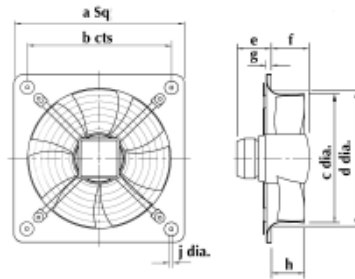


# Plate Mounted Axial Fans

# LSP



Stock Ref	kg	A	B	C	D	E	F	G	H	J
LSP31514/34	6.7	430	380	349	349	78	83.9	11	63	9
LSP35514/34	7.5	485	435	390	390	78	82.9	12	68	9
LSP40014/34	7.8	549	490	412	419.8	90	91.5	12	88	9
LSP45014/34/16/36	16.2	575	535	463	480	110	143.5	14	96	11
LSP50014/34/16/36	20.1	655	615	517	528	84.5	141.5	16	104	11
LSP56014	31.8	725	675	568	589	98.3	167.5	16	119	11

## Description

- Swept impeller with Aerofoil blades, winglets and serrated trailing edge for optimum performance
- One shot die cast impeller, dynamically balanced for smoother operation
- Operating temperature up to 70°C
- External Rotor Motors on all models for compact efficient design
- All models speed controllable
- Guards fitted as standard on all models
- Thermal Overload Protection for motor protection
- Maintenance free sealed for life bearings
- 2 Year Guarantee

## Motors

The external rotor motors are specifically designed and styled for this range of fan. Ball bearings are greased for life. Sizes 315 – 710 motors are protected to IP54 against dust and moisture, complying with BS EN 60529.

They have ribbed aluminium body castings for efficient cooling with Motor insulation to Class 'F' (from -40°C to +70°C). Speed controlled sizes 450 to 710, 6 & 8 pole motors are only suitable for operating temperatures of up to 40°C.

## Speed Control

Units are suitable for speed control by either electronic, voltage reduction or frequency inverters where permissible.

## Construction

Plate Mounted Sickle fans are based on an integrated impeller and external rotor motor design, which produces a very compact unit. Together with a specially designed bell mouth inlet and mounting plate, the complete fan is lightweight and ensures an excellent performance to sound level ratio. The mounting plate is formed from a single sheet, protected with a tough epoxy paint finish. Inlet finger guards and motor supports are manufactured from steel rod and electro welded for extra strength. Finger guards give protection to BS 848 Part 5. Manufacture is controlled to BS EN ISO 9001 Standards.

## Impellers

The impellers incorporate the latest in sickle blade aerofoil technology to ensure minimum sound and maximum performance. Impellers up to 400mm diameter are moulded from a composite polymer, impellers above this size are Aluminium. The motors and impellers are factory matched, statically and dynamically balanced to ISO 1940 part 1, Quality Class G.6.3.

## Sound Levels

Fan sound levels are measured in a reverberant chamber in accordance with ISO 3744 Part 1. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of 2 x 10<sup>-5</sup>Pa (20 micro-Pascal). The sound power level spectra figures are dB with a reference level of 10-12 Watts (1 pico-watt).

To ensure minimum noise levels during speed control, either an auto transformer or eDemand inverter speed control is recommended.

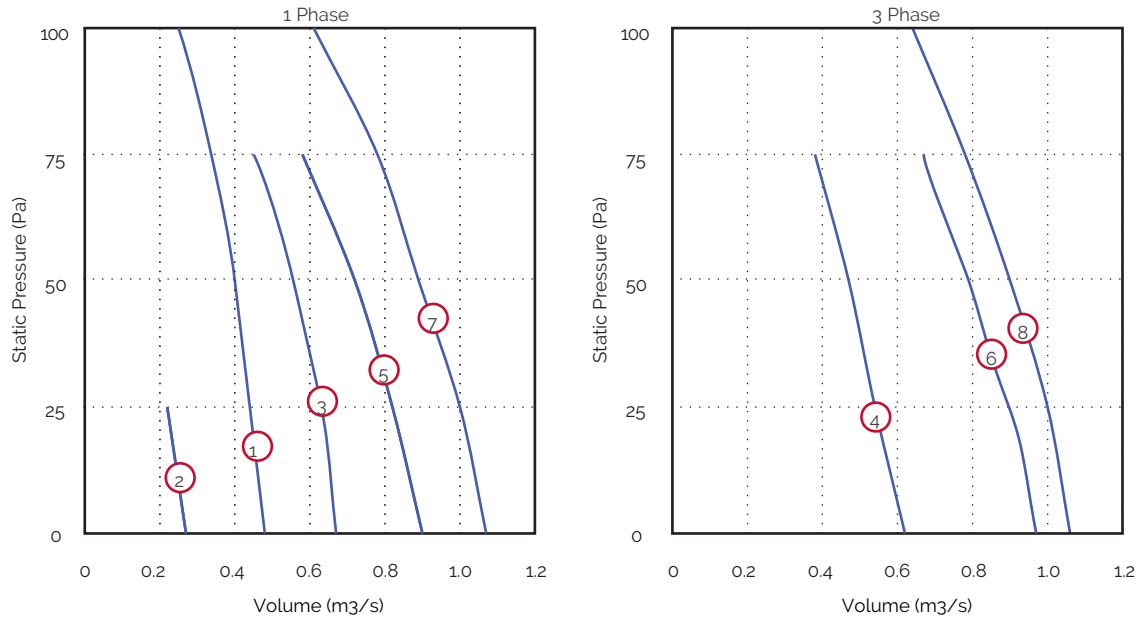


# Plate Mounted Axial Fans

# LSP

## Performance Curves

250 to 400 dia. - Pole 2 & 4



## Performance Guide

Stock Ref	Supply	IP	Motor Rating	F.L.C. kW	S.C. Amps	Poles	Volume m³/s @ Pa					dB(A) @ 3m		
							0	25	50	75	100			
LSP31514	230/1/50	IP54	0.12	0.54	2.16	4	1360	③	Volume m³/s	0.67	0.63	0.51	0.45	45
									Power Watts	111	118	124	130	
LSP31534	400/3/50	IP54	0.12	0.39	1.7	4	1450	④	Volume m³/s	0.62	0.54	0.47	0.38	47
									Power Watts	105	115	117	120	
LSP35514	230/1/50	IP54	0.13	0.56	2.24	4	1260	⑤	Volume m³/s	0.90	0.82	0.72	0.58	46
									Power Watts	132	141	151	162	
LSP35534	400/3/50	IP54	0.19	0.4	1.6	4	1390	⑥	Volume m³/s	0.97	0.90	0.65	0.67	48
									Power Watts	152	168	176	178	

## Sound Power Level Spectra dB (ref 10<sup>-12</sup> Watts)

Stock Ref	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	dB(A) @ 3m
LSP31514	71	70	65	60	58	59	55	47	45
LSP31534	75	71	62	60	61	62	59	51	47
LSP35514	67	70	67	64	58	60	53	45	46
LSP35534	74	66	61	63	64	63	59	53	48

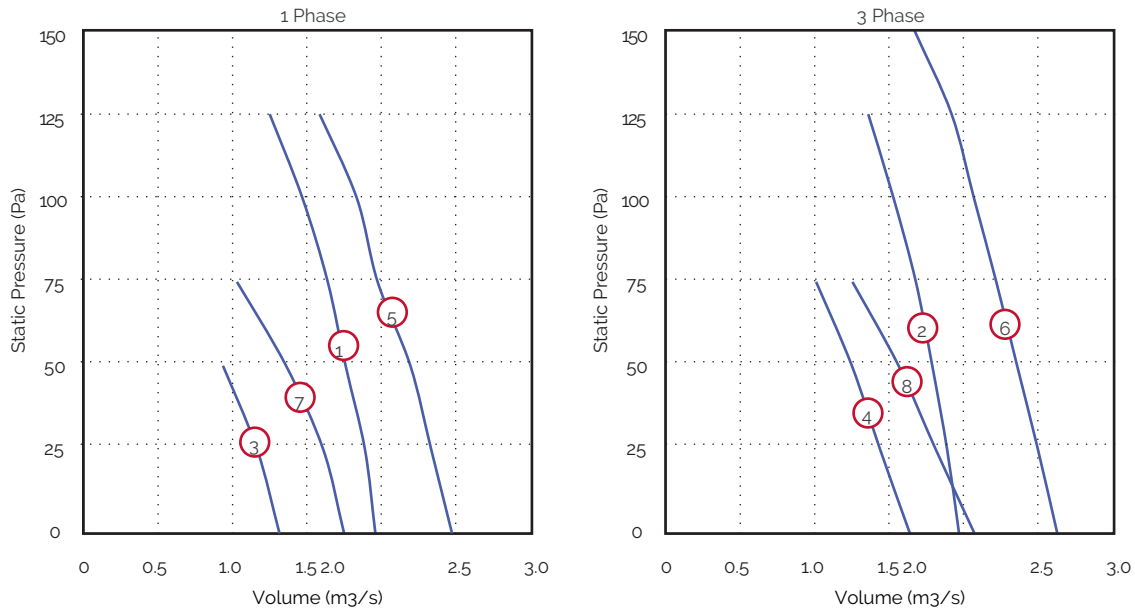


# Plate Mounted Axial Fans

# LSP

## Performance Curves

450 to 500 dia. - Pole 4 & 6



## Performance Guide

Stock Ref	Supply	IP	Motor Rating	F.L.C. kW	S.C. Amps	Poles	rpm	Volume m³/s @ Pa						dB(A) @ 3m	
								0	25	50	75	100	125		150
LSP45014	230/1/50	IP54	0.6	2.9	10	4	1320	Curve 1	196	189	176	164	147	125	49
								Power Watts	480	500	520	530	540	550	
LSP45034	400/3/50	IP54	0.54	1.1	4.4	4	1350	Curve 2	197	189	179	168	153	136	49
								Power Watts	440	460	480	505	520	530	
LSP45016	230/1/50	IP54	0.19	0.9	3.6	6	910	Curve 3	132	117	0.94				41
								Power Watts	165	175	180				
LSP45036	400/3/50	IP54	0.36	0.66	2.64	6	1020	Curve 4	164	144	125	101			44
								Power Watts	325	350	360	380			
LSP50014	230/1/50	IP54	0.7	3.2	12.8	4	1230	Curve 5	2.47	2.33	2.19	1.97	1.83	1.58	51
								Power Watts	630	660	670	690	720	740	
LSP50034	400/3/50	IP54	0.84	1.45	5.8	4	1340	Curve 6	2.63	2.50	2.36	2.22	2.07	1.67	52
								Power Watts	620	650	680	720	740	800	
LSP50016	230/1/50	IP54	0.27	1.25	5.0	6	910	Curve 7	1.75	1.61	1.36	1.03			44
								Power Watts	250	265	280	295			
LSP50036	400/3/50	IP54	0.54	0.96	3.84	6	940	Curve 8	2.07	1.81	1.56	1.25			47
								Power Watts	470	500	520	540			

## Sound Power Level Spectra dB (ref 10<sup>-12</sup> Watts)

Stock Ref	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	dB(A) @ 3m
LSP45014	67	69	71	63	63	63	59	53	49
LSP45034	72	70	65	65	64	64	59	53	49
LSP45016	57	62	59	56	56	56	50	41	41
LSP45036	71	66	60	60	60	58	51	43	44
LSP50014	71	75	67	63	67	68	60	52	51
LSP50034	74	72	66	66	68	68	62	56	52
LSP50016	66	72	70	55	59	58	51	43	44
LSP50036	77	77	72	66	64	61	54	47	47