

EuroSeries[®] (ESP)

- Die cast aluminium impellers
- Fully speed controllable
- Protected to IP54
- Operating Temperatures from -40°C up to +70°C Motor
- Insulation Class F
- Thermal overload for motor protection
- Most models reversible - Supply or Extract
- Tough epoxy paint finish
- Quality Assurance to BS EN ISO 9001:2015
- Performance tested to ISO 5801



The EuroSeries[®] ESP axial blade plate fans, feature a single shot die cast aluminium blade and external rotor motor design.

All units are designed for speed controllable.

Impellers

All sizes are supplied with cast aluminium impellers, ensuring performance when working against outdoor conditions and abrasive airflow. Where fans are reversible for Intake a -30% drop in performance can be expected.

Motors

External rotor motors are specially designed and styled for this range of fan. Ball bearings are greased for life. Rotors are dynamically balanced to ISO 1940. Motors are protected to IP54, against dust and moisture complying with BS EN 60529:1992. They are ribbed aluminium body castings for efficient cooling. Motor insulation is Class 'F' (from -40°C to +70°C).

Electrical

Single phase 220-240V 50Hz. Capacitor start and run. Three phase 380-415V 50Hz. An IP54 terminal box are supplied with 20mm and PGII entry. All motors are fitted with thermal overload protection which should be wired into all controller circuits and into starter contactors.

Terminal Box

Terminal Box to IP54 as standard, protected against dust and water from any angle allowing outside applications.

Performance

The fan performance is in accordance with tests to BS848 Part 1 1980.

Sound Levels

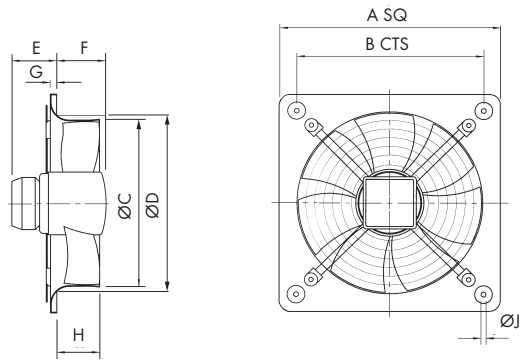
Fan sound levels are measured in a reverberant chamber in accordance with BS848 Part 2 1985. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of 2×10^{-5} Pa (20 micro-Pascal). The sound power level spectra figures are dB with reference level of 10^{-12} Watts (1 pico-watt). To ensure minimum noise levels during speed control, an auto transformer speed control is recommended.

Accessories

A full range of accessories:

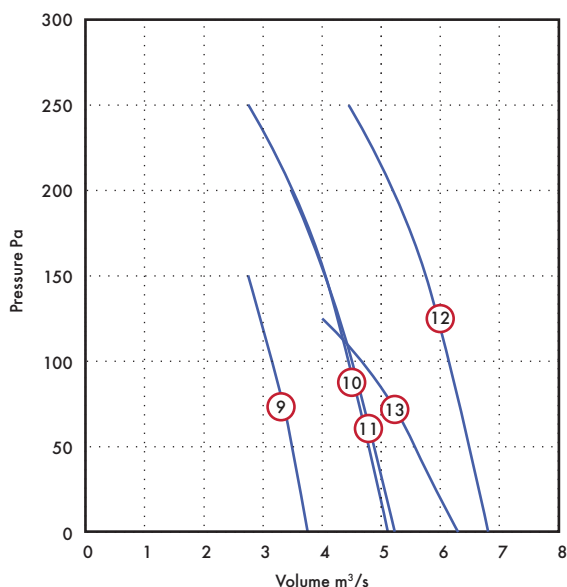
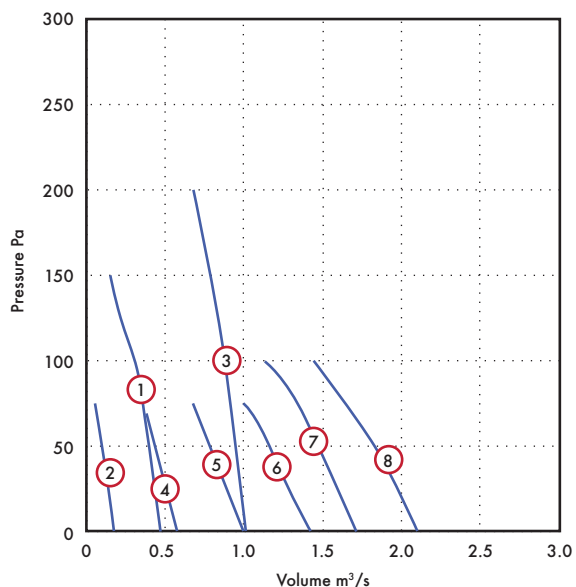
- Electronic Speed Controllers
- Auto Transformer Speed Controllers
- D.O.L. Starters & Overloads
- Discharge Guards
- Louvre Shutters

Dimensions (mm)



Dia	A	B	ØC	ØD	E	F	G	H	ØJ	kg
250	370	320	256.5	264.5	84	80	6	80	9	3.4
315	430	380	320	328	84	84	19	70	9	6.3
355	485	435	367	372	86	97	21	75	9	7.3
400	540	490	412	420	93	100	12	88	9	10.2
450	575	535	463	480	86	139	14	96	11	15.8
500	655	615	517	528	84	141	16	104	11	17.3
560	725	675	568	589	81	142.5	16	119	11	24
630	805	750	643	664	82	142.5	20	130	11	45
710	850	810	720	763	37	176.5	20	150	14.5	31
800	970	910	804	869	34	244	17	193	14.5	38

Performance Guide



Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa					Motor kW	S.C. Amps	F.L.C Amps	dB(A) @ 3m
							0	50	100	150	200				
250	1	ESP25012	2	2440	IP44	1	0.46	0.4	0.31	0.14		0.12	1.15	0.54	59
250	1	ESP25014	4	1340	IP44	2	0.21	0.12				0.04	0.3	0.16	41
315	1	ESP31512B	2	2690	IP54	3	1.02	0.96	0.88	0.8	0.68	0.56	7.2	2.4	64
315	1	ESP31514	4	1300	IP54	4	0.57	0.42				0.15	1.38	0.7	50
355	1	ESP35514B	4	1330	IP54	5	0.96	0.76				0.19	1.45	0.84	53
400	1	ESP40014B	4	1350	IP54	6	1.4	1.16				0.29	2.4	1.45	56
450	1	ESP45014	4	1370	IP54	7	1.72	1.46	1.11			0.36	3.6	1.6	61
500	1	ESP50014	4	1290	IP54	8	2.1	1.82	1.41			0.51	4.3	2.3	55
560	1	ESP56014C	4	1320	IP54	9	3.72	3.44	3.11	2.71		1.35	9.3	6	63
630	1	ESP63014	4	1320	IP54	10	5.09	4.77	4.41	4.02	3.47	2.2	28	9.9	70
630	3	ESP63034	4	1360	IP54	11	5.19	4.86	4.47	4.02	3.41	1.9	17	3.2	64
710	3	ESP71034	4	1290	IP54	12	6.81	6.49	6.16	5.72	5.22	2.9	20	5.3	72
800	3	ESP80036	6	900	IP54	13	6.3	5.58	4.67			1.4	9.8	2.7	64

For fans wired to reverse run, duty reduced by 30%. ESP25012 and ESP31512 not suitable for reverse airflow.

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	dB(A) @ 3m								
					63	125	250	500	1k	2k	4k	8k	
250	1	ESP25012	2	Inlet	69	70	76	76	70	70	67	59	57
250	1	ESP25012	2	Outlet	69	70	76	76	70	70	67	59	57
250	1	ESP25014	4	Inlet	70	72	63	58	54	52	45	35	41
250	1	ESP25014	4	Outlet	70	72	63	58	54	52	45	35	41
315	1	ESP31512B	2	Inlet	69	73	79	74	74	76	73	66	61
315	1	ESP31512B	2	Outlet	69	73	79	74	74	76	73	66	61
315	1	ESP31514	4	Inlet	70	68	66	61	60	62	58	51	47
315	1	ESP31514	4	Outlet	70	68	66	61	60	62	58	51	47
355	1	ESP35514B	4	Inlet	65	70	67	65	64	64	62	55	50
355	1	ESP35514B	4	Outlet	65	70	67	65	64	64	62	55	50
400	1	ESP40014B	4	Inlet	70	72	67	66	65	65	64	56	51
400	1	ESP40014B	4	Outlet	70	72	67	66	65	65	64	56	51
450	1	ESP45014	4	Inlet	69	76	73	72	70	71	70	62	57
450	1	ESP45014	4	Outlet	69	76	73	72	70	71	70	62	57
500	1	ESP50014	4	Inlet	65	75	69	70	70	71	69	62	56
500	1	ESP50014	4	Outlet	65	75	69	70	70	71	69	62	56
630	1	ESP63014	4	Inlet	82	86	79	79	80	78	75	70	64
630	1	ESP63014	4	Outlet	82	86	79	79	80	78	75	70	64
630	3	ESP63034	4	Inlet	71	88	82	83	82	81	78	72	67
630	3	ESP63034	4	Outlet	71	88	82	83	82	81	78	72	67
710	3	ESP71034	4	Inlet	80	87	86	88	89	86	83	79	72
710	3	ESP71034	4	Outlet	80	87	86	88	89	86	83	79	72
800	3	ESP80036	6	Inlet	73	83	79	75	75	77	74	64	62
800	3	ESP80036	6	Outlet	73	83	79	75	75	77	74	64	62

Models & Accessories

Fan Stock Ref	Speed Controllers			
	Elect 1ph Stock Ref	Auto Transfor. Stock Ref	Starter Stock Ref	Overload Stock Ref
ESP25012	SP5001	SPM5020	444744	444699
ESP31512B	SP5025	SPM5035	444744	444701
ESP31514	SP5001	SPM5020	444744	444699
ESP35514BB	SC5050TK	SPM5020	444744	444699
ESP40014B	SC5030TK	SPM5020	444744	444701
ESP45014	SC5030TK	SPM5035	444744	444701
ESP50014	SC5030TK	SPM5035	444744	444702
ESP56014C	SC5010TK	SPM5075	444744	444704
ESP63014	-	-	444744	444706
ESP63034	-	RDTK40	444747	444702
ESP71034	-	RDTK70	444747	444703
ESP80036	-	RDTK40	444747	444702

*Not suitable for voltage speed control. Inverter speed control with sine filters only.

Size	Roof Cowl Assembly Stock Ref	Louvre Shutter Stock Ref	Impeller Discharge Side Guard Stock Ref	Imp. Disch. Guard when used
				with LS shutter Stock Ref
250	RCZ300	LS250	10502325	10502375
315	RCZ300	LS315	10502325	10502375
355	RCZ300	LS350	10502375	10502450
400	RCZ400	LS400	10502450	10502525
450	RCZ400	LS450	10502525	10502630
500	RCZ500	LS500	10502525	10502630
560	RCZ500	LS560	10502630	10502630
630	RCZ630	LS630	10502630	10502800
710	RCZ630	LS710	10502800	10502800
800	RCZ800	LS800	10502800	105021000

- Note:
- The Standard roof cowl colour is BS 00 A 05 (Goose Wing Grey), for all special B.S. or RAL colours contact Vent-Axia.
 - When speed control is required a 5 step auto transformer speed controller is recommended, to ensure low noise levels.
 - All 3 phase models are suitable for frequency inverter speed control.
 - Vent-Axia only recommends using inverters with integral sine filters for reliable operation.