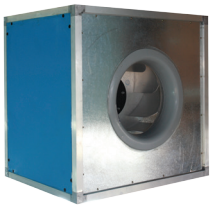
Ventilation fans

High efficiency, low sound level





Ventilatoren

About Us

At Lti Ventilatioren, Singapore, we produce complete range of ventiltion products over a decade. Our products are required for ventilation of areas where we have to improve the Indoor Air Quality (IAQ), an important ingredient of life. With more than 30 years of experience of our colleagues in producing ventilation fans, we have been successful in setting up few manufacturing/assembly plants across the world.

Our long history of production & continious investment in our R&D, have given us success in devloping new innovative products with better efficineies, low noise levels & compact sizes for easy installations.

Our name LTi, L-Long term T-Technical i-Innovative, supports our concept of continuous growth with our technical innovations on our existing product range & to develop new products for growing markets.

Our wide range of products includes Axial fans, Bifurcated axial fans, belt driven axial fans, Jet fans, centrifugal fans, In-line fans, mixed flow fans, special application fans for chemical resistance & battery room applications. Our customers are in domestic sector, commercial sector, Industrial sector, power sector & infrastructure sector.

LTi Ventilatoren (Asia) Pte Ltd, established to support local markets by producing complete range of fans with national/ international technologies to serve our customers locally & globally.

Our experience in the ventilation systems give our customers confidence to have most efficient/economical solutions for their ventilation requirements. This confidence in LTi & its high quality products is backed by excellent pre/after sales services by our experienced sales & technical staff.

We provide complete esigning solutions for ventilation problems. With this catalogue, we provide the complete overview of the fan type, Lti can offer to the market. For further detailed discussions & information kindly feel free to contact our local sales company/distributor/ dealer worldwide.

Quality standards

Our focus is customer satisfaction. The bases for the same are best quality & accurate delivery time. We believe in quality of our products, to support this our products carries 3 years standard warranty against any manufacturing defect. The products have been tested in Singapore with PSB & AMCA for their performances. The air & sound performaces are tested as per AMCA statandards. The products required for high temperature applications are tested in accordance with BS/EN latest standards for different temperature & time classifications.

*No liability for errors! - Subject to technical modifiocation

Our Projects

Project Title: ITE College & HQ @ AMK
Consultant: Kajima
Fan supplied : Axial, Cabinet & MIL

Project Title: The Estuary
Contractor: Great Resources M&E Contractor Pte Ltd
Fan supplied: Axial, Cabinet & CIL

Project Title: Suki Sushi
Contractor: Natural Cool Airconditioning & Engineering Pte Ltd
Fan supplied: Axial, Cabinet, CIL & Propeller

Project Title: Central Fire Station
Contractor: BNF Engineering (S) Pte Ltd
Fan supplied: CIL & Propeller

Air Movement and Control Association International, Inc.

Certifies that

LTI Ventilatoren (Asia) Pte Ltd

Having satisfied the membership requirements, has been granted membership in the Air Movement and Control Association International, Inc.

Member Since
February 2011

AMCA International President

Acting Executive Director

CIL-100 to 315

FM-100 to 315

EKL / EKM-100 to 200, EK 200 to 500

LRE/D-220 to 500

MBF-355 to 710

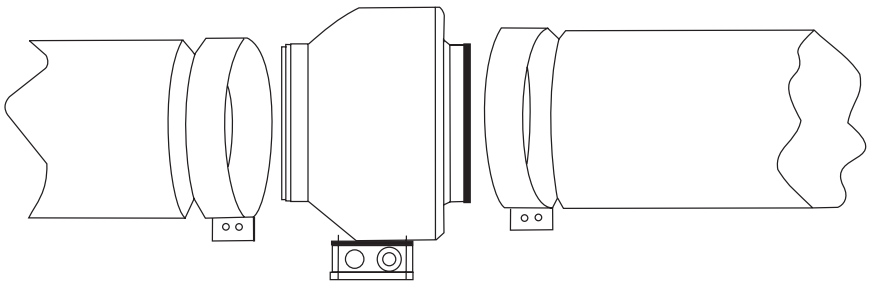
Centrifugal In-Line Fan

The fan is designed to cater for high air flow and high static pressure requirements. It is light weight and has excellent performance to sound level ratio.

The uniquely designed 2 speeds external rotor motor provides additional choices for different applications.

Casing

- Manufactured from rust-resistance pre-galvanised steel
- Aerodynamically designed inlet vanes ensures high efficiency performance at low sound level



No appliance of this range weighs more than 10 kg, so that one person alone can conveniently move and install them. All materials of circular duct fans are complied with RoHs requirement.

Motor

- Speeds controllable external rotor motor
- Moisture resistant, suitable for humid and damp environments
- Permanently lubricated bearings ensuring reliable and maintenance-free operation
- Class F insulation
- Suitable for operation in ambient temperatures ranging from -14°C to +70° C
- Built-in thermal protection device

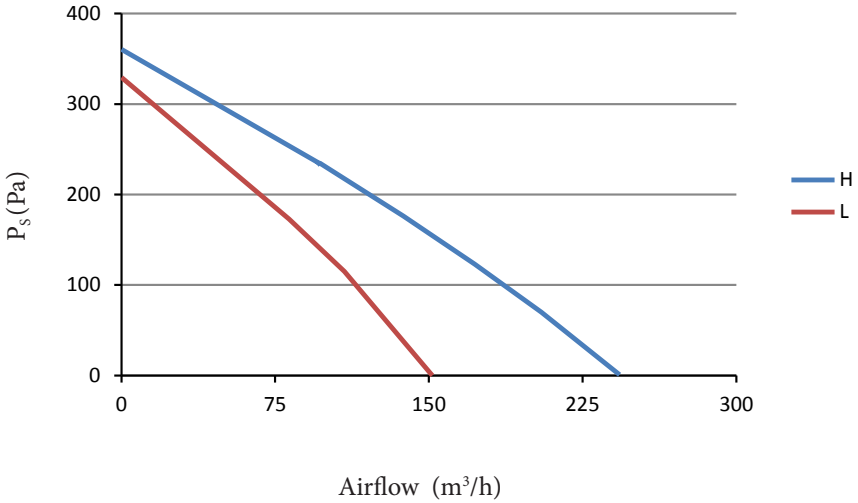
Impeller

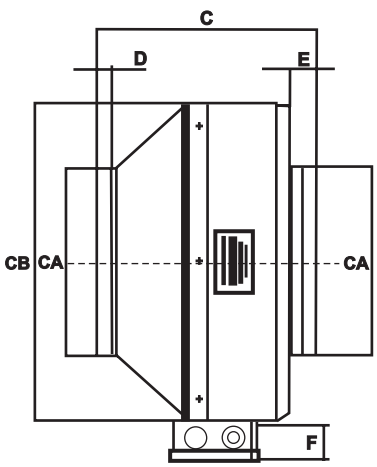
- Backward curved centrifugal

CIL-100

- Backward curved centrifugal impeller
- Speeds controllable external rotor motor
- Compact in size
- Lighter in weight
- High efficiency
- Low sound level

CIL-100		H	L	Sound Data									
Voltage/Frequency	V/50 Hz	230		Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1					63	125	250	500	1k	2k	4k	8k
Power	W	70	54		dB(A)	H	16	30	40	51	54	51	40	41
Currrent	A	0.36	0.24											
R.p.m.	min^{-1}	2530	2000											
Sound Pressure level at 3m	dB (A)	41	31			L	10	22	33	44	46	44	37	21
Enclosure class, motor	IP	44												
capacitor	µF	1.5												



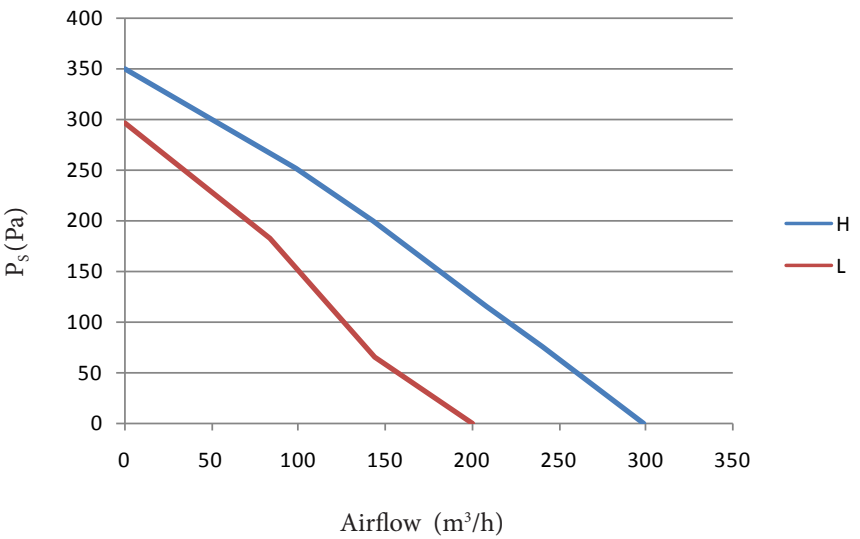


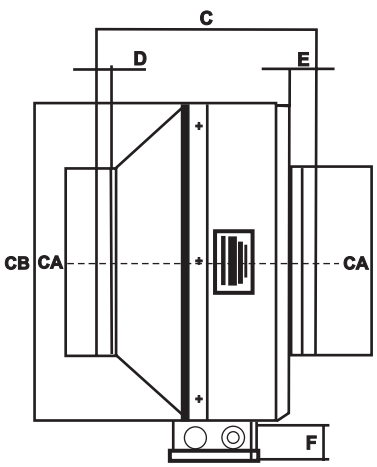
DIMENSIONS (in mm)					
A	B	C	D	E	F
100	237	204	25	25	42

CIL-125

- Backward curved centrifugal impeller
- Speeds controllable external rotor motor
- Compact in size
- Lighter in weight
- High efficiency
- Low sound level

CIL-125		H	L	Sound Data									
Voltage/Frequency	V/50 Hz	230		Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1					63	125	250	500	1k	2k	4k	8k
Power	W	64	53		dB(A)	H	15	31	38	54	56	55	54	40
Currrent	A	0.28	0.24											
R.p.m.	min^{-1}	2570	1750											
Sound Pressure level at 3m	dB (A)	43	32			L	7	24	28	42	46	44	37	21
Enclosure class, motor	IP	44												
capacitor	µF	2												



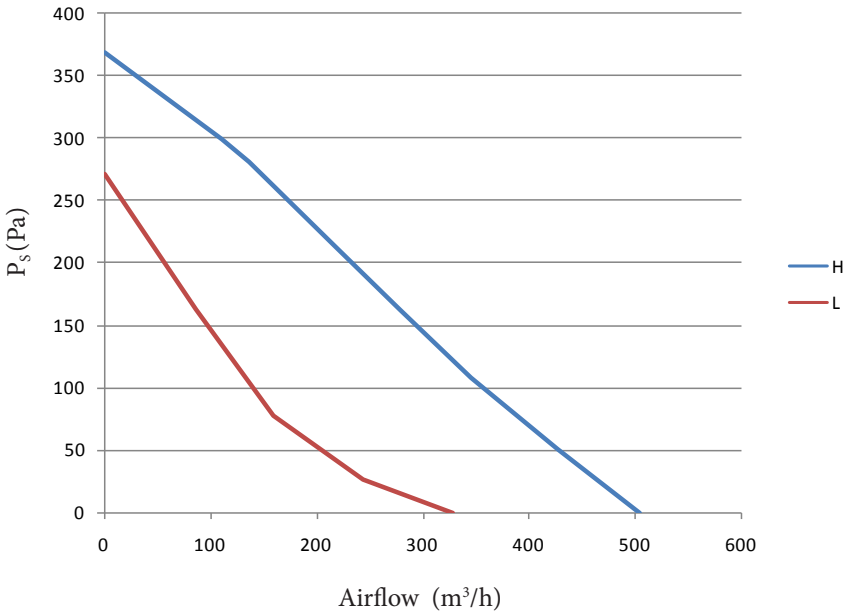


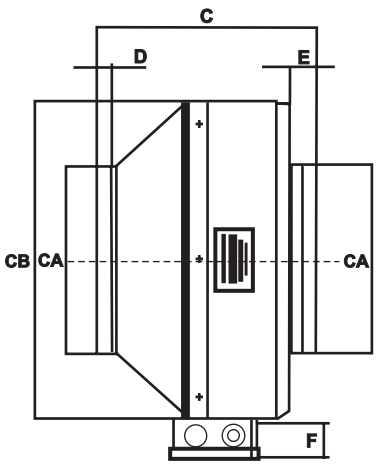
DIMENSIONS (in mm)					
A	B	C	D	E	F
125	237	193	25	25	42

CIL-160

- Backward curved centrifugal impeller
- Speeds controllable external rotor motor
- Compact in size
- Lighter in weight
- High efficiency
- Low sound level

CIL-160		H	L	Sound Data									
Voltage/Frequency	V/50 Hz	230		Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1					63	125	250	500	1k	2k	4k	8k
Power	W	104	64		dB(A)	H	16	34	42	57	57	54	57	44
Currrent	A	0.46	0.31											
R.p.m.	min^{-1}	2390	1570											
Sound Pressure level at 3m	dB (A)	44	33			L	12	26	32	47	46	42	44	28
Enclosure class, motor	IP	44												
capacitor	µF	3												



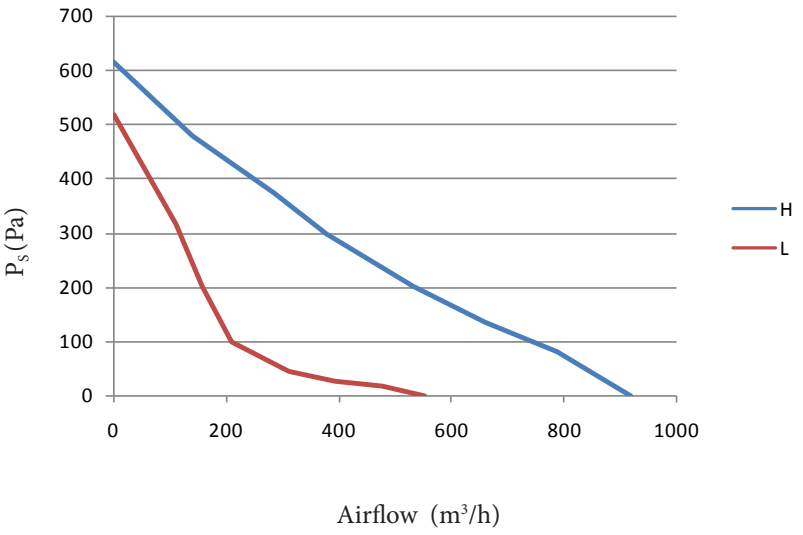


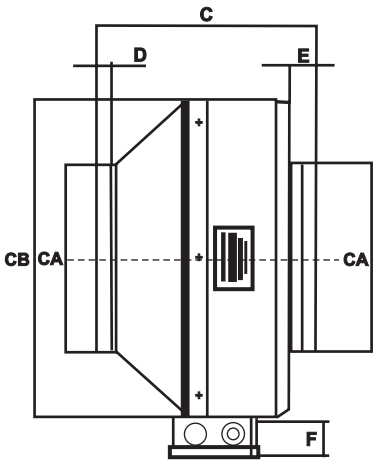
DIMENSIONS (in mm)					
A	B	C	D	E	F
160	278	195	25	25	42

CIL-200

- Backward curved centrifugal impeller
- Speeds controllable external rotor motor
- Compact in size
- Lighter in weight
- High efficiency
- Low sound level

CIL-200		H	L	Sound Data									
Voltage/Frequency	V/50 Hz	230		Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1					63	125	250	500	1k	2k	4k	8k
Power	W	146	128		dB(A)	H	14	30	39	53	54	54	57	45
Currrent	A	0.64	0.56											
R.p.m.	min^{-1}	2400	1420											
Sound Pressure level at 3m	dB (A)	43	33			L	5	25	29	43	49	43	37	17
Enclosure class, motor	IP	44												
capacitor	µF	3												



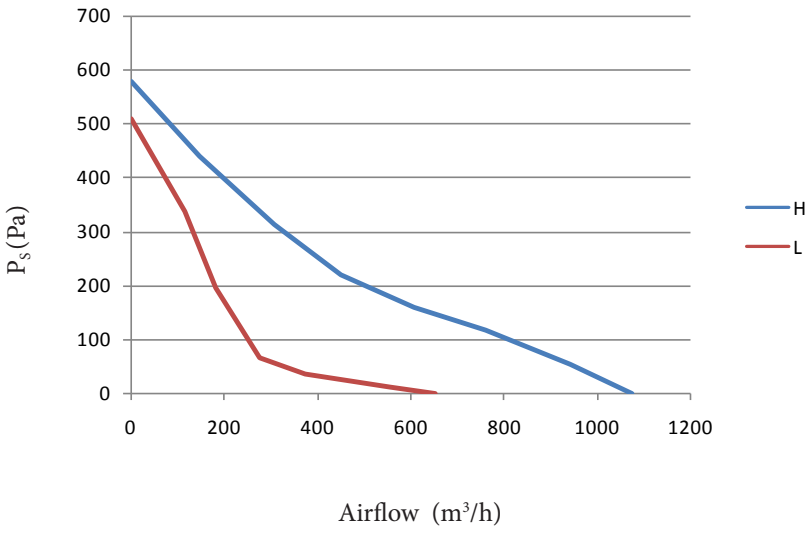


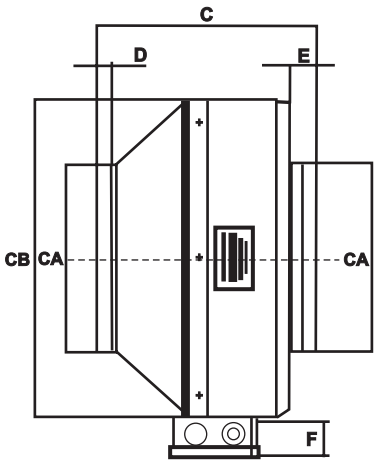
DIMENSIONS (in mm)					
A	B	C	D	E	F
200	333	210	25	25	42

CIL-250

- Backward curved centrifugal impeller
- Speeds controllable external rotor motor
- Compact in size
- Lighter in weight
- High efficiency
- Low sound level

CIL-250		H	L	Sound Data									
Voltage/Frequency	V/50 Hz	230		Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1					63	125	250	500	1k	2k	4k	8k
Power	W	164	132		dB(A)	H	17	34	49	61	62	56	56	43
Currrent	A	0.72	0.58											
R.p.m.	min^{-1}	2410	1440											
Sound Pressure level at 3m	dB (A)	47	35			L	11	30	37	49	50	45	41	26
Enclosure class, motor	IP	44												
capacitor	µF	4												



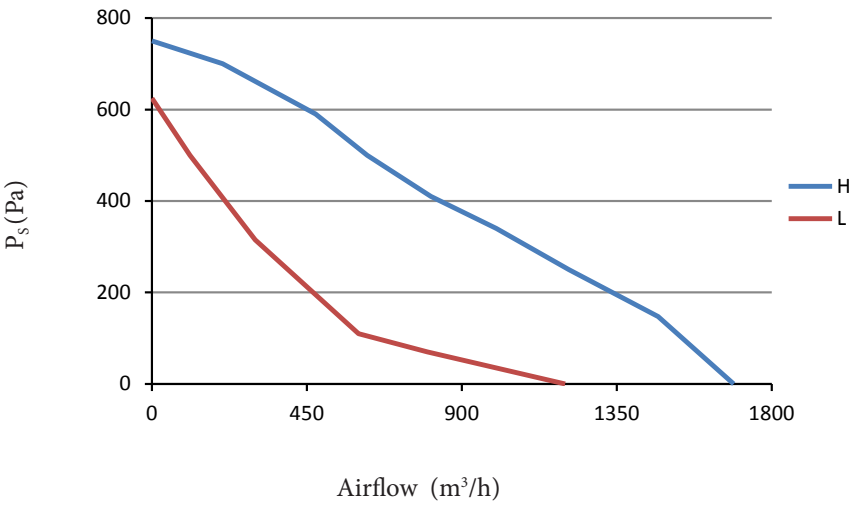


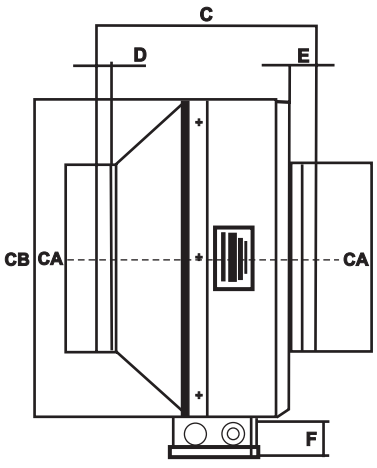
DIMENSIONS (in mm)					
A	B	C	D	E	F
250	333	210	28.6	28.5	42

CIL-315

- Backward curved centrifugal impeller
- Speeds controllable external rotor motor
- Compact in size
- Lighter in weight
- High efficiency
- Low sound level

CIL-315		H	L	Sound Data									
Voltage/Frequency	V/50 Hz	230		Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1					63	125	250	500	1k	2k	4k	8k
Power	W	190	170		dB(A)	H	12	30	42	58	62	58	58	55
Currrent	A	0.82	0.75											
R.p.m.	min^{-1}	2150	1550											
Sound Pressure level at 3m	dB (A)	48	43			L	7	27	43	51	55	57	35	39
Enclosure class, motor	IP	44												
capacitor	µF	6												





DIMENSIONS (in mm)					
A	B	C	D	E	F
315	402	265	25	30	42

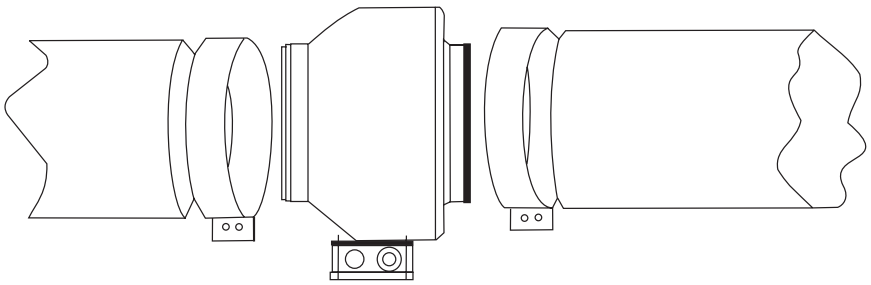
Mixedflow In-Line Fan

The fan is designed to cater for high air flow and medium static pressure requirements. It is light weight and has excellent performance to sound level ratio.

The uniquely designed speeds controlled external rotor motor provides additional choices for different applications.

Casing

- Polymide casing
- Aerodynamically designed inlet vanes ensures high efficiency performance at low sound level



No appliance of this range weighs more than 10 kg, so that one person alone can conveniently move and install them. All materials of mixed flow fans are complied with RoHs requirement.

Motor

- Speed controllable external rotor motor
- Moisture resistant, suitable for humid and damp environments
- Permanently lubricated bearings ensuring reliable and maintenance-free operation
- Class F insulation
- Suitable for operation in ambient temperatures ranging from -14°C to +70° C
- Built-in thermal protection device

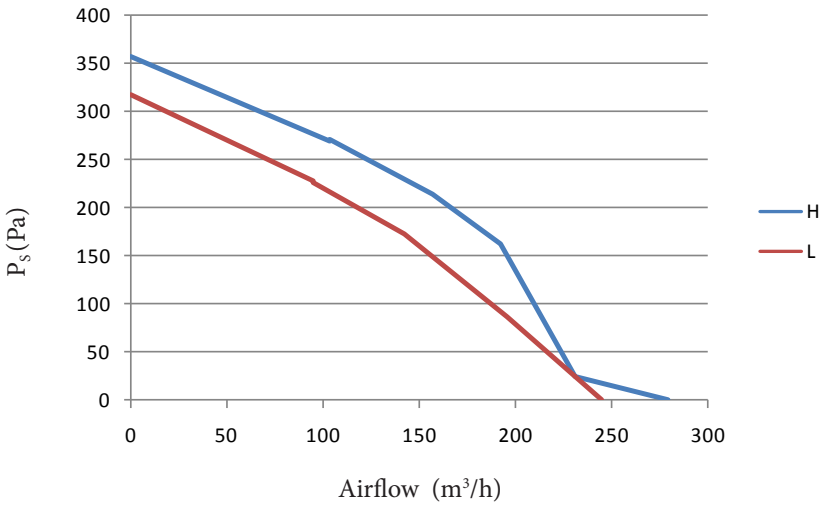
Impeller

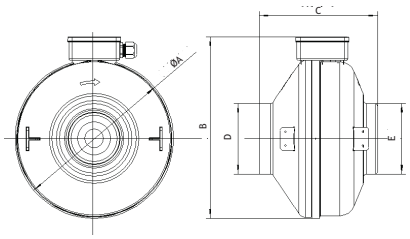
- Mixedflow impeller

FM-100

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-100		H	M	L	Sound Data									
Voltage/Frequency	V/50 Hz	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power	W	64		54		dB(A)	H	16	33	45	52	50	51	43	39
Currrent	A	0.28		0.24											
R.p.m.	min^{-1}	2552		2246											
Sound Pressure level at 3m	dB (A)	38		33			L	12	30	41	49	45	46	39	33
Enclosure class, motor	IP	44													
capacitor	µF	2													



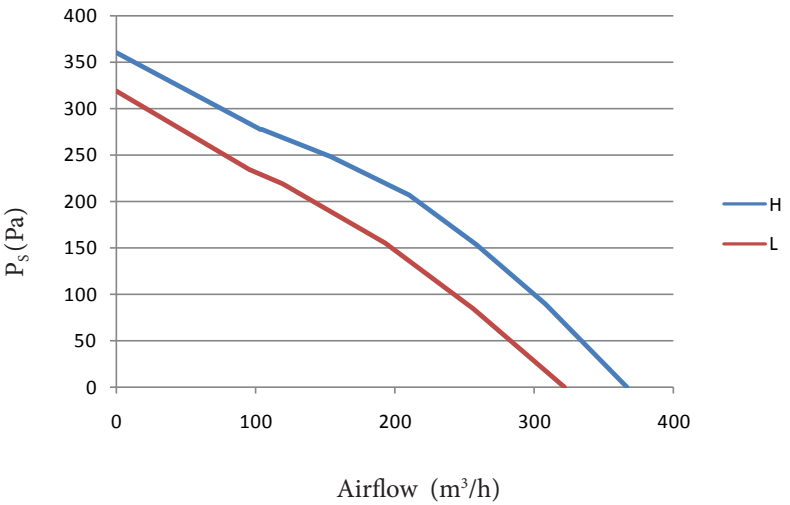


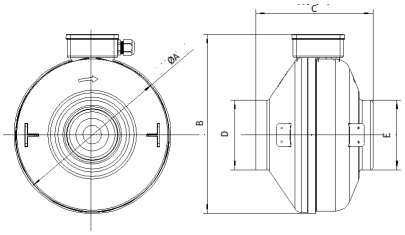
DIMENSIONS (in mm)				
A	B	C	D	E
280	332	210	98	98

FM-125

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-125		H	M	L	Sound Data									
Voltage/Frequency	V/50 Hz	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power/Frequency	W	64	57	65		dB(A)	H	12	31	38	49	51	53	49	42
Currrent/Frequency	A	0.28	0.25	0.24											
R.p.m.	min^{-1}	2550	2390	2240											
Sound Pressure level at 3m	dB (A)	39	38	36			L	11	28	34	47	47	50	44	38
Enclosure class, motor	IP	44													
capacitor	μF	2													



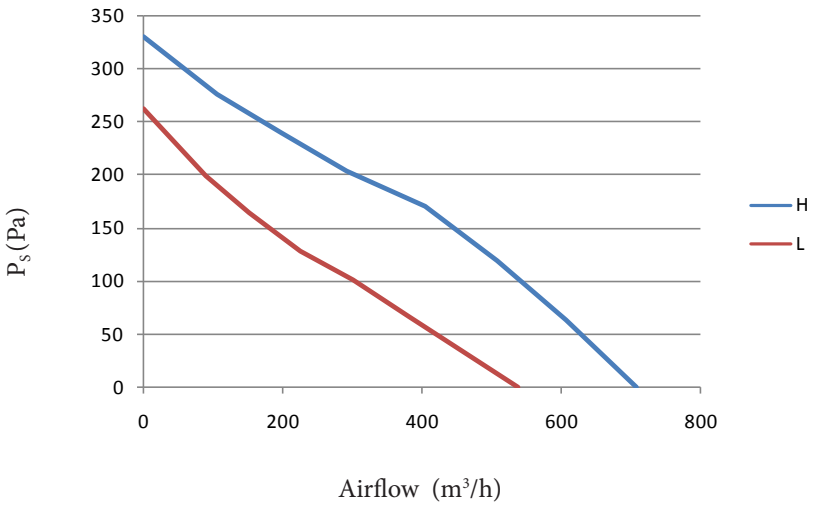


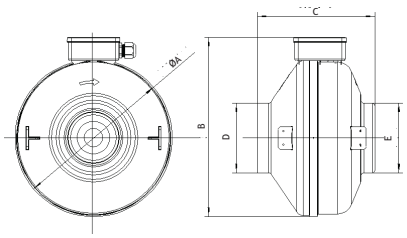
DIMENSIONS (in mm)				
A	B	C	D	E
280	332	210	124	124

FM-160

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-160		H	M	L	Sound Data									
Voltage/Frequency	V/50 Hz	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power	W	90	74	67		dB(A)	H	12	29	32	49	50	55	46	44
Currrent	A	0.40	0.35	0.32											
R.p.m.	min^{-1}	2101	1812	1610											
Sound Pressure level at 3m	dB (A)	40	36	34			L	8	22	32	48	46	48	38	36
Enclosure class, motor	IP	44													
capacitor	µF	2.5													



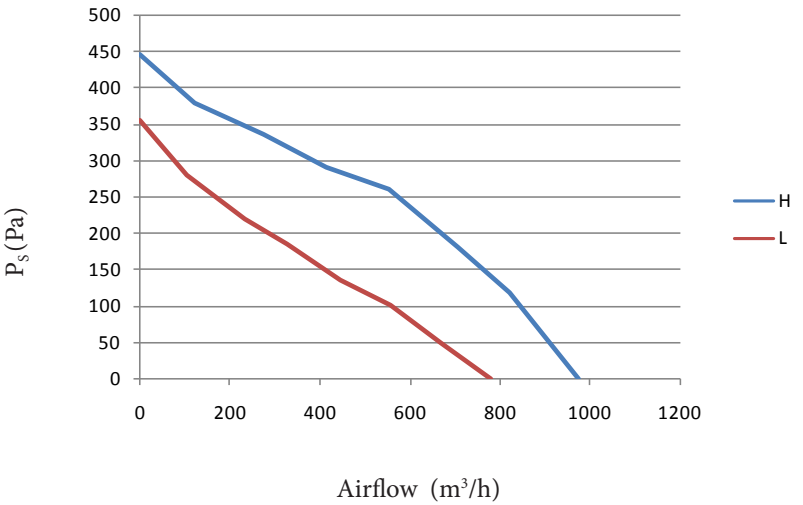


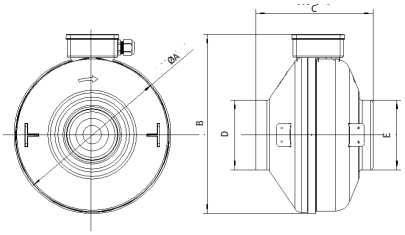
DIMENSIONS (in mm)				
A	B	C	D	E
310	352	242	158	158

FM-200

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-200		H	M	L	Sound Data									
Voltage/Frequency	V/50 Hz	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power	W	135	121	112		dB(A)	H	17	30	40	54	60	59	59	48
Currrent	A	0.60	0.54	0.50											
R.p.m.	min^{-1}	2323	2090	1830											
Sound Pressure level at 3m	dB (A)	47	43	39			L	10	25	42	52	52	51	48	39
Enclosure class, motor	IP	44													
capacitor	μF	3.5													



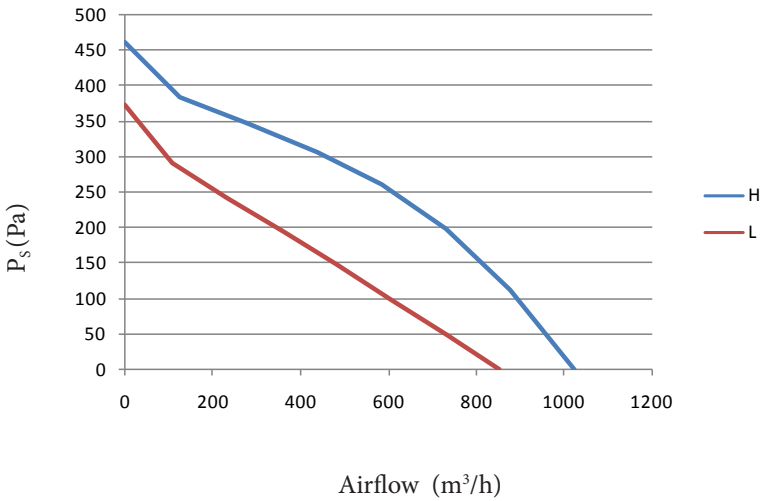


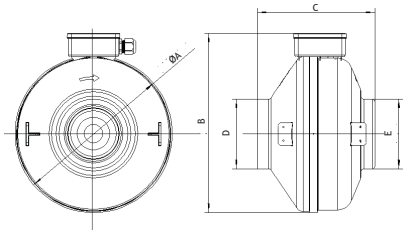
DIMENSIONS (in mm)				
A	B	C	D	E
340	382	253	198	198

FM-250

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-250		H	M	L	Sound Data									
Voltage/Frequency	V/50 Hz	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power	W	140	118	110		dB(A)	H	16	32	40	59	61	61	55	50
Currrent	A	0.61	0.55	0.52											
R.p.m.	min^{-1}	2415	2205	1984											
Sound Pressure level at 3m	dB (A)	48	46	45			L	12	29	39	54	58	59	50	42
Enclosure class, motor	IP	44													
capacitor	µF	4													



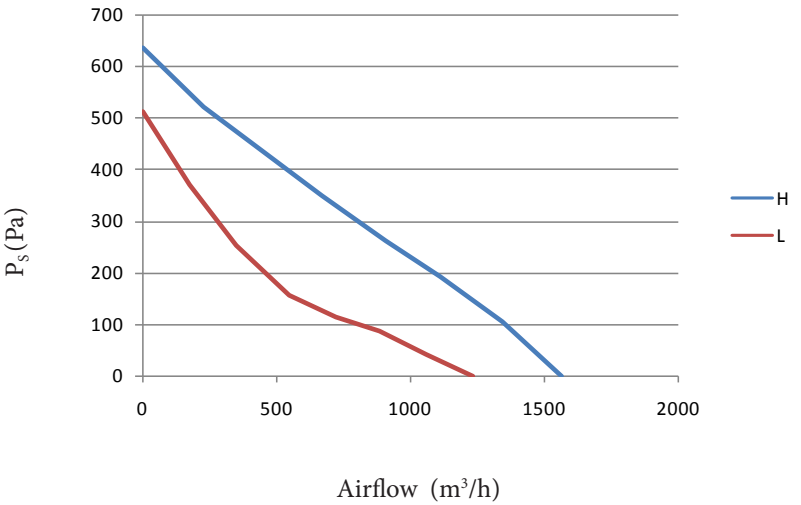


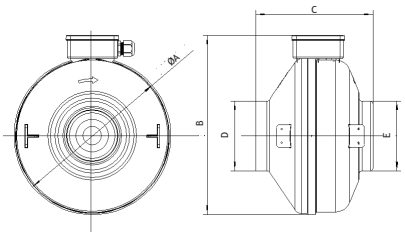
DIMENSIONS (in mm)				
A	B	C	D	E
350	387	237	248	248

FM-315

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-315		H	M	L	Sound Data									
Voltage/Frequency	V (50 Hz)	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power	W	206	186	176		dB(A)	H	13	29	40	61	63	66	68	59
Currrent	A	0.90	0.81	0.80											
R.p.m.	min^{-1}	2394	2181	1930											
Sound Pressure level at 3m	dB (A)	54	51	48			L	12	25	38	49	55	60	63	63
Enclosure class, motor	IP	44													
capacitor	µF	5													



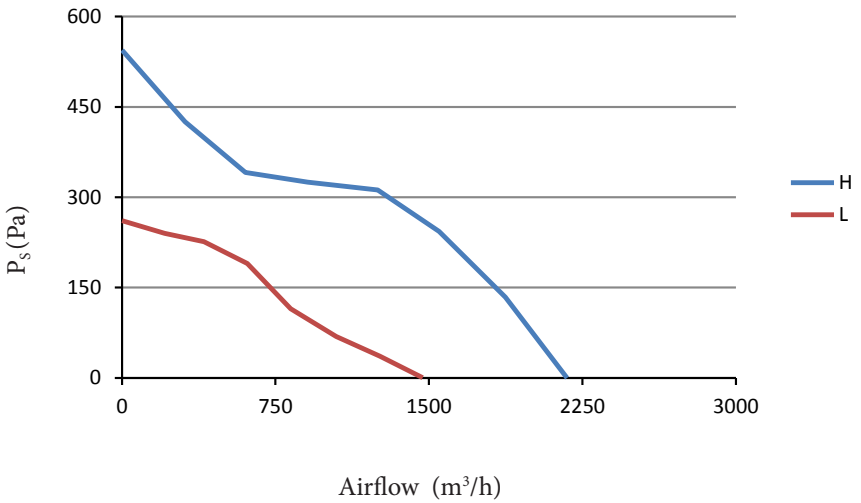


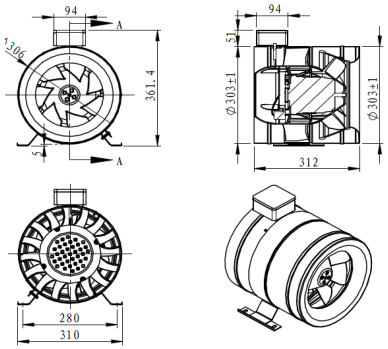
DIMENSIONS (in mm)				
A	B	C	D	E
415	457	254	313	313

FM-315L

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-315		H	M	L	Sound Data									
Voltage/Frequency	V (50 Hz)	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power	W	206	186	176		dB(A)	H	13	29	40	61	63	66	68	59
Currrent	A	0.90	0.81	0.80											
R.p.m.	min^{-1}	2394	2181	1930											
Sound Pressure level at 3m	dB (A)	54	51	48			L	12	25	38	49	55	60	63	63
Enclosure class, motor	IP	44													
capacitor	μF	5													

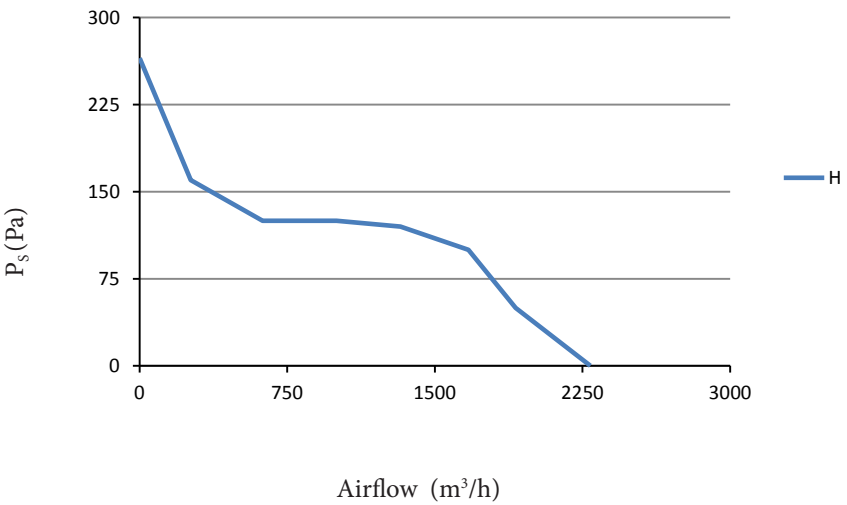


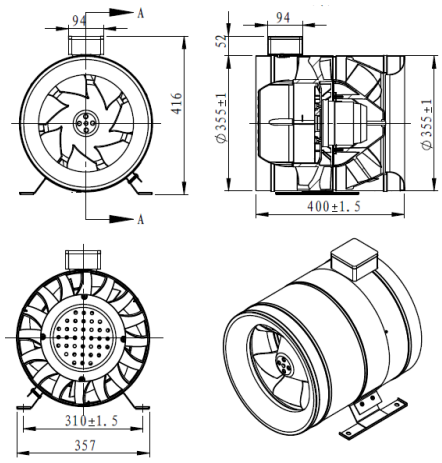


FM-355

- Polymide casing and impeller
- Mixed flow impeller
- Uniquely designed 2 speeds external rotor motor
- Compact in size, lighter in weight
- High efficiency
- Low sound level

FM-315		H	M	L	Sound Data									
Voltage/Frequency	V (50 Hz)	230			Breakout	Hz	Speed	Mid-frequency band, Hz						
Phase	~	1						63	125	250	500	1k	2k	4k	8k
Power	W	206	186	176		dB(A)	H	13	29	40	61	63	66	68	59
Currrent	A	0.90	0.81	0.80											
R.p.m.	min^{-1}	2394	2181	1930											
Sound Pressure level at 3m	dB (A)	54	51	48			L	12	25	38	49	55	60	63	63
Enclosure class, motor	IP	44													
capacitor	μF	5													





Square Cabinet Fan

The Lti Square Cabinet Fan are the result of long experience in the development and manufacturing of ventilation systems.

Our advantages:

- Easy installation.
- Minimum 25 mm perforated panels manufactured from pregalvanized mild steel sheet with non-flammable mineral wool infill, for thermal and acoustic insulation for LRE/D model
- All units are fitted with fans with external rotor motors for the direct driven units
- Compact Design
- Low-Level Noise

Our quality:

The impeller with backward curved blades are driven by a speed controllable external rotor motor (IP 44 or IP 54) impeller are made of steel aluminum for all sizes except 190 to 250 polyamide impeller. These fans are mounted on a motor supporting frame; the motor and impeller assembly is balanced dynamically in two levels according to VDI 2060, quality 0 2,5.

Tolerances in accordance with technical conditions of supply of fans DIN 24166, class 3. Panel insulation is provided by non flammable (Al) mineral fibre slab in accordance with DIN 4102.

Thermal insulation K = 0,89 W/m2k in acc. with DIN 52210. Sound insulation RW = appr. 25 dB in acc. with DIN 52210.

Our accessories:

- Speed controllers
- flexible connections
- counter flanges
- shutters

Our performance curves Have been tested using a duct test chamber in accordance with DIN 24153. The vallues refer to air density of 1,2 kg/m3 at 20° C.

Noise Levels:

The technical data show the A-rated sound pressure levels LPA Tolerances in accordance with technical conditions of supply of fans DIN 24166, class 3. noise level ca.0.5 x pfa max.

The Lti selection criteria:

- Size
- Air volume
- Static pressure
- Sound requirements

Reference Code

LR E I 190 2

- 2 — Number of poles
  Z = 2
  V= 4/6 (dual speed)
  S= 6/8 (dual speed)
  Y= Explosion proof version
- 190 — Impeller diameter
- I — I = Insulation
- E — E = Single phase AC.
  D= Three phase AC
- LR — Model (Rectangular Cabinet Fan)

Rated Data:

P	: Motor Power [kW]
In	: Rated current [A]
n	: Rated speed [1/min]
C_{u00}	: Operating capacitor [pF]
t_r	: Ambient temperature [°C] max.
t_t	: Medium temperature [°C] max.
Iso.kl.	: Insulation class motor
I_A / I_n	: Proportion starting / rated curent
Weight	: Total weight

Note:
Side discharge is possible upon request. Please contact the nearest Lti Company for any special request

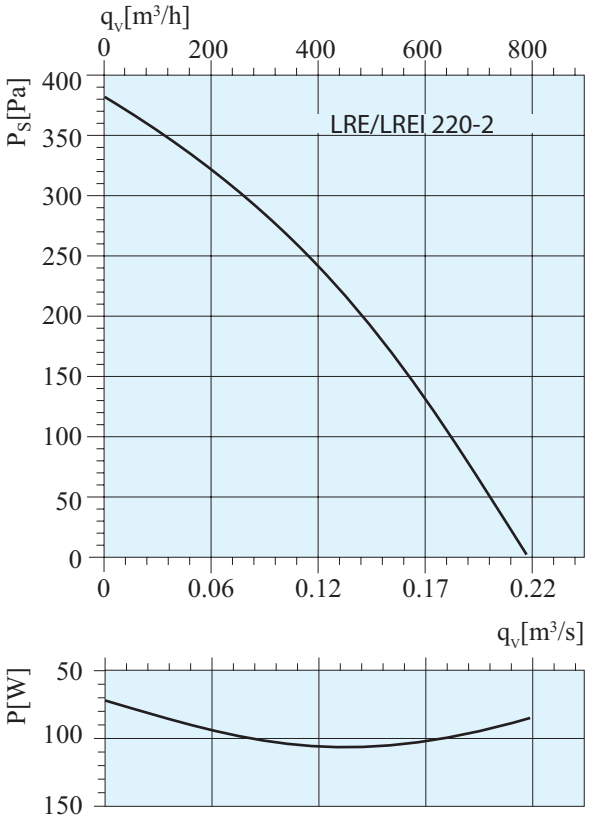
LRE 220-2 / LREI 220-2

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I220-2 comes with polyamide backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

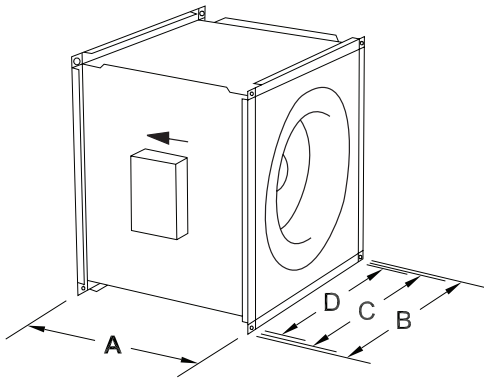
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 220-2 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for insulated fans.



LRE220-2/LREI220-2		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	105
Current	A	0.46
Maximum air flow	m³/s (m³/h)	0.22 (800)
R.p.m	min-1	2585
Max. temp. of transported air	°C	70
when speed-controlled	°C	70
Sound Pressure Level at 3m	dB(A)	36
Insulated Sound Pressure		
Level at 3m	dB(A)	28
Weight	Kg	7/8
Insulation class, motor		B
Enclosure class, motor		IP 44
Capacitor	uF	3
Motor protection		Aut.th.cont.
Speed control, five-step	Transformer	
Speed control, five-step high/low	ransformer	
Speed control, stepless	Thyristor	

LRE220-2/LREI220-2								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	47	56	64	63	66	65	59	49
L_v, A Surrounding	30	33	31	42	44	46	39	31
With Insulation	22	25	23	34	36	38	31	21

Measuring point: q_v= 0,167 m³/s, Ps = 130 Pa



LRE/LRD	A	B	C	D
220	250	400	375	350
LREI/LRDI	**A**	**B**	**C**	**D**
220	250	400	375	350

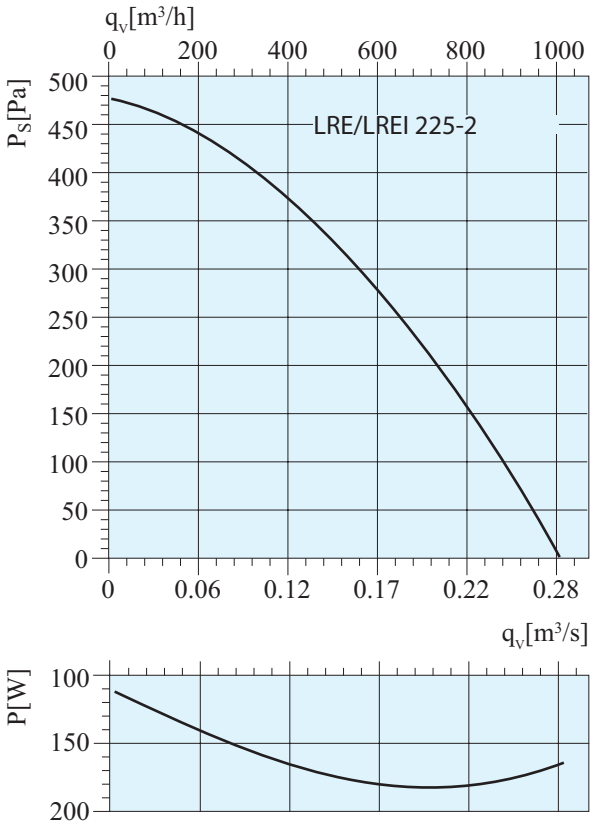
LRE/I 225-2

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 225-2 comes with polyamide backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

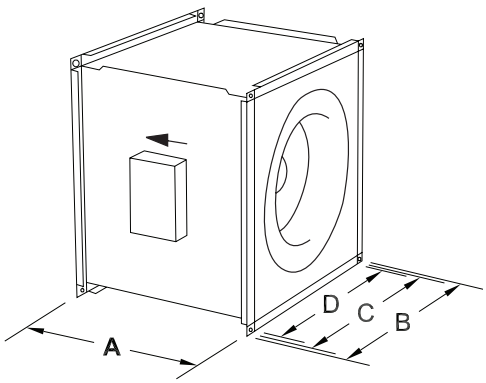
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 225-2 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for insulated fans.



LRE/I 225-2		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	180
Current	A	0.84
Maximum air flow	m³/s (m³/h)	0.28 (1005)
R.p.m	min-1	2585
Max. temp. of transported air	°C	70
when speed-controlled	°C	70
Sound Pressure Level at 3m	dB(A)	40
Insulated Sound Pressure		
Level at 3m	dB(A)	32
Weight	Kg	7/8
Insulation class, motor		B
Enclosure class, motor		IP 44
Capacitor	uF	3
Motor protection		Aut.th.cont.
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, stepless	Thyristor	

LRE/I 225-2								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_{WA} Duct	56	61	68	67	65	64	58	52
L_v, A Surrounding	53	40	43	51	55	51	47	41
With Insulation	45	32	35	43	47	43	39	33

Measuring point: q_v= 0,238 m³/s, Ps = 106 Pa



LRE/LRD	A	B	C	D
225	250	400	375	350
LREI/LRDI	**A**	**B**	**C**	**D**
225	250	400	375	350

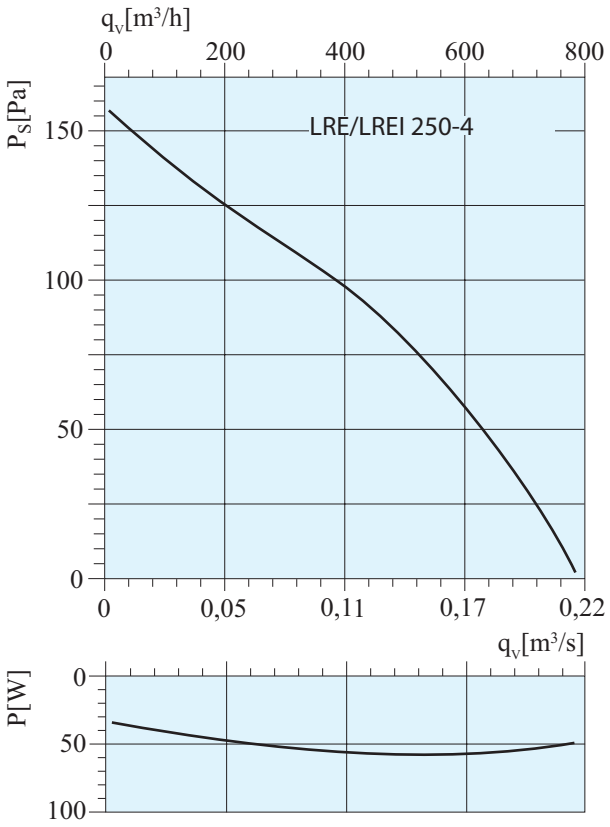
LRE 250-4 /LREI 250-4

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 250-4 comes with polyamide backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

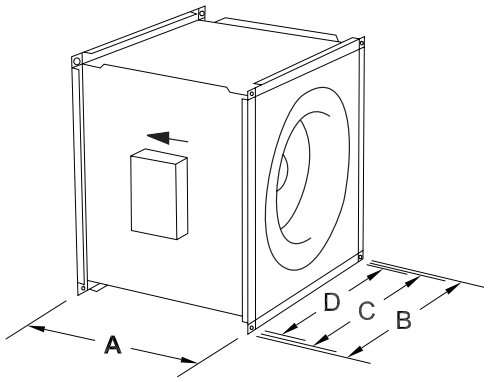
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 250-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for insulated fans.



LRE 250-4 /LREI 250-4		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	43
Current	A	0.20
Maximum air flow	m³/s (m³/h)	0.216 (780)
R.p.m	min-1	1400
Max. temp. of transported air	°C	70
when speed-controlled	°C	70
Sound Pressure Level at 3m	dB(A)	31
Insulated Sound Pressure		
Level at 3m	dB(A)	23
Weight	Kg	9/10
Insulation class, motor		B
Enclosure class, motor		IP 44
Capacitor	uF	1.5
Motor protection		Aut.th.cont.
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, stepless	Thyristor	

LRE 250-4 /LREI 250-4								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	57	62	69	68	66	65	59	53
L_V, A Surrounding	49	36	39	47	51	47	43	37
With Insulation	41	28	31	39	43	39	35	29

Measuring point: q_v= 0,238 m³/s, Ps = 106 Pa



LRE/LRD	A	B	C	D
250	250	400	375	350
LREI/LRDI	**A**	**B**	**C**	**D**
250	250	400	375	350

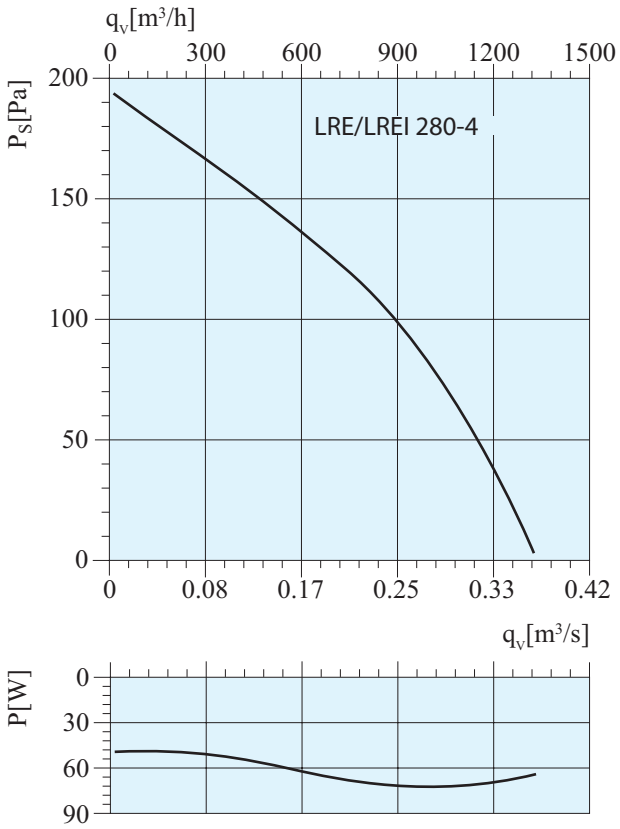
LRE 280-4 /LREI 280-4

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 280-4 comes with polyamide backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

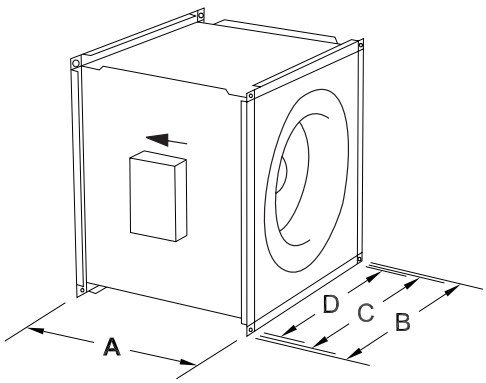
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 280-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for insulated fans.



LRE 280-4 /LREI 280-4		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	78
Current	A	0.35
Maximum air flow	m³/s (m³/h)	0.216 (780)
R.p.m	min-1	1420
Max. temp. of transported air	°C	40
when speed-controlled	°C	45
Sound Pressure Level at 3m	dB(A)	32
Insulated Sound Pressure		
Level at 3m	dB(A)	24
Weight	Kg	12/13
Insulation class, motor		B
Enclosure class, motor		IP 44
Capacitor	uF	2.5
Motor protection		Aut.th.cont.
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, stepless	Thyristor	

LRE 280-4 /LREI 280-4								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_{WA} Duct	60	65	72	71	69	68	62	56
L_{v}, A Surrounding	51	38	41	49	53	49	45	39
With Insulation	43	30	33	41	45	41	37	31

Measuring point: q_v= 0,238 m³/s, Ps = 106 Pa



LRE/LRD	A	B	C	D
280	400	450	425	400
LREI/LRDI	A	B	C	D
280	400	450	425	400

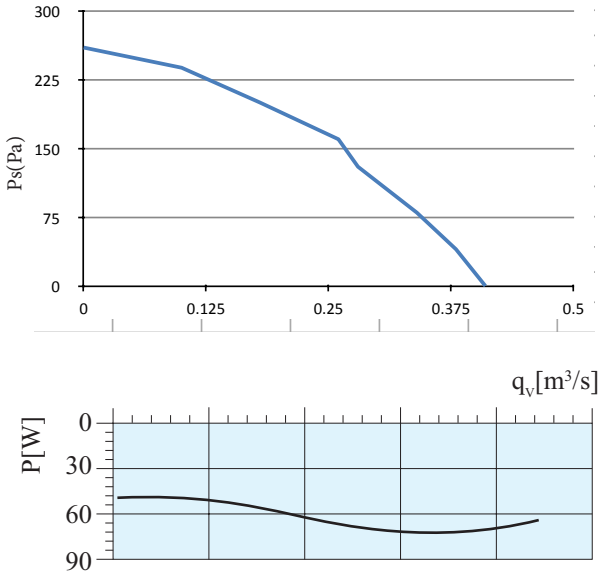
LRE/I 310-4 / LRD/I 310V (Dual Speed)

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer for all models..

LR 310 series comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

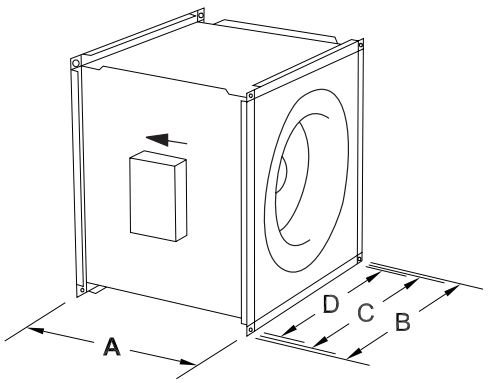
To protect the motor from overheating both models have integral thermal contacts. The casing of LR 310 series is made of powder coated galvanized steel sheet and 25 mm rockwool with surface layer for insulated fans.



LRE310-4/LREI310-4/ LRD310V(DualSpeed)			
Voltage/Frequency	V/50 Hz	230	400
Phase	~	1	3
Power	W	150	180/110
Current	A	0.65	0.26/0.15
Maximum air flow	m³/h	1500	1116/1500
R.p.m	min-1	1390	1340/1030
Max. temp. of transported air	°C	45	45
when speed-controlled	°C	45	45
Sound Pressure Level at 3m	dB(A)	40	40/34
Insulated Sound Pressure Level at 3m	dB(A)	33	33/26
Weight	Kg	39	39/33
Insulation class, motor		B	B
Enclosure class, motor		IP 44	IP 44
Capacitor	uF	4	
Motor protection		Aut.th.cont.	Aut.th.cont.
Speed control, five-step	Transformer		
Speed control, five-step high/low	Transformer		
Two speed switch max 16A Speed control, stepless	Thyristor		
Speed control, electronic	Regulator		

LRE310-4/LREI310-4 LRD310V(DualSpeed)								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	41	54	55	56	56	52	50	40
L_v, A Surrounding	39	49	50	45	41	37	35	38
With Insulation	31	41	42	37	33	29	27	30

Measuring point: q_v= 0,28 m³/s, Ps = 169 Pa



LRE/LRD	A	B	C	D
310	400	450	425	400
LREI/LRDI	**A**	**B**	**C**	**D**
310	500	550	525	500

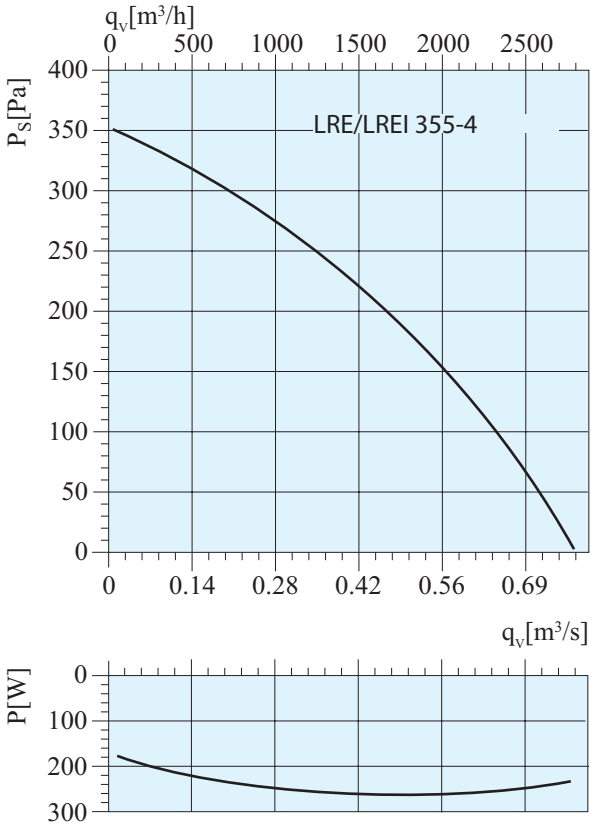
LRE/I 355-4

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 355-4 comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

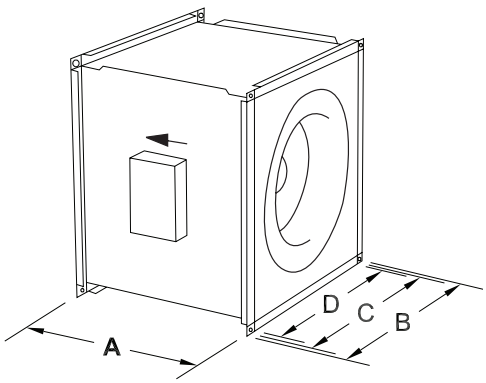
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 355-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.



LRE/I 355-4		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	260
Current	A	1.14
Maximum air flow	m³/h	2800
R.p.m	min-1	1380
Max. temp. of transported air	°C	50
when speed-controlled	°C	50
Sound Pressure Level at 3m	dB(A)	46
Insulated Sound Pressure		
Level at 3m	dB(A)	38
Weight	Kg	20
Insulation class, motor		B
Enclosure class, motor		IP 44
Capacitor	uF	6
Motor protection		
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, D/Y two step 400 V	Transformer	
Speed control, stepless	Thyristor	
Speed control, electronic	-	

LRE/I 355-4								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_{WA} Duct	45	58	61	63	62	60	55	48
L_v, A Surrounding	38	52	54	48	55	52	47	44
With Insulation	30	44	46	40	47	44	39	40

Measuring point: q_v= 0,33 m³/s, Ps = 270 Pa



LRE	A	B	C	D
355	500	550	525	500
LREI	**A**	**B**	**C**	**D**
355	500	550	525	500

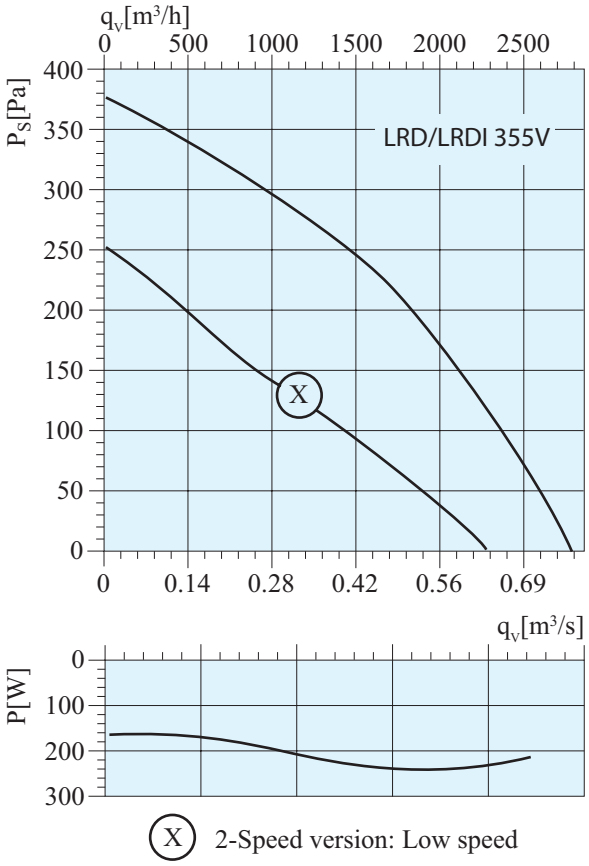
LRD/I355V(DualSpeed)

- Speed-controllable
- Two speed selection (4 / 6 pole)
- Integral thermal contact and acoustic insulation
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRD/I355V comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRD/I 355V is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.

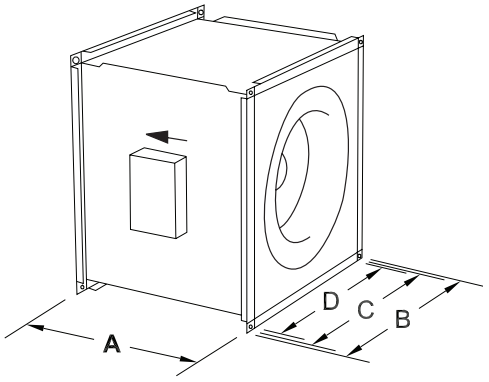


(X) 2-Speed version: Low speed

LRD/I355V(DualSpeed)		
Voltage/Frequency	V/50 Hz	400
Phase	~	3
Power	W	335
Current	A	0.52
Maximum air flow	m³/h	2800/2450
R.p.m	min-1	1380/970
Max. temp. of transported air	°C	50
when speed-controlled	°C	50
Sound Pressure Level at 3m	dB(A)	46/31
Insulated Sound Pressure		
Level at 3m	dB(A)	38/22
Weight	Kg	20/21
Insulation class, motor		B
Enclosure class, motor		IP 44
Capacitor	uF	-
Motor protection		
Speed control, five-step	Transformer	
Speed control, stepless	Thyristor	
Speed control, electronic	Regulator	

LRD/I355V								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	45	58	61	63	62	60	55	48
L_V, A Surrounding	38	52	54	48	55	52	47	44
With Insulation	30	44	46	40	47	44	39	40

Measuring point: q_v= 0,42 m³/s, Ps = 250 Pa



LRD	A	B	C	D
355	500	550	525	500
LRDI	**A**	**B**	**C**	**D**
355	500	550	525	500

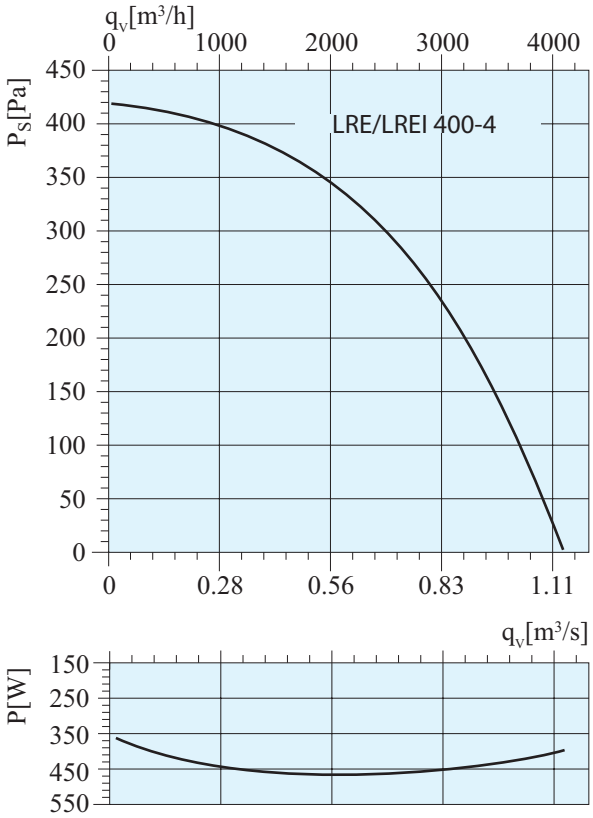
LRE/I 400-4

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 440-4 comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

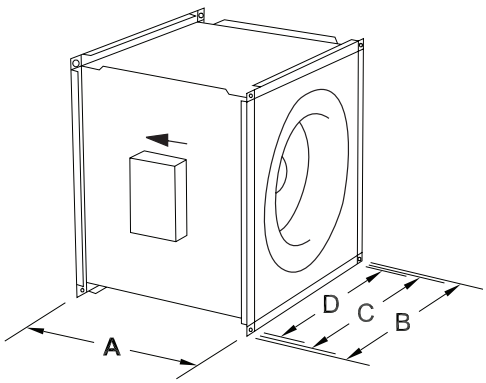
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 440-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.



LRE/I400-4		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	520
Current	A	2.2
Maximum air flow	m³/h	3900
R.p.m	min-1	1360
Max. temp. of transported air	°C	40
when speed-controlled	°C	40
Sound Pressure Level at 3m	dB(A)	50
Insulated Sound Pressure		
Level at 3m	dB(A)	42
Weight	Kg	25
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	10
Motor protection		
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, D/Y two step 400V	Transformer	
Speed control, stepless	Thyristor	
Speed control, electronic		

LRE/I400-4								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	48	63	65	66	65	64	60	52
L_v, A Surrounding	35	53	57	59	58	55	50	43
With Insulation	27	45	49	51	50	47	42	35

Measuring point: q_v= 0,48 m³/s, Ps = 365 Pa



LRE	A	B	C	D
400	600	650	625	600
LREI	**A**	**B**	**C**	**D**
400	600	650	625	600

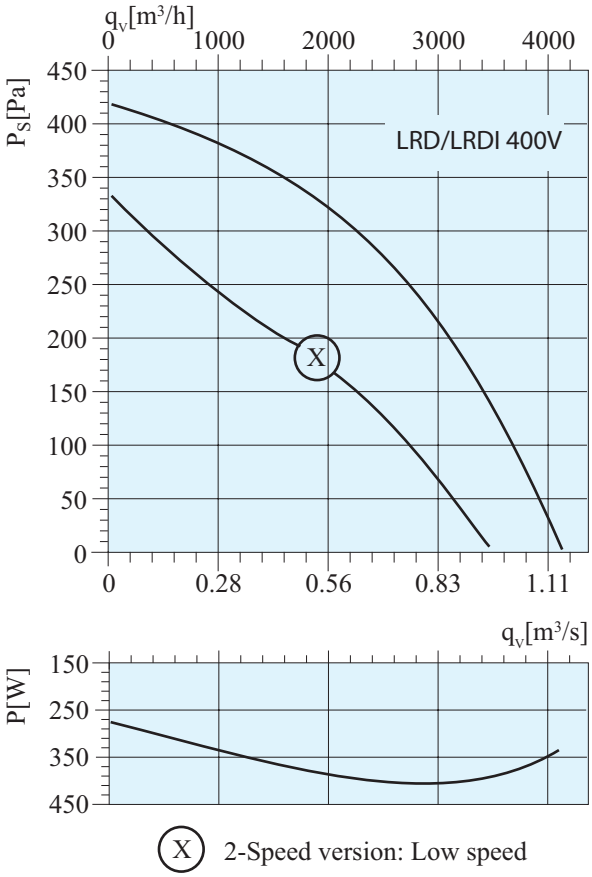
LRD/I 400V

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRD/I 400V comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRD/I 400V is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.

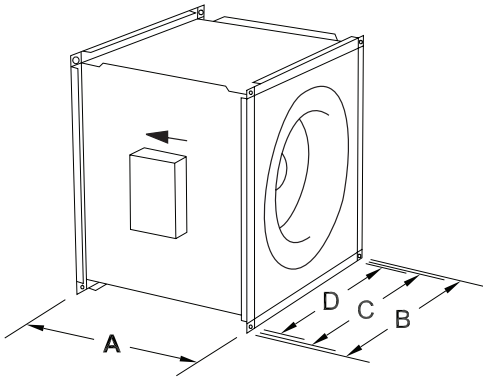


X 2-Speed version: Low speed

LRD/I400V		
Voltage/Frequency	V/50 Hz	400
Phase	~	3
Power	W	460/310
Current	A	0.85/0.5
Maximum air flow	m³/h	4050/3400
R.p.m	min-1	1340/1060
Max. temp. of transported air	°C	40
when speed-controlled	°C	40
Sound Pressure Level at 3m	dB(A)	50/36
Insulated Sound Pressure		
Level at 3m	dB(A)	42/27
Weight	Kg	25/26
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	-
Motor protection		
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Two speed switch 230V max 16A	-	
Speed control, stepless	Thyristor	
Speed control, electronic	Regulator	

LRD/I400V								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	48	63	65	66	65	64	60	52
L_V, A Surrounding	35	53	57	59	58	55	50	43
With Insulation	27	45	49	51	50	47	42	35

Measuring point: q_v= 0,56 m³/s, Ps = 323 Pa



LRD	A	B	C	D
400	600	650	625	600
LRDI	**A**	**B**	**C**	**D**
400	600	650	625	600

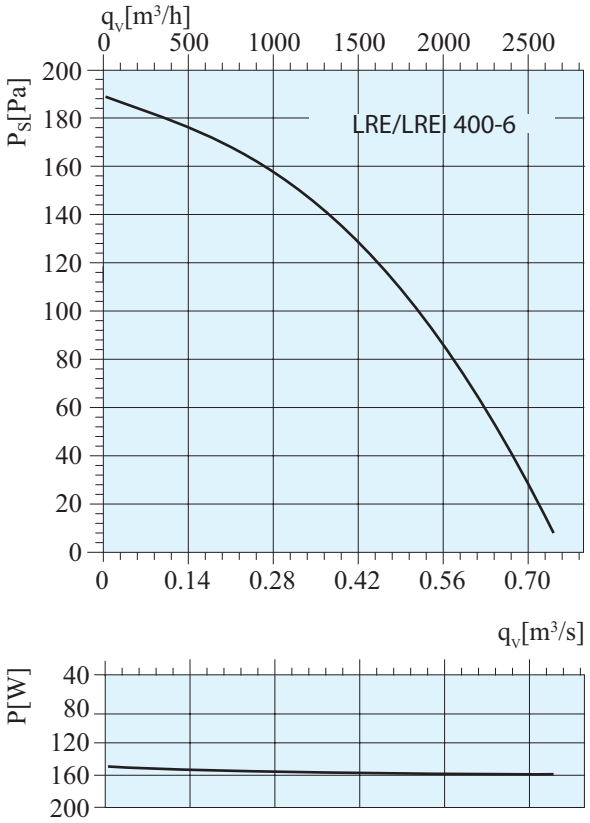
LRE/I 400-6

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 400-6 comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

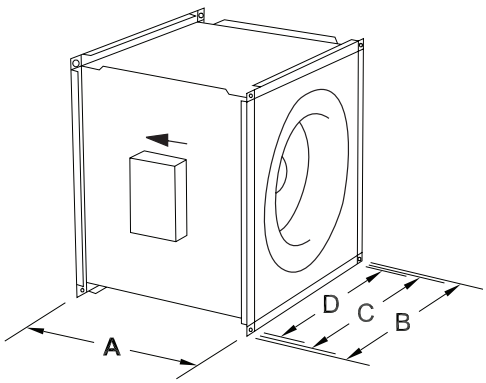
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 400-6 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.



LRE/I 400-6		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	160
Current	A	0.75
Maximum air flow	m³/h	2500
R.p.m	min-1	860
Max. temp. of transported air	°C	40
when speed-controlled	°C	40
Sound Pressure Level at 3m	dB(A)	36
Insulated Sound Pressure		
Level at 3m	dB(A)	28
Weight	Kg	25/26
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	5
Motor protection		
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, D/Y two step 400 V	Transformer	
Speed control, stepless	Thyristor	
Speed control, electronic	Regulator	

LRE/I 400-6								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_{WA} Duct	48	63	65	66	65	64	60	52
L_v, A Surrounding	35	53	57	59	58	55	50	43
With Insulation	27	45	49	51	50	47	42	35

Measuring point: q_v= 0,44 m³/s, Ps = 125 Pa



LRE	A	B	C	D
400	600	650	625	600
LREI	**A**	**B**	**C**	**D**
400	600	650	625	600

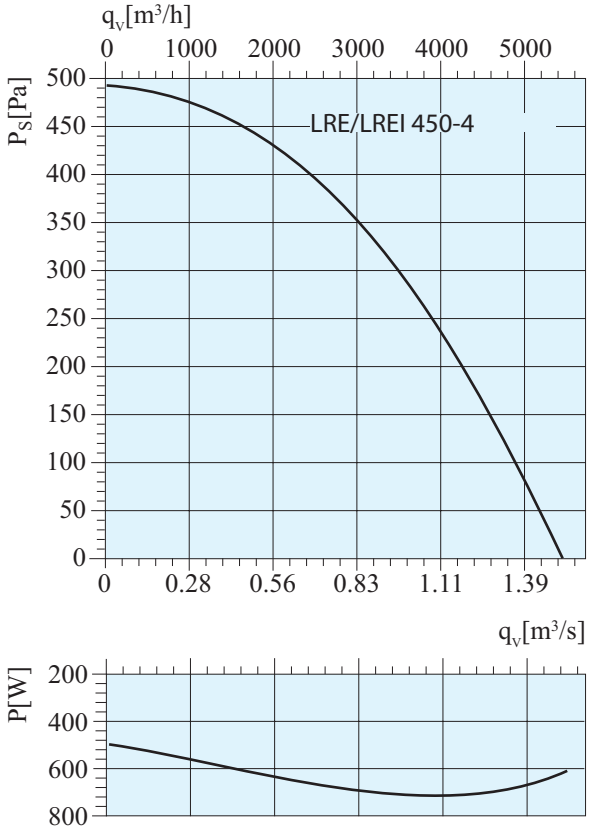
LRE/I 450-4

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 450-4 comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

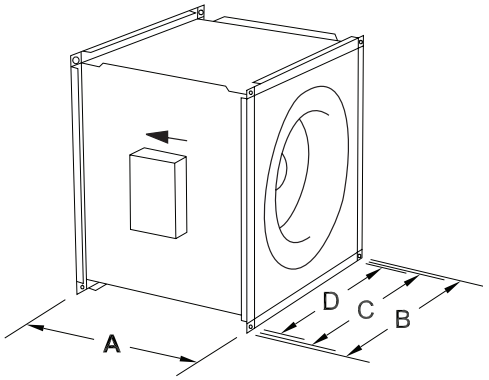
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 450-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.



LRE/I 450-4		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	740
Current	A	3.50
Maximum air flow	m³/h	5500
R.p.m	min-1	1280
Max. temp. of transported air	°C	60
when speed-controlled	°C	60
Sound Pressure Level at 3m	dB(A)	56
Insulated Sound Pressure		
Level at 3m	dB(A)	45
Weight	Kg	30
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	14
Motor protection		
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, D/Y two step 400 V	Transformer	
Speed control, stepless	Thyristor	
Speed control, electronic	Regulator	

LRE/I 450-4								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	42	63	67	67	66	65	62	53
L_V, A Surrounding	38	56	60	62	61	58	53	46
With Insulation	30	48	52	54	53	50	45	38

Measuring point: q_v= 1,06 m³/s, Ps = 250 Pa



LRD	A	B	C	D
450	600	650	625	600
LRDI	**A**	**B**	**C**	**D**
450	600	650	625	600

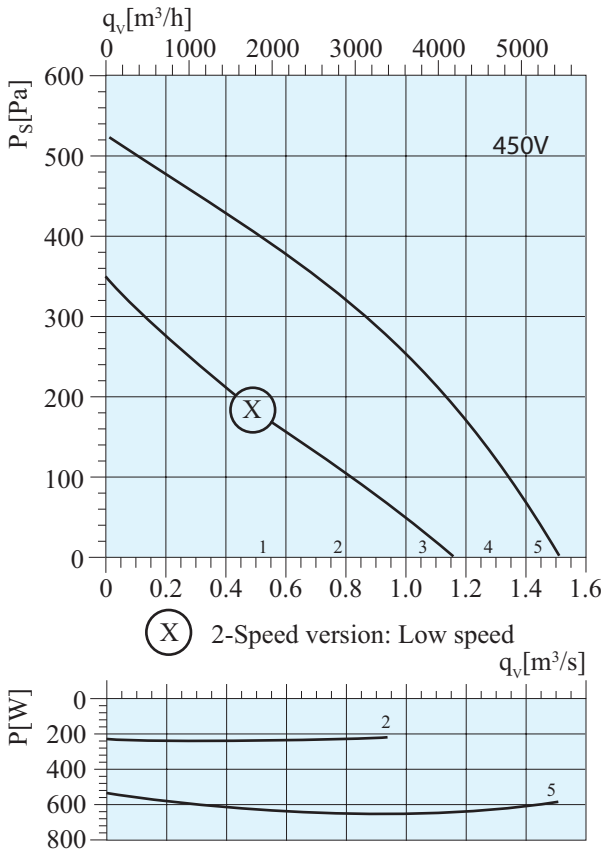
LRD/I 450V (Dual Speed)

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRD/I 450-4 comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

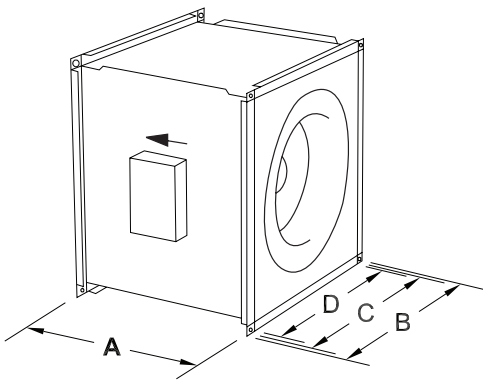
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRD/I 450-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.



LRD/I 450V (Dual Speed)		
Voltage/Frequency	V/50 Hz	400V
Phase	~	3
Power	W	690
Current	A	1.03
Maximum air flow	m³/h	5500/5000
R.p.m	min-1	1230/870
Max. temp. of transported air	°C	40
when speed-controlled	°C	40
Sound Pressure Level at 3m	dB(A)	53/37
Insulated Sound Pressure		
Level at 3m	dB(A)	45/31
Weight	Kg	30
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	-
Motor protection		
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Two speed switch max 16A	-	
Speed control, stepless	Thyristor	
Speed control, electronic	Regulator	

LRD/I 450V (Dual Speed)								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_{WA} Duct	42	63	67	67	66	65	62	53
L_v, A Surrounding	38	56	60	62	61	58	53	46
With Insulation	30	48	52	54	53	50	45	38

Measuring point: q_v= 0,81 m³/s, Ps = 325 Pa



LRD	A	B	C	D
450	600	650	625	600
LRDI	**A**	**B**	**C**	**D**
450	600	650	625	600

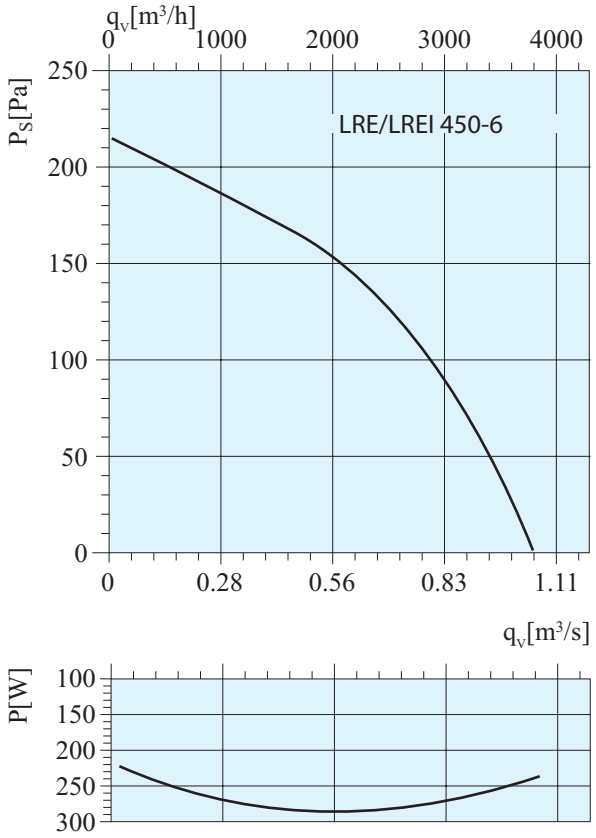
LRE/I 450-6

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 450-6 comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

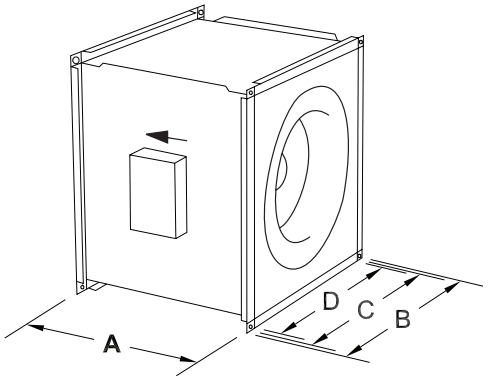
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 450-6 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.



LRE/I 450-6		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	300
Current	A	1.65
Maximum air flow	m³/h	3950/3550
R.p.m	min-1	840
Max. temp. of transported air	°C	50
when speed-controlled	°C	50
Sound Pressure Level at 3m	dB(A)	37
Insulated Sound Pressure		
Level at 3m	dB(A)	29
Weight	Kg	30
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	8
Motor protection		
Speed control, five-step	Transformer	
Speed control, five-step high/low	Transformer	
Speed control, D/Y two step 400 V	Transformer	
Speed control, stepless	Thyristor	
Speed control, electronic	Regulator	

LRE/I 450-6								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	42	63	67	67	66	65	62	53
L_v, A Surrounding	38	56	60	62	61	58	53	46
With Insulation	30	48	52	54	53	50	45	38

Measuring point: q_v= 0,58 m³/s, Ps = 155 Pa



LRE	A	B	C	D
450	600	650	625	600
LREI	**A**	**B**	**C**	**D**
450	600	650	625	600

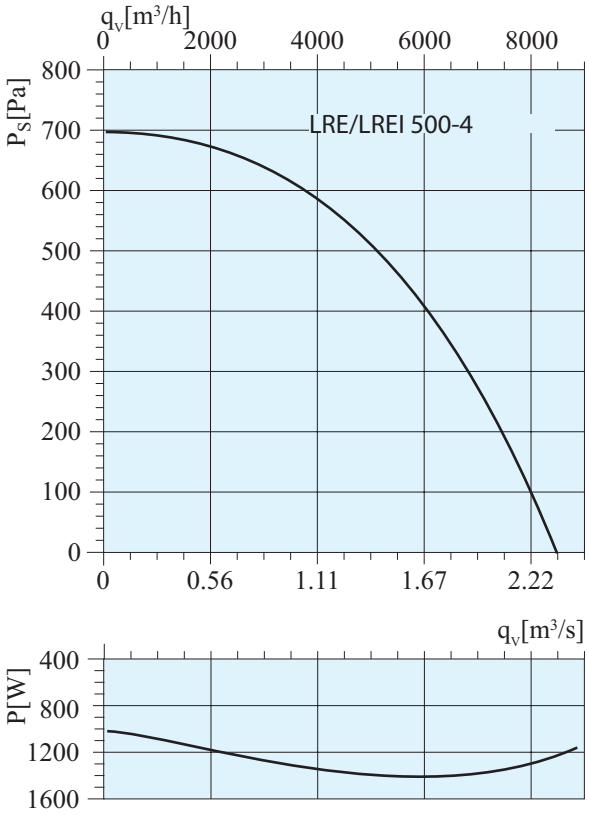
LRE/I 500-4

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRE/I 500-4 comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

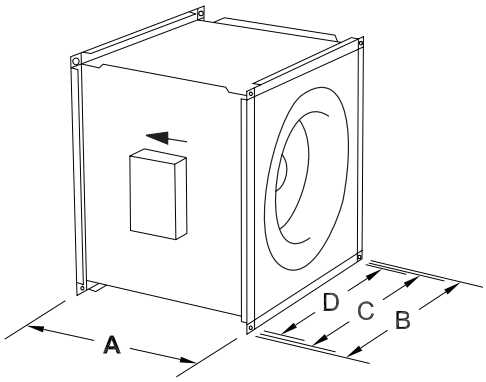
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRE/I 500-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans.



LRE/I 500-4		
Voltage/Frequency	V/50 Hz	230
Phase	~	1
Power	W	1550
Current	A	6.8
Maximum air flow	m³/h	8500
R.p.m	min-1	1380
Max. temp. of transported air	°C	40
when speed-controlled	°C	40
Sound Pressure Level at 3m	dB(A)	56
Insulated Sound Pressure		
Level at 3m	dB(A)	49
Weight	Kg	60
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	31
Motor protection		Thermal Overload
Speed control	-	NA

LRE/I 500-4								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	42	60	64	66	65	62	57	50
L_v, A Surrounding	40	58	62	63	63	60	55	48
With Insulation	34	52	56	58	57	54	49	42

Measuring point: q_v= 1,35 m³/s, Ps = 380 Pa



LRE	A	B	C	D
500	650	710	680	650
LREI	**A**	**B**	**C**	**D**
500	650	710	680	650

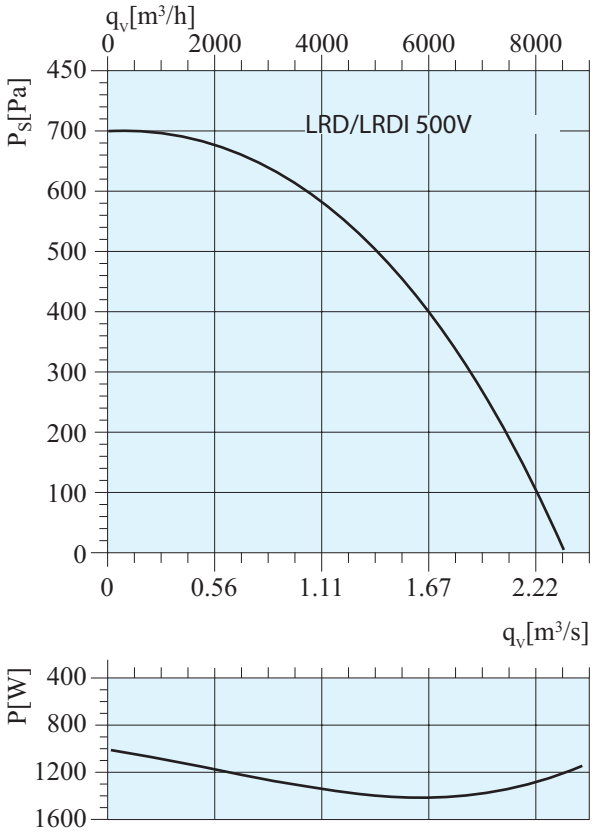
LRD/I 500V

- Speed-controllable
- Integral thermal contact
- Can be installed in any position
- I-Series with acoustic insulation for super quiet operation
- Maintenance-free and reliable
- Low level sound
- Backward curve centrifugal impeller

The LR series is designed for installation in ducts whereby the fans have backward curved blades and external rotor motors. The fans can be speed controlled via a stepless thyristor or a 5-step transformer.

LRD/I 500V comes with aluminium backward curve centrifugal impeller gives high static pressure, high efficiency and very low sound level.

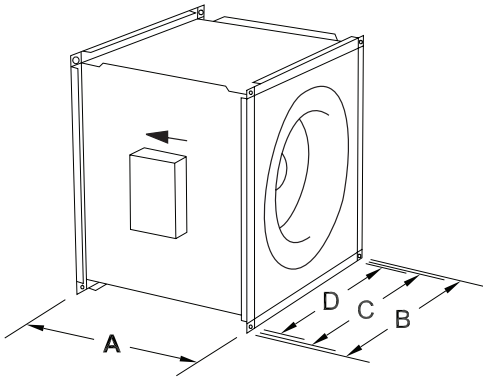
To protect the motor from overheating both models have integral thermal contacts with automatic reset. The casing of LRD/I 500-4 is made of powder coated galvanized steel sheet and 25 mm mineral wool with surface layer for inuslated fans



LRD/I 500V		
Voltage/Frequency	V/50 Hz	400
Phase	~	3
Power	W	1560/1100
Current	A	2.9/1.6
Maximum air flow	m³/h	8500
R.p.m	min-1	1330/1030
Max. temp. of transported air	°C	40
when speed-controlled	°C	40
Sound Pressure Level at 3m	dB(A)	56
Insulated Sound Pressure		
Level at 3m	dB(A)	49
Weight	Kg	45
Insulation class, motor		F
Enclosure class, motor		IP 54
Capacitor	uF	-
Motor protection		Thermal Overload
Speed control, electronic	Regulator	Frequency
		Invertor

LRD/I 500V								
Mid-Frequency band, Hz								
	63	125	250	500	1K	2K	4K	8K
L_WA Duct	42	60	64	66	65	62	57	50
L_V, A Surrounding	40	58	62	63	63	60	55	48
With Insulation	34	52	56	58	57	54	49	42

Measuring point: q_v= 1,35 m³/s, Ps = 380 Pa



LRD	A	B	C	D
500	650	710	680	650
LRDI	**A**	**B**	**C**	**D**
500	650	710	680	650

MULTI BOX FAN

MBF range of backward curved centrifugal fan give optimum performance and higher efficency yet low operation noise.

It is developed & tested with German technology with non-overloading characteristics. This set of ventilation fans is widely used in the market not only for the performance but also simple & easy installation thanks to its design.

- 20mm/40mm double skinned panel available in mineral wool steel or PU panel for ultra acoustic insulation.
- Panel of all side can be easily diassemble for inspection or maintenance.
- Air flow can be configured for straight throw or 90 ° direction.
- Best used for kitchen exhaust system. MBF box fan can replace the traditional bifurcated fan. It generate higher static pressure and motor can be located out of the air stream.
- For DV series, fan motors can be connected in delta configuration to run at high speed (1400rpm) or in star configuration to run at low speed (1000rpm).
- The multi-box fans come with 20 mm or 40mm double skinned panels with mineral wool or PU injection on all sides providing an effective acoustic insulation.
- The multi-box fans are designed for easy installation. These fans can be installed at a bend/ elbow of a duct system to eliminate the pressure loss across the bend/ elbow.
- Casing panels can be disassembled easily from all sides to facilitate easy maintainence and replacement of parts.
- Multi-box fans have low sound level due to the acoustic insulation.
- High efficiency & higher static pressure.

Panel insulation is provided by non flammable mineral fibre slab in accordance with DIN 4102.

Thermal insulation K = 0,89 W/m²k in acc. with DIN 52210.
Sound insulation R_W = appr. 25 dB in acc. with DIN 52210.

The Accessories:

- Speed controllers
- flexible connections
- counter flanges
- shutters

The performance curves

have been tested using a duct test chamber in accordance with DIN 24163. The values refer to an air density of 1,2 kg/m³ at 25° C.

Noise levels:

The technical data show the A-rated sound pressure levels LPA. Tolerances in accordance with technical conditions of supply of fans DIN 24166, class 3. Noise level ca. 0,5 x Dpfa max.

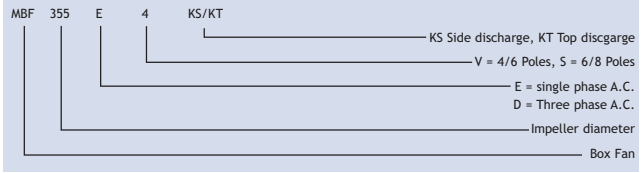
The Selection criteria:

- Size
- Air volume
- Static pressure
- Sound requirements

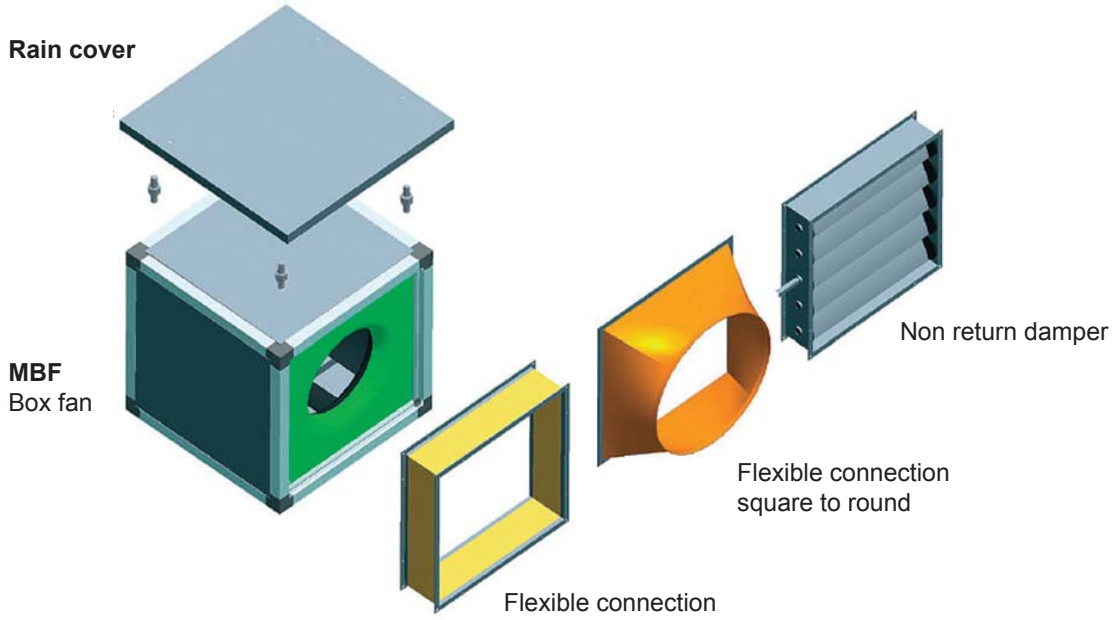
Rated data:

P_1	: absorbed power at motor shaft [kW]
P_2	: power at shaft [kW]
I_N	: rated current [A]
n	: rated speed [1/min]
C_{400}	: operating capacitor [µF]
t_R	: ambient temperature [°C] max.
t_T	: medium temperature [°C] max.
Iso.kl.	: insulation class motor
I_A / I_N	: proportion starting / rated curent
Weight	: total weight

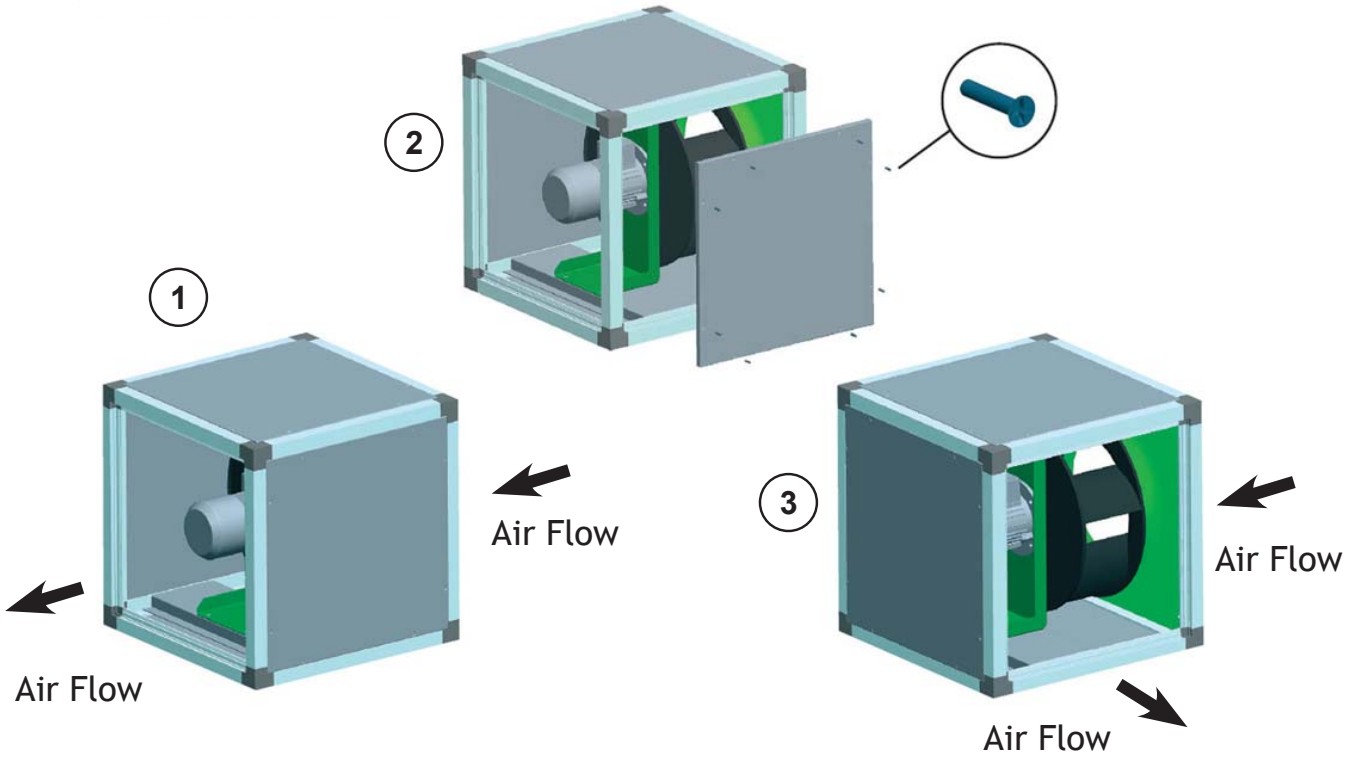
Reference code



Mounting of MBF Accessories



Changing of air flow direction MBF



MBF 355

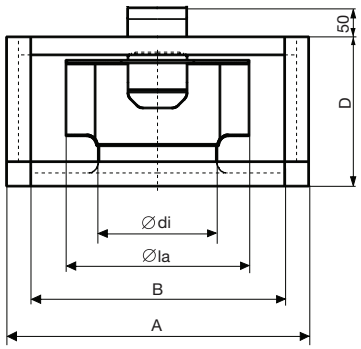
- Speed-controllable
- Modular system
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

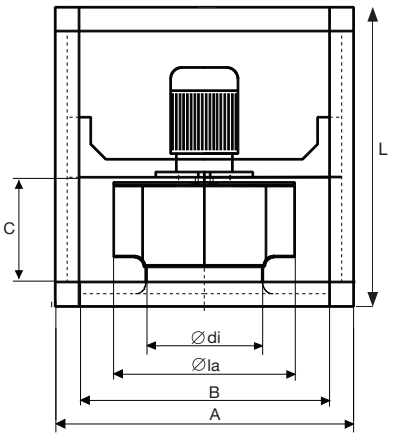
The MBF fan size 355 have impellers with aluminium backward curved blades, The MBF 355D2 is equipped with IEC standard motors. The casing consists of an aluminium frame, aluminium corners and 20 mm or 40mm double skin panels filled with mineral wool or PU insulation. Panels are removable and replacable, allowing flexible ventilation solutions.

Motor protection by thermal contacts, to be connected to an external motor protection device.The box fans can be delivered for straight thru or easily rebuilt to 90° airflow direction. kitchen application is also possible as motor out of air stream configuration is possible.

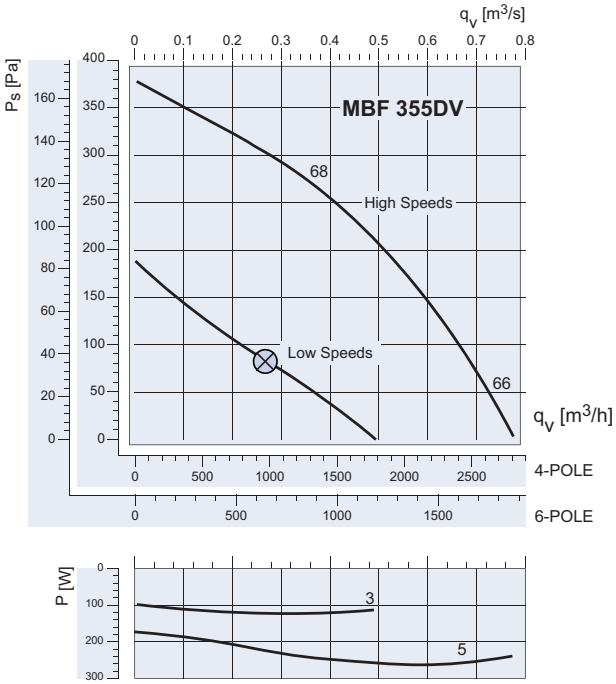
MBF		355DV	355E4
Voltage/Frequency	V/50 Hz	400	230
Phase	~	3	1
Power	W	335	260
Currrent	A	0.52	1.14
Max. air flow at air direction	m^3/h	2800	2800
R.p.m.	min-1	1300	1260
Max. temp. of transported air	°C	250	250
Max. temp. of transported air when speed controlled	°C	250	250
Sound Pressure level at 1m	dB (A)	55	55
Weight	kg	37	37
Insulation class, motor		B	B
Enclosure class, motor		IP 54	IP 54
Capacitor	uF	-	6

DIMENSION
Short casing KS



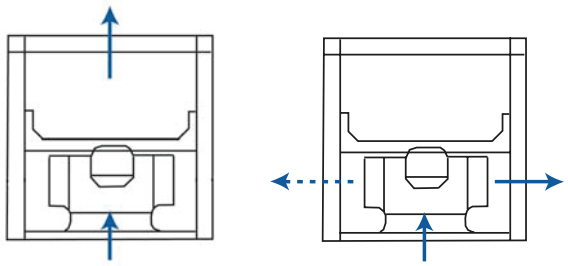


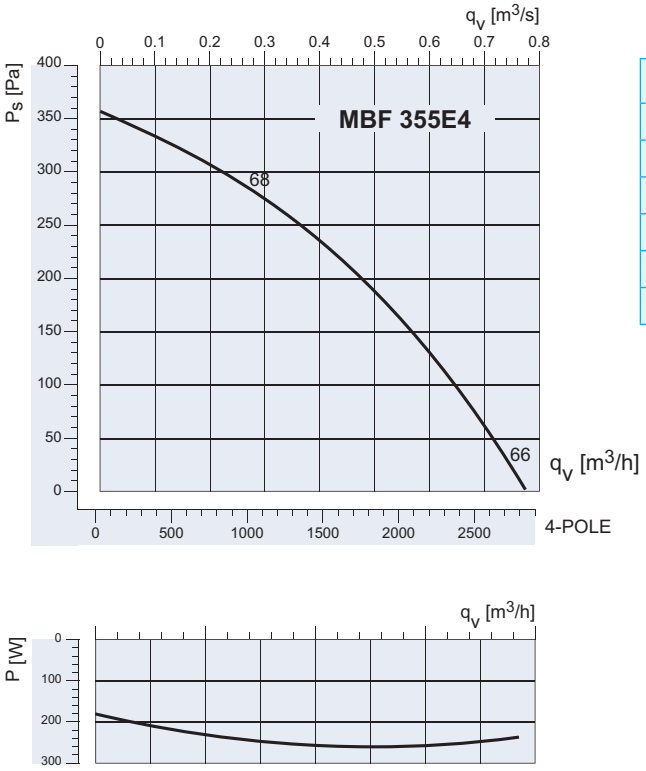
MBF	A	B	Øla	Ødi	C	D	L
355	500	420	355	244	165	275	500



MBF 355DV (BASE ON 4-POLE)

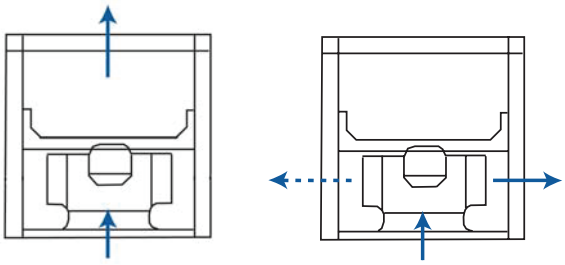
Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	68	55	57	61	63	62	59	54	47
L_{wA}Outlet	dB (A)	70	57	59	63	65	64	61	56	49
L_{wA} Surrounding	dB (A)	62	49	51	55	57	56	53	48	41
Measuring point: q_v = 1300 m³/h, P_s = 270 Pa										





MBF 355E4 (BASE ON 4-POLE)

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	68	55	57	61	63	62	59	54	47
L_{wA}Outlet	dB (A)	70	57	59	63	65	64	61	56	49
L_{wA} Surrounding	dB (A)	62	49	51	55	57	56	53	48	41
Measuring point: q_v = 1300 m³/h, P_s = 270 Pa										



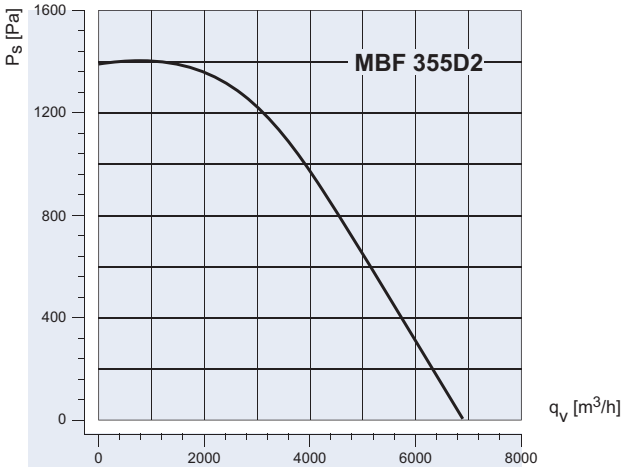
MBF 355

- Speed-controllable
- Modular system
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

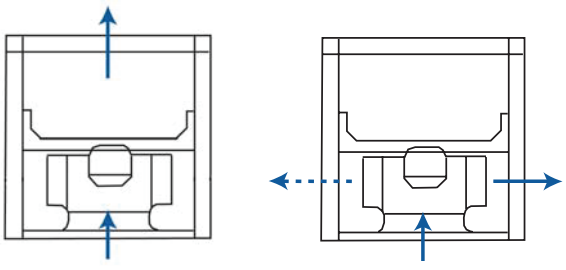
The MBF fan size 355 have impellers with aluminium backward curved blades, The MBF 355D2 is equipped with IEC standard motors. The casing consists of an aluminium frame, aluminium corners and 20 mm or 40mm double skin panels filled with mineral wool or PU insulation. Panels are removable and replacable, allowing flexible ventilation solutions.

Motor protection by thermal contacts, to be connected to an external motor protection device.The box fans can be delivered for straight thru or easily rebuilt to 90° airflow direction. kitchen application is also possible as motor out of air stream configuration is possible.

MBF		355D2
Voltage/Frequency	V/50 Hz	400
Phase	~	
Power	W	2200
Currrent	A	3.72
Max. air flow at air direction	A/B m^3/h	6900
R.p.m.	min-1	2740
Max. temp. of transported air	°C	250
Max. temp. of transported air when speed controlled	°C	250
Sound Pressure level at 1m	dB (A)	66
Weight	kg	40
Insulation class, motor		F
Enclosure class, motor		IP 55



MBF 355D2										
	Mid-frequency band, Hz									
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_wA Inlet	dB (A)	83	70	72	76	78	77	74	69	62
L_wA Outlet	dB (A)	85	72	74	78	80	79	76	71	77
L_wA Surrounding	dB (A)	77	64	66	70	72	71	68	63	56
Measuring point: qv = 3000 m3/h, Ps = 1200 Pa										



MBF 400

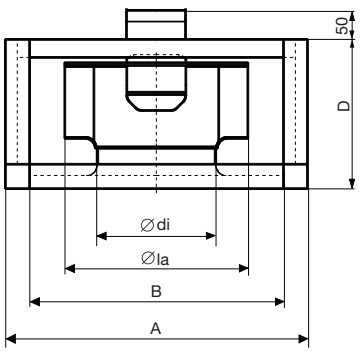
- Speed-controllable
- Modular system
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

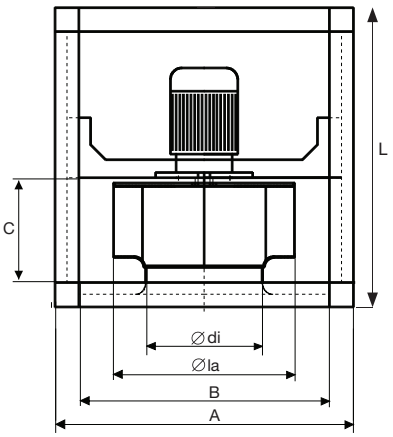
The MBF fan size 400 have impellers with aluminium backward curved blades, The MBF 355D2 is equipped with IEC standard motors. The casing consists of an aluminium frame, aluminium corners and 20 mm or 40mm double skin panels filled with mineral wool or PU insulation. Panels are removable and replacable, allowing flexible ventilation solutions.

Motor protection by thermal contacts, to be connected to an external motor protection device.The box fans can be delivered for straight thru or easily rebuilt to 90° airflow direction. kitchen application is also possible as motor out of air stream configuration is possible.

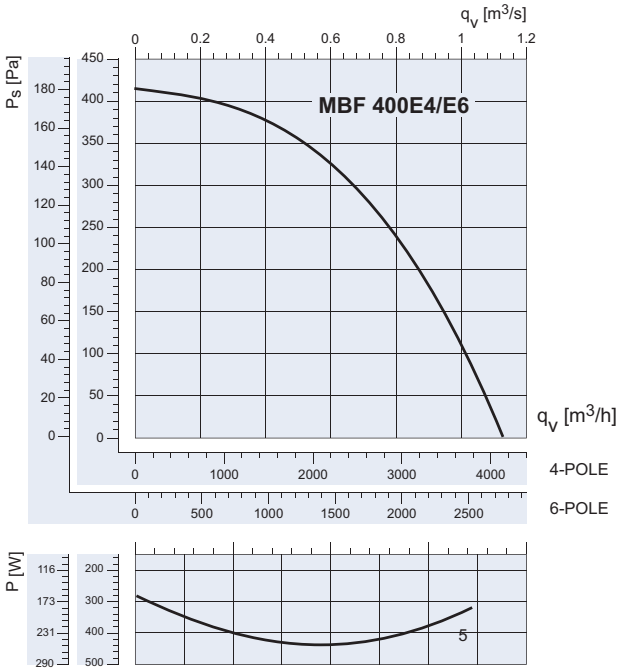
MBF		400DV	400E4	400E6
Voltage/Frequency	V/50 Hz	400	230	230
Phase	~	3	1	1
Power	W	460/310	520	160
Current	A	0.85/0.5	2.2	0.75
Max. air fl ow at air direction A/B	m3/h	4000	4050	2700
R.p.m.	min-1	1340	1360	890
Max. temp. of transported air	°C	250	250	250
Max. temp. of transported air when speed controlled	°C	250	250	250
Sound Pressure level at 1m	dB (A)	49	49	35
Weight	kg	59	59	49
Insulation class, motor		F	F	F
Enclosure class, motor		IP 54	IP 54	IP 54
Capacitor	uF	-	10	5

DIMENSION
Short casing KS



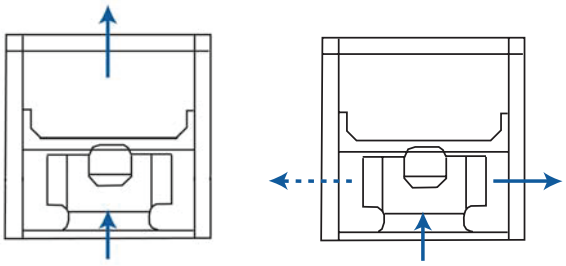


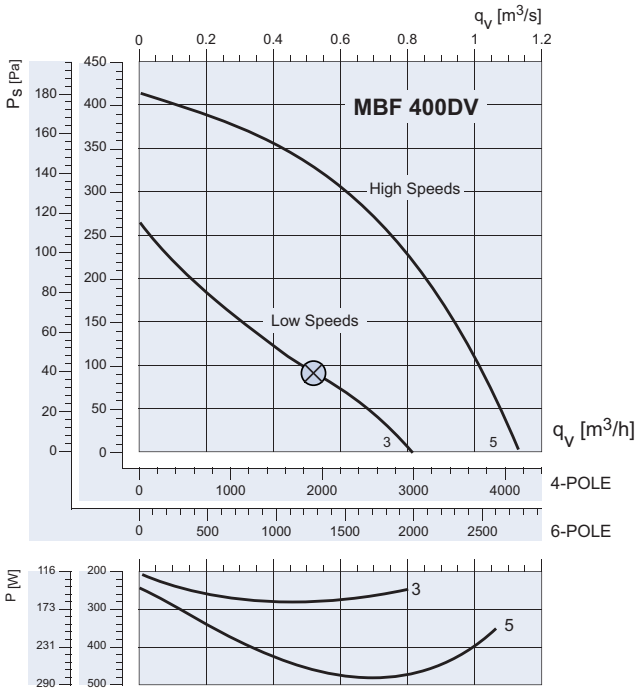
MBF	A	B	Øla	Ødi	C	D	L
400	670	590	404	263	218	325	670



MBF 400 E4

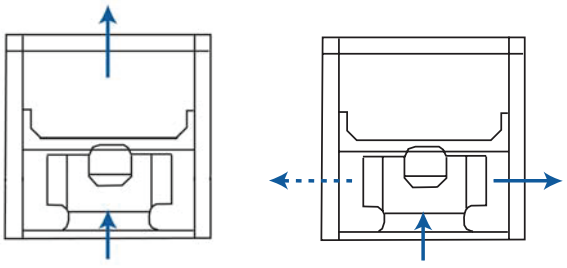
Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	72	59	61	65	67	66	63	58	51
L_{wA} Outlet	dB (A)	74	61	63	67	69	68	65	60	53
L_{wA} Surrounding	dB (A)	56	43	45	49	51	50	47	42	35
Measuring point: q_v = 1900 m³/h, P_s = 350 Pa										





MBF 400 DV (BASE ON 4 POLE)

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	72	59	61	65	67	66	63	58	51
L_{wA} Outlet	dB (A)	74	61	63	67	69	68	65	60	53
L_{wA} Surrounding	dB (A)	56	43	45	49	51	50	47	42	35
Measuring point: q_v = 1500 m³/h, P_s = 350 Pa										



MBF 450

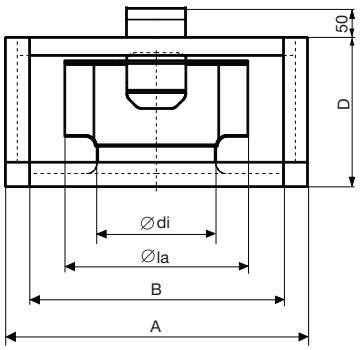
- Speed-controllable
- Modular system
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

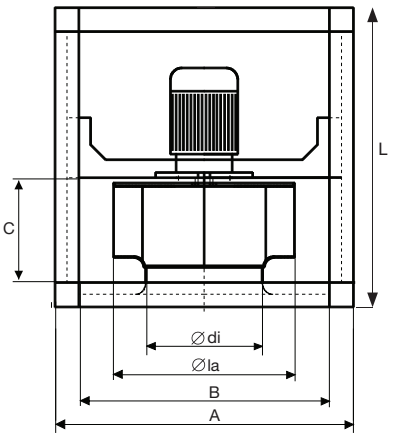
The MBF fan size 450 have impellers with aluminium backward curved blades. The MBF 450 is equipped with external rotor or IEC motor. The casing consists of aluminium frame, aluminium corners and 20 mm or 40mm
double skin panels filled with mineral wool or PU insulation. The panels are easily removable and replacable, allowing flexible ventilation solutions.

Motor protection by thermal contacts are to be connected
to an external motor protection device. The box fans can be delivered for straight thru or easily rebuilt to 90° air direction airflow. Kitchen application is also possible as motor out of air s t r e a m configuration is possible.

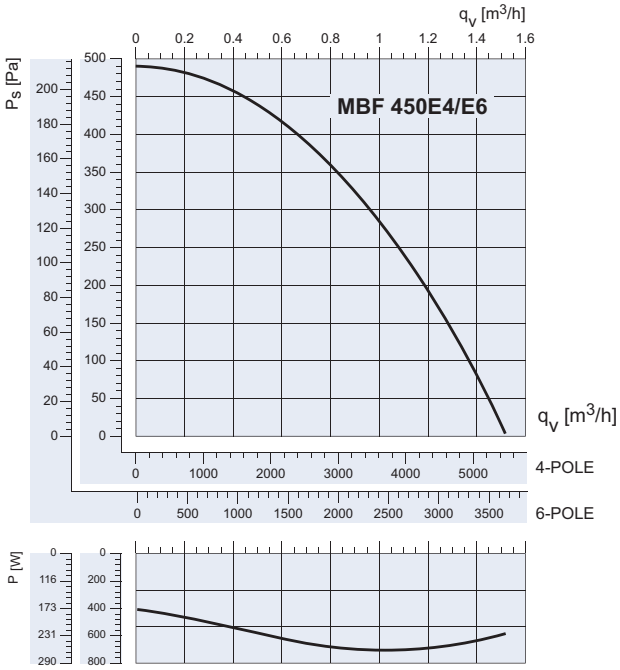
MBF		450DV	450E4	450E6
Voltage/Frequency	V/50 Hz	400	230	230
Phase	~	3	1	1
Power	W	690/300	740	300
Current	A	1.3/0.64	3.5	1.65
Max. air fl ow at air direction A/B	m3/h	5500	5500	3660
R.p.m.	min-1	1230/870	1360	840
Max. temp. of transported air	°C	250	250	250
Max. temp. of transported air when speed controlled	°C	250	250	250
Sound Pressure level at 1m	dB (A)	49	49	36
Weight	kg	59	59	49
Insulation class, motor		F	F	F
Enclosure class, motor		IP 54	IP 54	IP 54
Capacitor	uF	-	14	8

DIMENSION
Short casing KS





MBF	A	B	Øla	Ødi	C	D	L
450	670	590	454	298	245	325	670

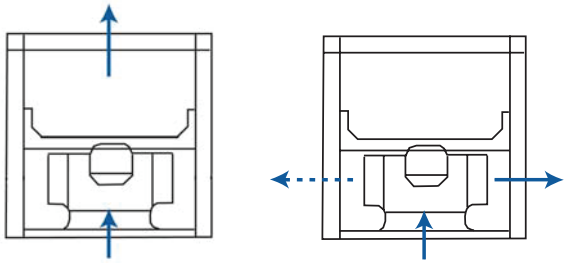


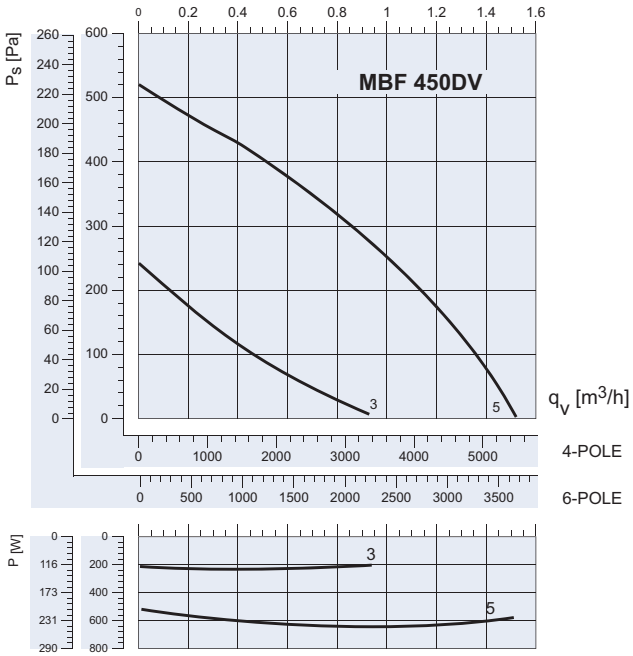
MBF 450E4

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	75	62	64	68	70	69	66	61	54
L_{wA}Outlet	dB (A)	77	64	66	70	72	71	68	63	56
L_{wA} Surrounding	dB (A)	59	46	48	52	54	53	50	45	38
Measuring point: q_v = 3900 m³/h, P_s = 250 Pa										

MBF 450E6

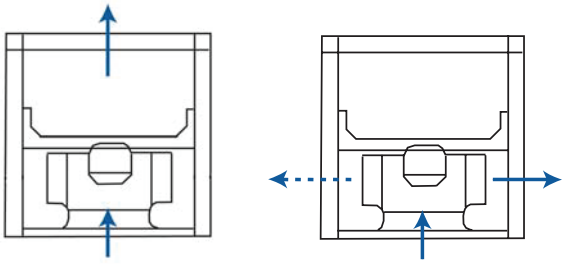
Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	67	54	56	61	62	62	58	53	45
L_{wA}Outlet	dB (A)	69	56	58	63	64	64	60	55	47
L_{wA} Surrounding	dB (A)	51	38	40	45	46	46	42	37	29
Measuring point: q_v = 2300 m³/h, P_s = 130 Pa										





MBF 450DV (BASE ON 4 POLE)

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	74	61	63	67	69	68	65	50	53
L_{wA}Outlet	dB (A)	76	63	65	69	71	70	67	62	55
L_{wA} Surrounding	dB (A)	59	46	48	52	54	53	50	45	38
Measuring point: q_v = 3000 m³/h, P_s = 300 Pa										



MBF 500

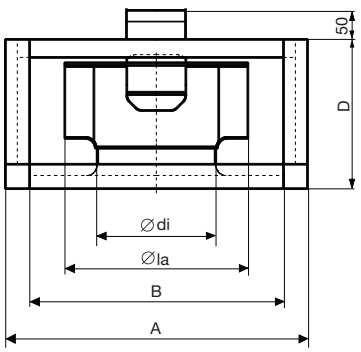
- Speed-controllable
- Modular system
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

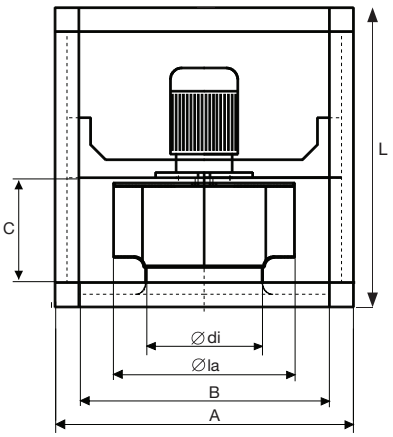
The MBF fan size 500 have impellers with aluminium backward curved blade. The MBF 500 is equipped with IEC motor. The casing consists of aluminium frame, aluminium corners and 20mm or 40mm double skin panels filled with mineral wool or PU insulation. The panels are easily removable and replacable, allowing flexible ventilation solutions.

Motor protection by thermal contacts are to be connected to an external motor protection device. The box fans can be delivered for straight thru or easily rebuilt to 90° direction airflow. Kitchen application is also possible as motor out of air stream configuration is possible.

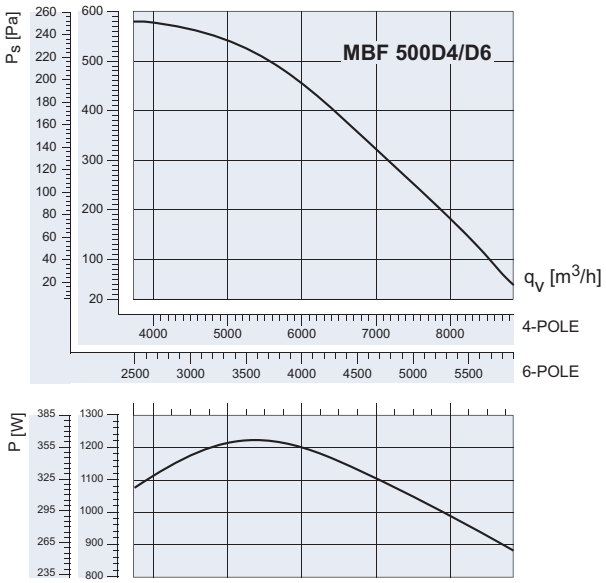
MBF		500D4	500D6	500E4	500E6
Voltage/Frequency	V/50 Hz	400	400	230	230
Phase	~	3	3	1	1
Power	W	1500	750	1100	550
Current	A	3.5	1.97	7.0	4.8
Max. air fl ow at air direction A/B	m3/h	9000	6000	9000	6000
R.p.m.	min-1	1390	915	1360	890
Max. temp. of transported air	°C	250	250	250	250
Max. temp. of transported air when speed controlled	°C	250	250	250	250
Sound Pressure level at 1m	dB (A)	56	46	56	46
Weight	kg	68	60	68	60
Insulation class, motor		F	F	F	F
Enclosure class, motor		IP 55	IP 55	IP 55	IP 55
Capacitor	uF	-	-	30	16

DIMENSION
Short casing KS





MBF	A	B	Øla	Ødi	C	D	L
500	670	590	504	332	282	370	800

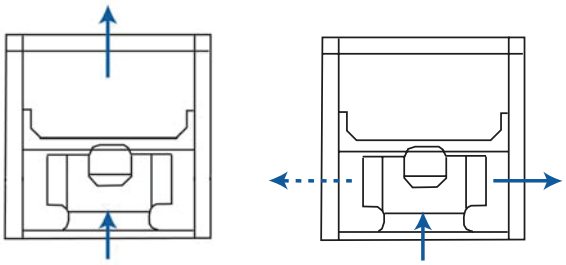


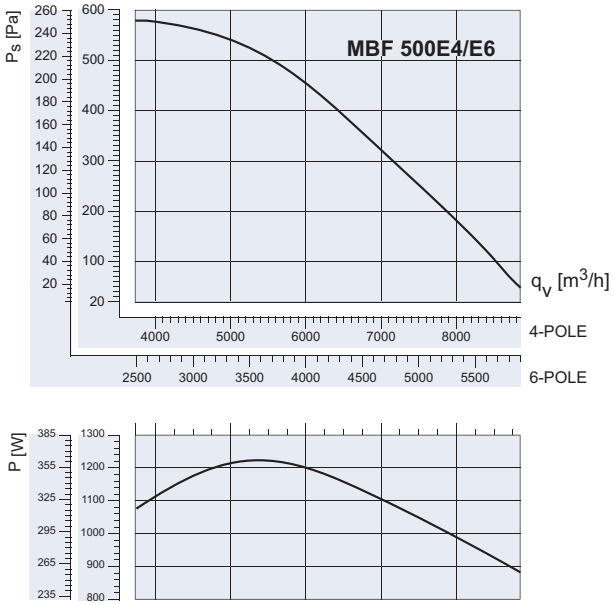
MBF 500D4

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	78	65	67	71	73	72	69	64	57
L_{wA} Outlet	dB (A)	80	67	69	73	75	74	71	66	59
L_{wA} Surrounding	dB (A)	63	50	52	56	58	57	54	49	42
Measuring point: q_v = 7000 m³/h, P_s = 320 Pa										

MBF 500D6

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	67	54	56	61	62	62	58	53	45
L_{wA} Outlet	dB (A)	69	56	58	53	54	54	60	55	47
L_{wA} Surrounding	dB (A)	53	40	42	47	48	48	44	39	31
Measuring point: q_v = 4000 m³/h, P_s = 190 Pa										



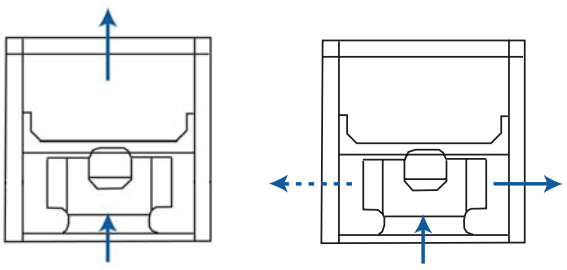


MBF 500E4

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	79	66	68	72	74	73	70	65	58
L_{wA} Outlet	dB (A)	81	68	70	74	76	75	72	67	60
L_{wA} Surrounding	dB (A)	63	50	52	56	58	57	54	49	42
Measuring point: q_v = 7000 m³/h, P_s = 320 Pa										

MBF 500E4

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	67	54	56	61	62	62	58	53	45
L_{wA} Outlet	dB (A)	63	56	58	53	54	54	60	55	47
L_{wA} Surrounding	dB (A)	53	40	42	47	48	48	44	39	31
Measuring point: q_v = 4000 m³/h, P_s = 190 Pa										



MBF 560

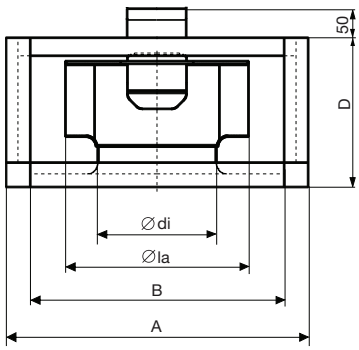
- Speed-controllable
- Modular system
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

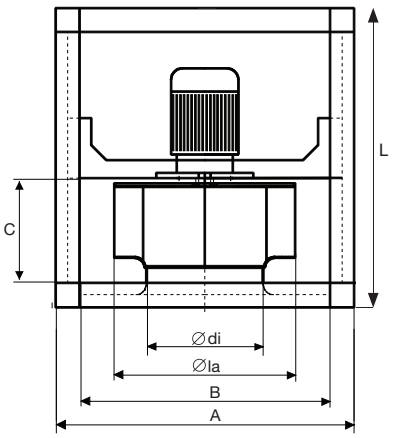
The MBF fan size 560 have impellers with aluminium backward curved blade. The MBF 560 is equipped with IEC motor. The casing consists of aluminium frame, aluminium corners and 20mm or 40mm double skin panels filled with mineral wool or PU insulation. The panels are easily removable and replacable, allowing flexible ventilation solutions.

Motor protection by thermal contacts are to be connected to an external motor protection device. The box fans can be delivered for straight thru or easily rebuilt to 90° direction airflow. Kitchen application is also possible as motor out of air stream configuration is possible.

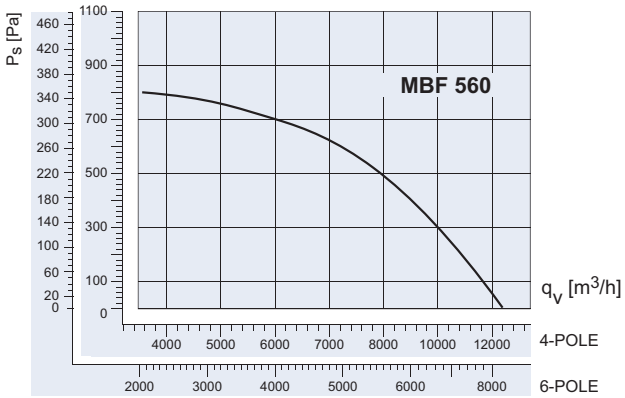
MBF		560D4	560D6	560E4	560E6
Voltage/Frequency	V/50 Hz	400	400	230	230
Phase	~	3	3	1	1
Power	W	2200	750	2200	750
Current	A	4.36	2.2	1.97/2.6	4.8
Max. air fl ow at air direction A/B	m3/h	12000	8000	12000	8000
R.p.m.	min-1	1440	915	1430	890
Max. temp. of transported air	°C	250	250	250	250
Max. temp. of transported air when speed controlled	°C	250	250	250	250
Sound Pressure level at 1m	dB (A)	57	48	57	48
Weight	kg	130	110	130	110
Insulation class, motor		F	F	F	F
Enclosure class, motor		IP 55	IP 55	IP 55	IP 55
Capacitor	uF	-	-	60	25

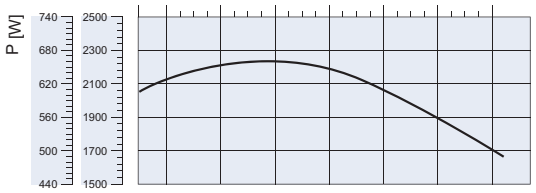
DIMENSION
Short casing KS





MBF	A	B	Øla	Ødi	C	D	L
560	800	720	570	375	310	420	800



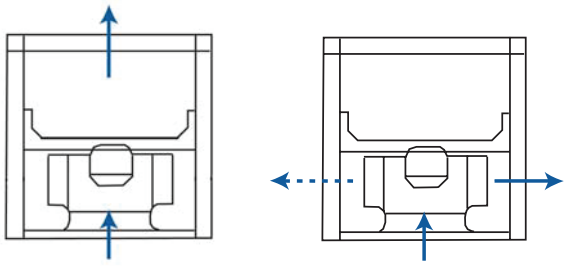


MBF 560D4/MBF 560E4

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	79	66	68	72	74	73	70	65	58
L_{wA} Outlet	dB (A)	81	68	70	74	76	75	72	67	60
L_{wA} Surrounding	dB (A)	64	51	53	57	59	58	55	50	43
Measuring point: q_v = 8000 m³/h, P_s = 500 Pa										

MBF 560D6/MBF 560E6

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	70	57	59	64	65	65	61	56	48
L_{wA} Outlet	dB (A)	72	59	61	66	67	67	63	58	50
L_{wA} Surrounding	dB (A)	55	42	44	44	50	50	46	41	33
Measuring point: q_v = 5000 m³/h, P_s = 260 Pa										



MBF 630

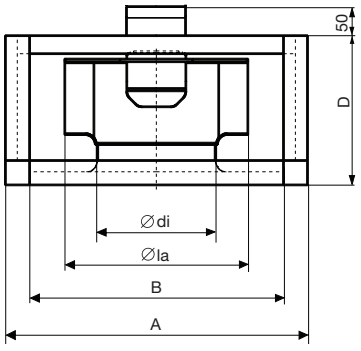
- Speed-controllable
- Modular system
- Low sound level
- Maintenance-free and reliable

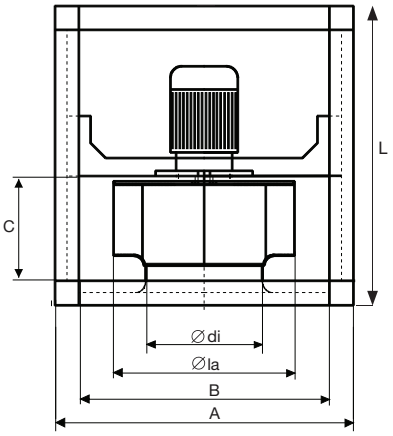
The MBF fan size 630 have impellers with aluminium backward curved blade. The MBF 630 is equipped with IEC motor. The casing consists of aluminium frame, aluminium corners and 20mm or 40mm double skin panels filled with mineral wool or PU insulation. The panels are easily removable and replacable, allowing flexible ventilation solutions.

Motor protection by thermal contacts are to be connected to an external motor protection device. The box fans can be delivered for straight thru or easily rebuilt to 90° direction airflow. Kitchen application is also possible as motor out of air stream configuration is possible.

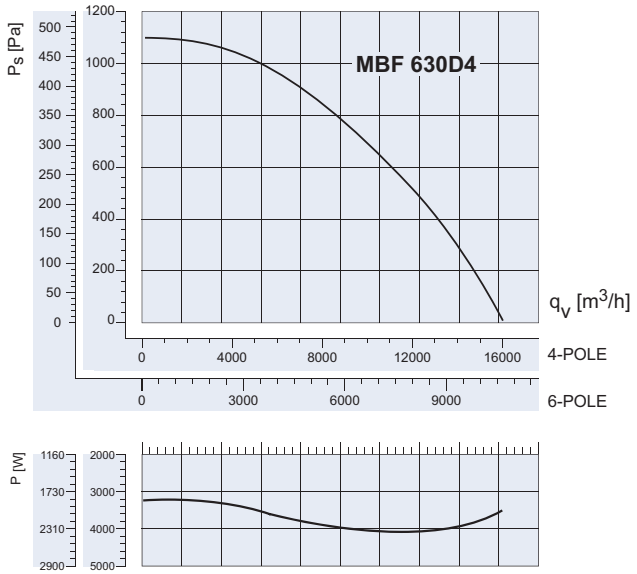
MBF		630D4	630D6	630D4-L	630D6-L
Voltage/Frequency	V/50 Hz	400	400	400	400
Phase	~	3	3	3	3
Power	W	4000	1500	4000	1500
Current	A	8	3.7	8	3.7
Max. air fl ow at air direction A/B	m3/h	16000	10600	20000	13333
R.p.m.	min-1	1400	910	1400	910
Max. temp. of transported air	°C	250	250	250	250
Max. temp. of transported air when speed controlled	°C	250	250	250	250
Sound Pressure level at 1m	dB (A)	69	54	68	55
Weight	kg	135	135	170	170
Insulation class, motor		F	F	F	F
Enclosure class, motor		IP 54	IP 54	IP 54	IP 54

DIMENSION
Short casing KS





MBF	A	B	Øla	Ødi	C	D	L
630	800	720	635	444/421	300	470	800
630L	1000	920	715	444/421	300		800

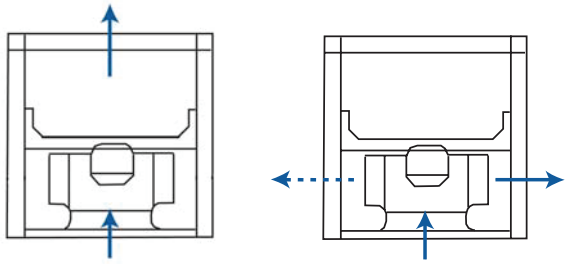


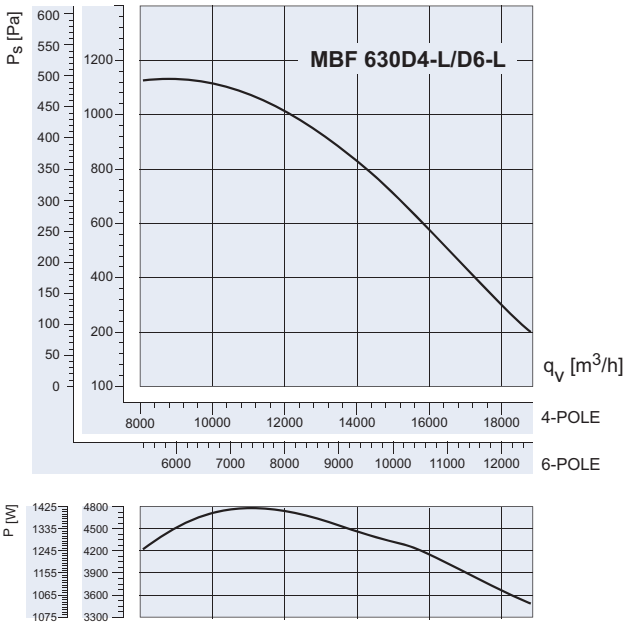
MBF 630D4

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	87	74	76	80	82	81	78	73	66
L_{wA} Outlet	dB (A)	89	76	78	82	84	83	80	75	68
L_{wA} Surrounding	dB (A)	76	63	65	69	71	70	67	62	55
Measuring point: q_v = 7000 m³/h, P_s = 911 Pa										

MBF 630D6

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	74	61	63	68	69	69	65	60	52
L_{wA} Outlet	dB (A)	76	63	65	70	71	71	67	62	54
L_{wA} Surrounding	dB (A)	61	49	51	54	56	56	52	47	39
Measuring point: q_v = 6000 m³/h, P_s = 300 Pa										



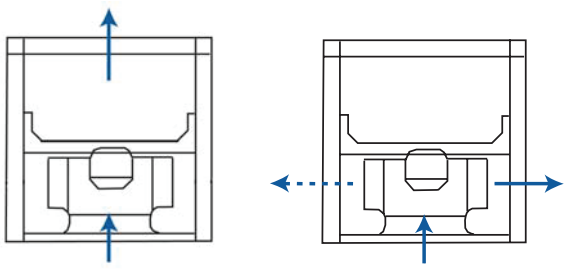


MBF 630D4-L

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	92	57	74	84	86	87	86	80	71
L_{wA} Outlet	dB (A)	94	58	75	86	87	89	89	83	73
L_{wA} Surrounding	dB (A)	83	52	70	76	78	77	76	64	66
Measuring point: q_v = 15000 m³/h, P_s = 650 Pa										

MBF 630D6-L

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	80	44	60	72	72	75	74	68	62
L_{wA} Outlet	dB (A)	81	45	62	73	74	76	76	70	60
L_{wA} Surrounding	dB (A)	65	38	40	56	58	58	60	55	48
Measuring point: q_v = 10000 m³/h, P_s = 300 Pa										



MBF 710

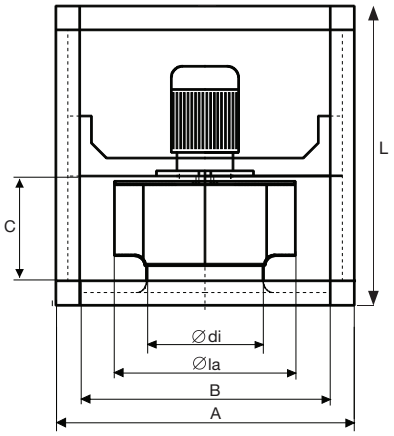
- Speed-controllable
- Modular system
- Low sound level
- Maintenance-free and reliable

The MBF fan size 710 have impellers with aluminium backward curved blade. The MBF 710 is equipped with IEC motor. The casing consists of aluminium frame, aluminium corners and 20mm or 40mm double skin panels filled with mineral wool or PU insulation. The panels are easily removable and replacable, allowing flexible ventilation solutions.

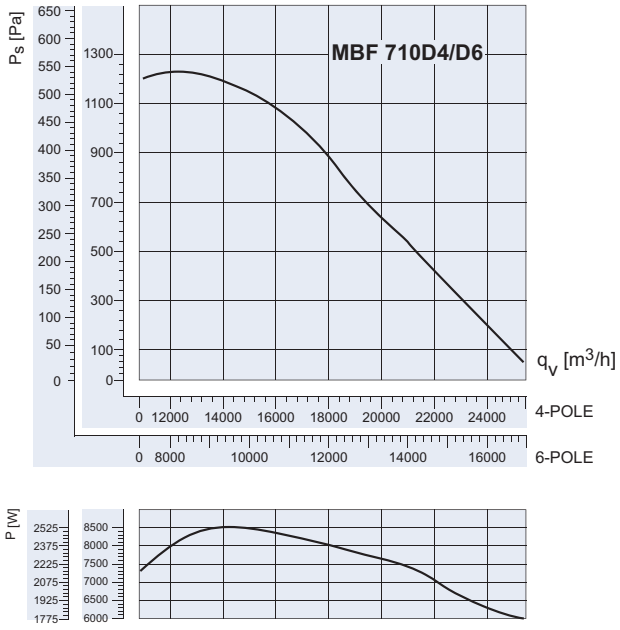
Motor protection by thermal contacts are to be connected to an external motor protection device. The box fans can be delivered for straight thru or easily rebuilt to 90° direction airflow. Kitchen application is also possible as motor out of air stream configuration is possible.

MBF		710D4	710D6
Voltage/Frequency	V/50 Hz	400	400
Phase	~	3	3
Power	W	7500	2200
Current	A	14.2	4.6
Max. air fl ow at air direction A/B	m3/h	24000	16000
R.p.m.	min-1	1440	960
Max. temp. of transported air	°C	250	250
Max. temp. of transported air when speed controlled	°C	250	250
Sound Pressure level at 1m	dB (A)	76	66
Weight	kg	200	160
Insulation class, motor		F	F
Enclosure class, motor		IP 54	IP 54

DIMENSION



MBF	A	B	Øla	Ødi	C	L
710	1000	920	715	501	327	1000

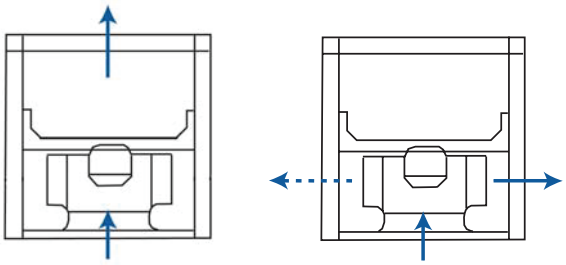


MBF 710D4

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	97	90	92	88	87	90	81	75	67
L_{wA} Outlet	dB (A)	92	64	76	79	84	90	82	76	66
L_{wA} Surrounding	dB (A)	84	56	68	71	76	82	74	68	58
Measuring point: q_v = 17000 m^3/h, P_s = 1000 Pa										

MBF 710D6

Mid-frequency band, Hz										
	Hz	Tot	63	125	250	500	1k	2k	4k	8k
L_{wA} Intlet	dB (A)	79	66	68	73	74	74	70	65	57
L_{wA} Outlet	dB (A)	81	68	70	75	76	76	72	67	59
L_{wA} Surrounding	dB (A)	67	54	56	61	62	62	58	53	45
Measuring point: q_v = 10000 m^3/h, P_s = 500 Pa										

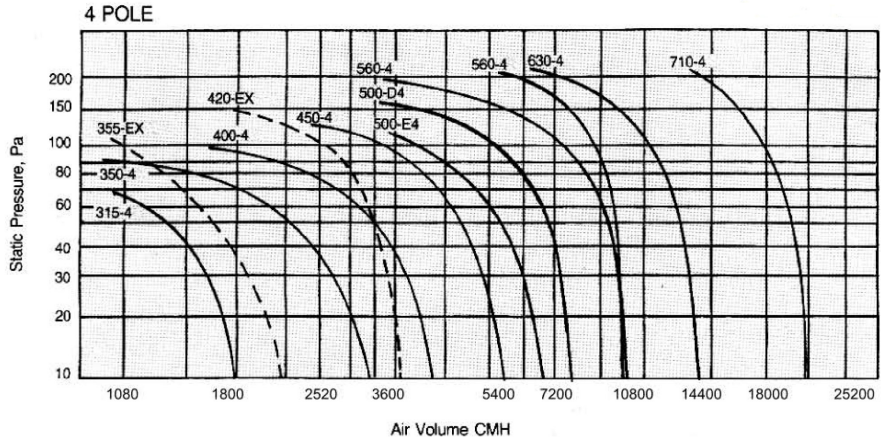


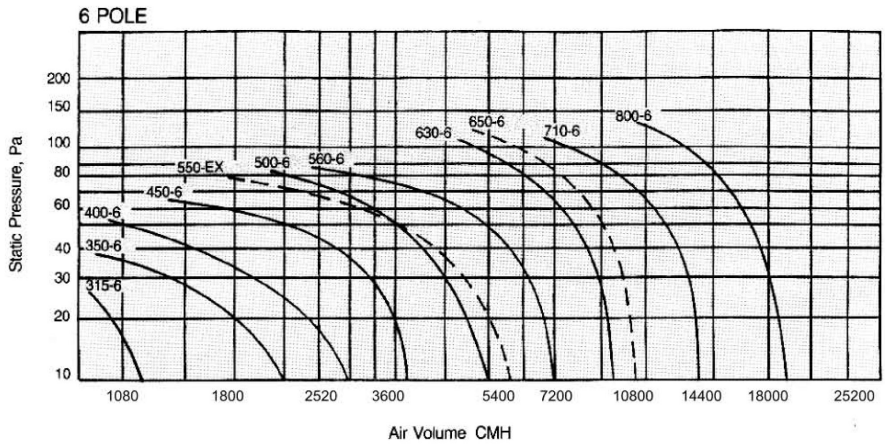
Roof Fan

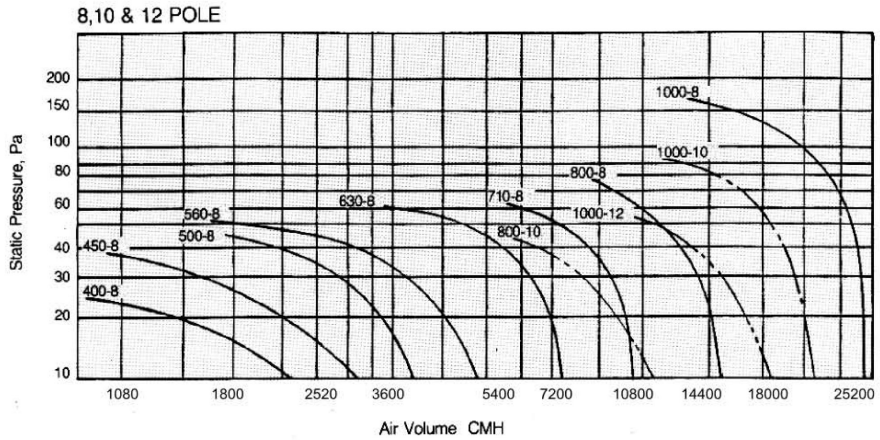
Roof fans

- Die cast aluminuim impeller
- Compact design
- 2 speed motors available on request
- High temperature F300^{0} C series on request
- Polymide roof curb

Fan performamce-RV



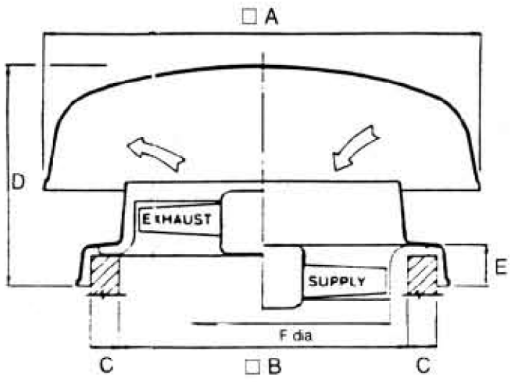




Technical data

Model	HZ	PHASE	POWER	CURRENT		RPM	TEMP	CAPACITOR	DBA
RV		~	W	A(FLC)	A(SC)		°C	uF	3m
200E2	50/60	1	80/95	0.35/0.42	1.05/1.26	2700/3200	65	2	53
200E4	50/60	1	29/38	0.12/0.17	0.36/0.51	1460/1650	75	1	41
250E2	50	1	180	0.78	2.3	2500	65	4	61
250E4	50/60	1	50/65	0.22/0.29	0.66/0.87	1380/1530	75	1.5	43
300E2	50	1	250	1.1	3.3	2530	65	6	63
300E4	50/60	1	90/115	0.38/0.48	1.14/1.44	1370/1500	65	3	48
315E4	50	1	150	0.75	2.3	1380	65	4	50
315D4	50	3	140	0.32	1.0	1380	65	--	50
315E6	50	1	70	0.35	1.1	900	65	2	39
315D6	50	3	50	0.15	0.5	900	65	--	39
350E4	50/60	1	138/190	0.68/0.82	2.04/2.46	1370/3550	65	4	55
350DV	50/60	3	145/185	0.37/0.35	1.11/1.05	1390/1560	65	--	56
350E6	50	1	80/95	0.4/0.42	1.2/1.26	930/1100	65	2	46
350D6	50	3	90/95	0.29/0.24	0.87/0.72	940/1100	65	--	46
400E4	50/60	1	180/260	0.81/1.15	2.43/3.45	1350/1550	65	6	60
400DV	50/60	3	190/260	0.48/0.49	1.44/1.47	1380/1570	65	--	60
400E6	50	1	115/150	0.67/0.75	2.01/2.25	940/1080	60	3	51
400D6	50	3	115/150	0.36/0.31	1.08/0.93	900/1000	60	--	53
450E4	50/60	1	250/360	1.15/1.6	3.45/4.8	1380/6030	55	8	64
450DV	50/60	3	250/360	0.58/0.57	1.74/1.71	1350/1510	55	--	61
450E6	50	1	150/185	0.68/0.82	2.04/2.46	900/1000	55	4	53
450D6	50	3	150/180	0.49/0.46	1.47/1.38	930/1050	55	--	51
500E4	50	1	420	1.85	5.6	1320	50	12	65
500DV	50	3	450	0.93	2.8	1320	50	--	65
500E6	50	1	230	1.15	3.5	920	50	6	60
500D6	50	3	250	0.78	2.3	920	50	--	60
560E4	50	1	550	2.45	7.4	1310	50	12	67
560DV	50	3	650	1.2	3.6	1300	50	--	67
560E6	50	1	220	1.68	5.0	910	50	10	60
560D6	50	3	220	1.0	3.0	900	50	--	60
630E4		1	810	3.5	15.0	1315	50	16	71
630DV	50	3	860	1.95	5.9	1365	50	--	74
630E6	50	1	500	2.2	6.6	930	50	14	68
630D6	50	3	550	1.57	4.7	920	50	--	68
710DS	50	3	1100/700	2.35/1.2	7.05/3.6	900/760	50	--	63
800DS	50	3	1650/1060	3.65/1.94	10.95/5.82	880/700	50	--	74
910DS	50	3	3100/1900	5.4/3.2	16.2/9.6	890/690	50	--	76
355-4EX	50	3	240	0.5	1.4	1380	50	--	54
420-4EX	50	3	450	0.9	3.6	1380	50	--	56
550-6EX	50	3	350	0.9	2.7	900	50	--	55
650-6EX	50	3	850	1.8	5.5	900	50	--	60

Dimension

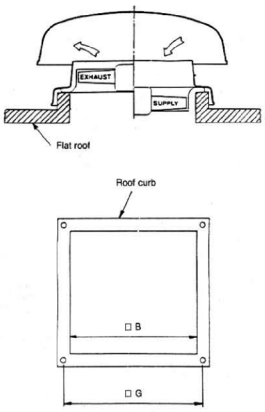


Fan size	A	B	C	D	E	F	G	"Appx. Wt Kgs"
315 350 355Ex	670	420	50	356	80	324 363 356	380 435 385	12 13 13
40 420Ex 450	750	540	50	408	88	407 425 458	490 460 535	20 24 25
500 550Ex 560	890	670	50	518	90	512 559 568	615 610 675	26 35 36
630 650Ex 710	1220	810	100	594	98	643 660 721	750 730 810	55 67 70
800	1480	900	100	700	125	807	910	95
1000	1630	1200	100	755	130	1010	1110	160

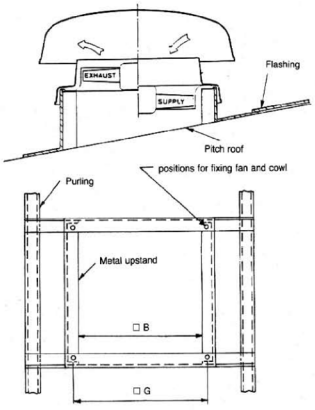
All Dimesnons are in mm

Installation

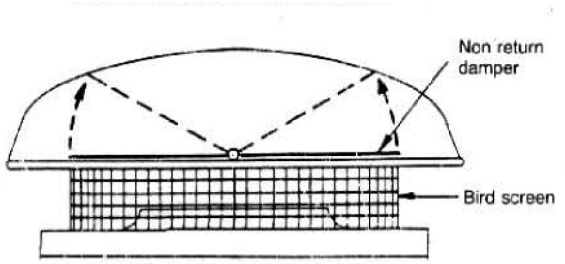
Flat Roof



Pitch Roof



Accessories



GENERAL INFORMATION

Amount of air exchanges / sound pressure (reference values)		
Room	**Amount of LPA**	
	Air Exchanges Max. Per Hour	**[dB]**
Toilets - private	5	40
Toilets - public	10-15	50
Bath rooms	5-8	45
Libraries	5	40
Offices	5-8	45
Dyeworks (Ex)	10-15	70
Colour spray	30-50	70
Works	(Ex)	
Garages, public	5	70
Restaurants	10-12	55
Casinos	7	40
Class rooms	7	40
Cinemas	5-8	35
Conference rooms	8	45
Kitchens, private	20-25	50
Kitchens, public	25-30	60
Assembly works	5-8	65
Welding shops	20-30	80
Gymnasiums	5	50
Sales rooms	4-8	55
Assembly halls	5-10	45
Waiting rooms	6	45
Laundries	15-20	65
Work shops with polluted air		
highly polluted	10-20	70
lowly polluted	5	70
Living rooms		
day	3-6	40
night	3-6	30

Noise Levels

Influence of noise on the neighbourhood acc. to German standard TA Noise § 16. The following sound pressure levels may not be exceeded:

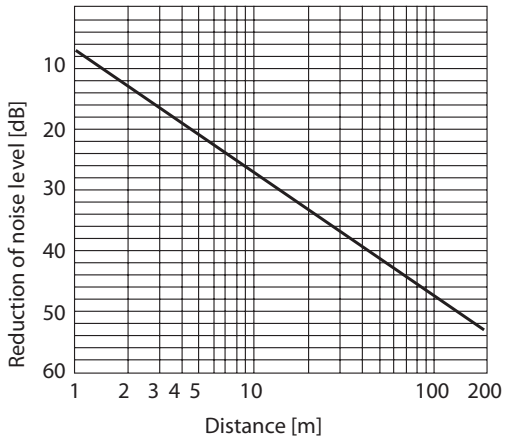
Area Noise level [dB(A)]		
	Day	Night
Industrial zones		
pure	70	70
mainly	65	50
Mixed area	60	45
Residential areas		
pure	55	30
mainly	55	40
Spa areas	45	35

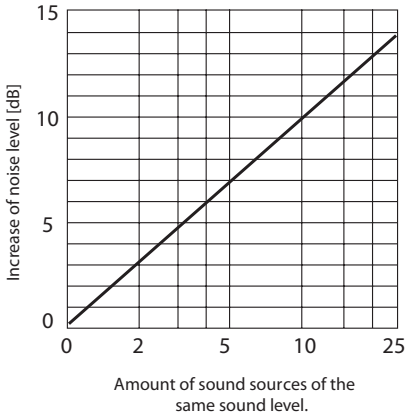
Noise Level

The approximate A-rated sound pressure level LPA in 1 m distance is obtained by deducting approx. 7 dB from the A-rated sound pressure level LWA .

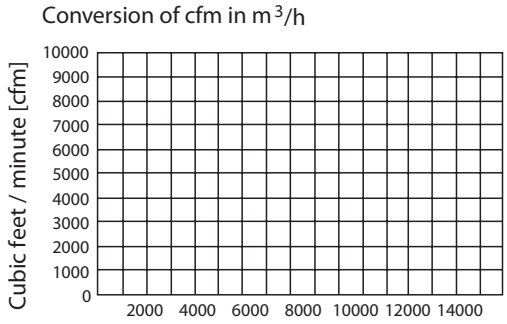
This is valid for rooms with medium acoustic conditions. The real noise level during operation may deviate from the calculated values due to reflexions, special acoustic conditions etc.

Difference between sound pressure level and sound pressure level depending on the distance. Free sound spreading according to DIN 45 635 page 2.



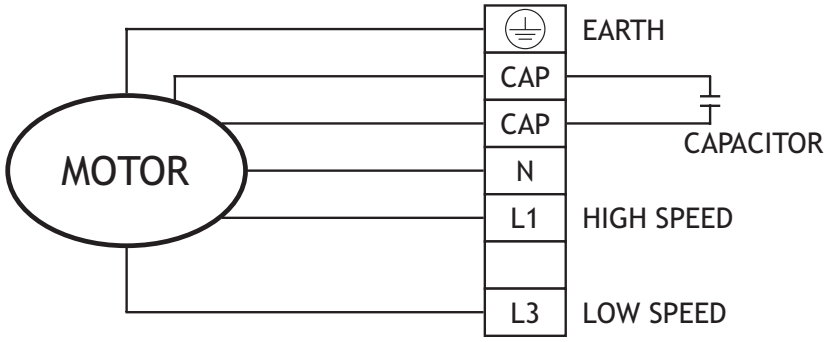


Airflow Conversion Chart



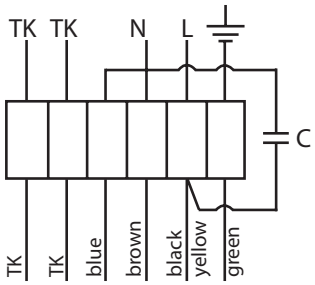
Cubic meter / hour [m³/h]
1000 m³/h = 588,5 cfm
1000cfm = 1700 m³/h
1 cfm = 1.7 m³/h

CIL / FM



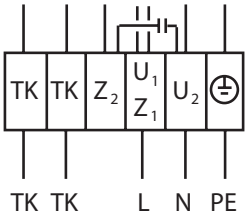
LRE

(External Rotor wiring Diagram)
Single Phase AC Motor 230V with operating capcitor and thermal contact.



Size 190 - 355

Clockwise – Rotation

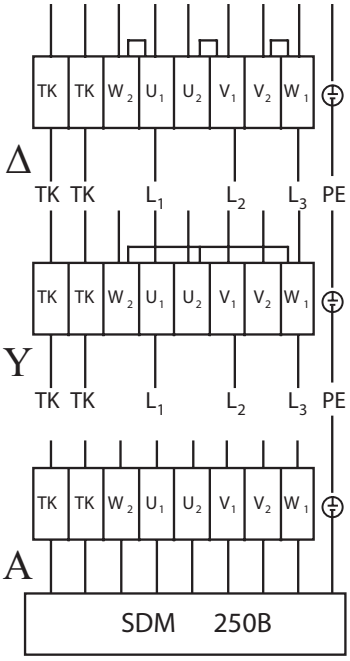


Size 400 - 500

U1 = brown
U2 = blue
Z1 = black
Z2 = orange
TK = white
PE = yellow

LRD

(External Rotor wiring Diagram)
Three phase Motor 400V, Three phase motor with 2 speeds by Δ / Y connection

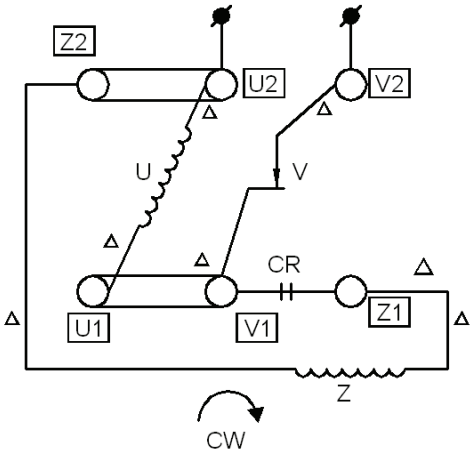


U1 = brown
V1 = blue
W1 = black
U2 = red
V2 = grey
W2 = orange
Δ = Connection for high speed
Y = Connection for low speed
A = Utilisation of SDM 250B

Size 400 - 500

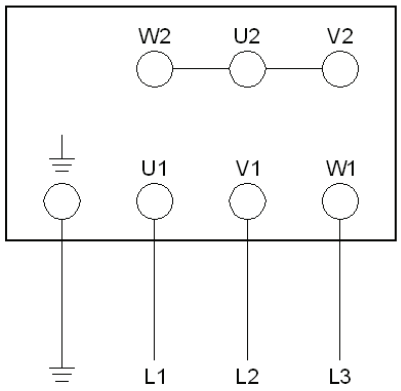
LRE

(Induction Motor Connection Diagram)
Single Phase AC Motor 230V



LRD

(Induction Motor Connection Diagram)
Three Phase AC Motor With Cage Rotor



STAR CONNECTION

TERMINAL BLOCK CONNECTION DIAGRAMS

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LTI-Ventilation Fans-JAN-2015

*subject to technical modification