

COMPACT **SCPA**



Plate Mounted **Axial Fans**

Compact SCPA – Plate Mounted Features & Benefits



The Compact SCPA is a plate mounted axial fan with a 10 bladed aluminium impeller, offering improved pressure development, whilst being ideal for speed control.

The fan design, construction and finish provides a strong, durable and weather proofed range. Compact SCPA fans boast highly efficient lightweight, robust motors, with proven reliability ensuring a long life and trouble free operation.

- **7 standard sizes from 315mm to 630mm.**
- **Air volume flow rates of up to 4.16 m³/sec.**
- **Static pressures of up to 250 Pa.**
- **Highly efficient, lightweight induction motors.**
- **Fully speed controllable.**
- **Impellers are highly efficient aerofoil bladed section, produced from and retained in an aluminium hub and balanced to Grade G6.3.**
- **Suitable for operating temperatures up to 70°C (50°C under speed control).**
- **Extensive stock range available.**

Features & Benefits

Aluminium Blades - With a full solidity, 10 bladed aluminium impeller, the SCPA offers improved pressure development, as well as a cost effective solution for situations that demand a metal impeller.

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

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

Adaptable - Compact SCPA fans operate as Form A running, but are available as Form B if required, so the fan can be used for supply as well as extract.

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

Speed controllable – Each fan is fully speed controllable with an electronic or transformer controller, which means airflow can be altered to suit site conditions.

Safety – All motors are fitted with integral 'Thermal overload protection' preventing the motor from overheating and all fans come with integral motor side guard.

Ease of installation – Fans are supplied with an integral IP55 terminal box, which allows the fan to be positioned conveniently to incoming electrical inputs.

Efficiency – The advanced engineering and design provides higher efficiency with lower power absorption characteristics, which improves quality and life expectancy.

Solid Construction - The powder coated steel fan plate incorporates a pressed inlet which provides extra rigidity, smoother airflow and enhanced performance characteristics. Finish is pastel beige (RAL 7032).

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

Mounting – Fans can be mounted in any position and are suitable for, wall or roof mounted applications.

Full accessory range – Speed controllers, inverters, louvre shutters, impeller side guards (recommended), wall cowls.

Tested to the very latest standards – SCPA units are tested to ISO 5801:1997 (airside performance) and to BS 848 Pt 2:1985 (sound performance) at Elta Fans own test facility, 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 SCPA has a 12 month warranty.

Applications

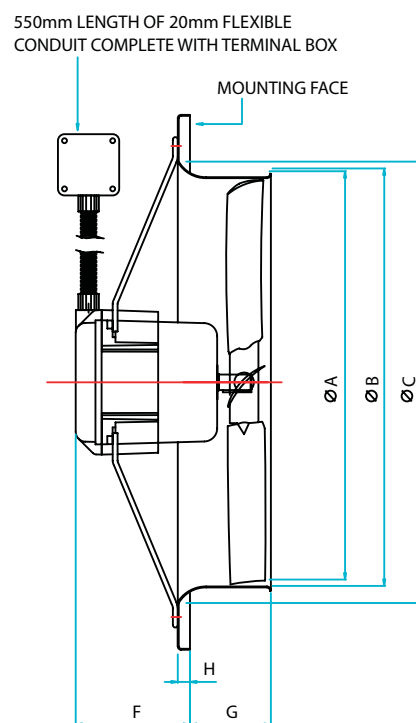
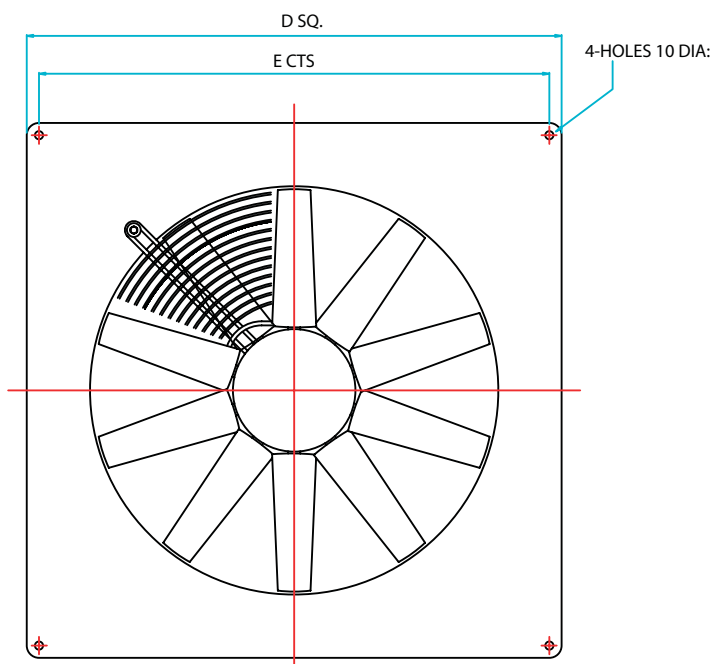
Factories, sports halls, shops, industrial units, warehousing, schools, kitchen extract.

Compact SCPA - Plate Mounted

Dimensional Data

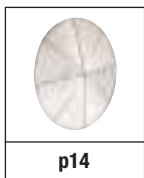


AXIAL FLOW



Product Code	A	B	C	D	E	F	G	H	Weight kg
SCPA315	315	325	360	430	380	85	88	15	8
SCPA350	350	360	395	485	435	85	88	15	10
SCPA400	400	410	450	540	490	84	99	15	14
SCPA450	450	460	500	575	535	104	99	15	15
SCPA500	500	510	560	655	615	140	99	15	22
SCPA560	560	575	625	725	670	140	99	20	29
SCPA630	630	645	705	805	750	140	101	20	32

Accessories



Compact SCPA - Plate Mounted Performance & Electrical Data



SINGLE Phase - 220V-240V / 50Hz

Product Code	Speed r/min	Airflow m ³ /s @ Static Pressure Pa.											Motor Electrical Data			Speed Control		dBA @ 3m
		0	25	50	75	100	125	150	175	200	225	250	FLC Amps	SC Amps	Output kW	Electr- onic	Trans- former	
SCPA315/4-1	1370	0.48	0.44	0.40	0.34								0.9	1.45	0.09	EL31TK	TC12	54
SCPA350/4-1	1290	0.70	0.65	0.60	0.54								0.9	1.45	0.09	EL31TK	TC12	57
SCPA400/4-1	1385	1.13	1.07	1.00	0.93	0.85							1.8	3.6	0.25	EL31TK	TC14	59
SCPA450/4-1	1340	1.66	1.59	1.52	1.44	1.34	1.20						3.0	9.0	0.37	EL61TK	TC14	63
SCPA500/4-1	1375	2.61	2.49	2.36	2.21	2.05	1.87	1.64					4.9	15.0	0.75	EL61TK	TC18	66
SCPA560/4-1	1340	3.45	3.33	3.21	3.08	2.93	2.78	2.64	2.46				7.9	19.75	1.1	-	TC110	67
SCPA630/4-1	1310	4.16	4.06	3.95	3.84	3.71	3.57	3.42	3.25	3.04	2.79	2.39	7.9	19.75	1.1	-	TC110	68

Sound levels are average spherical free field values at 50% peak pressure for comparative purposes only.

Speed control

Part L of the UK Building Regulations encourages the speed control of fans to provide energy savings, which can be dramatic – halving fan speed reduces power consumption by 87½%.

Speed control can also be applied to reduce airflow to match lower ventilation rates when these are demanded and obviously reduce noise levels accordingly.

Whatever method of speed control is adopted, it is essential to ensure that the motor is designed and manufactured for speed control. Speed controllers range from 3-speed switches for small single phase motors up to 16 Amp, 5-step auto-transformer units for single or three phase supply and on to unlimited amperages with inverters for use with three phase motors.

Single phase

Fans suitable for variable voltage speed control must have motors with high resistance rotors. Electronic speed controllers are the most cost effective option but they can generate a magnetic hum and should be used with care in noise sensitive areas. They are also the least efficient option with an increase in current at about 70% of full speed.

Multi-step auto-transformer controllers are more expensive but do not suffer from magnetic hum. They are also more efficient.

Three phase

Fans suitable for variable voltage speed control must have motors with high resistance rotors. Multi-step auto-transformer controllers are a cost effective option and do not create a magnetic hum.

Fans fitted with modern standard motors are suitable for variable frequency control using inverter controllers. Whilst these have the highest initial cost they are the most efficient and versatile option and offer many additional features such as soft start, programmable functions and BMS integration. (N.B. External rotor motors must have enhanced winding insulation to be suitable for variable frequency control).

Compact SCPA - Plate Mounted

Sound Data



SCPA - SINGLE Phase

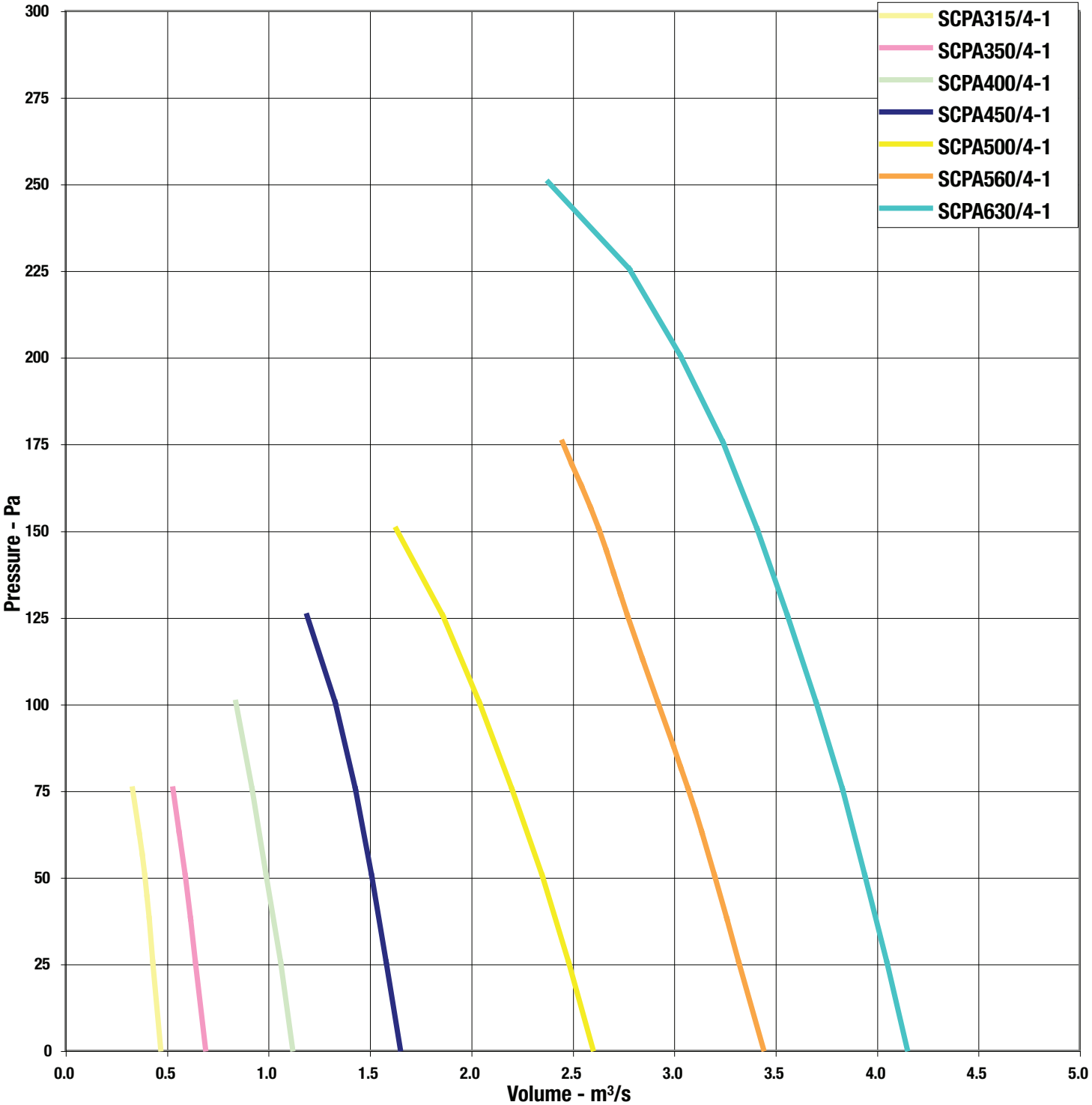
Product Code	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SCPA315/4-1	69	79	80	70	66	65	63	56	54
SCPA350/4-1	70	80	83	73	69	68	65	57	57
SCPA400/4-1	72	81	83	77	72	71	69	63	59
SCPA450/4-1	84	85	88	81	73	74	71	61	63
SCPA500/4-1	82	82	89	85	79	78	77	70	66
SCPA560/4-1	78	82	88	89	76	77	73	70	67
SCPA630/4-1	83	79	84	87	84	80	76	70	68

Compact SCPA - Plate Mounted



Performance Curves

4 Pole 1Ph Range

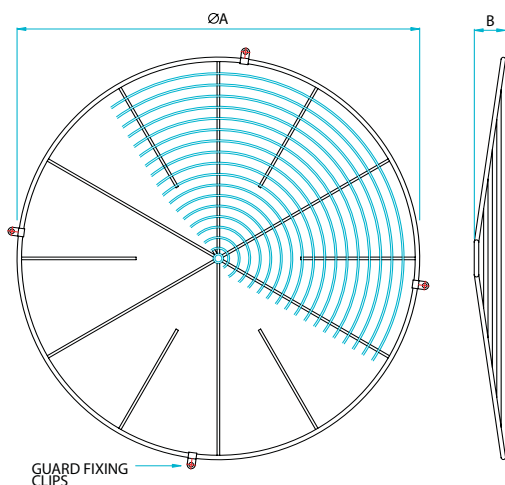


Compact SCP/A - Plate Mounted Accessories



AXIAL FLOW

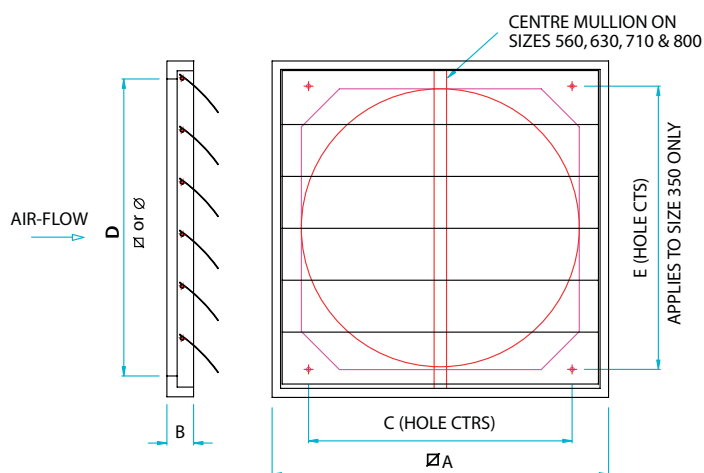
Impeller Guard



Product Code	Fan Dia.	A	B	Weight kg
078C-0250-C	250	270	18	0.9
078C-0315-C	315	335	21	1.1
078C-0350-C	350	370	23	1.4
078C-0400-C	400	420	26	1.6
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
078C-0710-C	710	730	50	3.2
078C-0800-C	800	820	50	3.5

- Bright zinc plated steel
- Fix with clips & screws provided

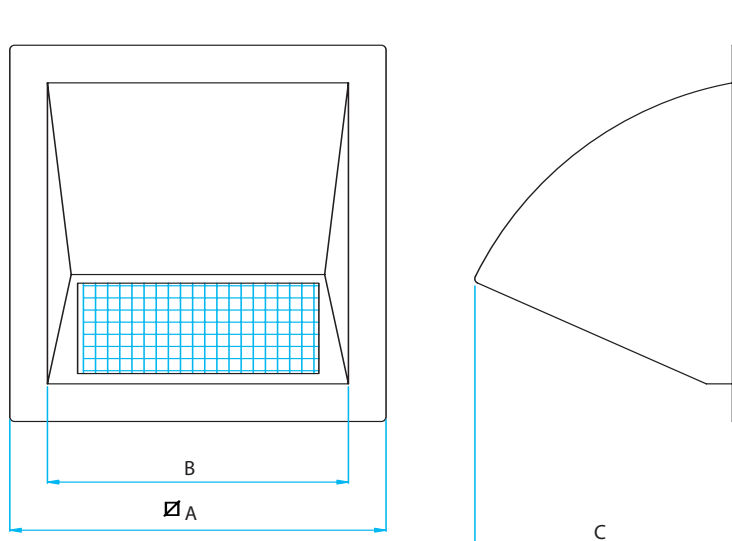
Louvre Shutter



Product Code	A	B	C	D ^Ø	D [∅]	E	Weight kg
064-0250-C	298	26	235	260	-	-	0.5
064-0315-C	348	26	274	310	-	-	0.5
064-0350-C	348	26	298	360	-	323	1.0
064-0400-C	460	26	364	423	-	-	1.0
064-0450-C	502	30	404	460	-	-	1.5
064-0500-C	548	30	452	510	-	-	2.0
064-0560-C	610	30	530	-	568	-	2.0
064-0630-C	696	30	627	-	655	-	3.0
064-0710-C	745	30	666	-	702	-	3.0
064-0800-C	840	40	770	-	800	-	4.0

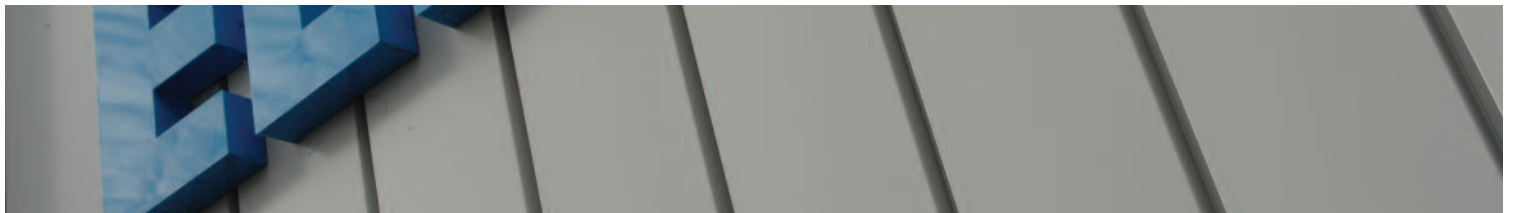
- Durable, light grey polypropylene
- Opens automatically with airflow
- Mount independently of fan (ideally downstream)
- Screw fixings provided

Wall Cowl



- Protects fan openings from prevailing weather conditions
- Minimises resistance to airflow
- Manufactured from GRP - Colour 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



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