

LONGAR® Type 2

High Performance Premium Baffle Filter



LONGAR® TYPE 2 FEATURES:

- 100% Flame barrier protection to DIN 18869-5.
- Cutsafe safety edges.
- Fully welded construction – all stainless steel construction.
- Meets insurance requirements.
- Meets HVCA DW172 requirements.
- Folding handles and drainholes as standard.
- Robust baffle filter construction – built to last.
- Tested & certified to European standard DIN 18869-5.
- Tested & certified to American standard UL1046.
- Tested & certified to ASTM2519.

APPLICATIONS

- Commercial kitchens
- Water mist separation
- Spark arrestors
- Sand filtration
- Grease filtration

LONGAR® TYPE 2 PREMIUM BAFFLE FILTER

For use in commercial kitchens and ventilation to extract grease laden air and act as a fire barrier. Fire barriers prevent any cooking flames traveling past the extract canopy. The new Type 2 is a development of customers requesting certain attributes for the baffle filter, the main ones being safety edges on frame and blades. LONGAR® Type 2 is available in standard depths of 20mm and 45mm depths, this is required for the filter to operate at a constant efficiency and to protect the system as a flame barrier as tested to European Standard DIN 18869-5 and American Standard UL1046. Custom sizes are available on request.

CONSTRUCTION / MATERIAL SPECIFICATIONS

As standard all baffles are manufactured with Stainless Steel 430 polished finish, (Other finishes and materials are available). Maximum Operating temperature 400C or 750F.

FITTING INSTRUCTIONS

- Fit products, handles in direction of air in.
- Product vertical in air stream.

HANDLING

- Handle with care when unpacking.
- Store in dry and frost protected place.

MAINTENANCE

- All maintenance should be carried out in accordance with the planned maintenance set by installation contractor.
- When handling any components suitable PPE should be used - gloves, eye protection and access equipment.
- Filters should be cleaned by a trained operative either daily for heavy use or weekly for light use.
- For more exact guide to cleaning you should contact a cleaning specialist.

PACKAGING

- All units are packaged in double wall boxes with separators for standard sizes, glued closed for protection whilst in transit against contamination.

FILTER CLASSIFICATION:

- Filter Class G2
- UL Class 2

TESTED TO:

- DIN 18869-5
- UL 1046
- ASTM 2519

MANUFACTURED TO:

- DW172
- ISO9001

For technical specifications, part numbers and ordering information, please see overleaf.

LONGAR® Type 2

High Performance Premium Baffle Filter

TECHNICAL SPECIFICATIONS

Longar specifies the baffle filter as height x width x thickness. The handles are fixed to the height and drain holes punched on the width. The length of the baffle blade is the height; please ensure correct orientation is given when ordering.

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Filter Free Area
TYPE2ST10X20X2	243 x 496 x 45mm	254 x 508 x 50mm	1.40kgs	0.08m ²
	9.57 x 19.53 x 1.77"	10 x 20 x 2"	3.08lbs	0.86ft ²
TYPE2ST12X20X2	295 x 496 x 45mm	304 x 508 x 50mm	1.61kgs	0.09m ²
	11.61 x 19.53 x 1.77"	12 x 20 x 2"	3.54lbs	1.02ft ²
TYPE2ST16X16X2	395 x 395 x 45mm	406 x 406 x 50mm	1.54kgs	0.10m ²
	15.55 x 15.55 x 1.77"	16 x 16 x 2"	3.39lbs	1.05ft ²
TYPE2ST16X20X2	395 x 496 x 45mm	406 x 508 x 50mm	1.96kgs	0.13m ²
	15.55 x 19.53 x 1.77"	16 x 20 x 2"	4.31lbs	1.40ft ²
TYPE2ST18X18X2	444 x 444 x 45mm	457 x 457 x 50mm	1.98kgs	0.13m ²
	17.48 x 17.48 x 1.77"	18 x 18 x 2"	4.36lbs	1.40ft ²
TYPE2ST20X16X2	496 x 395 x 45mm	508 x 406 x 50mm	1.93kgs	0.12m ²
	19.53 x 15.55 x 1.77"	20 x 16 x 2"	4.25lbs	1.32ft ²
TYPE2ST20X20X2	496 x 496 x 45mm	508 x 508 x 50mm	2.41kgs	0.16m ²
	19.53 x 19.53 x 1.77"	20 x 20 x 2"	5.30lbs	1.76ft ²
TYPE2ST24X24X2	597 x 597 x 45mm	609 x 609 x 50mm	3.15kgs	0.24m ²
	23.50 x 23.50 x 1.77"	24 x 24 x 2"	6.93lbs	2.56ft ²
FINAL RECOMMENDED PRESSURE DROP: 400 PASCALS				

Pressure drop and airflow information available on request.



LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

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As part of our program for continuous improvement, Longar Ltd reserves the right to change specifications without notice. 15-01-2016.

THE MERLIN RANGE

MERLIN CT1250 SYSTEM

The Merlin CT1250 ventilation interlock system, with built in current monitoring, is designed specifically for use in commercial kitchens to meet BS6173. This panel is to be used when the kitchen appliances do have flame failure devices, therefore Gas proving is not a requirement.

The Merlin CT1250 acts as an interlock between the ventilation system and the gas solenoid valve.

The system has built in current monitors in order to interlock with up to 2 fans and offers an alternative to using air pressure differential switches.



Key Features of the Merlin CT1250 System

- Allows Compliance with BS6173 for commercial kitchens
- To be used when all appliances have flame failure devices
- 2 built in current monitors can be easily adjusted to the user's requirements
- Reliable method of interlock, with no moving parts there's little to go wrong
- BMS Terminals Normally Closed or Normally open and common.
- Will accept remote emergency knock-off buttons.
- Can monitor up to 20 amp running current.
- Clear LED display for system indications
- Can be used when pressure differential switches cannot be used e.g. wall-mounted fans
- Straightforward to install and calibrate. The CT1250 can be easily adjusted to the user's requirements
- Easy installation
- Covered by S&S Northern Ltd 3 year warranty.

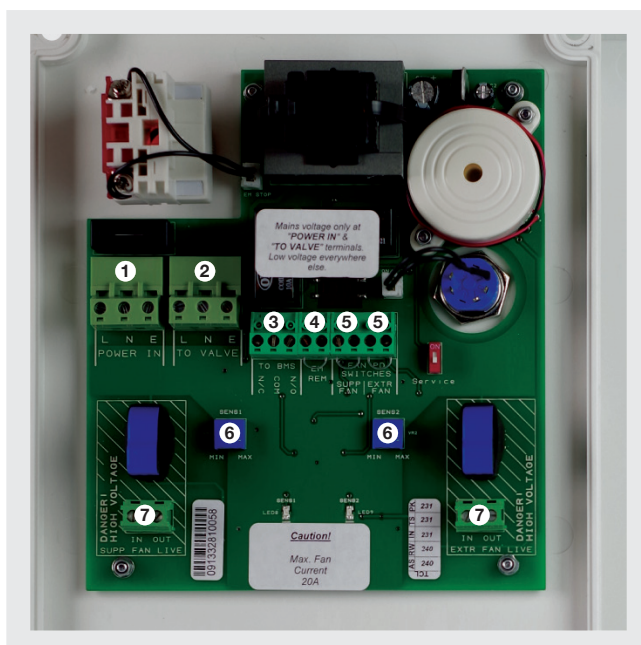


KITCHEN EQUIPMENT ENGINEERED TO MEET BS6173

When the fan is turned “on” the CT1250 monitors the electrical current going to the fan motor, when there is sufficient current going to the fan motor our panel receives a signal to indicate the fans are operating. Turning the key to the “on” position will open the gas solenoid valve. If the fans should fail, the “fan fault” LED on the panel will illuminate and the gas solenoid valve will close.

When there is a “fan fault” the supply fan or extract fan led on the Merlin CT1250 panel fascia will flash. This informs the electrician or kitchen staff which fan has failed. Operating the system in the above manner will ensure the requirements of BS6173 are fully met where all the catering equipment has flame failure devices fitted. Wiring of the system is straightforward using volt free connections for all BMS and remote emergency stops. A Gas Safe engineer would be required to fit the gas solenoid valve.

Calibration of the current monitor is easy, once wired set the fan speed controller to setting 1 (or low setting) for example. Turn the blue rotary switches anti-clockwise until the green LED goes out, and then slowly turn clockwise until the green LED is again illuminated. This indicates the current is being detected going to the fan motor, if the fan is turned off or faulty the LED will switch off and the system will go into a ‘fan fault’ and shut off the gas.



Merlin CT1250 System Wiring Diagram

1. 230v AC Supply
2. 230v AC output to valve
3. Terminal for BMS connections
4. Remote emergency stop Input
5. Fan sensor input- close when fan on -
(for use with PD switches)
6. Pots are adjusted to increase or decrease sensitivity
7. Live wire going to the fan goes in and back out onto the fan

S&S Northern has a full technical team available on 01257 470 983
or if you are based in the South East please call 01702 291 725

Merlin CT1250 Box Dimensions

Height	254mm
Length	178mm
Depth	62mm

S&STM
NORTHERN
www.snsnorthern.com

LONGAR® Type II

Pleated Panel Filters



LONGAR® TYPE II FEATURES:

- Moisture resistant cardboard frame.
- G4 efficiency to provide a good base level of filtration.
- Fully supported media bonded to expanded mesh grid.
- The filtering media is bonded to the case to eliminate air by-pass.
- Strong, robust construction.
- Extended surface area.
- High dust holding capacity.
- Dimensions of product are part marked into frame for positive ID.

APPLICATIONS

- Hotels
- Offices
- Food production
- Air conditioning
- Hospitals
- Pre-filtration asbestos removal

LONGAR® TYPE II PLEATED PANEL FILTER

Used in a variety of HEVAC applications where higher level air cleanliness is needed over the standard pre filters. Glass media is unacceptable in food and pharmaceutical industries and in some hospital areas. Especially useful where the installation requires a combination of high arrestance coupled with control over smaller particles. The high capacity version is selected when space is at a premium; filter sizes match the rated capacities of bag filters.

CONSTRUCTION / MATERIAL SPECIFICATIONS

The LONGAR® Type II is manufactured with pleated synthetic media, and an expanded diamond grid with 97% open area. The casing is constructed from a heavy duty rigid water resistant card, with support members along the diagonals. The media is bonded to the support grid and the frame in order to avoid the possibility of air bypass. The case is designed for minimum resistance and maximum free area, the case is also crease formed to stop moisture ingress. The product can be manufactured in a variety of depths from 22mm to 97mm deep. Optional metal frame available as shown above.

22mm (1") Filters are 9 Pleats per 300mm (1ft)
47mm (2") Filters are 9 Pleats per 300mm (1ft)
97mm (4") Filters are 9 Pleats per 300mm (1ft)

TYPE II HIGH CAPACITY PLEATED PANEL

We are able to manufacture the Type II with increased filter media over the standard product, for situations where an increase in air volume is required.

22mm (1") Filters are 12 Pleats per 300mm (1ft)
47mm (2") Filters are 12 Pleats per 300mm (1ft)
97mm (4") Filters are 12 Pleats per 300mm (1ft)

TYPE II HIGH EFFICIENCY PLEATED PANEL

Where situations arise we manufacture the Type II with a higher grade of filter media, F6, F7, F8 are available.

LONGAR® TYPE II IMPREGNATED CARBON PLEATED PANELS

For less demanding situations the use of impregnated media can be considered. They utilise non-woven synthetic media, which is then impregnated with activated carbon. They offer an alternative to our granular carbon systems however they cannot offer either the life span or dwell time that can be found with the rest of the range.

For technical specifications, part numbers and ordering information, please see overleaf.

LONGAR® Type II

Pleated Panel Filters

FITTING INSTRUCTIONS

- Fit products, observe direction of airflow indicator

HANDLING

- Handle with care when unpacking.
- Store in dry and frost protected place.

MAINTENANCE

- All maintenance and replacement schedules will be set by the original equipment installer. Please refer to this for more information.
- When handling any components suitable PPE should be used – gloves, eye protection and access equipment should be used where required.
- Filters should not be cleaned but replaced when required in accordance with maintenance schedule set by the installation contractor.

PACKAGING

All units are packaged in double wall boxes, glued closed for protection whilst in transit against contamination.

TECHNICAL SPECIFICATIONS

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Available Efficiencies *
PPF24824822	248 x 248 x 22mm	254 x 254 x 25mm	0.07kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	9.76 x 9.76 x 0.87"	10 x 10 x 1"	0.15lbs	
PPF49624822	496 x 248 x 22mm	508 x 254 x 25mm	0.14kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 9.76 x 0.87"	20 x 10 x 1"	0.31lbs	
PPF29329322	293 x 293 x 22mm	304 x 304 x 25mm	0.09kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	11.54 x 11.54 x 0.87"	12 x 12 x 1"	0.21lbs	
PPF59429422	594 x 294 x 22mm	609 x 304 x 25mm	0.19kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.39 x 11.57 x 0.87"	24 x 12 x 1"	0.41lbs	
PPF37537522	375 x 375 x 22mm	381 x 381 x 25mm	0.15kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	14.76 x 14.76 x 0.87"	15 x 15 x 1"	0.34lbs	
PPF49637522	496 x 375 x 22mm	508 x 381 x 25mm	0.19kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 14.76 x 0.87"	20 x 15 x 1"	0.41lbs	
PPF49639622	496 x 396 x 22mm	508 x 406 x 25mm	0.20kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 15.59 x 0.87"	20 x 16 x 1"	0.43lbs	
PPF62039622	620 x 396 x 22mm	635 x 406 x 25mm	0.24kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 15.59 x 0.87"	25 x 16 x 1"	0.53lbs	
PPF44844822	448 x 448 x 22mm	457 x 457 x 25mm	0.19kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	17.64 x 17.64 x 0.87"	18 x 18 x 1"	0.42lbs	
PPF49649622	496 x 496 x 22mm	508 x 508 x 25mm	0.24kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 19.53 x 0.87"	20 x 20 x 1"	0.52lbs	
PPF59649622	596 x 496 x 22mm	609 x 508 x 25mm	0.27kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 19.53 x 0.87"	24 x 20 x 1"	0.60lbs	
PPF62049622	620 x 496 x 22mm	635 x 508 x 25mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 19.53 x 0.87"	25 x 20 x 1"	0.63lbs	
PPF59659622	596 x 596 x 22mm	609 x 609 x 25mm	0.31kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 23.46 x 0.87"	24 x 24 x 1"	0.68lbs	
PPF24824847	248 x 248 x 47mm	254 x 254 x 50mm	0.12kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	9.76 x 9.76 x 1.85"	10 x 10 x 2"	0.26lbs	

Pressure drop and airflow information available on request.

LONGAR® Type II

Pleated Panel Filters

TECHNICAL SPECIFICATIONS

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Available Efficiencies *
PPF49724347	497 x 243 x 47mm	508 x 254 x 50mm	0.21kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.57 x 9.57 x 1.85"	20 x 10 x 2"	0.45lbs	
PPF29329347	293 x 293 x 47mm	304 x 304 x 50mm	0.15kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	11.54 x 11.54 x 1.85"	12 x 12 x 2"	0.33lbs	
PPF59628947	596 x 289 x 47mm	609 x 304 x 50mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 11.38 x 1.85"	24 x 12 x 2"	0.61lbs	
PPF37237247	372 x 372 x 47mm	381 x 381 x 50mm	0.22kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	14.65 x 14.65 x 1.85"	15 x 15 x 2"	0.48lbs	
PPF39439447	394 x 394 x 47mm	406 x 406 x 50mm	0.25kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	15.51 x 15.51 x 1.85"	16 x 16 x 2"	0.54lbs	
PPF49637547	496 x 375 x 47mm	508 x 381 x 50mm	0.27kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 14.76 x 1.85"	20 x 15 x 2"	0.60lbs	
PPF49639647	496 x 396 x 47mm	508 x 406 x 50mm	0.29kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 15.59 x 1.85"	20 x 16 x 2"	0.63lbs	
PPF62039647	620 x 396 x 47mm	635 x 406 x 50mm	0.34kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 15.59 x 1.85"	25 x 16 x 2"	0.75lbs	
PPF44644647	446 x 446 x 47mm	457 x 457 x 50mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	17.56 x 17.56 x 1.85"	18 x 18 x 2"	0.61lbs	
PPF49649647	496 x 496 x 47mm	508 x 508 x 50mm	0.34kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 19.53 x 1.85"	20 x 20 x 2"	0.75lbs	
PPF59639647	596 x 396 x 47mm	609 x 406 x 50mm	0.33kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 15.59 x 1.85"	24 x 16 x 2"	0.73lbs	
PPF59649647	596 x 496 x 47mm	609 x 508 x 50mm	0.39kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 19.53 x 1.85"	24 x 20 x 2"	0.87lbs	
PPF62049647	620 x 496 x 47mm	635 x 508 x 50mm	0.39kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 19.53 x 1.85"	25 x 20 x 2"	0.87lbs	
PPF59659647	596 x 596 x 47mm	609 x 609 x 50mm	0.47kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 23.46 x 1.85"	24 x 24 x 2"	1.02lbs	
PPF24824897	248 x 248 x 97mm	254 x 254 x 102mm	0.22kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	9.76 x 9.76 x 3.82"	10 x 10 x 4"	0.49lbs	
PPF49624897	496 x 248 x 97mm	508 x 254 x 102mm	0.38kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 9.76 x 3.82"	20 x 10 x 4"	0.84lbs	
PPF29329397	293 x 293 x 97mm	304 x 304 x 102mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	11.54 x 11.54 x 3.82"	12 x 12 x 4"	0.61lbs	
PPF59728997	597 x 289 x 97mm	609 x 304 x 102mm	0.48kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.50 x 11.38 x 3.82"	24 x 12 x 4"	1.06lbs	

Pressure drop and airflow information available on request.

LONGAR® Type II

Pleated Panel Filters

TECHNICAL SPECIFICATIONS

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Available Efficiencies *
PPF37537597	375 × 375 × 97mm	381 × 381 × 102mm	0.41kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	14.76 × 14.76 × 3.82"	15 × 15 × 4"	0.90lbs	
PPF39639697	396 × 396 × 97mm	406 × 406 × 102mm	0.44kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	15.59 × 15.59 × 3.82"	16 × 16 × 4"	0.97lbs	
PPF49637597	496 × 375 × 97mm	508 × 381 × 102mm	0.49kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 × 14.76 × 3.82"	20 × 15 × 4"	1.08lbs	
PPF49639697	496 × 396 × 97mm	508 × 406 × 102mm	0.52kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 × 15.59 × 3.82"	20 × 16 × 4"	1.15lbs	
PPF62039697	620 × 396 × 97mm	635 × 406 × 102mm	0.61kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 × 15.59 × 3.82"	25 × 16 × 4"	1.33lbs	
PPF44644697	446 × 446 × 97mm	457 × 457 × 102mm	0.52kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	17.56 × 17.56 × 3.82"	18 × 18 × 4"	1.14lbs	
PPF49649697	496 × 496 × 97mm	508 × 508 × 102mm	0.66kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 × 19.53 × 3.82"	20 × 20 × 4"	1.46lbs	
PPF59639697	596 × 396 × 97mm	609 × 406 × 102mm	0.59kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 × 15.59 × 3.82"	24 × 16 × 4"	1.29lbs	
PPF59649697	596 × 496 × 97mm	609 × 508 × 102mm	0.69kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 × 19.53 × 3.82"	24 × 20 × 4"	1.52lbs	
PPF62049697	620 × 496 × 97mm	635 × 508 × 102mm	0.71kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 × 19.53 × 3.82"	25 × 20 × 4"	1.56lbs	
PPF59659697	596 × 596 × 97mm	609 × 609 × 102mm	0.79kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 × 23.46 × 3.82"	24 × 24 × 4"	1.74lbs	
FINAL RECOMMENDED PRESSURE LOSS: 250 PASCALS				

Pressure drop and airflow information available on request.

- *Efficiency required to be confirmed at a time of ordering.



LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

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As part of our program for continuous improvement, Longar Ltd reserves the right to change specifications without notice. 15-01-2016.



Range of low profile plate mounted axial fans fitted with plastic impellers with fiberglass, single phase motor (HCFB) or three phase motor (HCFT), IP65 (1), Class F insulation (2), equipped with thermal protection (3).

(1) Ø 800, 900 and 1000 models are IP55.

(2) Working temperatures from -40°C up to +70°C. Except models 4-710 suitable up to +55°C and models Ø 800 to 1000 suitable for usage in environments from -20°C to +40°C.

(3) Except models 800 to 1000.

Motors

Available, depending upon the model, with single or three phase motors in 2, 4 or 6 poles.

All motors are speed controllable by autotransformer except 2 pole and /4-630, 710, T/800, T/900 and T/1000.

Three phase models are speed controllable by inverter.

Electrical supplies:

Single phase 220-240V-50Hz.

[Capacitor located inside the wiring terminal box].

Three phase 220-240/380-415V-50Hz or 380-415V-50Hz.

[See characteristic chart].

Additional information

Standard air direction: form (A) configuration.

[Motor over Impeller].

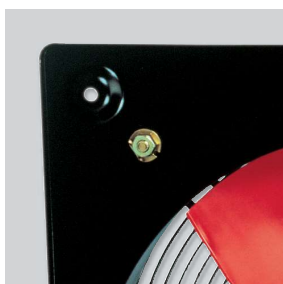
On request

Inlet finger proof guard for models Ø 800 to 1000.



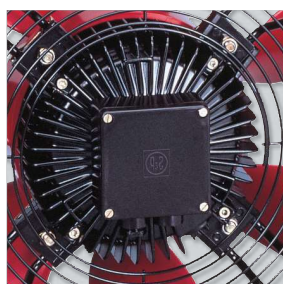
Compact design

Compact design created by the combination of the motor with the factory matched direct drive wrap around impeller hub.



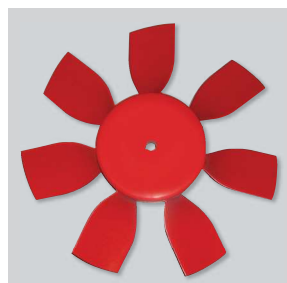
Corrosion resistance

Mounting plate, motor support and finger proof guard protected by cataforesis primer and black polyester paint finish. Stainless steel screws.



Terminal box

Wiring terminal box with cable gland PG-11.



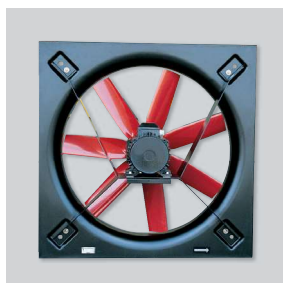
Impeller dynamically balanced

Impellers are dynamically balanced, according to ISO 1940 standard, giving vibration free operation.



Manufacturing variations

Multiple manufacturing variations, depending on the type of installation and use conditions.



Configuration for models Ø 800 to 1000

Special design of motor over impeller, which provides compactness and tightness IP55.



Range of low profile plate mounted axial fans fitted with aluminium impellers and single phase motor (HCBB) or three phase motor (HCBT), IP65 (1), Class F insulation (2), equipped with thermal protection (3).

- (1) Models 800, 900 and 1000 are IP55.
 (2) Working temperatures from -40°C up to +70°C.
 Except models 4-710 suitable up to +55°C
 and models Ø 800, 900 and 1000 suitable
 for usage in environments from -20°C to +40°C.
 (3) Except models Ø 800 to 1000.

Motors

Available, depending upon the model, with single or three phase motors in 4 or 6 poles. All motors are speed controllable by autotransformer except models /4-630, B/710, T/4-710, T/800, T/900 and T/1000. Three phase models are speed controllable by inverter.

Electrical supplies:

- Single phase 220-240V-50Hz.
 (Capacitor located inside the wiring terminal box).
 Three phase 220-240/380-415V-50Hz or 380-415V-50Hz.
 (See characteristic chart).

Additional information

Standard air direction: form (A) configuration. (Motor over Impeller).

On request

Inlet finger proof guard for models Ø 800 to 1000.

ATEX Versions HCBT

On request, explosion proof versions in accordance with ATEX Directive, for three phase models.

- Motors IP55, Class F
- ATEX Flameproof-Gas
 In standard ATEX version flameproof motors are without thermal protection.
 If used with frequency inverter, flameproof motors with a PTC-type thermal protection must be specified at order.
 For models 800 to 1000mm
 Ⓜ II 2G Ex d IIB T4
 Ⓜ II 2G Ex d IIB+H2 T4 (with Ex d IIC T4)
- ATEX Increased safety-Gas
 Except models HCBT/ 4-250, HCBT/ 6-355, HCBT/ 6-400
 Available model HCBT/ 6-400 with 230/400 V motor
 Available models to HCBT-1000
 Ⓜ II 2G Ex e II T3
- ATEX Dust
 In standard ATEX version, ATEX motors for dust are without thermal protection.
 If used with frequency inverter, ATEX motors for dust with a PTC-type thermal protection must be specified at order.
 For models 800 to 1000mm
 Suspended flammable particles and non-conductive dust:
 Ⓜ II 3D Ex tc IIB T125°C
 Conductive dust:
 Ⓜ II 3D Ex tc IIC T125°C (with IP65 motor)

Working temperatures for ATEX versions:

- 20°C to +55°C
 models HCBT/4-315 to HCBT/4-710
 models HCBT/6-450 to HCBT 6-710
- 20°C to +40°C
 model HCBT/4-800 to 1000
 model HCBT/6-800 to 1000

To select HCBT ATEX refer to Easyvent.

Note electrical data may vary for ATEX motors.

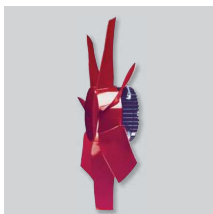
Specific applications



Versions



PROTECTION



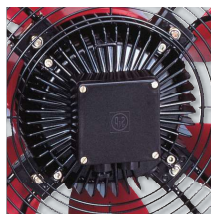
Compact design

Compact design created by the combination of the motor with the factory matched direct drive wrap around impeller hub.



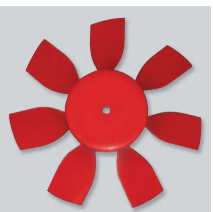
Corrosion resistance

Mounting plate, motor support and finger proof guard protected by cataforesis primer and black polyester paint finish. Stainless steel screws.



Terminal box

Wiring terminal box with cable gland PG-11.



Impeller dynamically balanced

Impellers are dynamically balanced, according to ISO 1940 standard, giving vibration free operation.



Manufacturing variations

Multiple manufacturing variations, depending on the type of installation and use conditions.



Configuration for models Ø 800 to 1000

Special design of motor over impeller, which provides compactness and tightness IP55.

TECHNICAL CHARACTERISTICS WITH ALUMINIUM IMPELLERS

Before making any electrical connection ensure that the voltage and frequency of the mains electrical supply matches that of the fan data plate label.

Model	Speed (r.p.m.)	Diameter (mm)	Maximum absorbed power (W)	Maximum current (A)		Sound pressure level* (dB(A))	Maximum airflow (m³/h)	Weight (kg)	Speed controller		Inverter control	
				230 V	400 V				REB	RMT**	VFTM**	VFKB**
SINGLE PHASE 4 POLE												
HCBB/4-250/H	1325	250	84	0,4	–	49	1.130	5	REB-1	–	–	–
HCBB/4-315/H	1235	315	124	0,7	–	55	2.220	7	REB-1	–	–	–
HCBB/4-355/H	1385	355	193	0,9	–	59	3.590	8	REB-2,5	–	–	–
HCBB/4-400/H	1360	400	315	1,5	–	62	4.830	9	REB-2,5	–	–	–
HCBB/4-450/H	1410	450	626	2,8	–	65	7.180	13	REB-5	–	–	–
HCBB/4-500/H	1370	500	762	3,3	–	68	8.850	16	REB-5	–	–	–
HCBB/4-560/H	1390	560	1433	6,5	–	70	13.400	22	REB-10	–	–	–
HCBB/4-630/H	1360	630	1879	8,3	–	71	16.720	25	–	–	–	–
SINGLE PHASE 6 POLE												
HCBB/6-355/H	900	355	84	0,4	–	48	2.230	8	REB-1	–	–	–
HCBB/6-400/H	845	400	112	0,5	–	51	3.010	9	REB-1	–	–	–
HCBB/6-450/H	935	450	191	0,8	–	54	4.400	13	REB-2,5	–	–	–
HCBB/6-500/H	915	500	244	1,1	–	57	5.620	16	REB-2,5	–	–	–
HCBB/6-560/H	930	560	449	1,9	–	59	8.950	22	REB-2,5	–	–	–
HCBB/6-630/H	915	630	588	2,9	–	62	10.950	25	REB-5	–	–	–
THREE PHASE 4 POLE												
HCBT/4-250/H	1330	250	81	0,3	0,2	49	1.120	5	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/4-315/H	1330	315	125	0,5	0,3	55	2.380	7	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/4-355/H	1380	355	181	0,8	0,5	59	3.530	8	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/4-400/H	1340	400	283	1,2	0,7	62	5.020	9	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/4-450/H	1350	450	547	1,7	1,0	65	6.800	13	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/4-500/H	1390	500	809	2,7	1,6	68	9.140	16	–	RMT-2,5	VFTM-Tri 0,55	VFKB-45
HCBT/4-560/H	1390	560	1287	4,0	2,3	70	12.950	22	–	RMT-2,5	VFTM-Tri 0,75	VFKB-45
HCBT/4-630/H	1385	630	1736	5,4	3,1	73	16.840	25	–	–	VFTM-Tri 1,1	VFKB-45
HCBT/4-710/H	1350	710	2554	7,6	4,4	74	22.400	27	–	–	VFTM-Tri 2,2	VFKB-45
HCBT/4-800/L-X-1,5	1410	800	2632	7,3	4,2	78	23.290	37	–	–	VFTM-Tri 1,5	VFKB-45
HCBT/4-800/H-X-3	1440	800	4595	12,8	7,4	84	33.100	52	–	–	VFTM-Tri 4	VFKB-48
HCBT/4-900/L-X-3	1450	900	3909	12,0	6,9	82	34.270	62	–	–	VFTM-Tri 3	VFKB-48
HCBT/4-900/H-X-5,5	1455	900	7893		13,4	87	46.270	96	–	–	VFTM-Tri 5,5	–
HCBT/4-1000/L-X-3	1415	1000	5048	14,2	8,2	86	39.910	67	–	–	VFTM-Tri 4	VFKB-48
HCBT/4-1000/H-X-7,5	1470	1000	8675		14,6	93	53.700	101	–	–	VFTM-Tri 7,5	–
THREE PHASE 6 POLE												
HCBT/6-355/H	900	355	91	0,3	0,2	48	2.270	8	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/6-400/H	840	400	120	0,5	0,3	51	3.050	9	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/6-450/H	925	450	198	0,9	0,5	54	4.620	13	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/6-500/H	905	500	282	1,1	0,6	57	6.190	16	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/6-560/H	895	560	401	1,4	0,8	59	8.650	22	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/6-630/H	910	630	596	2,3	1,3	62	10.950	25	–	RMT-1,5	VFTM-Tri 0,37	VFKB-45
HCBT/6-710/H	950	710	953	4,7	2,7	65	15.350	27	–	RMT-5	VFTM-Tri 1,5	VFKB-45
HCBT/6-800/L-X-0,55	940	800	1025	3,3	1,9	73	17.600	31	–	–	VFTM-Tri 0,75	VFKB-45
HCBT/6-800/H-X-0,75	935	800	1309	4,2	2,4	75	20.630	36	–	–	VFTM-Tri 1,1	VFKB-45
HCBT/6-900/L-X-1,1	960	900	1341	4,8	2,8	74	23.700	54	–	–	VFTM-Tri 1,5	VFKB-45
HCBT/6-900/H-X-1,5	955	900	2289	7,3	4,2	78	32.300	57	–	–	VFTM-Tri 1,5	VFKB-45
HCBT/6-1000/L-X-1,1	940	1000	1855	5,9	3,4	79	28.810	56	–	–	VFTM-Tri 1,5	VFKB-45
HCBT/6-1000/H-X-1,5	940	1000	2392	7,7	4,4	83	34.300	60	–	–	VFTM-Tri 2,2	VFKB-45

* Sound pressure level measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1,5 meters.

** Three phase speed controllers (RMT) or inverter control (VFKB/VFTM): three phase 400V.

REFERENCE

H	C	F	T	/	4	-	4	0	0	/	H	A							
1	2	3	4		5		6				7	8							

- 1 - H:** Compact plate axial fan.
- 2 - C:** Series designation.
- 3 - Impeller type:**
 - F:** Ø 250-Ø 630 Fixed blade plastic impeller.
 - Ø 710 - Ø 1000 Aluminium impeller hub + adjustable plastic blade impellers.
 - G:** Adjustable plastic blade impellers.
 - B:** Ø 250-Ø 400 Fixed blade aluminium impeller Ø 450 - Ø 1000 Adjustable blade aluminium impeller.
- 4 - Electrical supply:**
 - B:** Single phase.
 - T:** Three phase.
- 5 - Number of poles:**
 - 2:** (approx. 2900 rpm - 50 Hz)
 - 4:** (approx. 1400 rpm - 50 Hz)
 - 6:** (approx. 900 rpm - 50 Hz)
- 6 - Nominal diameter of impeller (mm).**
- 7 - Pitch angle.**
 - H:** High.
 - I, L:** Low.
- 8 - Direction of air:**
 - A:** Motor over impeller.
- 9 - Special construction:**
 - X:** Motor support without inlet finger guard.
 - L:** Weatherproof protected.
- C:** Condensation drain holes on motor.
- EX:** Explosion proof versions in accordance to ATEX Directive, for three phase models:
 - EXE: Increased safety II2G EExIIIT3
 - EXD: Flame proof, only for models 800 and 1000 II2G EExdIIBT5 or EExdIICT4
- G:** Special corrosion treatment for agricultural applications.
- TF:** With anticorrosive Teflon paint finish.

SUPPLY VOLTAGES AND FREQUENCIES



Mains supply voltage	Motor type	Connection	Speed
SINGLE PHASE 220V 50Hz, 240V 50Hz	230V 50Hz	See wiring diagram	High
THREE PHASE 220V 50Hz 240V 50Hz	230/400V 50Hz		High
			Low*
THREE PHASE 380V 50Hz 415V 50Hz	230/400V 50Hz		High
	400V 50Hz		High
			Low*

* From sizes 450 up to 630 mm diameter.

ACOUSTIC CHARACTERISTICS

The sound levels shown in the technical characteristic chart and performance curves, correspond to the value of sound pressure dB(A), measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1.5 meters.

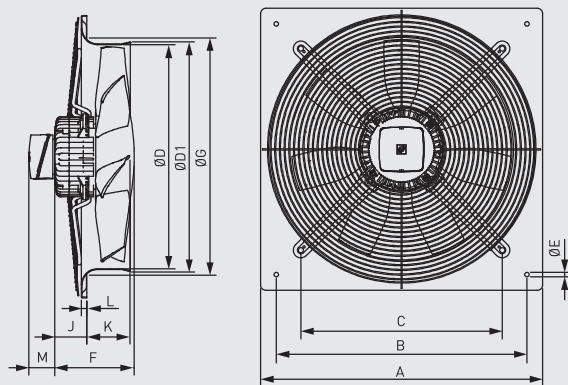
Sound power level spectrum in dB(A) at the corresponding frequency band in Hz and the point of maximum flow.

Model	63	125	250	500	1000	2000	4000	8000	LwA
HCGB/2-315	50	61	68	70	72	69	64	58	77
HCGT/2-315	55	66	73	75	77	74	69	63	82
HCGB/2-355	55	66	73	75	77	74	69	63	82
HCGT/2-355	55	70	69	77	82	78	73	66	85

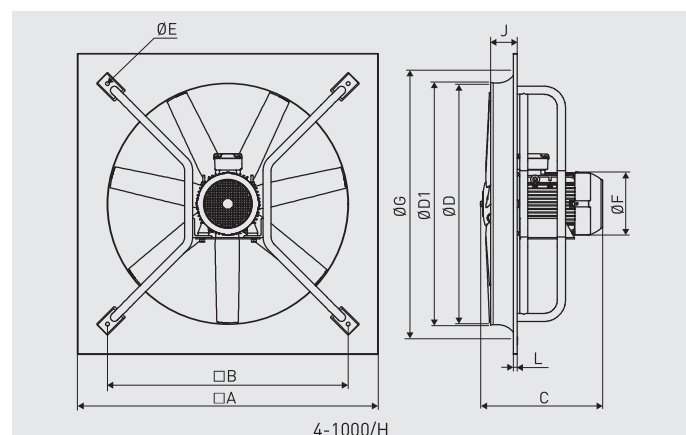
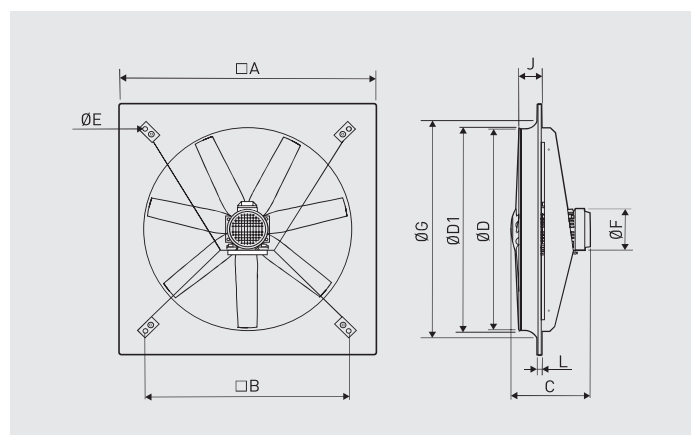
Model	63	125	250	500	1000	2000	4000	8000	LwA
/4-250/H	31	45	52	57	58	57	52	44	63
/4-315/H	42	53	60	62	64	61	56	50	69
/4-355/H	43	58	57	65	70	66	61	54	73
/4-400/H	48	61	62	68	73	69	66	57	76
/4-450/H	46	65	62	68	75	74	69	62	79
/4-500/H	49	68	68	74	78	76	72	65	82
/4-560/H	57	70	74	78	80	78	74	67	85
/4-630/H	57	72	76	81	85	82	79	72	89
/4-710/H	58	75	83	85	87	85	81	72	92
/4-800/L	58	77	87	93	93	89	83	76	97
/4-800/H	64	83	93	99	99	95	89	82	103
/4-900/L	59	81	91	97	98	94	88	80	102
/4-900/H	64	86	96	102	103	99	93	85	107
/4-1000/L	62	85	95	101	102	98	93	84	106
/4-1000/H	69	92	102	107	109	105	100	90	113

Model	63	125	250	500	1000	2000	4000	8000	LwA
/6-315/H	32	43	50	52	54	51	46	40	59
/6-355/H	32	47	46	54	59	55	50	43	62
/6-400/H	37	50	51	57	62	58	55	46	65
/6-450/H	35	54	51	57	64	63	58	51	68
/6-500/H	38	57	57	63	67	65	61	54	71
/6-560/H	46	59	63	67	69	67	63	56	74
/6-630/H	46	61	65	70	74	71	68	61	78
/6-710/H	49	66	74	76	78	76	72	63	83
/6-800/L	52	71	81	87	87	83	77	70	91
/6-800/H	54	73	83	89	89	85	79	72	93
/6-900/L	51	73	83	89	90	86	80	72	94
/6-900/H	55	77	87	93	94	90	84	76	98
/6-1000/L	56	78	89	94	96	92	86	77	100
/6-1000/H	60	83	93	99	100	96	91	82	104

DIMENSIONS (mm)

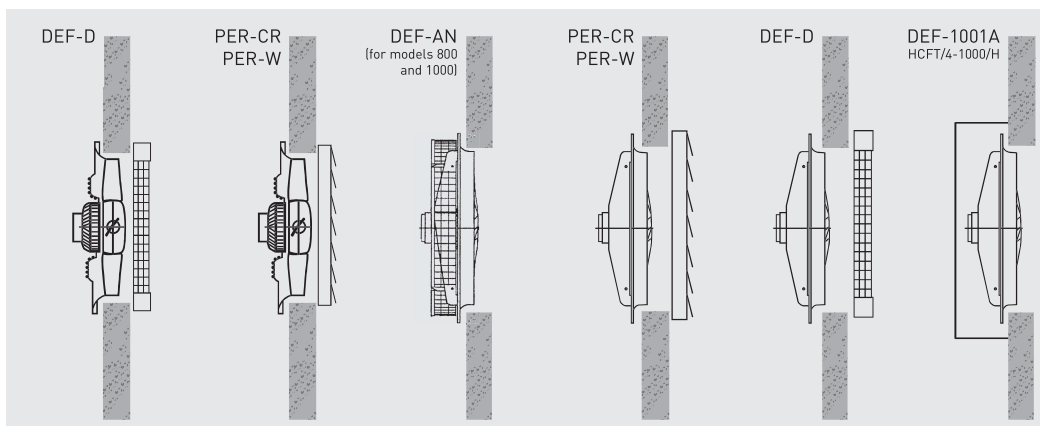
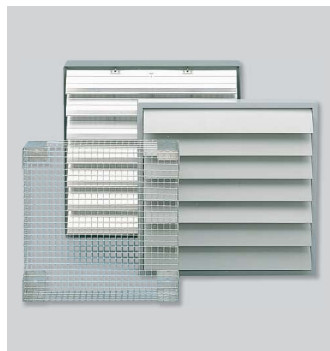


Model				Ø D	Ø D1	Ø E	F			Ø G	J			K	L	M	
	A	B	C				Number of poles				Number of poles					Three phase	Single phase
							/2	/4	/6		/2	/4	/6				
250	315	260	220	254	261	10		122		294		59		53	12	60	65
315	400	330	280	315	320	10	129	122	122	329	45	32	32	68	12	60	65
355	450	380	315	355	363	10	129	129	129	371	45	45	45	75	12	60	65
400	500	420	355	400	410	10		129	129	422		40,5	40,5	78	12	60	65
450	560	480	400	450	457	10		150	150	476		48	48	91	12	60	65
500	630	560	450	500	512	10		150	150	536		44,5	44,5	97	12	60	65
560	710	630	510	560	570	10		218,5	150	596		110,5	42	98,5	12	60	65
630	800	710	580	630	640	12		218,5	150	674		110,5	41	103	12	60	65
710	900	800	636	710	720	12		220	218.5	733		114	134	91.5	16.5	60	65



Modelo	A	B	Ø D	Ø D1	Ø E	J	Ø G	C				Ø F			
								/4		/6		/4		/6	
								L	H	L	H	L	H	L	H
800	1000	800	800	810	18	92	926	363	442	318	363	180	200	160	180
900	1120	900	900	910	18	120	1060	442	512	400	400	200	280	200	200
1000	1250	1000	1000	1010	18	110	1154	442	-	345	400	200	-	200	200
4-1000/H	1250	1000	1000	1010	16	110	1154	-	512	-	-	-	280	-	-

MOUNTING ACCESSORIES



Model HCFB/HCFT HCBB/HCBT	Wire Protection Guards		Exhaust Side Louvre Shutters		
	Outlet	Inlet	Plastic	Aluminium	ATEX version*
250	DEF-250 D	-	PER-250 W	PER-250 CR	PER-315 Ex
315	DEF-325 D	-	PER-355 W	PER-355 CR	PER-315 Ex
355	DEF-375 D	-	PER-355 W	PER-355 CR	PER-355 Ex
400	DEF-450 D	-	PER-400 W	PER-400 CR	PER-400 Ex
450	DEF-450 D	-	PER-450 W	PER-450 CR	PER-450 Ex
500	DEF-525 D	-	PER-500 W	PER-500 CR	PER-500 Ex
560	DEF-630 D	-	PER-560 W	PER-630 CR	PER-560 Ex
630	DEF-630 D	-	PER-630 W	PER-630 CR	PER-630 Ex
710	DEF-800 D	-	PER-710 W	PER-710 CR	PER-710 Ex
800	DEF-800 D	DEF-800 AN	PER-800 W	PER-800 CR	-
/4-900/H	DEF-1000 D	DEF-900 AN	PER-1000 W	PER-1000 CR	-
/4-900/L	DEF-1000 D	DEF-901 AN	PER-1000 W	PER-1000 CR	-
/6-900	DEF-1000 D	DEF-901 AN	PER-1000 W	PER-1000 CR	-
1000	DEF-1000 D	DEF-1000 AN	PER-1000 W	PER-1000 CR	-
/4-1000 / H	DEF-1000 D	DEF-1001 AN	PER-1000 W	PER-1000 CR	-

* Three phase speed controllers (RMT) or inverter control (VFKB/VFTM): three phase 400V.

ELECTRICAL ACCESSORIES



REB-1N / REB-2,5N

Single phase electronic speed controllers.



REB-5 REB-10

Single phase electronic speed controllers.



RMT

Three phase auto transformer speed controllers.



REB-4 Auto

Electronic single phase speed controllers with temperature sensor. For agricultural applications.



VFTM TRI IP54

Adjustable frequency drive for three phase motors from 0,37 to 15 kW. 230 V or 400 V.



VFKB IP65

Adjustable frequency drives for three phase motors from 0,37 to 4 kW 230 V or 400 V.

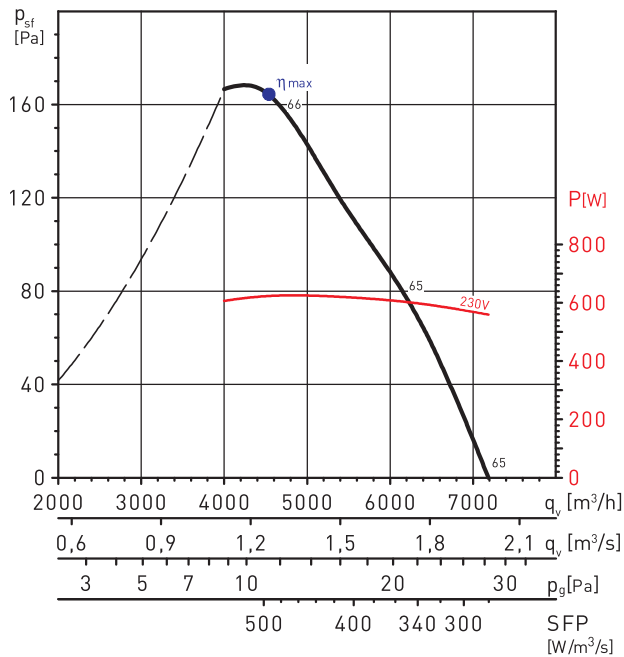


COM D/S

To connect three phase fans with 400 V motor. For three phase models.

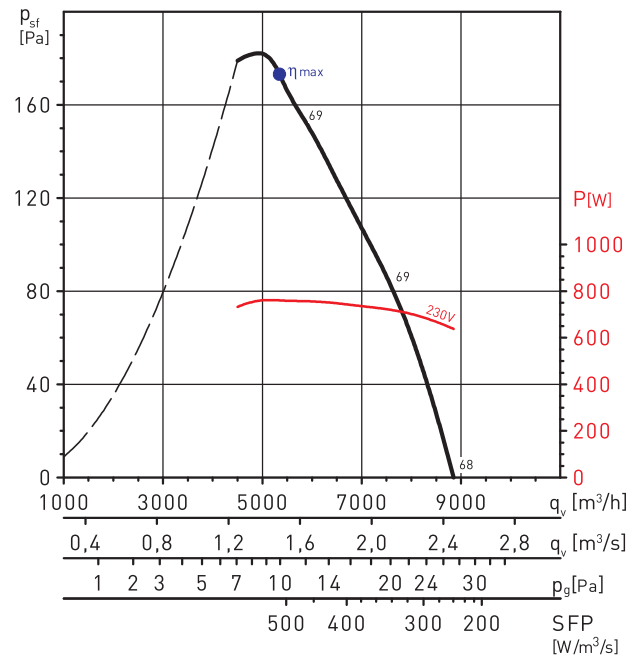
PERFORMANCE CURVES - 4 POLE MOTORS

HCBB/4-450/H



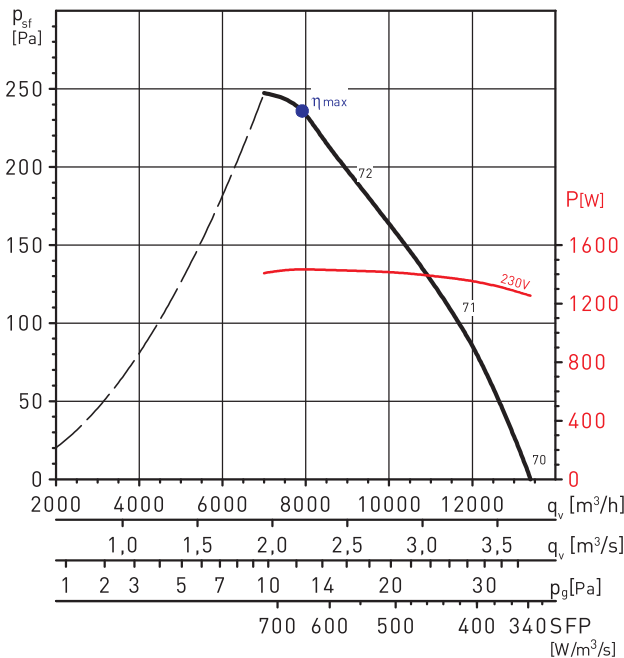
MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
A	Static	No	1	33,2	40,8	0,623	4538	164	1390

HCBB/4-500/H



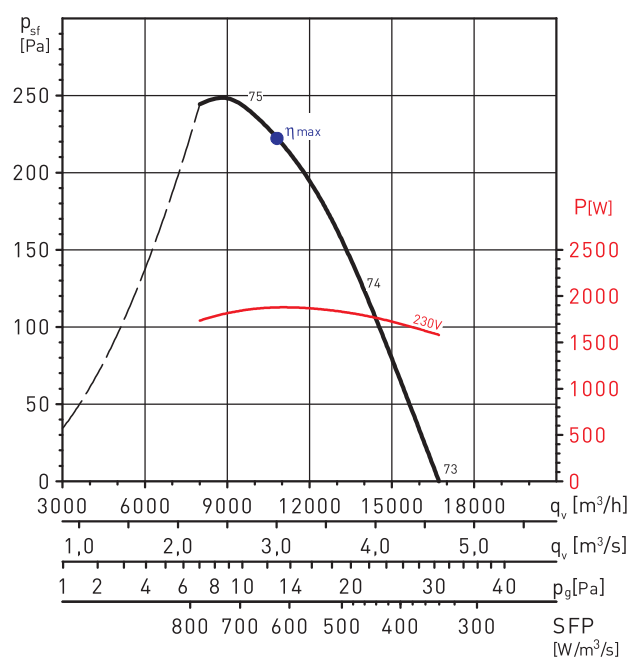
MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
A	Static	No	1	33,6	40,7	0,760	5336	172	1322

HCBB/4-560/H



MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
A	Static	No	1	36,0	41,3	1,433	7896	235	1367

HCBB/4-630/H



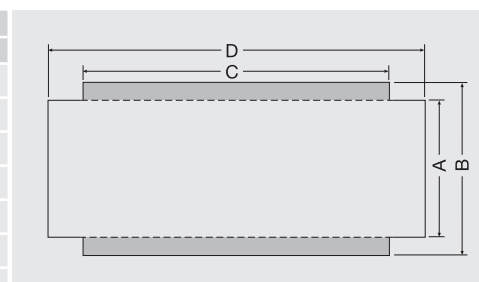
MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
A	Static	No	1	35,6	40,2	1,878	10817	223	1305



SIL

Sound attenuator to reduce noise transmission to ducting system. In galvanized steel.

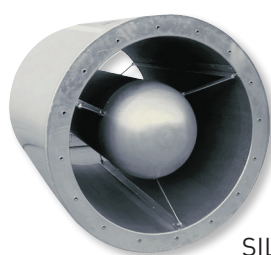
Model	ØA (mm)	ØB (mm)	C (mm)	D (mm)	Weight (kg)	Attenuation in dB							
						63	125	250	500	1000	2000	4000	8000
SIL 125	125	225	600	700	5,08	4	6	10	19	28	33	25	18
SIL 160	160	250	600	700	6,53	2	4	8	16	26	26	23	10
SIL 200	200	300	600	700	8,63	0	3	7	16	22	20	13	10
SIL 250	250	355	600	700	12,9	1	2	6	13	19	15	8	6
SIL 315	315	415	600	700	14,5	0	1	4	10	12	7	4	4
SIL 355	355	450	900	1050	16,9	1	2	6	14	18	12	6	5
SIL 400	400	500	900	1050	16,9	1	2	5	13	15	8	3	2
SIL 450	450	560	900	1050	22,4	1	2	5	13	13	6	4	3
SIL 500	500	630	900	1050	26,4	1	2	4	13	11	3	4	2
SIL 560	560	670	900	1050	26,5	2	4	7	12	12	12	10	2
SIL 630	630	710	900	1100	30,4	1	1	4	10	11	8	9	6



SIL-CZ / SIL-CZO



SIL-CZ



SIL-CZO

SIL CZ

Casing pre-galvanised sheet steel Z200 of thickness 0,8 mm.

Mounting flange with threaded insert.

Acoustic miner wool density 70kg/m³ with erosion resistant facing with M0 fire resistance.

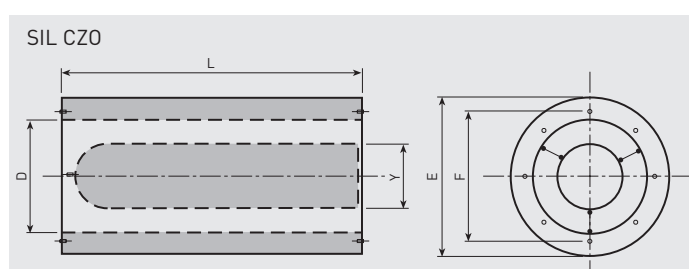
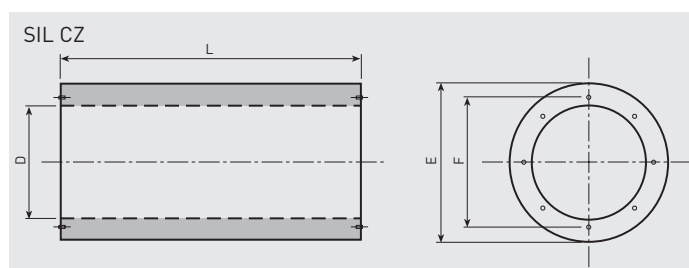
SIL CZO

As SIL CZ but with internal pod for extra attenuation.

On request

Version with stainless steel casing.

Ø nominal (mm)	ØD (mm)	ØE (mm)	ØF (mm)	Holes		ØY (mm)	L		
				nº	Type		ØDx1	ØDx1,5	ØDx2
400	400	540	450	8	M10	200	400	600	800
450	450	610	500	8	M10	250	450	675	900
500	500	660	560	12	M10	250	500	750	1000
560	560	720	620	12	M10	300	560	840	1120
630	630	790	690	12	M10	300	630	945	1260
710	710	870	770	16	M10	380	710	1065	1420
800	800	1000	860	16	M10	380	800	1200	1600
900	900	1100	970	16	M12	380	900	1350	1800
1000	1000	1200	1070	16	M12	650	1000	1500	2000
1120	1120	1320	1190	20	M15	650	1120	1680	2240
1250	1250	1450	1320	20	M12	650	1250	1875	2500
1400	1400	1600	1470	20	M15	650	1400	2100	2800
1600	1600	1800	1680	24	M12	650	1600	2400	3200



Square Duct Fans - ESTOC Range



Features

- Sizes from 355 to 710 mm diameter
- Air flow 1,900 m³/h (5.2 m³/s)
- Static pressures up to 1150 Pa
- Maximum temperature from +40° C to +70° C (depending on the model)
- Adjustable external rotor motors
- Multiple outlet orientations

Electrical Supply

220 - 240V / 50Hz / 1 Ph
380 - 420V / 50Hz / 3 Ph

Sizes

355, 400, 450, 500, 560, 630 and 710.

Features and Construction

The Estoc casing is made from galvanized sheet steel with PentaPost construction and acoustic insulation made from mineral wool with a thickness of 20 mm.

Impeller

The Estoc has a backward curved centrifugal impellers made of plastic with galvanised steel support plates for those up to 450 mm. Fans with a diameter of 500 mm and larger have high efficiency backward curved centrifugal impellers made of aluminium.

Motor

The impellers together with the external rotor motors are dynamically balanced to quality standard G2,5 DIN ISO 19410

Speed Controllers

Speed is 100% infinitely variable using auto transformers or electronic control (please see page 99).

Product Code

Estoc 50-355-3

- ESTOC - Product Name
- 50 = Box Size ie, 50 = 500mm; 67 = 670mm; 80 = 800mm;
102 = 1020mm
- 355 = Spigot Diameter size
- 3 = 3 Phase or 1 Phase

Accessories

The range of accessories include dampers, flexible connectors, service doors, outlet covers, guards, side covering and insulating connections . A quick reference guide is shown below. For full details on these items please see pages 57-62.



SFC



SSC



SAD



SOC



SWR



CIG

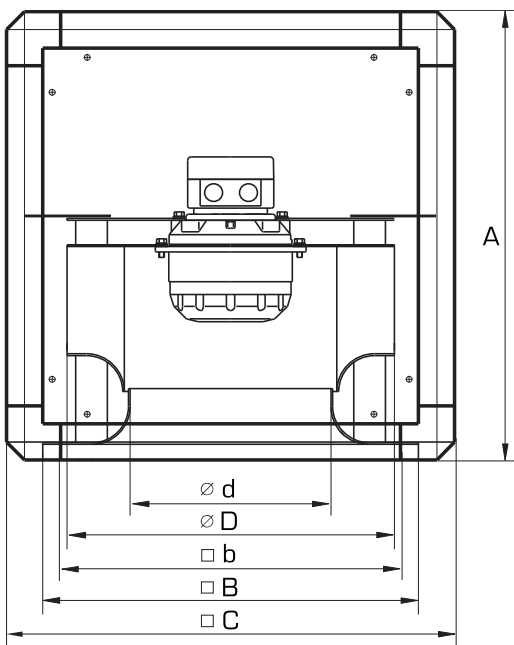
Electrical Details and Sound Levels

Product Code	Product Number	Speed rpm	Motor Frame	Electrical Supply	Electrical Current			Wiring Diagrams	Maximum Operating Temp °C	Breakout * Sound Level db(A) (3m)	** Speed Controllers Transformer
					Motor (kW)	Full Load Current (A)	Starting Current (A)				
ESTOC 50-355-1	UB503514	1325	Integral	220-240 V-50 Hz-1 Ph	0.29	1.25	2.5	CD3005	55	33	T
ESTOC 50-355-3	BI101216	1355	Integral	380-420V-50 Hz-3 Ph	0.3	0.66	2.18	CD3003	50	34	I
ESTOC 50-355-3	UB503544	1355	Integral	380-420 V-50 Hz-3 Ph	0.3	0.66	2.18	CD3003	50	34	T
ESTOC 67-400-1	UB674414	1360	Integral	220-240 V-50 Hz-1 Ph	0.53	2.4	4.9	CD3005	45	45	T
ESTOC 67-400-3	BI101217	1335	Integral	380-420V-50 Hz-3 Ph	0.48	0.9	2.88	CD3003	50	37	I
ESTOC 67-400-3	UB674044	1355	Integral	380-420 V-50 Hz-3 Ph	0.48	0.9	2.88	CD3003	50	37	T
ESTOC 67-450-1	UB674514	1270	Integral	220-240 V-50 Hz-1 Ph	0.76	3.5	7.35	CD3005	45	41	T
ESTOC 67-450-3	BI101218	1240	Integral	380-420V-50 Hz-3 Ph	0.67	1.33	3.46	CD3003	50	37	I
ESTOC 67-450-3	UB674544	1240	Integral	380-420 V-50 Hz-3 Ph	0.67	1.33	3.46	CD3003	50	37	T
ESTOC 67-500-1	UB675514	1310	Integral	220-240 V-50 Hz-1 Ph	1.57	7.3	16.79	CD3005	40	45	T
ESTOC 67-500-3	BI101219	1380	Integral	380-420V-50 Hz-3 Ph	1.8	3.7	17.76	CD3003	40	44	I
ESTOC 67-500-3	UB675044	1380	Integral	380-420 V-50 Hz-3 Ph	1.8	3.7	17.76	CD3003	40	44	T
ESTOC 80-560-3	BI101220	1350	Integral	380-420V-50 Hz-3 Ph	2.5	4.8	20.16	CD3003	40	47	I
ESTOC 80-560-3	UB805644	1350	Integral	380-420 V-50 Hz-3 Ph	2.5	4.8	20.16	CD3003	40	44	T
ESTOC 80-630-3	BI101221	1380	Integral	380-420V-50 Hz-3 Ph	3.65	6.6	27.72	CD3003	45	55	I
ESTOC 80-630-3	UB806344	1380	Integral	380-420 V-50 Hz-3 Ph	3.65	6.6	27.72	CD3003	45	55	T
ESTOC 102-710-3	BI101222	890	Integral	380-420V-50 Hz-3 Ph	2.45	4.7	18.8	CD3003	45	49	I
ESTOC 102-710-3	UB107166	890	Integral	380-420 V-50 Hz-3 Ph	2.45	4.7	18.8	CD3003	45	49	T

Key: T = Transformer, I = Inverter

*Sound power levels are average dBA at 3 metres distance over sphere, under free field conditions and are presented for comparative purposes only. Values taken at the mid point on the wave at the highest point. **For speed controllers, please see page 99.

Drawings and Dimensions



Product Code	A	B	b	C	Ø D	Ø E	Weight max (kg)
ESTOC 50-355	500	450	420	500	365	224	33
ESTOC 67-400	670	620	590	670	404	253	49
ESTOC 67-450	670	620	590	670	454	286	58
ESTOC 67-500	670	620	590	670	504	321	66
ESTOC 80-560	800	720	690	800	570	361	95
ESTOC 80-630	800	720	690	800	634	407	105
ESTOC 102-710	1020	940	910	1020	718	438	157

All dimensions in mm

Wiring Diagrams

CD3003



CD3005



Clockwise

TEID – TRANSFORMER SINGLE PHASE

INDEPENDENT DRIVE

FEATURES

- Independent transformer 5 step speed control for fans with off position
- Supply: 230 VAC, 50/60 Hz, 1 Phase
- IP54 ingress protection
- Switch: 5 positions with off-position
- Indicator light
- Current fuse
- 230 VAC unregulated output
- Ready mounted cable glands
- Enclosure: plastic (R-ABS, UL94-V0, grey RAL 7035) or sheet steel (RAL 7035)
- Max ambient temperature: 50°C

DESCRIPTION

Our TEID transformer speed controllers are based on the principle of voltage control using autotransformers. They are applicable to single phase voltage controllable motors (230 V, 50/60 Hz) to control the rotational speed of fans in five steps.

RANGE

To ensure correct drive selection, please choose a drive that has an amp rating that is equal to or above the fan motor full load current (FLC).

Model	TEID1A	TEID1.5A	TEID2.2A	TEID3.5A	TEID5A	TEID7.5A	TEID13A
Part	EA900000	EA900001	EA900002	EA900003	EA900004	EA900005	EA900006
Lmax (A)	1	1.5	2.2	3.5	5	7.5	13
Fuse (A)	1.25	2.5	3.15	5	8	10	20
IP Rate	IP54	IP54	IP54	IP54	IP54	IP54	IP54

TRANSFORMER SETTINGS AND WIRING DIAGRAM

The order of switching and the voltage corresponding to each step of a particular switch can be changed by moving the internally mounted clip connectors within this transformer unit. Factory defaults are shown below:

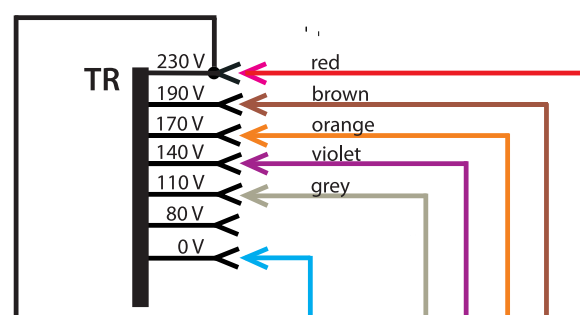
Voltage Tap	0	80	110	140	170	190	230
SWITCH POSITION			1	2	3	4	5

L-N - Power supply 230 VAC, 50/60 Hz

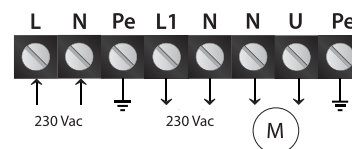
L1 N1 - Unregulated output 230 VAC (2 A)

N-U - Motor connection

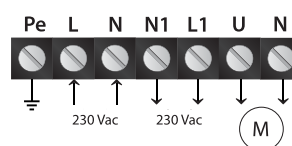
Pe - Earth connections



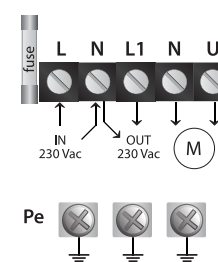
TEID1A



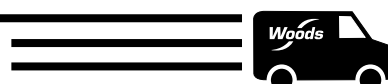
TEID1.5A-2.2A



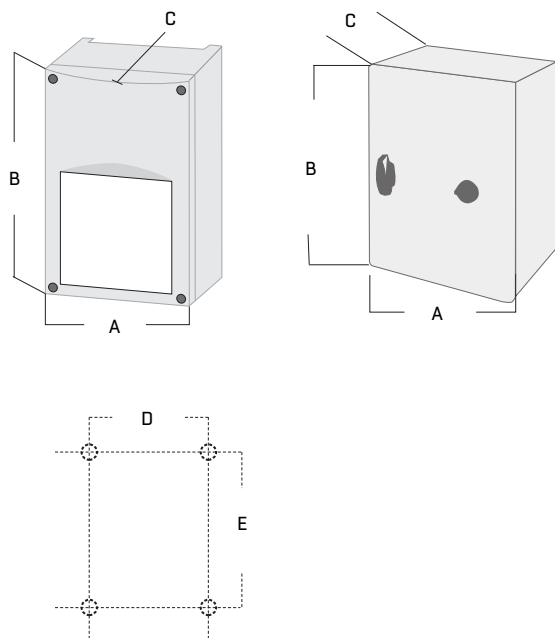
TEID3.5A-13A



Products in **bold** are available from our UK Distributors on next day delivery, if ordered by 4pm. Please call to confirm availability on 01206 222 555.



DIMENSIONS AND WEIGHTS



Model	A	B	C	D	E	Net kg	Gross kg	Enclosure
TEID1A	84	160	88	71	108	1.2	1.3	Plastic
TEID1.5A	115	205	100	98	140	1.9	2.1	Plastic
TEID2.2A	115	205	100	98	140	2.1	2.3	Plastic
TEID3.5A	170	255	140	155	194	4.5	4.7	Plastic
TEID5A	170	255	140	155	194	5	5.4	Plastic
TEID7.5A	200	305	140	183	236	7.6	8	Plastic
TEID13A	300	185	185	255	255	14.8	15.3	Steel

COMPATIBILITY

Our TEID Speed controller is suitable for use with single phase voltage controllable motors.

MOUNTING

Break (Isolate) mains voltage. Ensure that this controller is mounted on a smooth flat surface. Connect voltage supply, motor(s) and earth as shown in the scheme with cables of the proper diameter.

ISOLATION AND WIRING (SEE DIAGRAM ON PREVIOUS PAGE)

A safety isolator/disconnect switch should be installed on the mains electricity side of all motor drives; Please refer to SISO product.

MOTOR PROTECTION

If motors are fitted with thermostat (Tk) overheat protection it is recommended to use the TEDS range to utilise this feature.

TRANSPORT AND STOCK KEEPING

Avoid shocks and extreme conditions. Stock in original packing.

WARRANTY

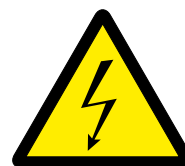
Any modifications or alterations to the product relieve the manufacturer of all responsibility. The manufacturer bears no responsibility for any misprints or mistakes in this data, and modifications or improvements to the product can be made at any time after date of publication.

MAINTENANCE

In normal conditions our controllers are maintenance-free. If external surfaces requires light cleaning, please use a dry or slightly damp cloth. If heavy cleaning is needed, then we recommend the use of a non-aggressive cleaning product. Particular attention should be paid to ensure that no fluids enter the controller. Only reconnect the controller to the mains electrical supply when it is completely dry.



General danger



Electrical hazard

All works may only be carried out by skilled personnel following the local regulations and AFTER the controller is completely isolated from the mains. Replace fuse only with same type and rating.

ALSO AVAILABLE FROM THE **WOODS** RANGE



**JMv
Aerofoil**



MaXfan²



**JM
Aerofoil**



**HT JM
Aerofoil**



**JM
Bifurcated**



Series 33



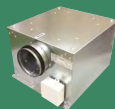
Plate Fans



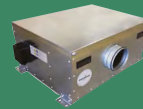
**Cased &
Plate Axial
Accessories**



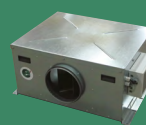
Tube Fans



**Sabina EC
Box Fans**



**Daisho AC
Box Fans**



**Daisho EC
Box Fans**



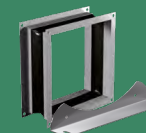
Estoc



Estoc Targe



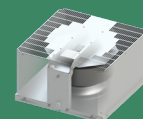
Estoc EC



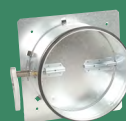
**Tube & Box
Accessories**



**Roof Units
Horizontal**



**Roof Units
Vertical**



**Fire
Dampers**



**Iris
Dampers**



Fire Valves



**Valves
Supply KE**



**Valves
Extract KK**



**Valves
Exhaust
VEFS**



**Nozzles DK
& DR**



**Louvres/
Cowls
EYMA and
DYMA**



**External
Louvres
USAV**



Controllers

Selected products available from our UK Distributors on next day delivery, if ordered by 4pm. Please call 01206 222 555 for more information.





HIGH PERFORMANCE CASED AXIAL MAXFAN COMPAC

PRODUCT FACTS

- Volumes up to 4.9m³/s
- Static Pressures up to 900 Pa (Non-stalling characteristic)
- Fans tested to ISO5801 and BS848
- High efficiency energy saving IE2 motor
- Low breakout noise levels
- Motor protection and terminal block IP55 (DW172 & Defra Compliant)
- Ambient temperatures up to 80°C (dependent on size)
- Overheat protection as standard
- Compact robust light weight construction
- Galvanised casing for high corrosion resistance
- Full inverter control and flexibility

ELECTRICAL SUPPLY

230v/50Hz/1 Ph (3 Ph Motor) - L Type

TEMPERATURE RANGE

Suitable for temperatures up to 80°C*

*dependent on the fan size, please refer to the specific fan technical page.

SIZES

315, 355, 400, 450, 500, 560 and 630 mm

IMPELLERS

A unique high efficiency aerofoil section blade with a smoothed hub and clamp plate offers a high efficiency solution.

The Fläkt Woods impellers are all high pressure die cast to offer thin aerofoil sections for low generation of noise. Every cast aluminium component is X-ray examined using Real Time Radiography inspection prior to assembly. The maximum pitch angles shown allow for speed control by frequency inverter.

MOTORS

All motors are totally enclosed air stream rated with class F insulation. Constructed from aluminium or cast iron as standard with special pad mounted fixings. Although this product incorporates a three phase electric motor, by using a matched inverter solution it is suitable for use with a single phase electrical supply on site. In addition, using a frequency inverter allows the speed to be turned down to 20% of maximum speed. Suitable for horizontal or vertical shaft operation. Supplied IP55, with removable drain plugs.

Sealed for life bearings lubricated with wide temperature range grease. The complete range of motors are fitted with Thermistor OHP as standard. Motors are IE2 efficiency class as standard.



CASING

The MaXfan Compac is available with a galvanised casing, complete with an externally mounted pre-wired electrical terminal box. Casings are spun from sheet steel with integral pre-drilled and radiused inlet flanges. The galvanised finish gives a high resistance to corrosion and is ideal for external as well as internal use.

PRODUCT CODE

40 MaXfan Compac

- 40 - denotes the fan impeller diameter in centimetres



Mounting Feet



Rubber AV's



Flexible
Connector &
Clips



0-10v
Potentiometer



Silencer
B10/B20 Standard
& Melinex



Matching Flange



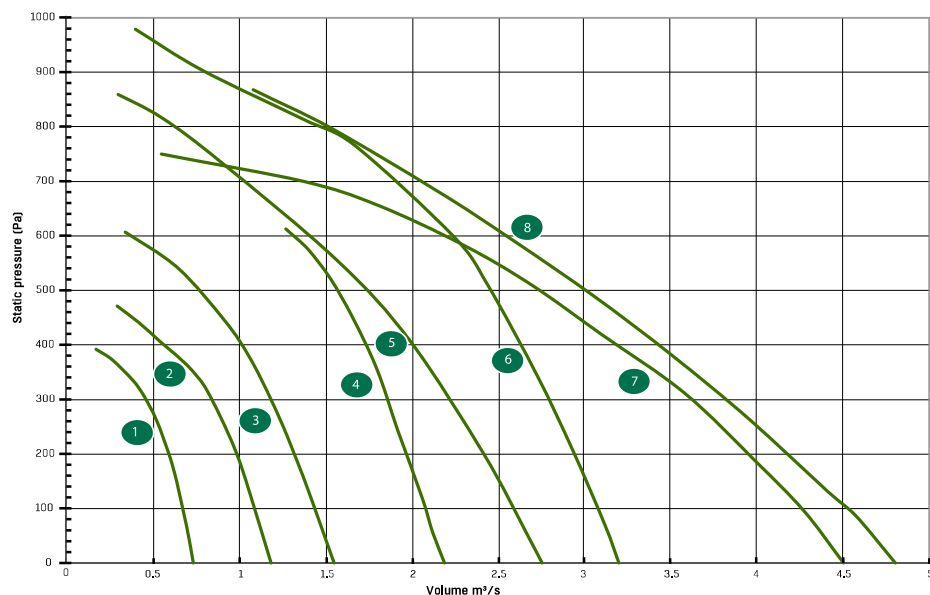
Damper



Acoustic Jacket

MAXFAN COMPAC PRODUCT PERFORMANCE & ELECTRICAL DATA

220-240V/50HZ/1 ϕ L TYPE PERFORMANCE CHART



PERFORMANCE TABLE

Ref	Part Number	Fan Description	m³/s @ Pa (Static)											
			0	50	100	200	300	400	500	600	700	800	900	
1	EJ313266	31 MaXfan Compac	0.74	0.71	0.68	0.59	0.46							
2	EJ353266	35 MaXfan Compac	1.19	1.14	1.09	0.99	0.85	0.57						
3	EJ413456	40 MaXfan Compac	1.55	1.49	1.44	1.31	1.18	1.02	0.78	0.41				
4	EJ463266	45 MaXfan Compac	2.19	2.14	2.07	1.98	1.87	1.74	1.58	1.33	0.89	0.6	0.35	
5	EJ513255	50 SC MaXfan Compac	2.77	2.67	2.59	2.42	2.23	1.99	1.72	1.4	1.04	0.61		
6	EJ513266	50 MaXfan Compac	3.21	3.15	3.09	2.97	2.78	2.64	2.47	2.25	2.00	1.48	0.81	
7	EJ563236	56 MaXfan Compac	4.54	4.4	4.22	3.96	3.62	3.24	2.78	2.25	1.33			
8	EJ623236	63 MaXfan Compac	4.87	4.66	4.52	4.19	3.81	3.44	3.00	2.51	2.1	1.53	0.79	

PRODUCT AND ELECTRICAL TABLE

Ref	Part Number	Fan Description	Temperature (°C)	Frame	kW	Max Input Amps	FLC (A)	SC (A)	Phase	Voltage	Inverter Model	Wiring Diagram	Breakout Sound Level dB(A) @ 3m	Fan Weight (kg)	Casing Length (mm)
1	EJ313266	31 MaXfan Compac	80	80	0.9	11.6	3.3	18.7	1	230	4.2	CD3042	45	33	375
2	EJ353266	35 MaXfan Compac	80	80	0.9	11.6	3.3	18.7	1	230	4.2	CD3042	45	33	375
3	EJ413456	40 MaXfan Compac	80	80	1.32	18.7	5.1	25.5	1	230	6.8	CD3042	40	35	375
4	EJ463266	45 MaXfan Compac	55	80	1.32	18.7	5.1	25.5	1	230	6.8	CD3042	43	37	375
5	EJ513255	50 SC MaXfan Compac	65	80	1.73	18.7	6.3	35.5	1	230	6.8	CD3042	49	32	375
6	EJ513266	50 MaXfan Compac	65	90	2.64	26.4	9.4	52.8	1	230	9.6	CD3042	48	51	520
7	EJ563236	56 MaXfan Compac	70	90	2.64	26.4	9.4	52.8	1	230	9.6	CD3042	48	55	520
8	EJ623236	63 MaXfan Compac	55	90	2.64	26.4	9.4	52.8	1	230	9.6	CD3042	50	61	520

For ErP efficiency ratings and grades please refer to our Fan Selector for more information. For speed controllers please see pages 250-297.

Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only.

Products in **bold** are available from our UK Distributors on next day delivery, if ordered by 4pm. Please call to confirm availability on 01206 222 580.





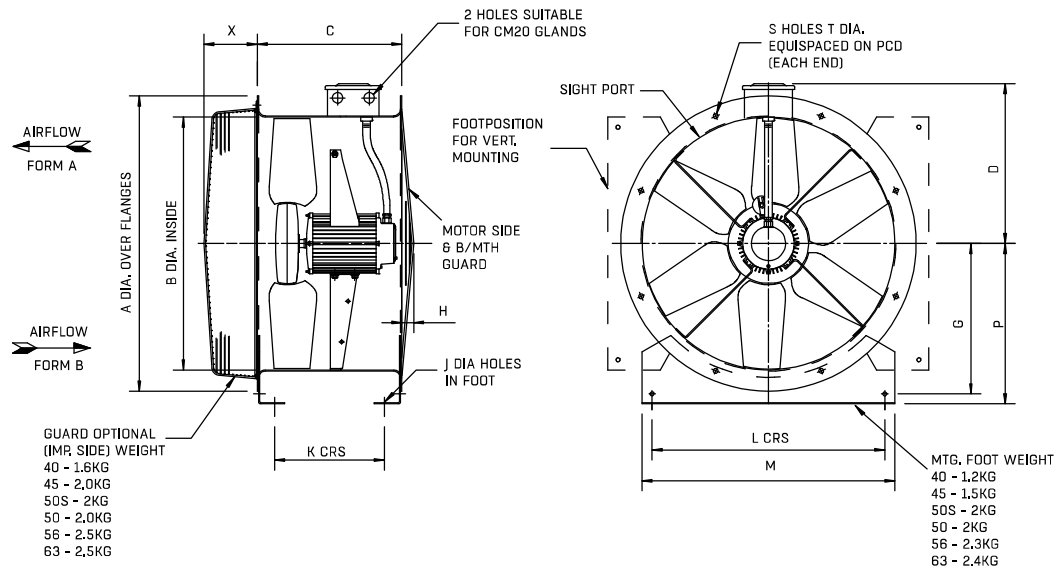
SOUND DATA - MAXFAN COMPAC

Fan Description	Ps Sound data at	Pa Static		Sound Spectrum (Hz)								Overall	
				63	125	250	500	1k	2k	4k	8k	Lw*	LpA @ 3m**
31 MaXfan Compac	0.53 m3/s	252	Inlet*	81	79	80	82	80	76	71	66	88	63
31 MaXfan Compac	0.53 m3/s	252	Outlet*	83	80	81	82	80	77	72	67	89	64
31 MaXfan Compac	0.53 m3/s	252	Breakout*	73	68	64	66	61	53	51	47	75	45
35 MaXfan Compac	0.84 m3/s	302	Inlet*	82	80	84	83	80	77	73	69	89	65
35 MaXfan Compac	0.84 m3/s	302	Outlet*	83	80	85	84	81	78	74	69	90	65
35 MaXfan Compac	0.84 m3/s	302	Breakout*	74	68	68	67	60	54	53	51	76	47
40 MaXfan Compac	1.32 m3/s	200	Inlet*	75	76	82	79	78	77	74	70	86	63
40 MaXfan Compac	1.32 m3/s	200	Outlet*	77	77	85	80	79	77	75	71	88	64
40 MaXfan Compac	1.32 m3/s	200	Breakout*	67	62	65	59	53	48	50	48	70	40
45 MaXfan Compac	1.86 m3/s	300	Inlet*	78	81	88	82	80	80	78	75	91	66
45 MaXfan Compac	1.86 m3/s	300	Outlet*	79	81	88	82	81	80	79	77	91	67
45 MaXfan Compac	1.86 m3/s	300	Breakout*	69	63	66	59	56	52	57	53	72	43
50 SC MaXfan Compac	2 m3/s	400	Inlet*	81	82	89	85	87	87	83	79	95	72
50 SC MaXfan Compac	2 m3/s	400	Outlet*	81	82	91	86	87	87	85	81	96	73
50 SC MaXfan Compac	2 m3/s	400	Breakout*	71	64	69	63	62	59	63	57	75	49
50 MaXfan Compac	2.63 m3/s	400	Inlet*	83	79	87	88	86	85	81	78	94	71
50 MaXfan Compac	2.63 m3/s	400	Outlet*	85	79	90	89	86	86	81	79	95	72
50 MaXfan Compac	2.63 m3/s	400	Breakout*	75	61	68	66	61	58	59	55	77	48
56 MaXfan Compac	3.22 m3/s	400	Inlet*	86	93	88	90	88	85	79	77	97	72
56 MaXfan Compac	3.22 m3/s	400	Outlet*	87	95	89	90	88	85	80	79	98	72
56 MaXfan Compac	3.22 m3/s	400	Breakout*	77	74	63	65	63	58	61	55	79	48
63 MaXfan Compac	3.4 m3/s	400	Inlet*	85	95	93	91	87	84	83	81	99	72
63 MaXfan Compac	3.4 m3/s	400	Outlet*	86	98	94	91	87	85	84	83	100	73
63 MaXfan Compac	3.4 m3/s	400	Breakout*	76	77	68	66	62	58	65	59	80	50

*Lw dB re 10⁻¹² W

**dBA re 2x10⁻⁵ Pa

DRAWING - MAXFAN COMPAC



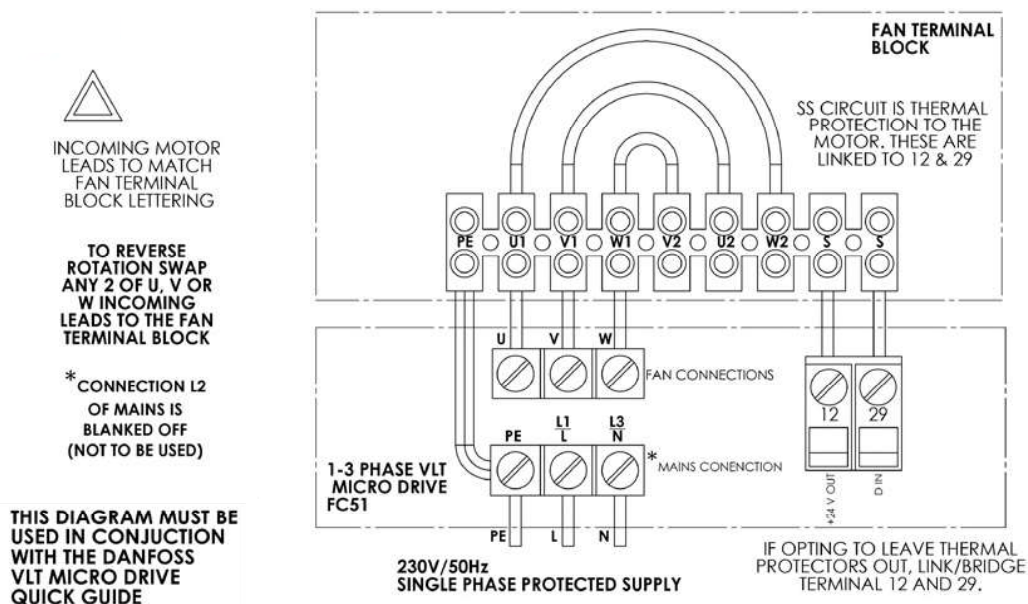
Product Code	Motor Frame	A	B	C	D	G	H	J	K	L	M	P	S	T	x	Weight (kg)
31 MaXfan Compac	80	395	315	375	229	200	30	10	285	265	315	200	8	10	137	33
35 MaXfan Compac	80	435	355	375	249	225	30	10	285	305	355	225	8	10	137	33
40 MaXfan Compac	80	480	400	375	279	225	30	10	290	350	400	250	8	12	137	35
45 MaXfan Compac	80	530	450	375	306	255	30	10	290	400	450	280	8	12	137	37
50 SC MaXfan Compac	80	594	500	375	338	290	30	10	290	450	500	315	12	12	137	32
50 MaXfan Compac	90	594	500	520	338	290	30	10	290	450	500	315	12	12	137	51
56 MaXfan Compac	90L	654	560	520	368	330	50	10	434	510	560	355	12	12	137	55
63 MaXfan Compac	90S	724	630	520	403	375	50	10	434	580	630	400	12	12	137	61



WIRING DIAGRAMS - MAXFAN COMPAC

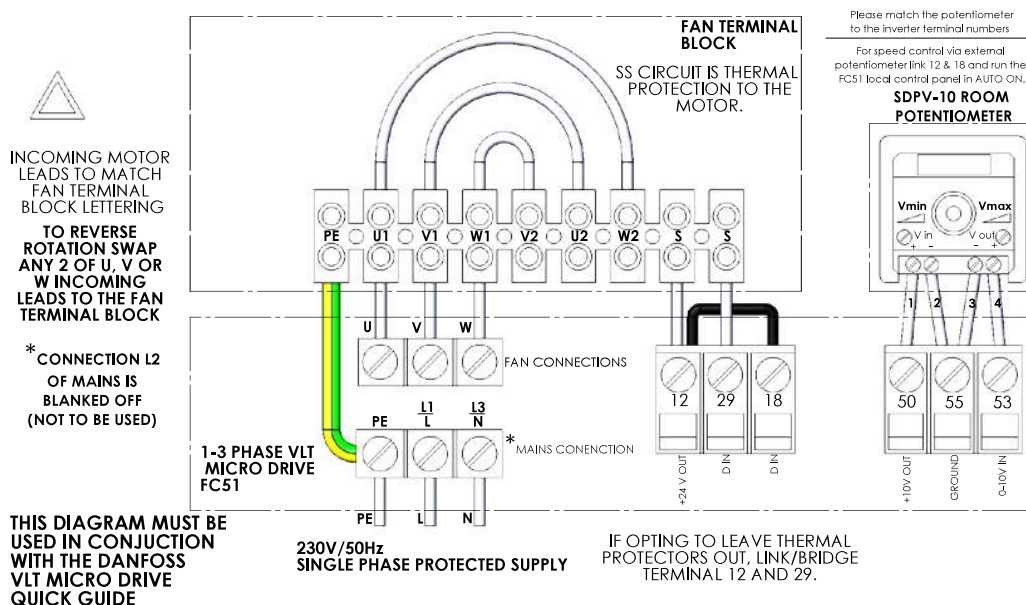
CD3042 - MAXFAN COMPAC

Mode - On hand (Speed controlled via the up and down arrows on key pad)



CD3043 - MAXFAN COMPAC INCLUDING POTENTIOMETER

Mode - Auto (Speed controlled via 0-10 volt potentiometer)



The Maxfan Compac can also be fitted using a remote switch connected between 12 & 18

INVERTER SINGLE TO THREE PHASE

FEATURES & BENEFITS

- 1 Ph 200-240VAC to 3 Ph 200-240 VAC electrical supply
- Pre-Programmed for easy installation
- Max shielded cable length 25m
- Asynch motor speed control
- Ultra compact & light making it easy to install
- Simple to use Alpha-numeric display
- Included fitted potentiometer for manual speed adjustment
- Connectable as Modbus RTU offering control flexibility
- Built in RFI filter minimising interference
- Built-in brake functions with built in DC and AC brake functions
- 2xAI, 1xAO & 1xRO / RS485 connection options
- BMS enable/disable
- Maximum operating ambient 50°C
- Coated PCB standard for harsh environments
- High energy efficiency

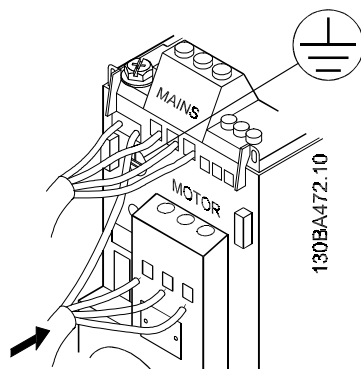
DESCRIPTION

Our inverter is a frequency converter with unsurpassed reliability, user-friendliness, condensed functionality, and extremely easy to commission. Terminal numbers are named in the same manner as in the rest of the family, making installation easy.

It converts a single phase 200-240 VAC input into a three phase output to allow the Maxfan Compac product to use a high efficiency 3Ph, 230V motor.

A safety isolator/switch disconnecter should be installed on the mains side of the drive to ensure that the mains supply can be isolated for maintenance.

Please see the image below, illustrating the connections on the bottom of the inverter drive.



RANGE

There are three matched inverters that are specifically designed to use with our Maxfan Compac fan range. Details are shown below.

Part Number	Inverter Model	Ph.	V	Amps	kW	Enc.
PK901092	4.2	1-3	200-240V	4.2	0.75	M1
PK901090	6.8	1-3	200-240V	6.8	1.5	M2
PK901091	9.6	1-3	200-240V	9.6	2.2	M3

Step 1

Fit top cover on frequency converter.

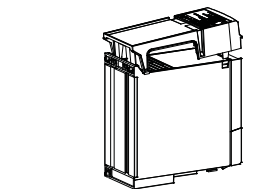


Illustration 414

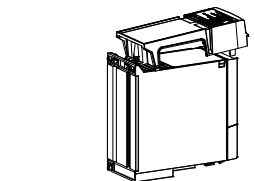


Illustration 415

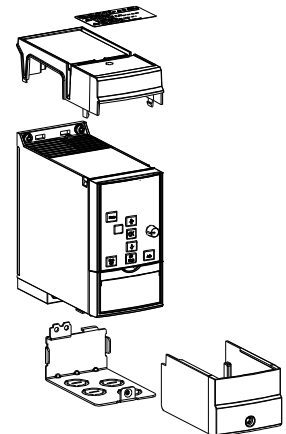


Illustration 416



INVERTER - QUICK INSTALLATION GUIDE

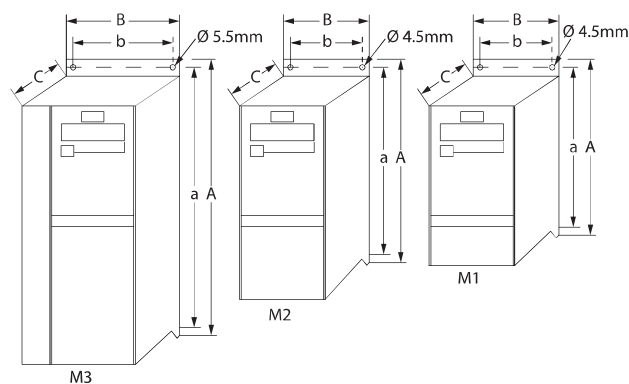


Ready – Steady – Go!
 Connect motor and power cables, turn the control knob,
 and watch the motor speed change.



RoHS compliant
 The VLT® Micro Drive does not contain lead,
 cadmium, hexavalent chrome, mercury,
 or flame retardant PBB and PBDE.

INVERTER - TECHNICAL & DRAWING DETAILS



Part Number	Inverter Model	Enc.	Ph.	V	Amps	kW	Power [kW]	Height [mm] A (incl. conversion kit)	Width [mm]		Depth [mm] C	Max. Weight kg
							1x200-240 V		B	b		
PK901092	4.2	M1	1-3	200-240V	4.2	0.75	0.75	219.3	70	55	148	1.1
PK901090	6.8	M2	1-3	200-240V	6.8	1.5	1.5	245.6	78	59	144	1.6
PK901091	9.6	M3	1-3	200-240V	9.6	2.2	2.2	297.5	95	69	210	3