



COMPACT SCD

Case Mounted Axial Flow Fan

COMPACT SCD

Product Overview

- 6 standard sizes from 315mm to 630mm
- Air volume flow rates up to 4.24 m³/s
- Static pressures up to 190 Pa
- Suitable for operating temperatures up to +70°C
- Available in **AC**



Featuring our high efficiency Series 1 impeller, the Compact SCD makes light work of handling large volumes of air against low resistance. The fan design, construction and finish provide a strong, durable and weatherproofed range.

Easy Installation

Fans are supplied with a fitted IP55 terminal box, which allows the fan to be positioned conveniently to incoming electrical inputs.

Efficient Performance

Impellers are adjustable pitch aerofoil with blades made from high quality GRP. Combined with increased blade chord and twist, we have achieved 7% higher efficiency, reducing overall energy consumption. Increased blade root reduces stress levels making our range of impellers ideal for arduous fan applications.

Corrosion Resistance

Specially treated against corrosion, powder coated with polyester epoxy paint in pastel beige (RAL 7032).

Controllability

The Eltadrive range of inverters has been designed encompassing the latest technology and combining robustness with reliability. Using an inverter to control fans via sensors to reduce fan speeds can provide significant cost savings through lower energy consumption.

Warranty

Each SCD has a 12 month warranty.

Construction

Constructed from mild steel and suitably treated to ensure full corrosion protection, with both motors and axial impellers mounted within the length of the unit casing. All casing parts have a powder coated polyester epoxy paint finish in pastel beige (RAL 7032).

Motor

Three phase multi-voltage motors are wound for either (Delta) 230V/3Ph/50Hz or (Star) 400V/3Ph/50Hz connection, suitable for speed control up to 50°C when used with the Eltadrive VSD range of frequency inverter controls.

Impeller

Increased twist aerofoil impeller provides improved efficiency and acoustics suitable for higher stress applications.

Typical Applications

- Factories
- Sports Halls
- Shops
- Industrial Units
- Warehousing
- Schools
- Kitchens

Contents

Page	Information
3	Performance Range Curves
4	Performance, SFP & Electrical Data
5	Sound Data
6	Dimensional Data
7	Accessories
21	Notes

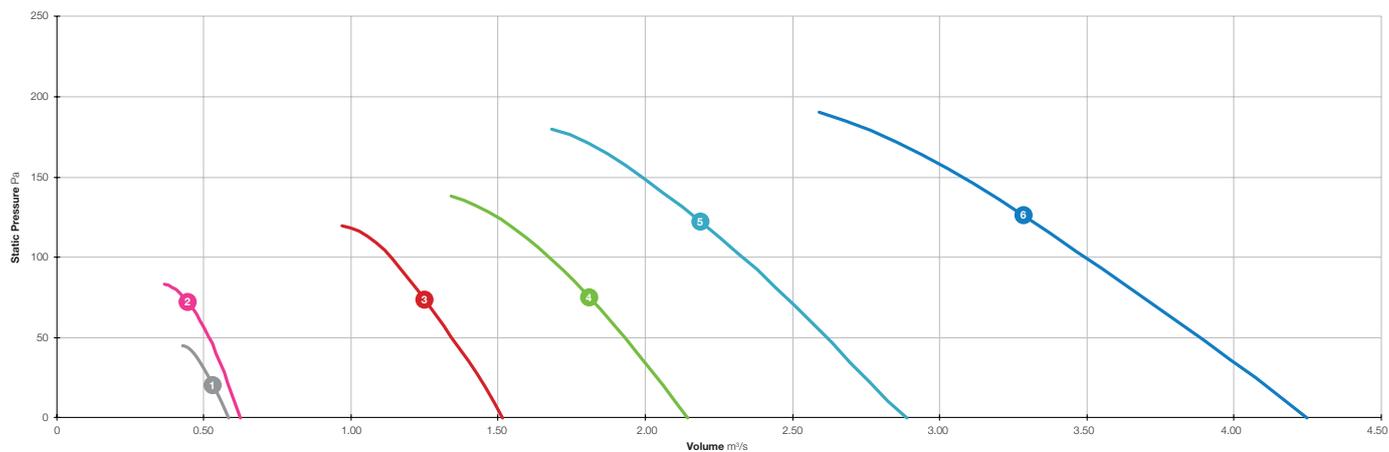
Product Coding

Code	Reference
SCD	Product Range
315	Diameter (315/350/400...)
/	
4	Number of Poles (2/4/6)
-	
3	Voltage Supply (Single Phase / Three Phase)
AC	Motor Type (AC/EC)
A - Z	Additional Coding (A - Z) Product Variants
e.g.	SCD315 / 4 - 3AC

COMPACT SCD



Performance Range Curves



- 1 SCD315 / 4-3AC
- 2 SCD350 / 4-3AC
- 3 SCD450 / 4-3AC
- 4 SCD500 / 4-3AC
- 5 SCD560 / 4-3AC
- 6 SCD630 / 4-3AC

COMPACT SCD



Performance, SFP & Electrical Data

Three Phase 380V to 415V / 50Hz

Product Code	Speed r/min	Airflow SFP	Airflow m ³ /s @ Static Pressure Pa						At Best Efficiency Point			Electrical Data		dBA @ 3m	
			0	25	50	75	100	150	Overall Eff %	FMEG N	Input kW	Peak Amps	Δ / Y		
SCD315/4-3AC	1435	m ³ /s	0.584	0.517	-	-	-	-	23.4	<125W	0.120	0.33	Mains	Inlet	50
		W/(L/s)	0.21	0.24	-	-	-	-						Outlet	49
SCD350/4-3AC	1435	m ³ /s	0.622	0.574	0.517	0.432	-	-	30.6	<125W	0.120	0.34	Mains	Inlet	52
		W/(L/s)	0.17	0.19	0.23	0.29	-	-						Outlet	52
SCD450/4-3AC	1405	m ³ /s	1.513	1.435	1.343	1.243	1.136	-	48.6	58	0.306	0.60	Mains	Inlet	60
		W/(L/s)	0.18	0.19	0.22	0.24	0.27	-						Outlet	59
SCD500/4-3AC	1435	m ³ /s	2.143	2.039	1.930	1.811	1.674	-	49.8	58	0.485	1.07	Mains	Inlet	59
		W/(L/s)	0.20	0.22	0.24	0.26	0.29	-						Outlet	60
SCD560/4-3AC	1445	m ³ /s	2.887	2.746	2.615	2.479	2.330	1.989	50.9	58	0.737	1.74	Mains	Inlet	61
		W/(L/s)	0.21	0.23	0.26	0.28	0.31	0.37						Outlet	61
SCD630/4-3AC	1435	m ³ /s	4.249	4.073	3.884	3.690	3.494	3.075	52.4	58	1.220	2.70	Mains	Inlet	65
		W/(L/s)	0.25	0.27	0.29	0.32	0.34	0.40						Outlet	67

Data provided is at standard air density of 1.2 kg/m³.

Data in accordance with ErP 327/2011 of the European Parliament. Measurement category used to determine energy efficiency: D.

Peak Amps @ 400V / 3PH / 50Hz.

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20μPa and is presented for comparative purposes only.

COMPACT SCD



Sound Data

Three Phase 380V to 415V / 50Hz

Product Code	Speed r/min		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
SCD315/4-3AC	1435	Inlet	67	72	78	66	61	56	51	46	80
		Outlet	68	74	76	66	61	57	53	50	79
SCD350/4-3AC	1435	Inlet	68	82	77	70	63	59	54	48	84
		Outlet	69	83	77	69	64	60	55	50	84
SCD450/4-3AC	1405	Inlet	77	83	85	79	70	67	62	57	88
		Outlet	82	83	84	77	70	68	63	59	88
SCD500/4-3AC	1435	Inlet	70	82	84	78	72	69	65	59	87
		Outlet	71	82	84	77	73	71	67	62	87
SCD560/4-3AC	1445	Inlet	74	81	82	80	77	72	68	64	87
		Outlet	76	81	81	79	76	73	70	67	86
SCD630/4-3AC	1435	Inlet	74	80	79	81	80	78	78	73	88
		Outlet	78	83	83	84	83	79	75	71	90

Data provided at standard air density of 1.2 kg/m³.
 Tests and preparation of the sound data have been carried out in accordance with BS 848 Part 2:1985 at 50% peak pressure.
 The Sound Power Level Spectra are in dB re-1pW.

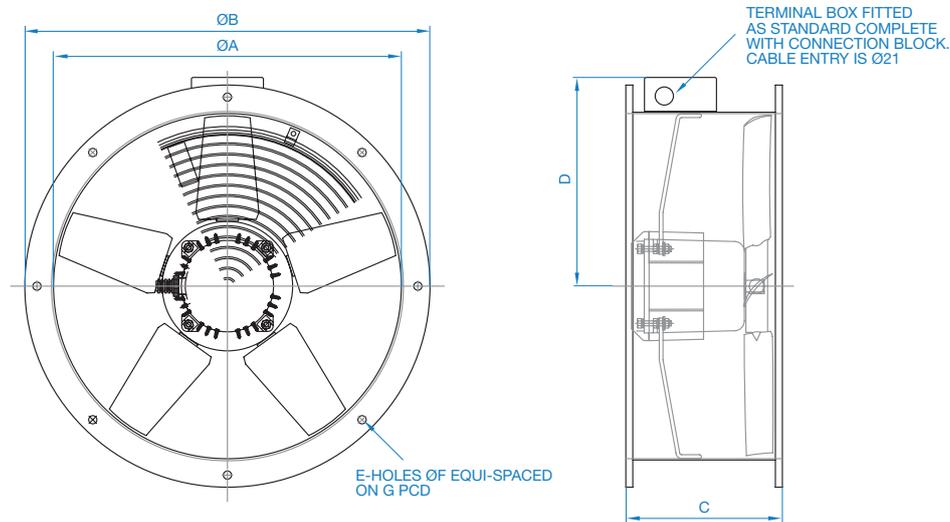
COMPACT SCD



Dimensional Data

Three Phase

Product Code	A	B	C	D	E	F	G	Weight kg
SCD315/4-3AC	315	382	180	207	8	10	356	8
SCD350/4-3AC	350	421	180	224	8	10	395	8
SCD450/4-3AC	450	515	190	274	12	10	487	14
SCD500/4-3AC	500	567	250	300	12	10	541	21
SCD560/4-3AC	560	636	250	330	16	12	605	23
SCD630/4-3AC	630	709	250	365	16	12	674	30



Dimensions are in mm.

COMPACT SCD



Accessories

Three Phase

Product Code	Ancillary Pack*	AV Mounts (set of 4)	Eltadrive Variable Speed Drive 1PH-3PH IP66	Eltadrive Variable Speed Drive 1PH-3PH IP20	Eltadrive Variable Speed Drive 3PH-3PH IP66	Eltadrive Variable Speed Drive 3PH-3PH IP20
SCD315/4-3AC	APK315SCD/001	062-001	-	-	-	-
SCD350/4-3AC	APK350SCD/001	062-001	-	-	-	-
SCD450/4-3AC	APK450SCD/001	062-001	149-ODE3-12037-1KB1Y	149-ODE3-12037-1KB12	149-ODE3-14075-3KA1Y	149-ODE3-14075-3KA12
SCD500/4-3AC	APK500SCD/002	062-002	149-ODE3-12075-1KB1Y	149-ODE3-12075-1KB12	149-ODE3-14075-3KA1Y	149-ODE3-14075-3KA12
SCD560/4-3AC	APK560SCD/002	062-002	149-ODE3-12075-1KB1Y	149-ODE3-12075-1KB12	149-ODE3-14075-3KA1Y	149-ODE3-14075-3KA12
SCD630/4-3AC	APK630SCD/002	062-002	149-ODE3-12150-1KB1Y	149-ODE3-12150-1KB12	149-ODE3-14150-3KA1Y	149-ODE3-14150-3KA12

Product Code	Flanged Silencer 1D Podded	Flanged Silencer 1D Unpodded	Flanged Silencer 2D Podded	Flanged Silencer 2D Unpodded	Impeller Side Guard	Powder Coated Matching Flanges (each)
SCD315/4-3AC	068-0315-1DEP	068-0315-1DENP	068-0315-2DEP	068-0315-2DENP	078C-0315-C	061A-0315-C
SCD350/4-3AC	068-0350-1DEP	068-0350-1DENP	068-0350-2DEP	068-0350-2DENP	078C-0350-C	061A-0350-C
SCD450/4-3AC	068-0450-1DEPC	068-0450-1DENPC	068-0450-2DEPC	068-0450-2DENPC	078C-0450-C	061A-0450-C
SCD500/4-3AC	068-0500-1DEPC	068-0500-1DENPC	068-0500-2DEPC	068-0500-2DENPC	078C-0500-C	061A-0500-C
SCD560/4-3AC	068-0560-1DEPC	068-0560-1DENPC	068-0560-2DEPC	068-0560-2DENPC	078C-0560-C	061A-0560-C
SCD630/4-3AC	068-0630-1DEPC	068-0630-1DENPC	068-0630-2DEPC	068-0630-2DENPC	078C-0630-C	061A-0630-C

Product Code	Powder Coated Mounting Feet (each)	Standard Ambient Flexible Connectors (each)	Transformer Controller	Wall Cowl	Wiring Diagram
SCD315/4-3AC	060A-0315-C	063-0315-MAN150	149-TC33	SWC25/31	152-611
SCD350/4-3AC	060A-0350-C	063-0350-MAN150	149-TC33	SWC35/40	152-611
SCD450/4-3AC	060A-0450-C	063-0450-MAN150	149-TC33	SWC45/50	152-611
SCD500/4-3AC	060A-0500-C	063-0500-MAN150	149-TC33	SWC45/50	152-611
SCD560/4-3AC	060A-0560-C	063-0560-MAN150	149-TC33	SWC56/63	152-611
SCD630/4-3AC	060A-0630-C	063-0630-MAN200	149-TC310	SWC56/63	152-611

*Consists of Flexible Connections, Matching Flanges, AV Mounts and Mounting Feet.

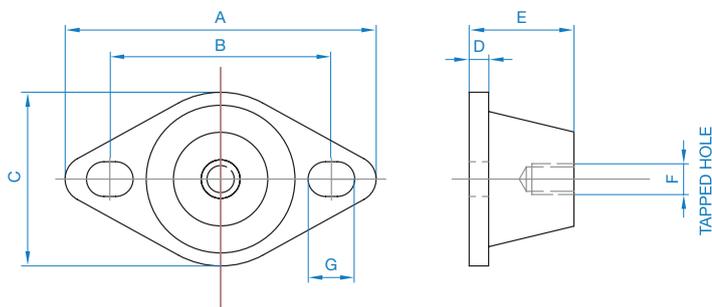
AV MOUNTS

Accessories



- Fits directly to mounting feet
- Rubber with steel insert
- Supplied as set of 4, complete with fixings

Product Code	A	B	C	D	E	F	G	Weight kg
062-001	64	50	43	5.5	20	M6	Ø7	0.040
062-002	64	50	43	5.5	20	M6	Ø7	0.040



Dimensions are in mm.

ELTADRIVE VARIABLE SPEED DRIVES

IP20

- Up to 22kW
- Built in PI control, EMC filter (C1) & brake chopper
- Application macros for industrial fan operation
- Bluetooth® connectivity
- Controls multiple motor types: IE2, 3, 4, IM, PM, BLDC and SynRM
- Operates up to 50°C



Overview

Compact, robust and reliable general purpose drive for panel mounting.

Simply Power Up

Eltadrive E3 provides precise motor control and energy savings using the factory settings. Simply power up and the drive can immediately deliver energy savings. 14 basic parameters allow simple adjustment for your application if required, with up to 50 parameters available in total for a highly flexible performance.

Power Supply

Connects at top.

Fast Connection

5mm rising clamp terminals with captive screws.

Quick Reference

Integrated help card.

Modbus RTS & CANopen

On board as standard.

SmartStart

Rapid parameter cloning and Bluetooth® PC interface.

Motor Supply

Connects at base.

Dimensional Data

Model	Size	Height	Width	Depth	Weight kg	Fixings
IP20	1	173	83	123	1.0	4 x M5
	2	221	110	150	1.7	4 x M5
	3	261	131	175	3.2	4 x M5
	4	420	171	212	9.1	4 x M8

Dimensions in mm.

ELTADRIVE VARIABLE SPEED DRIVES

IP66

- Up to 7.5kW
- Conformal coating as standard
- Switched or Non-Switched

Overview

Enclosed drives for direct machine mounting, dust-tight and ready for washdown duty.

Dust Tight Design

Install directly on your processing equipment and be sure of protection from dust and contaminants.

Washdown Ready

With a sealed ABS enclosure and corrosion resistant heatsink, the Eltadrive E3 IP66 is ideal for high-pressure washdown applications.

Eltadrive E3 IP66 Switched

Simply wire up the drive, turn the inbuilt potentiometer and the motor will start running - allowing immediate energy savings.

Coated Heatsink as Standard

Ideal for hygiene based operations requiring washdown such as food & beverage.

Fanless Heatsink

For reliable, cost effective operation.

Local Speed Potentiometer

Run Reverse / Off / Run Forward Switch

Lockable Mains

Disconnect / Isolator.

Dimensional Data

Model	Size	Height	Width	Depth	Weight kg	Fixings
IP66	1	232	161	179	3.1	4 x M4
	2	257	188	187	4.1	4 x M4
	3	310	211	252	7.6	4 x M4

Dimensions in mm.



FLANGED SILENCERS

Accessories



- Ideal for bolting directly to fan flange
- Ideal for all axial fans
- Ideal for cross talk elimination
- Ideal for flexible or spiral ducting

Overview

Elta Fans are able to provide 2 types of cylindrical silencers as standard; Type DENP (without pod) and DEP (with pod), these are categorised as follows; Compact Silencers (ENP / EP), Standard Silencers (ENP / EP / Melinex).

Construction

Both types are rigidly constructed in galvanised sheet steel, with a highly absorbent sound attenuating lining between the outer casing and the inner perforated steel lining. The end faces of the silencer has a series of threaded holes for direct mounting to the fixing flange/flexible collar. The EP (podded versions) will provide an improved level of attenuation. The inner acoustic pod is constructed from perforated steel sheet with a sound absorbent infill.

Melinex lined silencers must be used to prevent grease impregnation into the acoustic media for kitchen extract applications as prescribed in DW/172 HVAC Specification For Kitchen Ventilation Systems. For Melinex insertion losses, please contact Elta Fans. Silencers can be provided with differing lengths: 1D = 1 times diameter, 2D = 2 times diameter. The Velocity through podded silencer should not exceed 15m/s.

Silencer Attenuation

To determine the sound level of a fan fitted with a silencer, the dynamic insertion loss should be subtracted from the sound power level spectrum (dBW) of the fan. This should be done for the entire octave band mid-frequency spectrum. The fan dBW ratings and silencer attenuation apply equally to in duct applications, with a silencer connected between the fan and the duct system.

Dynamic Insertion Loss

The silencer attenuation is defined as the “dynamic insertion loss”. The values quoted in the tables represent the difference between the sound power level of a fan and silencer combination (dBW) and that of the fan alone (dBW). The dynamic insertion losses shown are the attenuations recorded under ideal working conditions. The achieved attenuation will vary according to the air velocity and flow pattern in the airways. Noise regeneration can occur at higher velocities, especially in EP silencers.

Square / Rectangular Silencers

In highly noise sensitive areas, where the circular silencers cannot achieve the necessary attenuation levels, Elta can design and build optional splitter silencers for greater effect.

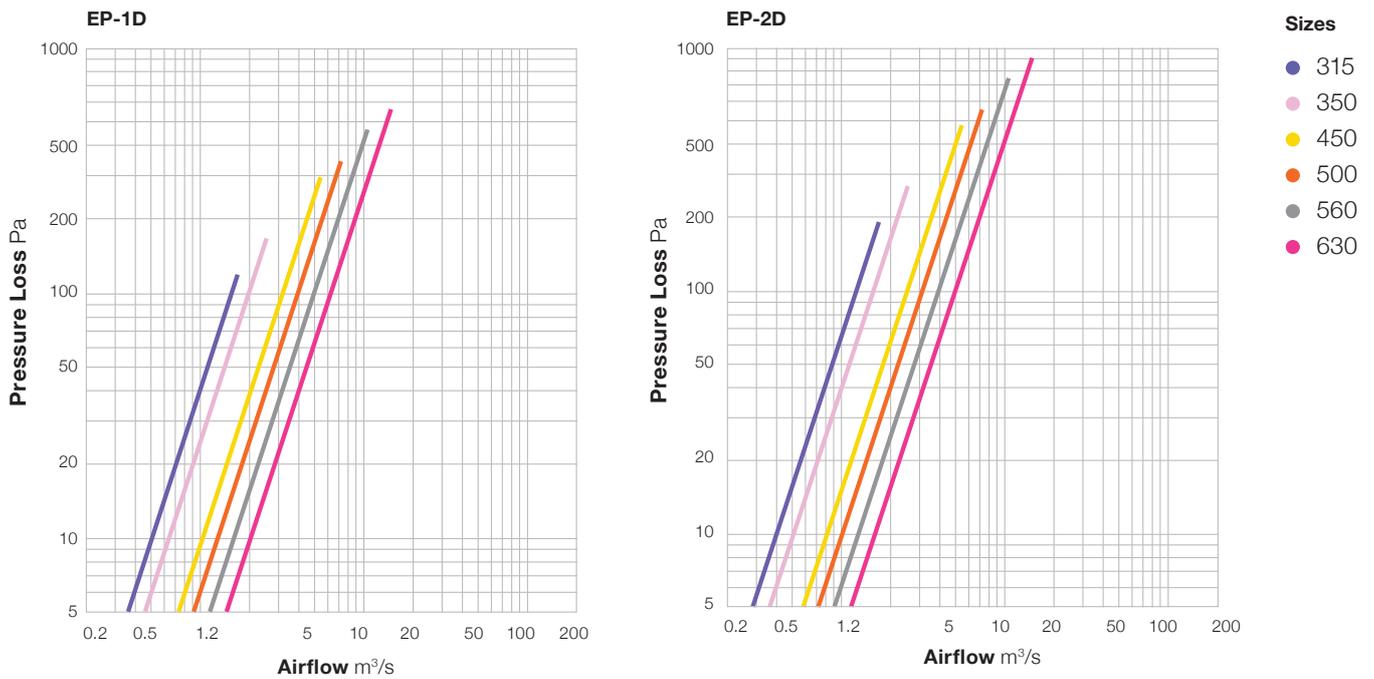
FLANGED SILENCERS

Dynamic Insertion Loss & Pressure Graphs

Dynamic Insertion Loss

Fan Size	Silencer Length	Silencer Type	Insertion Loss @ Octave Band (Hz)							
			63	125	250	500	1k	2k	4k	8k
0315-0560	1D	ENP	-2	-5	-6	-9	-13	-11	-6	-6
		EP	-4	-6	-8	-11	-18	-19	-17	-14
	2D	ENP	-4	-8	-12	-17	-23	-17	-12	-10
		EP	-7	-10	-12	-21	-26	-26	-24	-22
0630	1D	ENP	-3	-4	-9	-15	-15	-8	-7	-6
		EP	-4	-6	-8	-17	-23	-20	-18	-10
	2D	ENP	-6	-8	-13	-22	-22	-13	-12	-9
		EP	-8	-11	-16	-27	-32	-31	-29	-19

Podded Silencers Pressure Graphs



FLANGED SILENCERS

Dimensional Data

Silencer 1DEP / 1DEPC Podded

Product Code	Fan Dia	A	B	C	D	E	Weight kg
068-0315-1DEP	315	315	416	8	M8	355	11
068-0350-1DEP	350	350	452	8	M8	395	13
068-0450-1DEPC	450	450	604	8	M10	500	18
068-0500-1DEPC	500	500	657	12	M10	560	22
068-0560-1DEPC	560	560	714	12	M10	620	26
068-0630-1DEPC	630	630	784	12	M10	690	31

Silencer 1DENP / 1DENPC Unpodded

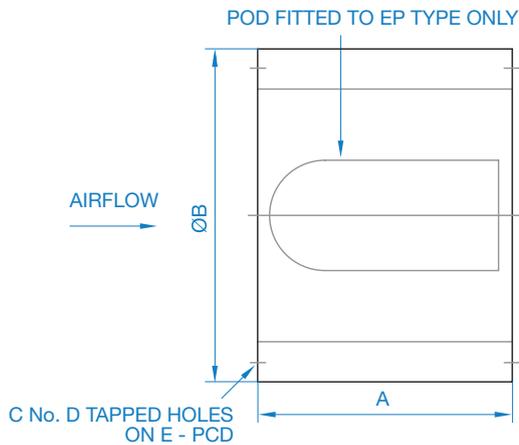
Product Code	Fan Dia	A	B	C	D	E	Weight kg
068-0315-1DENP	315	315	416	8	M8	355	9
068-0350-1DENP	350	350	452	8	M8	395	11
068-0450-1DENPC	450	450	604	8	M10	500	15
068-0500-1DENPC	500	500	657	12	M10	560	18
068-0560-1DENPC	560	560	714	12	M10	620	22
068-0630-1DENPC	630	630	784	12	M10	690	26

Silencer 2DEP / 2DEPC Podded

Product Code	Fan Dia	A	B	C	D	E	Weight kg
068-0315-2DEP	315	630	416	8	M8	355	17
068-0350-2DEP	350	700	452	8	M8	395	21
068-0450-2DEPC	450	900	604	8	M10	500	31
068-0500-2DEPC	500	1000	657	12	M10	560	37
068-0560-2DEPC	560	1120	714	12	M10	620	46
068-0630-2DEPC	630	1260	784	12	M10	690	57

Silencer 2DENP / 2DENPC Unpodded

Product Code	Fan Dia	A	B	C	D	E	Weight kg
068-0315-2DENP	315	630	416	8	M8	355	15
068-0350-2DENP	350	700	452	8	M8	395	18
068-0450-2DENPC	450	900	604	8	M10	500	27
068-0500-2DENPC	500	1000	657	12	M10	560	32
068-0560-2DENPC	560	1120	714	12	M10	620	39
068-0630-2DENPC	630	1260	784	12	M10	690	48

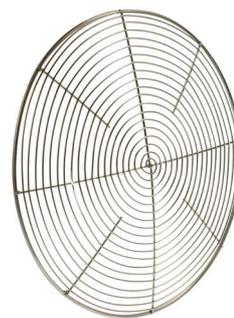


Dimensions are in mm.

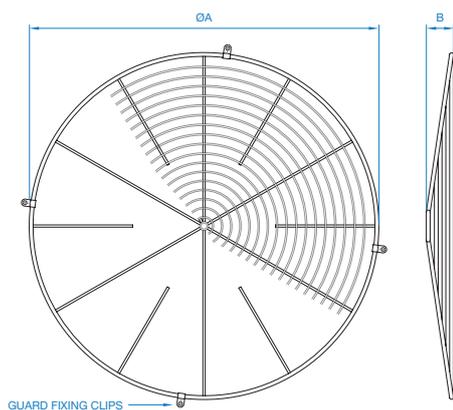
IMPELLER SIDE GUARD

Accessories

- Powder coated polyester epoxy paint finish in RAL 7040 (Window Grey)
- Fix with clips & screw provided



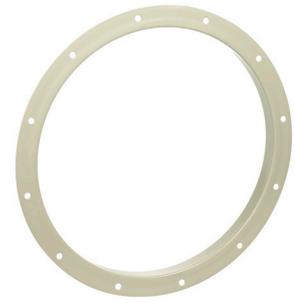
Product Code	Fan Dia.	A	B	Weight kg
078C-0315-C	315	335	21	1.1
078C-0350-C	350	370	23	1.4
078C-0450-C	450	470	29	1.8
078C-0500-C	500	520	32	2.2
078C-0560-C	560	585	32	2.5
078C-0630-C	630	655	40	2.6



Dimensions are in mm.

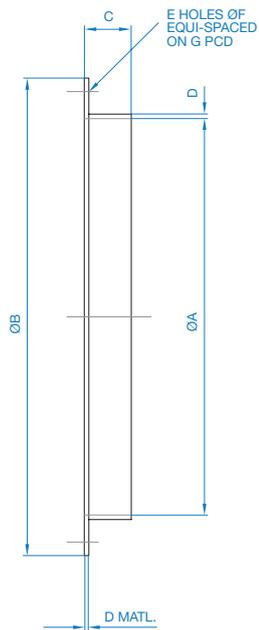
POWDER COATED MATCHING FLANGES

Accessories



- Fits directly to fan case flange
- Provides easy connection to flexible connector or ducting
- Powder coated steel (pastel beige, RAL 7032)

Product Code	Fan Dia. A	B	C	D	E	F	G	Weight kg
061A-0250-C	250	306	30	1.6	8	7.5	286	0.5
061A-0315-C	315	382	30	1.6	8	9.5	356	0.7
061A-0350-C	350	421	30	1.6	8	9.5	395	1.0
061A-0450-C	450	515	40	1.6	12	9.5	487	2.2
061A-0500-C	500	567	45	1.6	12	9.5	541	2.6
061A-0560-C	560	636	45	1.6	16	11.5	605	3.0
061A-0630-C	630	709	45	1.6	16	11.5	674	3.5



Dimensions are in mm.

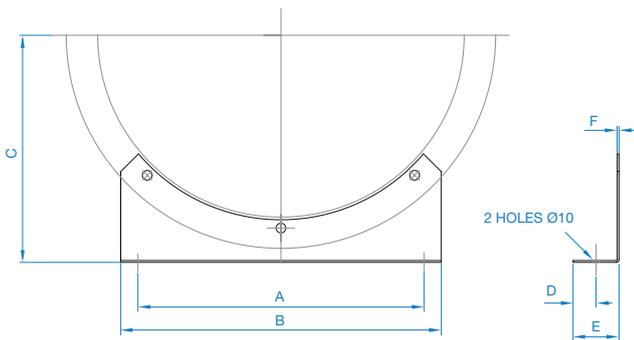
POWDER COATED MOUNTING FEET

Accessories



- For free standing mounting of ducted fans
- Fixes directly to fan case flange
- Powder coated steel (pastel beige, RAL 7032)
- Supplied individually, less fixings

Product Code	Fan Dia.	A	B	C	D	E	F	Weight kg
060A-0315-C	315	250	280	200	20	40	2.0	1.0
060A-0350-C	350	280	310	225	20	40	2.0	1.3
060A-0450-C	450	240	275	275	20	40	2.0	2.0
060A-0500-C	500	280	315	315	25	50	2.5	2.5
060A-0560-C	560	320	355	355	25	50	2.5	4.0
060A-0630-C	630	360	400	400	25	50	2.5	5.0



Dimensions are in mm.

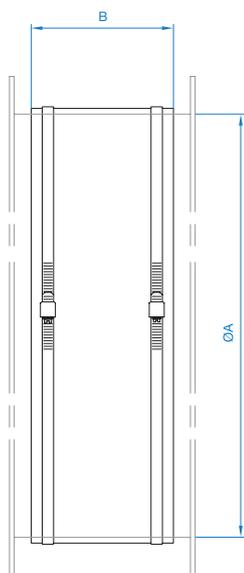
STANDARD AMBIENT FLEXIBLE CONNECTOR

Accessories

- Fit to matching flanges to provide flexible connection
- PVC coating polyester
- Supplied with plated steel band fixings
- Alternative material available to order
- Suitable for temperature between -30°C and +70°C



Product Code	Fan Dia. A	B	Weight kg
063-0315-MAN150	315	150	0.6
063-0350-MAN150	350	150	0.7
063-0450-MAN150	450	150	1.1
063-0500-MAN150	500	150	1.2
063-0560-MAN150	560	150	1.3
063-0630-MAN200	630	200	1.4



Dimensions are in mm.

TRANSFORMER CONTROLLER

Accessories

- IP40 enclosure
- Five speed stepped control
- Fitted Motor Protection type D MCB (single phase units only)
- Suitable for operating temperatures up to 40°C
- 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



Features & Benefits

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.

Three Phase 380V to 415V / 50Hz

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

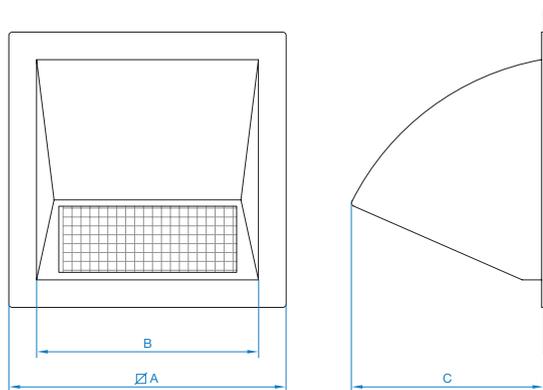
WALL COWL

Accessories

- Protects fan openings prevailing weather conditions
- Minimises resistance to airflow
- Manufactured from GRP - colour (goose wing grey) impregnated into gel coat
- Complete with integral bird screen (galvanised mesh)



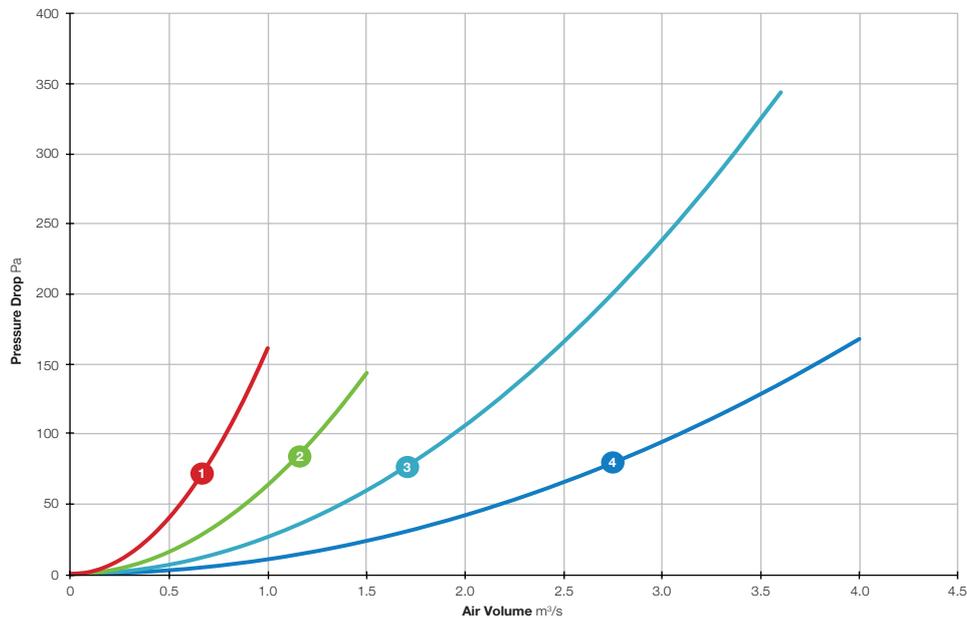
Product Code	A	B	C	Grille Area m ²	Weight kg
SWC25/31	500	410	325	0.088	2
SWC35/40	610	510	390	0.140	3
SWC45/50	755	645	470	0.217	7
SWC56/63	935	815	555	0.345	10



Dimensions are in mm.

WALL COWL

Cowl Pressure Drop Curve



- 1 SWC25/31
- 2 SWC35/40
- 3 SWC45/50
- 4 SWC56/63

Determine pressure loss against required flow rate and add pressure loss value to system design pressure, verify that fan selection can accommodate extra pressure loss.
Original design: flow rate (m³/s) and pressure (Pa), with cowl becomes flow rate (m³/s) and (pressure (Pa) + pressure loss (Pa) from curve).

Building Services

Tel **+44 (0) 1384 275800**
Fax **+44 (0) 1384 275810**
Email **info@eltafans.co.uk**

46 Third Avenue, Pensnett Trading Estate, Kingswinford,
West Midlands, DY6 7US United Kingdom

Applied Technology & Building Services Export

Tel **+44 (0) 1489 566500**
Fax **+44 (0) 1489 566555**
Email **at@eltafans.co.uk / export@eltafans.co.uk**

17 Barnes Wallis Road, Segensworth East Industrial Estate,
Fareham, Hampshire, PO15 5ST United Kingdom

eltafans.com

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