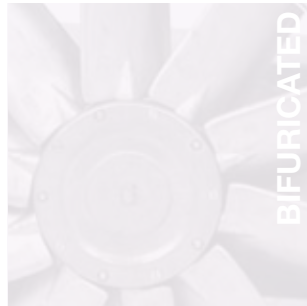




PowerPlus SPP

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 visit: eltaselect.com



The Select Catalogue has a number of symbols and icons, designed to make the catalogue quicker and easier to use. An explanation of these are listed below:

Application Icons

Applications are now represented via a set of pictorial icons. The application icons key is featured on the facing page. Some applications have been grouped together, where the environmental conditions have similarities.

New Products

The icon to the right indicates a new addition to the Select product range. This will be displayed on the introductory page of each product and can also be seen on the contents page for each category.



Raptor SPA

Plate Mounted Axial Flow Fan

axial

OVERVIEW

The Raptor SPA incorporates the BAT (Best Available Technology) FEZOWEIT sickle bladed aerofoil profiled impeller, with serrated trailing edges and vanes powered by the ultra reliable Ziehl-Abegg external rotor motor. The fan design, construction and finish provides a strong, durable and weatherproofed range, that boasts low noise and increased efficiency.

QUICK FACTS

- ✓ 9 standard sizes from 250mm to 710mm.
- ✓ Air volume flow rates of up to 6.27 m³/s.
- ✓ Static pressures of up to 298 Pa.
- ✓ Suitable for operating temperatures up to +70°C.
- ✓ Extensive stock range available.

CASING

The all metal fan casing and guard provide a long lasting and robust construction. The units have been constructed from mild steel and suitably treated to ensure full corrosion protection. The guard is powder coated powder epoxy paint finish to black (RAL 9005).

Fan plates are powder coated powder epoxy paint finish to powder grey (RAL 7035).

MOTORS

Motors are highly efficient, lightweight external rotor motors, resistant to Class F, with integral thermal overload protection.

Size 250-500 manufactured to the IEC Class 400-710 weatherproofed to IP54. All fans are suitable for use with a speed controller.

Electrical connection to the motor shall be provided by an IP55 terminal box. Rated to a long lead allowing the fan to be positioned conveniently to incoming electrical inputs.

TYPICAL APPLICATIONS

IMPELLER

Impellers are high quality Ziehl-Abegg Sickle Blade or FEZOWEIT in pressure die cast aluminium or high performance composite material providing enhanced aerodynamic properties, low noise and energy efficiency. They are dynamically balanced to ISO 1940 Grade G2.5 and treated to black (RAL 9005).

Ziehl-Abegg Sickle Blade or FEZOWEIT impellers provide significant noise reduction.

QUALITY MANAGEMENT

Units are fully designed and manufactured with procedures as defined in ISO 9001:2008.

All SPA units are fully tested to ISO 9001:2007 (noise performance) and ISO 940 Part 2:1985 (sound performance).

MORE INFORMATION

DESCRIPTION	PAGE
PERFORMANCE AND ELECTRICAL DATA	5
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SOUND DATA	9
DIMENSIONAL DATA	11
WIRING DATA	12
ACCESSORIES	13

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More Information Box

A more information box now also features on each introductory product page. This makes it easier to locate any further information you may require by displaying the page number to refer to, or directing you to the website - www.eltaselect.com.

2013

New legislation has driven change in the Elta Select range of products. Elta Fans have revolutionised both their new and existing product range to meet legislation directives, but also to incorporate the "Best Available Technology"; creating a reliable efficient and powerful range of products. The products which conform to the 2013 legislation are indicated with the above logo. This logo is pictured both on the main product page and the category contents page.



Catalogue Guide

Application Key

info

Each product has an indication of typical applications via a set of icons. Every icon is displayed below, along with the definition of what it represents.



Sports Hall
Squash Courts
Gymnasium



Schools
Colleges



Shopping Mall



Shops
Retail Parks
Commercial



Kitchens



Factories
Industrial Units



Warehousing



Shower Rooms
Bathrooms
Toilets
Changing Rooms



Marine



Agriculture



Airports



Corrosive
Atmospheres



Banks



Hospitals



Hotels



Restaurants
Cafes
Cafeterias
Pubs



Theatres



Air Conditioning



Residential
Public Buildings
Entrance Halls



Underground
Stations



Libraries



Offices



Laundries
Utility Rooms



Temporary
Ventilation
Construction
Sites



Enclosed Car
Parks



Stairwell
Pressurisation



Workshops
Foundries
Welding Bays
Machine Shops
Spray Booths
Lift Motor Rooms



Marquees



Conference Halls



Cooling Towers
Stations
Boiler Houses
Heavy Industrial



Hot Gas
Situations



General HVAC

PowerPlus SPP

axial

Contra-Rotating Axial Flow Fan



OVERVIEW

The PowerPlus SPP range has been specifically developed to tackle higher pressure requirements with a straightforward, efficient and definitive approach. The resilient two stage contra-rotating axial fan is housed in a single robust casing, with both motors wired via a flexible weatherproofed cable system to a single IP55 terminal box mounted on the outside of the casing.

QUICK FACTS

- ✓ 4 standard sizes from 450mm to 630mm.
- ✓ Air volume flow rates of up to 3.92 m³/s.
- ✓ Static pressures of up to 650 Pa.
- ✓ Suitable for operating temperatures up to +70°C.
- ✓ Extensive stock range available.

CASING

The all metal fan casing provides a long lasting and robust construction. The units have been constructed from a single sheet of steel, with both motors and axial impellers mounted within the length of the unit casing.

All casing parts are heavy gauge mild steel sheet, roll formed and welded for added strength and durability, hot dip galvanised to BS EN ISO 1461:2009 after fabrication and drilled to BS ISO 6580:2005.

The fans are suitable for external mounting as standard.

IMPELLER

Adjustable pitch aerofoil impellers are provided with blades made from high quality die cast aluminium (LM6).

Impellers are factory set at an angle to provide maximum performance and efficiency across the duty range. The hubs are manufactured from die cast aluminium alloy (LM24).

All impellers are to be dynamically balanced to ISO 14694 Grade G6.3.

MOTORS

Motors are totally enclosed, airstream rated induction motors with sealed for life, maintenance free ball bearings, which allows the fan to be installed at any angle.

Each motor is matched to the aerodynamic performance of the impeller. Motors are Class F insulated to EN 60034-5, protected to IP55 and suitable for inverter speed control. Motors are suitable for 230V Delta and 400V Star connection.

Fans are suitable for operating temperatures between -20°C and +70°C. Electrical connection to the motor is provided by an IP55 terminal box which is fitted onto the outer side of the Fan casing.

TYPICAL APPLICATIONS



QUALITY MANAGEMENT

Units are to be designed and manufactured with procedures as defined in BS EN ISO 9001:2008.

All SPP units are to be tested to ISO 5801:2007 (airside performance) and BS 848 Part 2:1985 (sound performance).

MORE INFORMATION	PAGE
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ACCESSORIES	8

PowerPlus SPP

Performance and Electrical Data

THREE Phase - 380V-415V / 50Hz

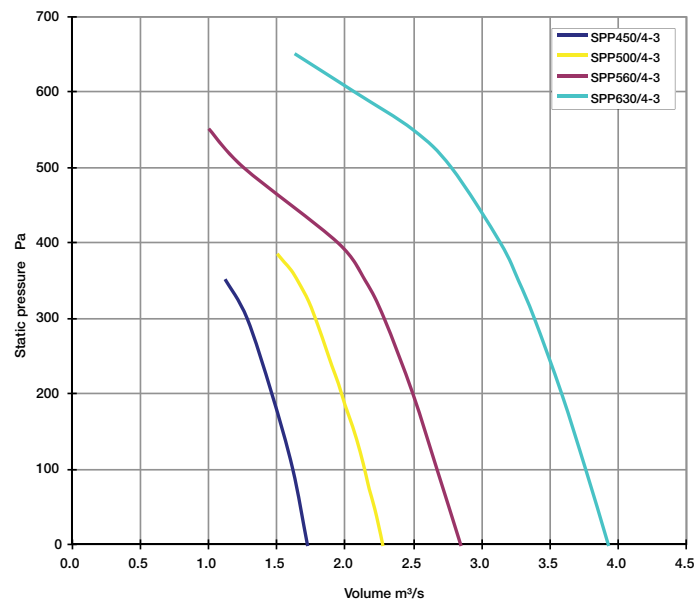
Product Code	Speed r/min	Airflow SFP	Airflow m ³ /s @ Static Pressure Pa.													
			0	50	100	150	200	250	300	350	400	450	500	550	600	650
SPP450/4-3	1410	m ³ /s	1.72	1.67	1.61	1.54	1.46	1.37	1.28	1.12						
		W/(L/s)	0.38	0.42	0.46	0.52	0.59	0.66	0.74	0.84						
SPP500/4-3	1390	m ³ /s	2.27	2.21	2.14	2.06	1.97	1.88	1.78	1.66						
		W/(L/s)	0.41	0.45	0.50	0.55	0.61	0.67	0.74	0.82						
SPP560/4-3	1400	m ³ /s	2.84	2.75	2.67	2.58	2.49	2.39	2.28	2.14	1.94	1.58	1.25	1.01		
		W/(L/s)	0.41	0.47	0.52	0.57	0.62	0.67	0.73	0.80	0.90	1.10	1.36	1.69		
SPP630/4-3	1450	m ³ /s	3.92	3.84	3.76	3.67	3.58	3.48	3.38	3.26	3.13	2.97	2.77	2.49	2.07	1.64
		W/(L/s)	0.40	0.45	0.50	0.54	0.59	0.63	0.68	0.73	0.79	0.85	0.93	1.04	1.24	1.53

Product Code	Input Amps #	Output kW	Motor Electrical Data 230V/3/50Hz		Motor Electrical Data 400V/3/50Hz	
			FLC Amps	SC Amps	FLC Amps	SC Amps
SPP450/4-3	4.1	0.74	3.1	14.5	2.0	9.5
SPP500/4-3	5.7	1.1	4.5	20.4	2.8	13.9
SPP560/4-3	7.6	1.5	5.6	26.3	3.7	19
SPP630/4-3	11.6	2.2	8.7	42.1	4.8	31.2

Total input amperes into Inverter @ 230/1/50 supply.

Performance Curves

THREE Phase - 4 Pole



PowerPlus SPP

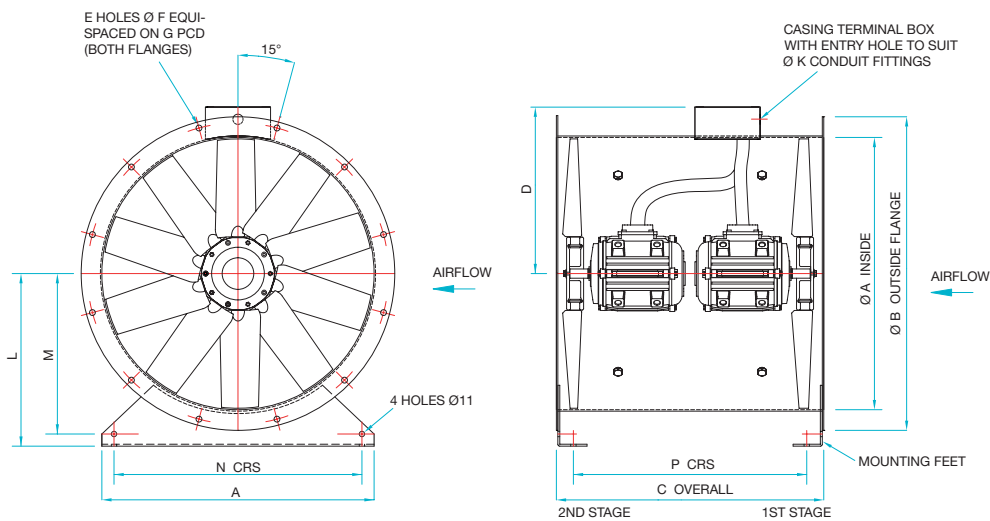
Sound Data

THREE Phase - 380V-415V / 50Hz

Product Code		In-Duct Sound Power Level dBW @ Octave Band Hz								dBA @ 3m
		63Hz	125Hz	250Hz	500Hz	1 kHz	2 kHz	4 kHz	8 kHz	
SPP450/4-3	Inlet	71	72	81	78	74	70	64	58	59
	Outlet	70	72	81	76	75	72	68	61	59
SPP500/4-3	Inlet	76	76	83	81	79	76	71	64	63
	Outlet	77	77	83	80	80	78	74	68	64
SPP560/4-3	Inlet	81	80	85	84	83	81	77	70	67
	Outlet	83	81	85	85	84	83	80	73	69
SPP630/4-3	Inlet	85	85	89	90	87	85	81	75	72
	Outlet	87	85	89	90	88	88	84	79	73

Tests and preparation of the sound data have been carried out in accordance with BS 848 Part 2:1985 at 50% peak pressure. The In-Duct Sound Power Level Spectra are in dB re-1pW. 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.

Dimensional Data



Product Code	A	B	C	D	E	F	G	K	L	M	N	P	Weight kg
SPP450/4-3	450	530	500	285	8	12	500	20	280	255	400	439	42
SPP500/4-3	500	585	550	315	12	12	560	20	315	290	450	489	53
SPP560/4-3	560	645	550	345	12	12	620	20	355	330	510	480	59
SPP630/4-3	630	715	600	380	12	12	690	20	400	375	580	530	83

*Weight does not include mounting feet.
All dimensions are expressed in mm.

PowerPlus SPP

Silencer Data

THREE Phase - 380V-415V / 50Hz

Product Code	dBA Attenuation		ΔP (Pa) 1DEP	dBA Attenuation		ΔP (Pa) 2DEP
	1DENP	1DEP		2DENP	2DEP	
SPP450/4-3	-9	-12	22	-15	-18	34
SPP500/4-3	-9	-14	25	-16	-20	40
SPP560/4-3	-10	-15	22	-16	-22	35
SPP630/4-3	-9	-16	27	-14	-25	44

Melindex lined silencers must be used for kitchen applications to prevent grease impregnation into the acoustic media. Contact Elta Fans for insertion losses for Melindex lined silencers.

Wiring Data

Please see our Wiring Diagrams download on www.eltaselect.com for more information.

THREE Phase - 380V-415V / 50Hz

Product Code	Wiring Diagram No.
SPP450/4-3	152-600
SPP500/4-3	152-600
SPP560/4-3	152-600
SPP630/4-3	152-600

PowerPlus SPP

Accessories

Please see our Axial Accessories download on www.eltaselect.com for more information.

THREE Phase - 380V-415V / 50Hz

Product Code	Inverter Controller 3PH-3PH IP55	Inverter Controller 3PH-3PH IP20	Inverter Controller 1PH-3PH IP55	Inverter Controller 1PH-3PH IP20	Impeller Side Guard	Ancillary Pack
SPP450/4-3	149-ODE-2-14075-3KA1S	149-ODE-2-14075-3KA12	149-ODE-2-12075-1KB1S	149-ODE-2-12075-1KB12	078C-0450-C	APK450SI/S2B
SPP500/4-3	149-ODE-2-14150-3KA1S	149-ODE-2-14150-3KA12	149-ODE-2-12151-1KB1S	149-ODE-2-12150-1KB12	078C-0500-C	APK500SI/S2B
SPP560/4-3	149-ODE-2-14150-3KA1S	149-ODE-2-14150-3KA12	149-ODE-2-12151-1KB1S	149-ODE-2-12150-1KB12	078C-0560-C	APK560SI/S2B
SPP630/4-3	149-ODE-2-24220-3KA4S	149-ODE-2-24220-3KA42	149-ODE-2-22220-1KB4S	149-ODE-2-22220-1KB42	078C-0630-C	APK630SI/S2B

Product Code	Mounting Feet (each)	Matching Flanges (each)	Flexible Connections (each)	AV Mounts (set of 4)	Damper	Bell Mouth Inlet
SPP450/4-3	060B-0450	061B-0450	063-0450-MAN150	062-S2B	019-0450-STD	241B-0450-BELL
SPP500/4-3	060B-0500	061B-0500	063-0500-MAN150	062-S2B	019-0500-STD	241B-0500-BELL
SPP560/4-3	060B-0560	061B-0560	063-0560-MAN150	062-S2B	019-0560-STD	241B-0560-BELL
SPP630/4-3	060B-0630	061B-0630	063-0630-MAN200	062-S2B	019-0630-STD	241B-0630-BELL

Product Code	Silencer 1D Podded	Silencer 1D Unpodded	Silencer 2D Podded	Silencer 2D Unpodded
SPP450/4-3	068-0450-1DEP	068-0450-1DENP	068-0450-2DEP	068-0450-2DENP
SPP500/4-3	068-0500-1DEP	068-0500-1DENP	068-0500-2DEP	068-0500-2DENP
SPP560/4-3	068-0560-1DEP	068-0560-1DENP	068-0560-2DEP	068-0560-2DENP
SPP630/4-3	068-0630-1DEP	068-0630-1DENP	068-0630-2DEP	068-0630-2DENP

THREE Phase - 380V-415V / 50Hz PACKAGE c/w INVERTER

Product Code	Impeller Side Guard	Ancillary Pack	Mounting Feet (each)	Matching Flanges (each)	Flexible Connections (each)	AV Mounts (set of 4)	Damper	Bell Mouth Inlet
SPP450/4-3-I1355	078C-0450-C	APK450SI/S2B	060B-0450	061B-0450	063-0450-MAN150	062-S2B	019-0450-STD	241B-0450-BELL
SPP450/4-3-I3355	078C-0450-C	APK450SI/S2B	060B-0450	061B-0450	063-0450-MAN150	062-S2B	019-0450-STD	241B-0450-BELL
SPP500/4-3-I1355	078C-0500-C	APK500SI/S2B	060B-0500	061B-0500	063-0500-MAN150	062-S2B	019-0500-STD	241B-0500-BELL
SPP500/4-3-I3355	078C-0500-C	APK500SI/S2B	060B-0500	061B-0500	063-0500-MAN150	062-S2B	019-0500-STD	241B-0500-BELL
SPP560/4-3-I1355	078C-0560-C	APK560SI/S2B	060B-0560	061B-0560	063-0560-MAN150	062-S2B	019-0560-STD	241B-0560-BELL
SPP560/4-3-I3355	078C-0560-C	APK560SI/S2B	060B-0560	061B-0560	063-0560-MAN150	062-S2B	019-0560-STD	241B-0560-BELL
SPP630/4-3-I1355	078C-0630-C	APK630SI/S2B	060B-0630	061B-0630	063-0630-MAN200	062-S2B	019-0630-STD	241B-0630-BELL
SPP630/4-3-I3355	078C-0630-C	APK630SI/S2B	060B-0630	061B-0630	063-0630-MAN200	062-S2B	019-0630-STD	241B-0630-BELL

Product Code	Silencer 1D Podded	Silencer 1D Unpodded	Silencer 2D Podded	Silencer 2D Unpodded
SPP450/4-3-I1355	068-0450-1DEP	068-0450-1DENP	068-0450-2DEP	068-0450-2DENP
SPP450/4-3-I3355	068-0450-1DEP	068-0450-1DENP	068-0450-2DEP	068-0450-2DENP
SPP500/4-3-I1355	068-0500-1DEP	068-0500-1DENP	068-0500-2DEP	068-0500-2DENP
SPP500/4-3-I3355	068-0500-1DEP	068-0500-1DENP	068-0500-2DEP	068-0500-2DENP
SPP560/4-3-I1355	068-0560-1DEP	068-0560-1DENP	068-0560-2DEP	068-0560-2DENP
SPP560/4-3-I3355	068-0560-1DEP	068-0560-1DENP	068-0560-2DEP	068-0560-2DENP
SPP630/4-3-I1355	068-0630-1DEP	068-0630-1DENP	068-0630-2DEP	068-0630-2DENP
SPP630/4-3-I3355	068-0630-1DEP	068-0630-1DENP	068-0630-2DEP	068-0630-2DENP



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