

Window/Wall Fan SAX

Features & Benefits



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The SAX is a stylish, high performance range of axial flow fans which provides powerful extract of air through windows, walls, ceilings and panels for a variety of domestic and commercial applications.

- Axial impeller design for larger volumes.
- Two standard sizes, 9" and 12"
- Automatic and reversible models.
- Air volume flow rates of up to 0.528 m³/sec or 1900 m³/h.
- Static pressures of up to 80 Pa.
- IPX4 – Splash proof.
- Shock proof, heat resistant plastic.
- Suitable for operating temperatures of up to 40° C.
- Motors are double insulated with built in thermal overload protection.
- Sealed for life ball bearings to operate at any angle.
- Energy efficient with low power absorption.

Features & Benefits

Versatility – The SAX is designed for installation into windows, panels, ceilings, as well as most solid or cavity walls.

Material strength – Units are manufactured from shock proof, heat resistant white plastic with a temperature stability of 107° C, robust, durable and non corrosive, with internal and external finger proof grilles.

Safety – SAX fans are IPX4 Splash proof, protected against water splashed from all directions which means they can be safely installed in Zones I and II in accordance with IEE Wiring Regulations.

Cost effective – The high performance rates of the SAX unit mean they are cost effective as installations no longer require two or more fans.

Range – There are two standard sizes, 9" and 12" as well as automatic reversible models which allow shutters to be left open where natural ventilation is required without any security risk.

Motor protection – Each SAX motor is double insulated so no earth is required, and fitted with integral thermal overload protection which prevents the motor from overheating.

Easy installation – Designed and supplied with all the necessary fixings, which means 'easy fix mounting' by one installer alone for the complete installation of the fan.

Mounting – Each unit is suitable for window, wall, panel or ceiling mounting installations.

Reliability – Motors have sealed for life bearings.

Inclusive - All 'built-in' units are supplied with telescopic wall liner, internal wall grille, external shutter and five speed reversible controller which minimizes costs.

Flexibility - Available in 2 sizes with a 5 speed reversible controller to give the installer a range of adjustment if duties are under or over achieving.

Options – SAX automatic models incorporate silent, delayed action, slow moving electric shutters for silent opening and closing, and depending on model, a 5 speed controller, which may be fully reversible.

Warranty – Each SAX unit has a two year warranty.

Applications

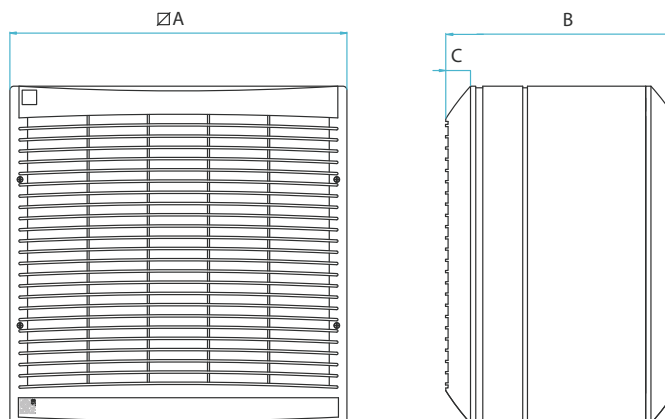
Pubs, restaurants, offices, kitchens, factories, schools and shops.

Window/Wall Fan SAX

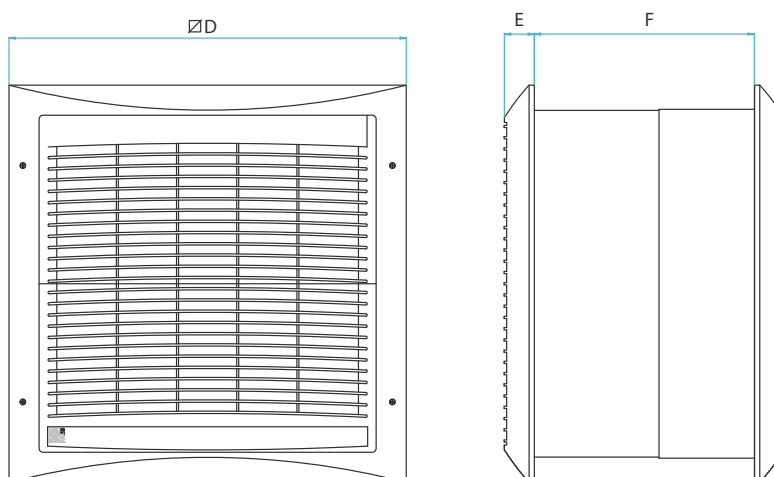
Dimensional & Performance Data



Window Mount



Wall Mount



Product Code	Fan Size	A	B	C	D	E	F	Max Airflow m ³ /sec	Max Pa	Max r/min	FLC Amps	Power Watts	dBA @ 3m	Weight kg
SAX23/9A†	9	340	200	40	-	-	-	0.229	75	1350	0.20	45	49	5
SAX23/9AR*	9	340	200	40	-	-	-	0.229	75	1350	0.20	45	49	6
SAX23/9ARB*	9	-	-	-	415	40	240-315	0.229	75	1350	0.20	45	49	11
SAX30/12A†	12	420	230	40	-	-	-	0.528	80	1200	0.39	90	51	8
SAX30/12AR*	12	420	230	40	-	-	-	0.528	80	1200	0.39	90	51	9
SAX30/12ARB*	12	-	-	-	495	40	240-315	0.528	80	1200	0.39	90	51	15

† Units that are suffixed with an A include a silent operated shutter. These are either intake only, extract only or both (in conjunction with a double pole switch).

* Units that are suffixed with an AR and ARB include silent operated shutters. These units are five speed extract and supply, operated through a control provided with the unit. Units suffixed with ARB include a telescopic steel wall liner.

Sound levels are average spherical free field values for comparative purposes only.

Industrial Wall Fan SPE

Features & Benefits



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The SPE wall mounted extract models are high performance units comprising an internal aluminium grille, adjustable wall sleeve, plate axial fan and air operated external all weather louvre, designed to provide powerful extract from demanding light commercial applications such as gymnasiums and squash courts.

- Axial impeller, wall sleeve, external louvre & internal grille.
- Three standard sizes, 350mm, 400mm and 450mm.
- Air volume flow rates of up to 1.5m³/sec.
- Highly efficient, lightweight induction motors with Class F Insulation.
- Motors fitted with thermal overload protection.
- Suitable for operating temperatures of 50°C with speed controllers & 70°C fixed speed.
- Sealed for life ball bearings to operate at any angle.
- Fully speed controllable.
- Extensive stock range available.
- IP55 rated terminal box.

Features & Benefits

Aesthetic – A stylish design comprising internal aluminium louvre grille in a white epoxy powder coated finish complements the external all weather louvre shutters.

Reliability – Motors have sealed for life bearings.

Motors – These are protected to IP55 which means they are highly resistant to dust and water ingress.

Mounting – Suitable for wall mounting.

Flexible performance - Adjustable pitch aerodynamic impellers allow easy site adjustment of the impeller from factory set maximum pitch angles if required.

Cost effective – Very efficient for moving high volumes of air at relatively low pressures.

Speed controllable – Each fan is suitable for speed control with an electronic controller, which means the airflow can be altered to suit site conditions.

Safety – All motors are fitted with integral 'Thermal overload protection' preventing the motor from overheating.

Easy to install – Fans are supplied with an integral IP55 terminal box and motor side guard, which allows the fan to be positioned conveniently to incoming electrical inputs.

Adaptable – Maximum ambient operating temperatures of up to 70°C fixed speed and 50°C when used with a speed controller.

Effective - A pressed inlet with motor side wire guard provides extra rigidity, a smoother airflow and enhanced performance characteristics.

Adjustable – The telescopic wall sleeve in galvanised sheet steel is adjustable between 230mm and 390mm and fits through most wall thicknesses and has a cut out to allow concealed cable entry.

Extensive stock range available – Selection issues minimized due to the wide range of sizes, motors and controls options.

Tested to the very latest standards – SPE units are tested to ISO 5801:1997 (airside performance) and to BS 848 Pt 2:1985 (sound performance) meaning accurate, up to date information on performance and noise data that can be relied upon.

Quality assurance – All units are designed and manufactured with procedures as defined in BS EN ISO 9001: 2000.

Accessories – Speed controllers.

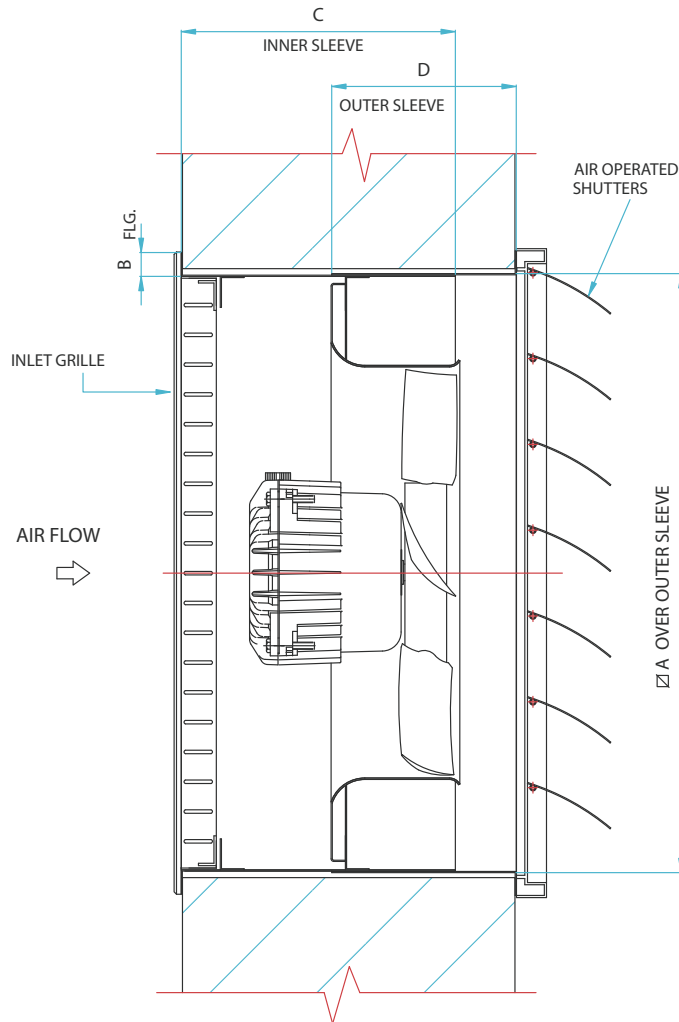
Warranty – Each SPE has a one year warranty.

Typical Applications

Gymnasiums, sports halls, squash courts and other light commercial applications.

Industrial Wall Fan SPE

Dimensional & Performance Data



Product Code	A	B	C	D	Weight kg
SPE35	526	15	230	160	22
SPE40	586	15	230	160	29
SPE45	616	15	230	160	32

Product Code	Fan Dia	Speed r/min	Wall Sleeve	Power Watts	m ³ /s	dBA@ 3m
SPE35	350	1320	526 x 526	90	0.77	52
SPE40	400	1300	586 x 586	250	1.25	55
SPE45	450	1300	616 x 616	250	1.55	59

Sound levels are average spherical free field values for comparative purposes only.

Ezifit In-Wall SEIE

Features & Benefits



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The Ezifit In-Wall unit is a flush mounted fan that's ideal where a ceiling or in-line fan is impractical – such as kitchen canopies, or ducted exhaust systems between floors in residential applications, or through flat roof applications where quiet, powerful exhaust is required and space is limited.

- Flush mounted.
- Easy to install.
- Compact design for installation in tight spaces.
- Powerful extract.
- Colour co-ordinated external grilles.
- Suitable for operating temperatures up to 50°C.
- Thermal overload motor protection.
- Can be wired in High, Medium or Low speed.
- 3-Speed Switch available for remote speed control.
- Neutral colour plastic grille to compliment most brick colours.

Features & Benefits

Ease of installation – The Ezifit In-Wall unit is designed to install on an exterior wall and its compact design allows installation in tight spaces.

Design appeal – The flush mounted design provides an unobtrusive appearance.

Flexibility – A three speed backward curved centrifugal impeller increases the flexibility by allowing the desired speed setting to be selected either at the time of installation or by an optional remote mounted three speed switch.

Performance – Ezifit In-Wall units provide powerful air extraction and are suitable for single or multi point extract.

Insect proof – Fly mesh is fitted to the inside of the grille as standard to keep out insects.

Colour co-ordination – The robust neutral coloured external plastic grille is designed to suit most brick colours.

Safety – The external rotor motors are all fitted with integral thermal overload protection preventing the motor from overheating.

Accessories - Three speed switch, fast clamps and silencers.

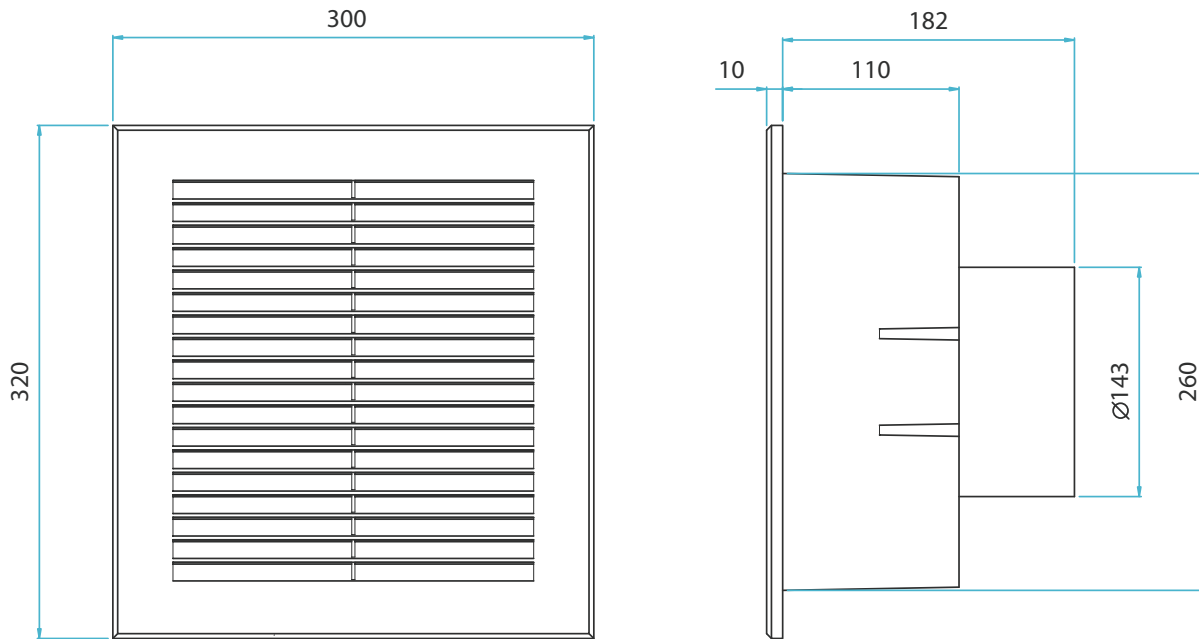
Warranty - Each SEIE has a 12 month warranty.

Applications

Domestic kitchen range hood exhaust, bathrooms, laundries, clothes dryer venting, sub floor ventilation and smaller commercial installations.

Ezifit In-Wall SEIE

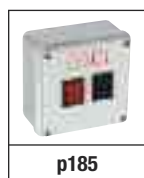
Dimensional & Performance Data



Product Code	Speed r/min	Airflow m ³ /s @ Static Pressure Pa.										FLC Amps	Power Watts	dBA@ 3m	Weight kg
		0	25	50	75	100	125	150	175	200	225				
LOW	1260	0.081	0.050	0.036	0.028	0.021	0.015					0.22	50	31	4
SEIE150 MED	1920	0.117	0.099	0.082	0.068	0.055	0.044	0.034	0.024	0.016		0.25	60	44	
HIGH	2400	0.151	0.134	0.120	0.105	0.092	0.080	0.070	0.060	0.048	0.030	0.29	75	49	

Sound levels are average spherical free field values for comparative purposes only.

Accessories



Ezifit Thru-Wall SEWE

Features & Benefits



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The Ezifit Thru-Wall unit is a surface mounted fan which is specifically developed in response to the need for a fan that does not take up internal space and is suited to ducted systems where space is restricted such as between floors in residential applications.

- Easy to install on exterior wall.
- Stylish, compact design for installation in tight spaces.
- Lightweight, durable construction.
- Powerful air extract.
- Suitable for applications requiring long lengths of duct.
- Suitable for operating temperatures up to 50°C.
- Insect proof cover.
- Easy access for cleaning.
- Can be used with variable speed controller.
- Thermal overload motor protection.

Features & Benefits

Ease of installation – The surface mounted Ezifit Thru-wall unit is designed for simple installation by mounting it on the exterior wall and its compact design allows installation in tight spaces.

Flexibility – The Ezifit Thru-Wall unit can be used with a variable speed controller.

Range – The range comprises both four pole and two pole speed fans with four pole models particularly suited to single point through wall 'no duct' or short duct applications.

Maintenance – The surface mounted cover is easily removed for cleaning, for example, if used for range hood exhaust.

Performance – Ezifit Thru-Wall units comprise backward curved centrifugal impellers which provide powerful air extraction suitable for multi point extract, but is also quiet enough for a single point system with a few metres of flexible duct between the fan and grille.

Insect proof – The unit is fitted with an insect proof cover with fly mesh fitted to the outlet.

Colour co-ordination – The standard unit has a stylish grey colorbond finish and is designed to suit most brick colours.

Safety – The external rotor motors are all fitted with integral thermal overload protection preventing the motor from overheating.

Accessories - Three speed switch, fast clamps and silencers.

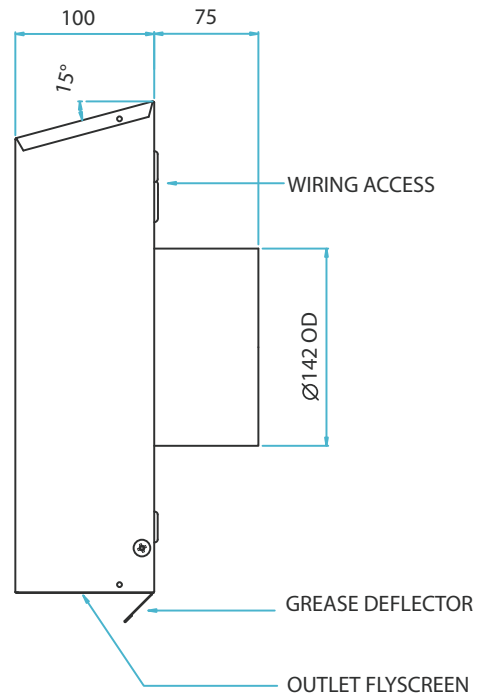
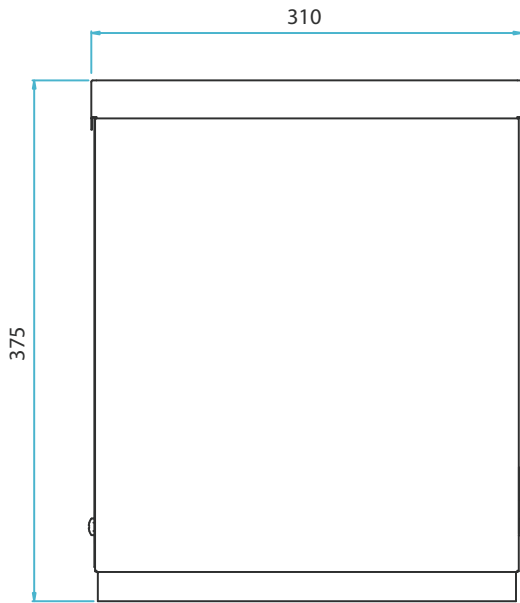
Warranty - Each SEWE has a 12 month warranty.

Applications

Domestic kitchen range hood exhaust, bathrooms, laundries, clothes dryer venting, sub floor ventilation and smaller commercial installations.

Ezifit Thru-Wall SEWE

Dimensional & Performance Data



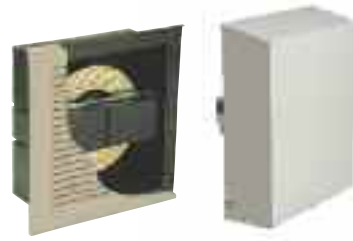
Product Code	Speed r/min	Airflow m ³ /s @ Static Pressure Pa.												FLC Amps	Power Watts	dBA@ 3m	Weight kg
		0	25	50	75	100	125	150	175	200	225	250	275				
SEWE154	1380	0.067	0.056	0.043	0.025									0.16	34	34	5
SEWE152	2460	0.124	0.117	0.110	0.102	0.094	0.086	0.077	0.068	0.058	0.048	0.037	0.024	0.30	65	45	5

Sound levels are average spherical free field values for comparative purposes only.

Accessories

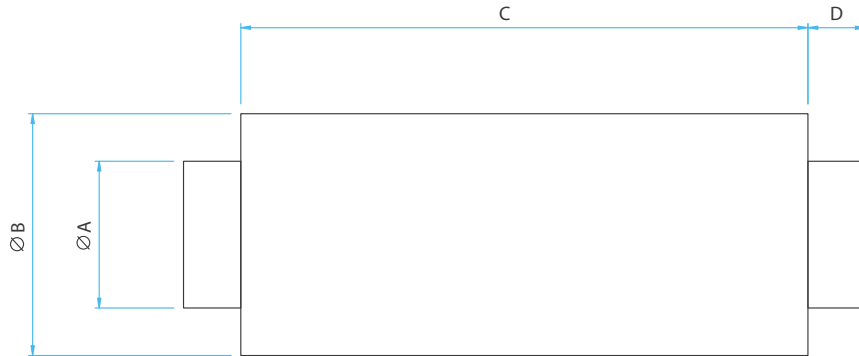


Ezifit Thru-Wall SEWE Accessories



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Silencers

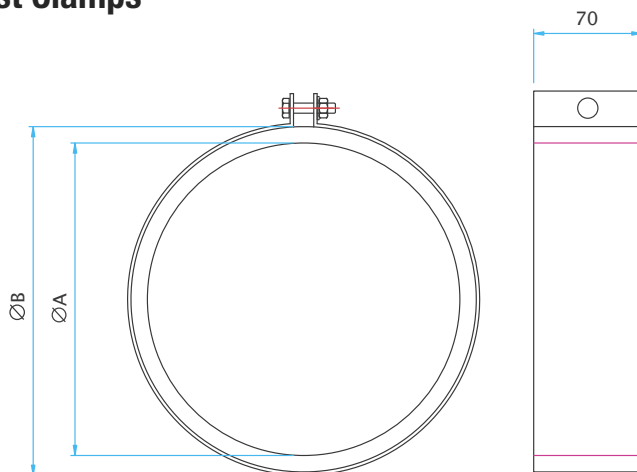


- For information on silencers and an explanation of the data, see p74
- Pre-galvanised sheet steel with perforated steel lining
- Infill of glass tissue faced high density mineral wool
- For saturated or other special applications please refer to Elta

Product Code	Fan Size	A	B	C 1	C 2	C 3	C 4	D	Weight kg			
									1	2	3	4
068-0150-JF*	150	148	255	300	600	900	1200	40	3.4	6.1	8.9	11.6

* Add 1, 2, 3, 4 depending on length required.

Fast Clamps



- For quick connection of spigotted fans to circular duct or accessories
- Galvanised steel circular duct clamp with foam lining

Product Code	Fan Size	A	B	Weight kg
018-150-CLAMP	150	142	166	0.33

Portacooler SPC

Features & Benefits



Portacooler is a range of fully portable enclosed axial fans, ideal for localized free-standing cooling or ventilation which comes complete with guards fitted for safety, integral speed controller and a plug and lead so the fan is ready to run.

- Maximum air flow 3.0 m³/s.
- 3 sizes, 350mm, 450mm & 560mm.
- Free standing.
- Variable fan position.
- Highly efficient, lightweight induction motors.
- Motors protected to IP55, with Class F insulation.
- Safety guards front and rear.
- Suitable for operating temperatures up to 50°C.
- Flying lead with 13A UK plug.
- Supplied ready to run.
- One piece tubular frame.
- Saddle feet fitted to protect frame.
- Variable speed control.
- Rugged construction.

Features & Benefits

Design - The SPC is a fully portable enclosed fan with guards fitted each side for safety, and is light enough to be portable which makes this a versatile product.

Material strength – The fan casing is a robust construction with all parts treated to ensure full corrosion protection, with casing and motors epoxy powder coated and guards are zinc plated.

Performance - Adjustable pitch aerodynamic impellers designed for maximum performance as it provides a good velocity profile (or throw) over long distances.

Adjustable - The SPC has a 'fan angle adjuster' for variable setting, which allows the person operating the unit to adjust the direction of the air flow to individual requirements.

Motors – These are protected to IP55 which means they are highly resistant to dust and water ingress.

Cost effective – Very efficient for moving high volumes of air.

Speed controllable – Each fan is fully speed controllable with the integral controller, which means flexibility as the airflow can be altered to suit site conditions.

Reliability – Motors have sealed for life bearings.

Safety – All motors are fitted with integral thermal overload protection preventing the motor from overheating.

Stability – A sturdy mounting frame on durable rubber support pads means a very stable unit whilst operating in populated areas.

Convenience – Each unit is supplied with a flying lead and a 13A UK plug, so you can position the unit where it is convenient.

Range - Three sizes available so you can achieve the desired air volumes.

Tested to the very latest standards – SPC units are tested to ISO 5801:1997 (airside performance) and to BS 848 Pt 2:1985 (sound performance) meaning accurate, up to date information on performance and noise data that can be relied upon.

Quality assurance – All units are designed and manufactured with procedures as defined in BS EN ISO 9001: 2000.

Warranty – Each Portacooler SPC has a 12 month warranty.

Typical Applications

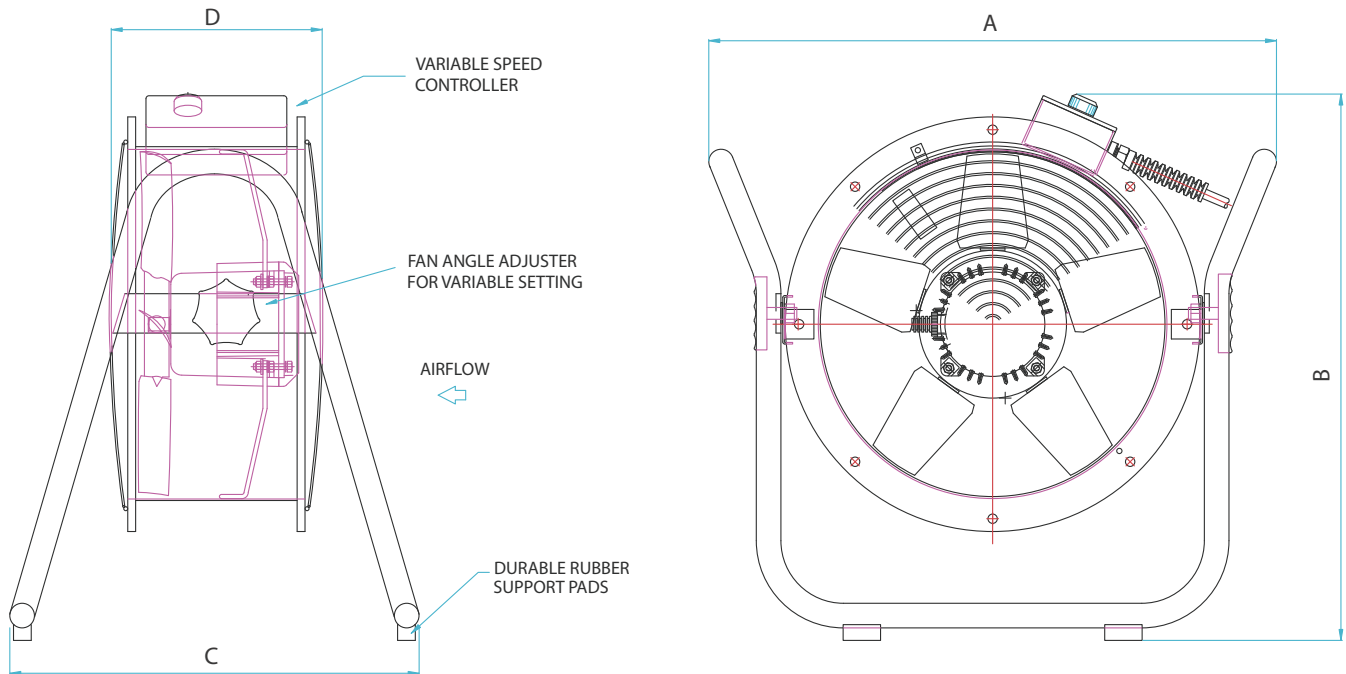
Temporary ventilation, construction sites, machine shops, welding bays, foundries, marquees, workshops, gymnasiums and large offices.

Portacooler SPC

Dimensional & Performance Data



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Product Code	A	B	C	D	Max Airflow m ³ /s	Max Speed r/min	FLC Amps	Output kW	Sound Level dBA @ 3m	Weight kg
SPC350/4-1	582	610	460	240	0.8	1320	0.90	0.09	56	18
SPC450/4-1	671	678	460	254	1.5	1300	1.80	0.25	63	24
SPC560/4-1	791	733	460	322	3.0	1350	4.90	0.75	69	33

Sound levels are average spherical free field values for comparative purposes only and will vary dependent on the fans surroundings.

Pedestal/Wall Fan HPF/HWF

Features & Benefits



The HPF and HPW is a range of pedestal and wall mounted air circulation fans designed to provide powerful, cool, yet effective positive air movement, thereby improving the environmental conditions in a wide variety of industrial, commercial and residential building services applications.

- Floor or wall mounting models.
- Air volume flow rate up to 3.83 m³/s.
- Three speed setting.
- Suitable for operating temperatures up to 45° C.
- Supplied with a 2.0 metre power lead.
- 230V / 1Ph / 50Hz supply.
- Supplied in kit form.
- Stylish epoxy powder paint finish.
- Smooth oscillation through a 90° arc.
- Motor and impeller balanced.
- Cast iron base frame.
- Adjustable height setting on floor mounted units.
- Thermal overload protection.

Features & Benefits

Performance - The powerful 650mm three speed fans deliver up to 3.83 m³/s of air.

Material strength - The Pedestal fan model is supported by a heavy duty cast iron base which provides added sturdiness and durability for the unit. Both model fan blades and stylish guards are black epoxy powder coated for aesthetic appearance.

Mounting - Pedestal for floor mounting or wall mounted fans which can be mounted to a structurally sound wall, rafters or posts to circulate the air within the building.

Versatile - Fans are designed for smooth oscillation by swinging the fan head from side to side, circulating the fan through a 90° arc with quiet operation to provide effective cooling for the area required.

Adjustable - The HPF pedestal fans versatility is reflected by the fully adjustable 'lockable knob' which means that the fan can be positioned at different heights, between 1460mm and 1860mm to accommodate the particular application required.

Flexibility - The airflow direction can also be altered by holding the fan stationary, loosening the 'locking knob', then rotating the motor to a suitable position and re-tightening the 'locking knob'. It is not necessary to move the base frame.

Settings - Pedestal and wall mounted fans all have three speeds, 1 – 3, with 0 being the 'Off' position.

Motor protection - The high performance motor has built-in thermal cut-out protection to prevent the motor from overheating.

Convenience - All models are supplied with a 2.0 metre power lead.

Electrical - All models require 230V/1Ph/50Hz supply.

Easy assembly - Units are supplied in kit form for ease of assembly.

Quality assurance - Units are designed and manufactured with procedures as defined in BS EN ISO 9001:2000.

Warranty - HPF/HWF units have the added benefit of a one year warranty.

Typical Applications

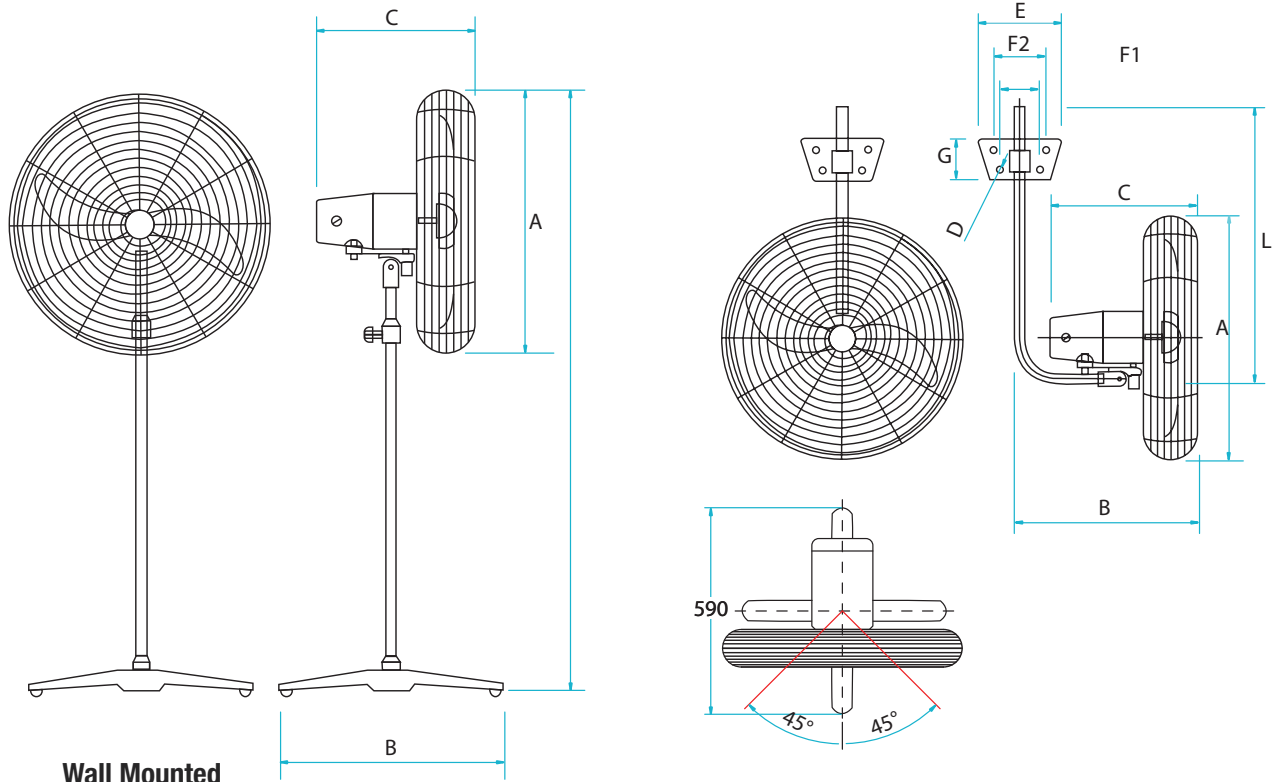
Industrial warehousing, gymnasiums, factories, marquees and workshops.

Pedestal/Wall Fan HPF/HWF

Dimensional & Performance Data



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Wall Mounted

Product Code	A	B	C	D*	E	F1	F2	G	L	Weight kg
HWF650	690	290	360	14	193	96	154	100	720	14.3

Pedestal Mounted

Product Code	A	B	C	H	Weight kg
HPF650	690	590	360	1460 - 1860	23.0

Performance & Electrical Data

Product Code	Speed r/min			Duty m3/s	Power Watts	FLC Amps	Noise Level dBA @ 1m
	Low	Mid	High				
HPF650	890	-	-	1.83	135	0.90	55
&	-	1050	-	2.83	143	0.85	59
HWF650	-	-	1380	3.83	179	0.98	68

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Ceiling Fan HCF

Features & Benefits



The HCF range of ceiling sweep fans, available in three sizes, 36", 48" and 56" are specifically designed to eliminate heat stratification by forcing warm or heated air down again, equally, HCF units are also designed to provide positive air movement for continuous cooling.

- 3 sizes – 36", 48" and 56".
- Eliminates heat stratification in winter.
- Provides continuous cooling in summer.
- Energy cost savings.
- Suitable for operating temperatures up to 40°C.
- Better working conditions.
- Capacitor start and run motor.
- Steel cable safety feature.
- Fully reversible.

Features & Benefits

Motor protection - Capacitor start and run motor fitted with ball bearings. Class E insulation, suitable for 40°C ambient operating temperature.

Flexibility - HCF fans are supplied with two down rod lengths as standard. The short down rod is 150mm, suitable where the fans are mounted below the ceiling or roof height, for example, beams. The long down rod is 400mm in length.

Safety - An additional safety feature of the ceiling fan is a steel cable which passes through the drop rod, connecting the motor body to the J-hook mounting bracket.

Ease to install - When carried out by a qualified electrician.

Investment - Low capital investment yields returns sooner.

Controls - The HCFC1.7 reversing ceiling fan controller provides an extra dimension to typical installations as the fan speed can be selected to match changing environmental conditions, particularly relevant to installations where the mounting height is lower.

Each HCFC1.7 controller has been specifically designed to provide control of either one or up to 5 HCF fans.

HCFC1.7 controllers are infinitely variable with solid state components, insulated spindle, white cover plate and suitable for surface mounting only.

HCF fans must only be used with an HCFC1.7 controller or an On/Off switch.

5-step transformers are available for HCF fans where the need for completely silent running is required.

Fully Reversible - Where minimal air disturbance is required, HCF fans can be fully reversed at the flick of a switch. With this setting, the air is forced upwards to the ceiling area, then down the walls to the desired area.

Seasonal - Flexible for either summer cooling and comfort or heat conservation.

Extensive stock range available – Selection issues minimized due to the wide range of sizes, motors and controls options.

Quality assurance - Units are designed and manufactured with procedures as defined in BS EN ISO 9001:2000.

Accessories - Speed controller.

Warranty - A full 12 months warranty on all HCF Models.

Applications

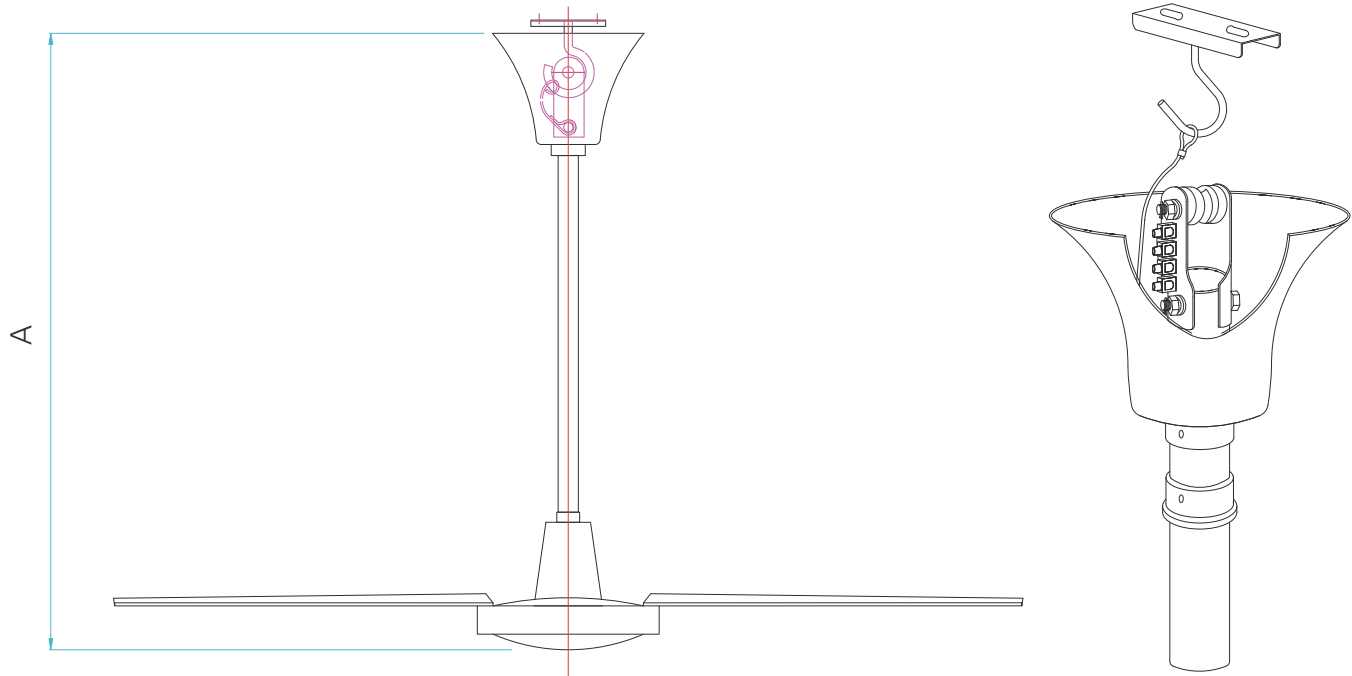
Industrial warehousing, gymnasiums, factories, stores and offices.

Ceiling Fan HCF

Dimensional & Performance Data



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Product Code	A	Weight kg
HCF900	610/360	4.0
HCF1200	610/360	4.5
HCF1400	610/360	5.0

Product Code	HCF900	HCF1200	HCF1400
FAN DIA (mm/ins)	900/36	1200/48	1400/56
TYPE OF BEARING	BALL		
TYPE OF MOTOR	TOTALLY ENCLOSED CAPACITOR		
VOLTAGE	230V		
FREQUENCY	50 Hertz		
WATTS FULL SPEED	43	55	67
r/min MAX	330	315	290
FLC Amps	0.21	0.25	0.30
AIR DELIVERY MAX	2.25 m ³ /s	3.5 m ³ /s	3.92 m ³ /s

Accessories



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Voltage Controllers

Electronic



A range of electronic voltage controllers used to provide speed control of single phase motors where the peak current of the motor does not exceed the rating of the controller. Units are complete with illuminated on / off switch.

TK versions are for use with fans fitted with thermal cut-out protection. In the event of the thermal cut-out opening the controller will switch off and the trip indicator will be illuminated. Units are complete with illuminated on / off and start button. The start button must be pressed to start the controller once on / off switch is in the on position.

- IP42 / IP51 Enclosure.
- Stepless speed control.
- Minimum speed pre – set facility.
- Maximum speed pre – set facility.
- Suitable for operating temperatures up to 40°C.
- Illuminated On / Off Switch.
- Fitted motor protection fuse.
- Suitable for two or three wire control.

Features & Benefits

Stepless speed control allows precise fan speed selection.

Provides easy adjustment of fan duty for commissioning purposes.

TK versions offer means of motor protection via motor thermal contact.

SINGLE Phase - 220V-240V / 50Hz

Product Code	Max Peak Current Amps	Weight kg	IP Rating
149-EL21	1.5	0.5	IP42
149-EL31	3	0.35	IP51
149-EL41	4	0.5	IP42
149-EL61	6	0.4	IP51
149-EL101	10	0.8	IP51

For controllers with TK function add suffix TK , EL21, EL41 and EL101 are not available with this option.

Voltage Controllers

Transformers



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A range of transformer voltage controllers used to provide five speed step control of single phase or three phase motors where the peak current of the motor does not exceed the rating of the controller. Speed control is via selector switch. Single phase units are complete with illuminated on / off switch.

- IP40 Enclosure.
- Five speed stepped control.
- Illuminated On / Off Switch (single phase units only).
- Fitted Motor Protection Type D MCB (single phase units only).
- Suitable for operating temperatures up to 40°C.

Features & Benefits

Ideal for environments where noise is a primary consideration as these controls do not create magnetic hum associated with some step-less forms of speed control.

SINGLE Phase - 220V-240V / 50Hz

Product Code	Max Peak Current Amps	Weight kg	IP Rating
149-TC12	2	3	IP40
149-TC14	4	4	IP40
149-TC18	8	6	IP40
149-TC110	10	7	IP40
149-TC112	12	8	IP40
149-TC116	16	13	IP40

THREE Phase - 380V-415V / 50Hz

Product Code	Max Peak Current Amps	Weight kg	IP Rating
149-TC33	3	12	IP40
149-TC35	5	14	IP40
149-TC310	10	25	IP40

Inverter Controllers

Variable Frequency Drives



Variable Frequency Drives (VFD) can offer potential energy savings in a system where the load varies with time. The operating speed of the motor connected to the VFD is varied by changing the frequency of the motor supply voltage. This allows continuous speed control.

Variable Frequency Drives are used:

- to improve the efficiency of motors by matching speed to changing load requirements or
- to allow accurate and continuous control over a wide range of speeds

- Enclosed drives EVFD.
- IP54 / 55 Enclosure.
- Energy Saving.
- Built – In EMC Filter.
- Vario Switch Disconnecter.
- On / Off Selector Switch.
- Speed Variation Potentiometer.
- Up to 16 preset speeds.
- Auto Tuning.
- Suitable for operating temperatures up to 40°C.
- PI regulator for closed loop control.
- Skip Frequency capability.
- Motor and Drive Protection.
- Integrated Modbus and CANOPEN protocols.
- Display Monitoring.
- Fault Diagnostics.

Features & Benefits

Accurate and smooth speed control not dependant on load characteristics which are typical of voltage controllers.

Motor Soft Starting to reduce the effects of motor starting torque and currents.

Integrated EMC Filter simplifies installation and provides an economical way of meeting applicable standards.

Adaptation of Voltage / Frequency ratio to optimise performance for fans.

Energy Saving via relationship between motor power and speed.

As power varies with the cube of speed, significant savings can be made with a small reduction in fan speed.

Product has been certified as meeting the requirements of the Enhanced Capital Allowance Scheme.

Fan Compatibility Table

Product Code*	Range kW	149-EVFD/_ -1 1ph -3ph	149-EVFD/ 3ph -3ph	149-CVFD/_ -1 1ph -3ph	149-CVFD/ 3ph -3ph
SCP	ALL		•		•
SCD	ALL		•		•
SLC	<=2.2	•	•	•	•
SLC	>2.2		•		•
SMB	<=2.2	•	•	•	•
SMB	>2.2		•		•
SMC	<=2.2	•	•	•	•
SMC	>2.2		•		•
SSBD	ALL		•		•
SSF	ALL		•		•
SSMF	ALL		•		•
SSBR	ALL		•		•
SGE	ALL		•		•
SCHT	<=2.2	•	•	•	•
SCHT	>2.2		•		•
SSFV	ALL		•		•

*Only Three phase fan ranges are suitable for Inverter control.

Inverter Controllers

Variable Frequency Drives



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SINGLE Phase supply voltage with Integrated Filter 200V–240V 50/60Hz

Product Code	Motor Power(1) kW	VFD Nominal Current(2) A	Max. Prospective Line ISC(3) kA	Weight kg	IP Rating
149-EVFD/18-1	0.18	1.5	1	6.3	IP55
149-EVFD/37-1	0.37	3.3	1	6.3	IP55
149-EVFD/75-1	0.75	4.8	1	6.3	IP55
149-EVFD/150-1	1.5	8	1	8.8	IP55
149-EVFD/220-1	2.2	11	1	10.7	IP55

- (1) Power rating for maximum switching frequency of 4kHz.
- (2) Motor current must not exceed VFD nominal current.
- (3) If Line Isc exceeds value in table, add line chokes. Contact Elta Fans for further information.

THREE Phase supply voltage with Integrated Filter 380V–500V 50/60Hz

Product Code	Motor Power(1) kW	VFD Nominal Current(2) A	Max. Prospective Line ISC kA	Weight kg	IP Rating
149-EVFD/75	0.75	2.3	5	8.8	IP55
149-EVFD/150	1.5	4.1	5	8.8	IP55
149-EVFD/220	2.2	5.5	5	8.8	IP55
149-EVFD/300	3	7.1	5	10.7	IP55
149-EVFD/400	4	9.5	5	10.7	IP55
149-EVFD/550	5.5	11	22	16	IP54
149-EVFD/750	7.5	14	22	22	IP54
149-EVFD/1100	11	21	22	22	IP54
149-EVFD/1500	15	27	22	28	IP54

- (1) Power rating for maximum switching frequency of 4kHz up to 149-EFD/400, 8kHz above.
- (2) Motor current must not exceed VFD nominal current.

Inverter Controllers

Variable Frequency Drives



Open Drives - CVFD

For use within customer enclosure

- IP20 Enclosure.
- Energy Saving.
- Interface with membrane keypad.
- Compact.
- Up to 8 preset speeds.
- PI regulator for closed loop control.
- Motor and Drive Protection.
- Display Monitoring.
- Fault Diagnostics.

Features & Benefits

Accurate and smooth speed control not dependant on load characteristics which are typical of voltage controllers.

Motor Soft Starting to reduce the effects of motor starting torque and currents.

Energy Saving via relationship between motor power and speed.

As power varies with the cube of speed, significant savings can be made with a small reduction in fan speed.

Product has been certified as meeting the requirements of the Enhanced Capital Allowance Scheme.

SINGLE Phase supply voltage with Integrated Filter 200V–240V 50/60Hz

Product Code	Motor Power(1) kW	VFD Nominal Current(2) A	Weight kg	IP Rating
149-CVFD/18-1	0.18	1.6	0.9	IP20
149-CVFD/37-1	0.37	2.6	0.9	IP20
149-CVFD/75-1	0.75	4	0.9	IP20
149-CVFD/150-1	1.5	7.3	1.5	IP20

(1) Power rating for maximum switching frequency of 5kHz.

(2) Motor current must not exceed VFD nominal current.

THREE Phase supply voltage with Integrated Filter 380V–500V 50/60Hz

Product Code	Motor Power(1) kW	VFD Nominal Current(2) A	Weight kg	IP Rating
149-CVFD/75	0.75	2.7	2	IP20
149-CVFD/150	1.5	4.3	2	IP20
149-CVFD/220	2.2	6.5	2	IP20
149-CVFD/400	4	10	2	IP20
149-CVFD/550	5.5	13	2.5	IP20
149-CVFD/750	7.5	16	2.5	IP20
149-CVFD/1100	11	24	6	IP20
149-CVFD/1500	15	30	6	IP20

(1) Power rating for maximum switching frequency of 5kHz.

(2) Motor current must not exceed VFD nominal current.

Auto Changeover Controllers



A range of auto changeover controllers for use with single or three phase twin fans. The control panel features a 2 position Fan 1 / Fan 2 rocker switch for fan selection. Indicators are provided for power and fan fail.

- IP51 Enclosure
- Power On indication
- Fail Indication
- Suitable for operating temperatures up to 40°C

Features & Benefits

Optional features

Duty Share

Common volt free contact for fan fail.

240V on/ off enable from a remote source.

24V on/ off enable from a remote source.

Suitable for use with speed controllers to a minimum voltage of 70V.

Benefits

These units provide automatic change over in the event of fan fail when used in conjunction with run and standby fan sets.

Selection of either Fan 1 or Fan 2 provides an economical manual method of extending the life cycle of twin fans.

Optional Duty Share provides automatic changeover between Fan 1 and Fan 2 set via internal time clock.

SINGLE Phase 220V–240V 50/60Hz

Product Code(1)	F L C Amps	Weight kg	IP Rating
149-AC01/E	9	1.2	IP51
149-AC01/A	9	1.2	IP51
149-AC01/B	9	3	IP51

(1) Standard codes shown,

E – Electric type, operation by fuse rupture; refer to fan compatibility table for correct model.

A – Air type, operation by airflow switches; refer to fan compatibility table for correct model .

B – For use as either Electric type or Air, suitable for speed control to minimum 70V.

For additional options refer to suffix list and options compatibility table.

THREE Phase 400V 50 Hz

Product Code(1)	F L C Amps	Weight kg	IP Rating
149-AC03/B	9	3	IP51
149-AC03SD	15	20	IP51

(1) Standard codes shown,

B – For use with three phase twin fans up to 4kW.

SD – Star / Delta for use with 5.5kW and 7.5kW units, refer to fan compatibility table.

For additional options refer to suffix list and options compatibility table.

Auto Changeover Controllers



Fan Compatibility Table

Product Code	ACO Product Code				
	149-AC01/E	149-AC01/A	149-AC01/B	149-AC03/B	149-AC03SD
SQT	•		•		
STDD		•	•		
STDR		•	•		
STBD 240V 1Ph 50Hz			•		
STBD 400V 3Ph 50Hz				•	
STBD5/6 400V 3Ph 50Hz					•
STBR 240V 1Ph 50Hz			•		
STBR 400V 3Ph 50Hz				•	
STBR5/6 400V 3Ph 50Hz					•

Optional Features

Option	Description	Suffix
Duty Share	Automatically changes between fan 1 and fan 2 at a pre-determined time as selected via internal time clock	D
Volt Free Contact (fail indication)	A volt free contact that can be used to connect a visual / audible alarm located externally to the panel, also for use with energy management systems	V
Remote On / Off	A volt free contact or 240V connection terminal to allow the auto changeover panel to be remotely switched On and Off	O

Option Compatibility Table

Product Code	Duty Share (option)	VFC Fail (option)	Remote On / Off (option)	Speed Control (standard)
149-AC01/E	•	•		
149-AC01/A	•	•		
149-AC01/B	•	•	•	•
149-AC03/B	•	•	•	•
149-AC03SD	•	•	•	

Example

Requirement is for an Auto changeover panel for use with an SQT125-L. Controller is to have a Volt free contact for remote fan fail indication to BMS system.

Auto Changeover Panel required is: **149-AC01/EV**

(Standard code **149-AC01/E** from fan compatibility table with suffix “V” for volt free contact)

If speed controllability had been required the above controller would be **149-AC01/BV**

Electrical Accessories



**149-PIR-T
Passive Infrared Sensor**

Complete with over run timer to provide automatic switching of fans.
Max FLC – 0.83A
Voltage – 230/1/ 50



**149 – TH1
Room Thermostat**

Suitable for both heating and cooling applications.
Max FLC – 2.5A
Voltage – 230/1/50
Range – 5 to 30°C



**149 – HS
Humidistat**

Suitable to provide humidity control when the set point is exceeded by 4%.
Max FLC – 2A
Voltage – 230/1/50
Range – 30 to 100% RH



**149 – AQS1
Air Quality Sensor**

Suitable to provide activation of fan on detection of pollutants exceeding the preset limit.
Max FLC – 2A
Voltage – 230/1/50



**149S – A1729
Over Run Timer**

Designed to provide an adjustable run on time to fan.
Max FLC – 5A
Voltage – 230/1/50
Range – 5s to 4hrs



**149-DIGISTAT1*
Microprocessor
Digital Thermostat**

A Single stage highly accurate programmable thermostat to 0.1° Celsius; Information is provided on actual temperature and maximum and minimum recorded temperatures.

*Please contact Elta Fans for selection and ratings



**149 – TCK24
Analogue 24hr Time Clock**

Wall or din rail mounted timeclock.
Max FLC – 3A
Voltage – 230/1/50



**149 – TCK7
Analogue 7 Day Time Clock**

Wall or din rail mounted timeclock.
Max FLC – 3A
Voltage – 230/1/50



**149 – ERS
Fan Reversing
Switch**

Suitable to reverse rotation of a single or three phase fan.
Max FLC – 15A
Voltage – 230/1/50
400/3/50



**149 – DST1
Duct Thermostat**

Suitable for both heating and cooling applications.
Max FLC – 8A
Voltage – 230/1/50
Range – 0 to 70°C



**149 – FPS
Filter Pressure
Switch**

Suitable for monitoring airflow or filter status.
Max FLC – 0.4A
Voltage – 230/1/50
Range – 20 to 200Pa
Max Pa – 500Pa



**149 – AS
Airflow Monitoring
Switch**

Suitable for detecting non aggressive air flow within ducts.
Max FLC – 8A
Voltage – 230/1/50

Electrical Accessories

149-3SP-C Three Speed Switch



For use with SJS/SEIE ranged.
Max FLC – 1.7A
Voltage – 230/1/50

149-HCF1.7 Ceiling Fan Controller



For use with HCFC range
Specifically designed to provide control of either 1 or up to 5 HCF fans.
Max FLC – 1.7A
Voltage – 230/1/50

Electrical Controls Dimensional Data

Product Code	H	W	D
149-3SP-C	110	110	60
149-HCFC1.7	110	110	60
149-EL21	110	110	58
149-EL31	146	86	50
149-EL31TK	146	86	50
149-EL41	110	110	58
149-EL61	146	86	50
149-EL61TK	146	86	50
149-EL101	192	110	60
149-TC12	245	195	95
149-TC14	245	195	95
149-TC18	305	225	125
149-TC110	305	225	125
149-TC112	305	225	125
149-TC116	400	300	200
149-TC33	300	300	150
149-TC35	300	300	150
149-TC310	400	300	200

Product Code	H	W	D
149-EVFD/18-1	240	210	163
149-EVFD/37-1	240	210	163
149-EVFD/75-1	240	210	163
149-EVFD/150-1	297	215	192
149-EVFD/220-1	340	230	222
149-EVFD/75	297	215	192
149-EVFD/150	297	215	192
149-EVFD/220	340	230	222
149-EVFD/300	340	230	222
149-EVFD/400	340	230	222
149-EVFD/550	512	320	281
149-EVFD/750	512	320	281
149-EVFD/1100	625	440	281
149-EVFD/1500	625	440	281
149-CVFD/18-1	132	95	121
149-CVFD/37-1	132	95	121
149-CVFD/75-1	132	95	121
149-CVFD/150-1	161	115	122
149-CVFD/75	200	115	150
149-CVFD/150	200	115	150
149-CVFD/220	200	115	150
149-CVFD/400	200	115	150
149-CVFD/550	203	143	165
149-CVFD/750	203	143	165
149-CVFD/1100	290	182	196
149-CVFD/1500	290	182	196