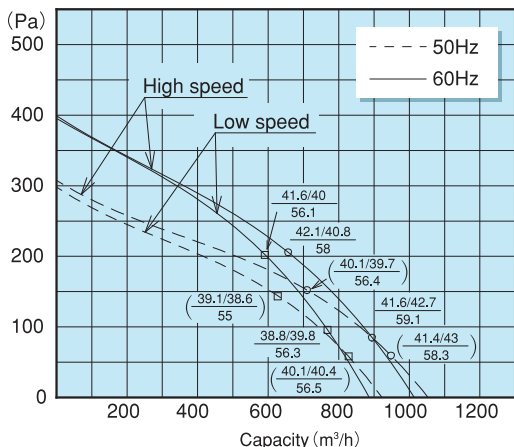
18LCF2-50SU



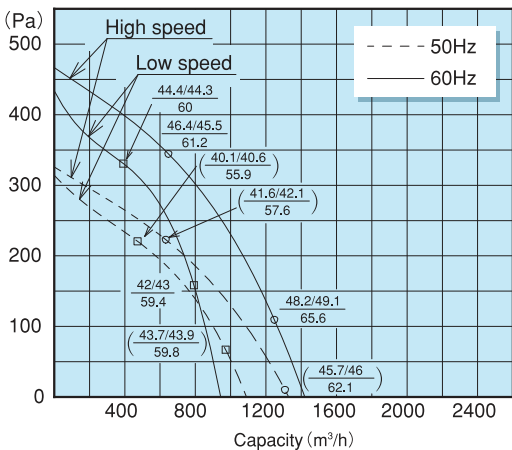
20LCF2-65SU



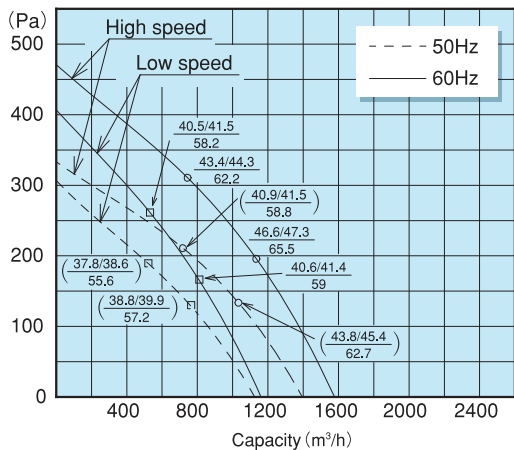
22LCF2-90SU



22LCF2-100SU

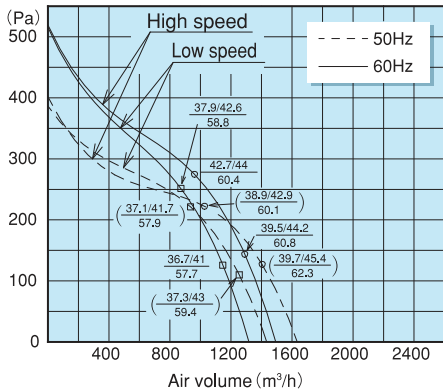


22LCF2-100U

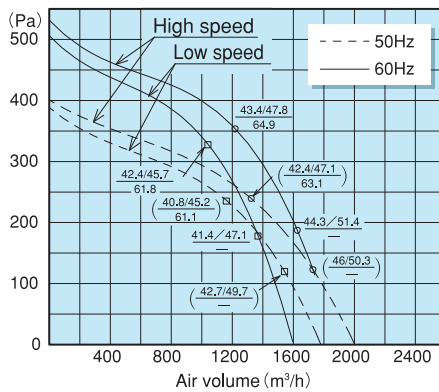


Curve figures

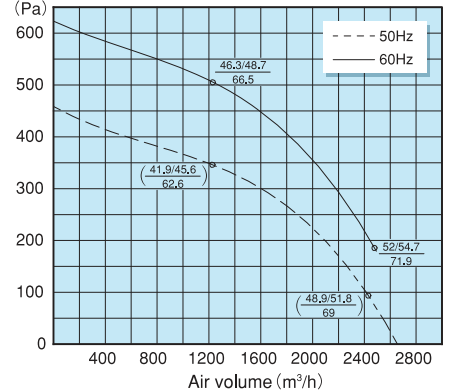
25LCF2-120SU



25LCF2-150SU



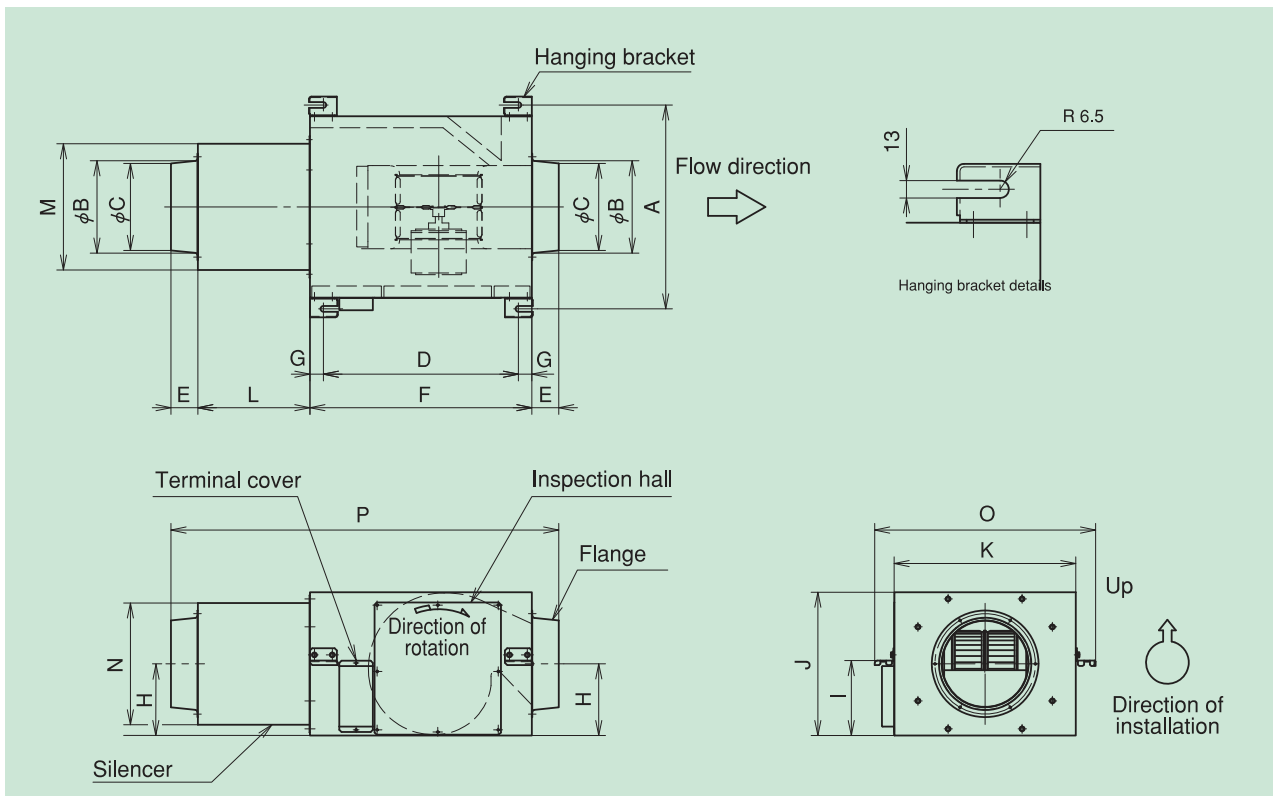
25LCF2-180U



※Value on the characteristic curve show a noise level(bB(A))in the location 1.5m away from Fan Body.

(Side / Suction side) / (Discharge side) Values between () correspond to the 50Hz curve.

Dimensions



(Unit : mm)

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
18LCF2-40SU	335	156	144	330	78	390	30	140	147	280	285	152	224	224	374	698
18LCF2-50SU																
20LCF2-65SU																
22LCF2-90SU	455	206	194	435	60	495	30	160	167	320	405	250	282	272	493	865
22LCF2-100SU																
22LCF2-100U																
25LCF2-120SU	456	258	245	499	70	595	48	188	195	376	406	300	322	322	494	1035
25LCF2-150SU																
25LCF2-180U																

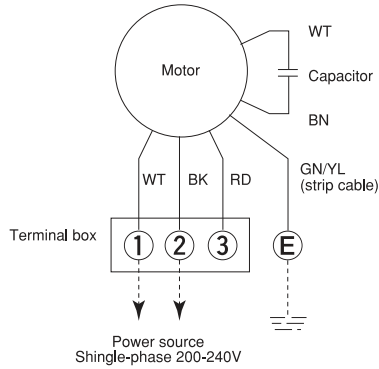
Connection Wiring Diagram

Please wire up with the following drawing.

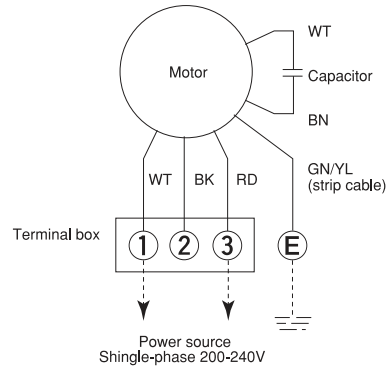
For the wire in dashed line, make preparation and install by user.

- (1) 18LCF2-40S,40SU 18LCF2-50S,50SU 20LCF2-65S,65SU
 22LCF2-90S,90SU 22LCF2-100S,100SU 25LCF2-120S,120SU
 25LCF2-150S,150SU

HIGH-operation

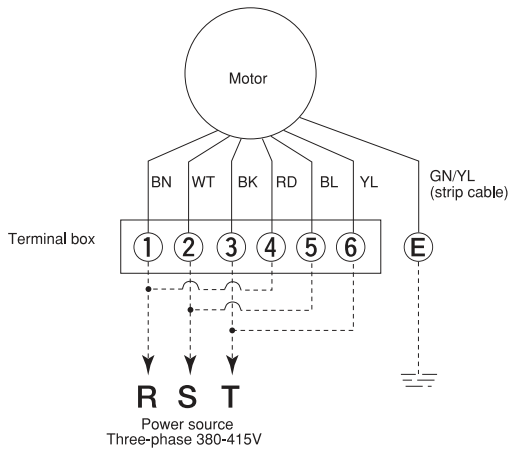


LOW-operation

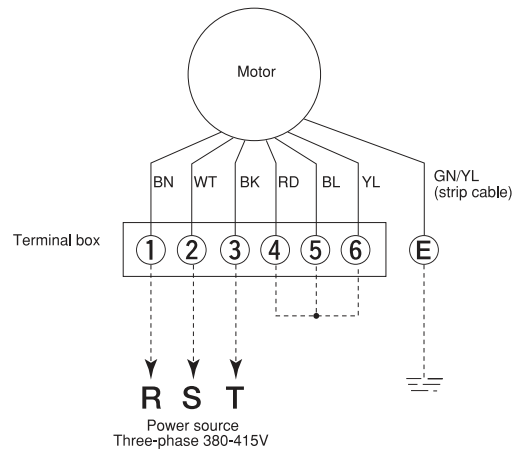


- (2) 22LCF2-100,100U

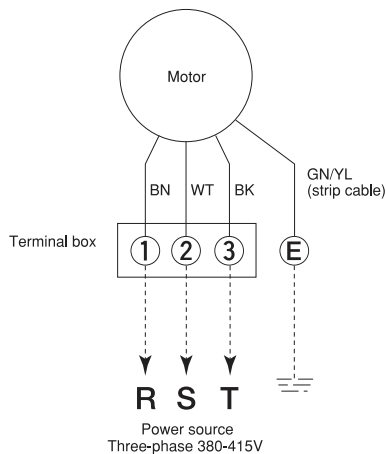
HIGH-operation



LOW-operation

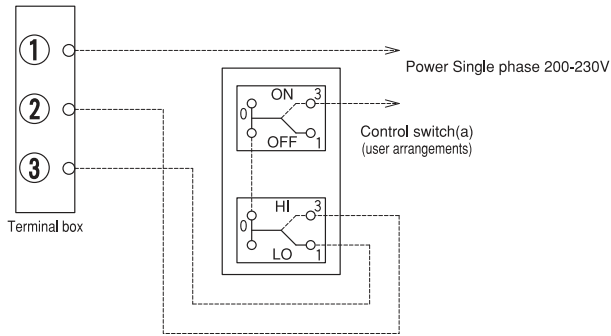


- (3) 25LCF2-180,180U

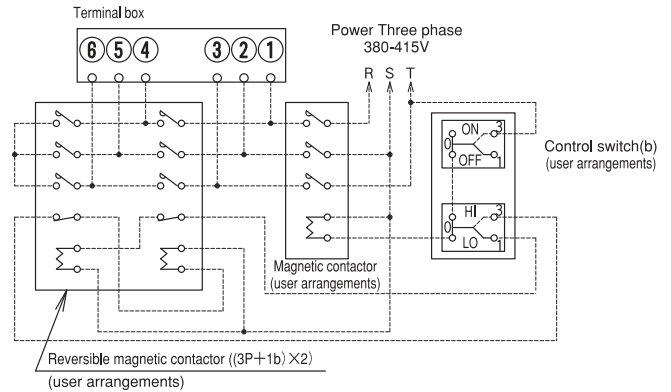


Example of Wiring for Control Switch

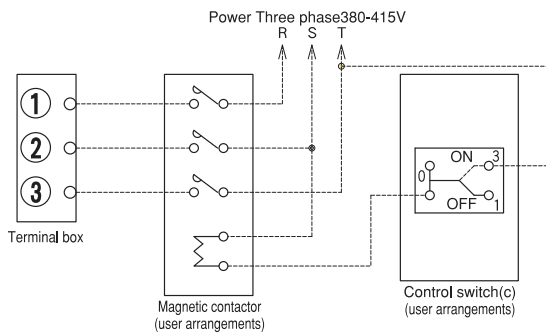
Figures (a)



Figures (b)



Figures (c)



Model	Figures
18LCF2-40S,40SU	(a)
18LCF2-50S,50SU	(a)
20LCF2-65S,65SU	(a)
22LCF2-90S,90SU	(a)
22LCF2-100S,100SU	(a)
22LCF2-100,100U	(b)
25LCF2-120S,120SU	(a)
25LCF2-150S,150SU	(a)
25LCF2-180,180U	(c)

Attention

- Please connect the wires shown with dashed lines in the connection figure using single copper wires of diameters of 1.6 or 2.0
- Please check the wiring diagram of the blower unit before wiring.
- As connection mistakes can cause failures, please check your wiring carefully.
- Please do a test run before using. Speed control not working or wind not blowing indicates a wrong wiring, turn the power off and wire correctly.
- Please select the capacity of magnetic contactor and control switch(a) in consideration of the ratings of current.

Example of reference

Noise level list

Silent Fan 50HZ

Model	Noise level(High)dB (A)			Noise level(Low)dB (A)		
	Side	Suc.side	Dis.side	Side	Suc.side	Dis.side
18LCF2-40S	26	31.2	42.1	21.9	26.5	36.9
18LCF2-50S	29.7	38.8	49.3	29.4	37.4	48.3
20LCF2-65S	36.5	42.7	53.6	33.1	38.9	48.4
22LCF2-90S	40.1	44.5	56.4	39.1	43.4	55
22LCF2-100S	41.6	46.9	57.6	40.1	45.4	55.9
22LCF2-100	40.9	46.3	58.8	37.8	43.4	55.6
25LCF2-120S	38.9	47.4	60.1	37.1	46.2	57.9
25LCF2-150S	42.4	51.6	63.1	40.8	49.7	61.1
25LCF2-180	41.9	50.1	62.6	—	—	—

Silent Fan 60HZ

Model	Noise level(High)dB (A)			Noise level(Low)dB (A)		
	Side	Suc.side	Dis.side	Side	Suc.side	Dis.side
18LCF2-40S	25.7	32.2	43.5	23.3	28.5	38.6
18LCF2-50S	34.6	42.5	52.1	32.2	40.2	50.6
20LCF2-65S	38.1	44.4	55	35.9	40.9	49.7
22LCF2-90S	42.1	45.6	58	41.6	44.8	56.1
22LCF2-100S	46.4	50.3	61.2	44.4	49.1	60
22LCF2-100	43.4	49.1	62.2	40.5	46.3	58.2
25LCF2-120S	42.7	48.5	60.4	37.9	47.1	58.8
25LCF2-150S	43.4	52.3	64.9	42.4	50.2	61.8
25LCF2-180	46.3	63.2	66.5	—	—	—

Silent Fan(Mute type) 50HZ

Model	Noise level(High)dB (A)			Noise level(Low)dB (A)		
	Side	Suc.side	Dis.side	Side	Suc.side	Dis.side
18LCF2-40SU	26	30.6	42.1	21.9	25.9	36.9
18LCF2-50SU	29.7	37.3	49.3	29.4	36.2	48.3
20LCF2-65SU	36.5	37.9	53.6	33.1	34.1	48.4
22LCF2-90SU	40.1	39.7	56.4	39.1	38.6	55
22LCF2-100SU	41.6	42.1	57.6	40.1	40.6	55.9
22LCF2-100U	40.9	41.5	58.8	37.8	38.6	55.6
25LCF2-120SU	38.9	42.9	60.1	37.1	41.7	57.9
25LCF2-150SU	42.4	47.1	63.1	40.8	45.2	61.1
25LCF2-180U	41.9	45.6	62.6	—	—	—

Silent Fan(Mute type) 60HZ

Model	Noise level(High)dB (A)			Noise level(Low)dB (A)		
	Side	Suc.side	Dis.side	Side	Suc.side	Dis.side
18LCF2-40SU	25.7	31.5	43.5	23.3	27.8	38.6
18LCF2-50SU	34.6	40.9	52.1	32.2	38.9	50.6
20LCF2-65SU	38.1	39.6	55	35.9	36.1	49.7
22LCF2-90SU	42.1	40.8	58	41.6	40	56.1
22LCF2-100SU	46.4	45.5	61.2	44.4	44.3	60
22LCF2-100U	43.4	44.3	62.2	40.5	41.5	58.2
25LCF2-120SU	42.7	44	60.4	37.9	42.6	58.8
25LCF2-150SU	43.4	47.8	64.9	42.4	45.7	61.8
25LCF2-180U	46.3	48.7	66.5	—	—	—

Attention

- The maximum air volume is the value measured by the discharge and suction duct test by chamber method (JIS B 8330).
- The input is the value for a standalone product in an open state.
- The noise value is measured at the location of the best efficiency point, the measuring conditions are as shown below : (The values of A)
 Side - 1.5m from the side of the machine, value affected by the sound of suction noise (linked with duct at both sides), without influence of the suction noise the value decreases to 5 to 8 dB (A)
 Suction side - Value taken 1.5m from the suction side (discharge side linked to duct)
 Discharge side - Value taken 1.5m from the discharge side (suction side linked to duct)

Height table

Model	h(mm)
18LCF2-40S	280
18LCF2-50S	280
20LCF2-65S	320
22LCF2-90S	320
22LCF2-100S	320
22LCF2-100	320
25LCF2-120S	376
25LCF2-150S	376
25LCF2-180	376



Fan Lineup



Ventilation sirocco fan

CLF5-RS Type



In-line fan

ALF/ALF II Type



Direct-coupled motor driven
In-line fan

ALF-II E Type



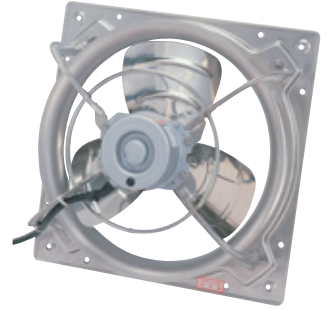
Sirocco fan with silencer box
single intake

CLF5-U-RS Type



Standard pressure fan
(exhaust type, intake type)

PF-16BT2G Type



Stainless steel pressure fan
(exhaust type)

PFS-12BTD Type



Induction fan

SF Type



Mild fan

CMF3-RS Type



Rooftop ventilator

Standard Type S-series

TERAL

TERAL INC.

Head Office 230, Moriwake, Miyuki-cho, Fukuyama-city, Hiroshima, 720-0003, Japan Tel.+81-84-955-1111 Fax.+81-84-955-5777
www.teral.net

TERAL ASIA LTD.

Room 1001, 10/F, Olympia Plaza, 255 King's Road, North Point, Hong Kong Tel.+852-2571-0886 Fax.+852-2571-0619

TERAL THAI CO., LTD.

TERAL TRADING & SERVICE CO., LTD.

150 Moo 16 Udomsornayuth Rd., T.Bangkrasan, A.Bangpa-In, Ayutthaya 13160 Thailand Tel.+66-3522-0640 Fax.+66-3522-1259

TERAL GENERAL MACHINE (SHANGHAI) CO., LTD.

No.285, Yuan Qu Road(N), Bei Qiao, Min Hang District, Shanghai 201109, China Tel.+86-21-6490-9128 Fax.+86-21-6490-9126