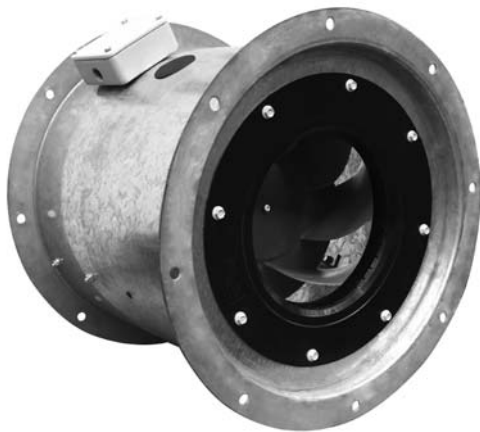
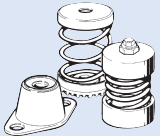
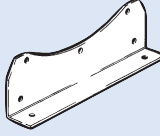

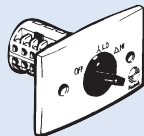

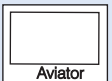


B



ANCILLARY EQUIPMENT

 Vibration Isolators Ref. I-1	 F - Mounting foot Ref. J-6	 VA - Speed controller Ref. M-5
 SD - Star/Delta switch Ref. M-7	 Variable speed drives Ref. M-8/13	 Aviator Touch & Aviator Touch PRO Controller Ref. Aviator Brochure

DESCRIPTION

The Vortair® Series of In-Line Fans is designed for a wide range of duct mounted applications. Their innovative high performance mixed flow impeller produces powerful airflows without generating high noise levels. They feature a heavy duty galvanised steel circular fan casing that can be retrofitted into axial fan installations that may require greater static pressure. They are available in various speed options and 6 case sizes with diameters ranging from 400 to 710mm (250 to 450mm impeller diameters).

Typical Applications

Commercial and industrial supply or exhaust air applications such as shopping centres, office buildings, exhibition centres, hotels, health centres, schools and universities.

Features

- Innovative mixed flow impeller with high performance blade geometry.
- Heavy duty galvanised steel construction.
- Can be retrofitted into standard 400 to 710mm axial fan installations.
- Choice of external rotor or standard direct-drive TEFC/TEAO motors.
- Large choice of speeds available.
- Most 3-phase external rotor motors fitted are 2-speed star/delta design.
- To improve energy efficiency, motors can be speed-controlled.
- Can be mounted in any position.
- A range of matched ancillaries is also available.

Construction

Mixed-Flow impellers are made from high performance injection moulded composite plastic material. Casing made from heavy duty galvanised steel.

Motors

Type - can be supplied with direct-driven external rotor or standard direct-drive TEFC/TEAO motors.

Electricity supply - single or three-phase to suit a wide range of voltages and frequencies.

Bearings - sealed-for-life, ball.

External rotor motors are fully speed-controllable using electronic or auto-transformer controllers, however Sinusoidal filters are required when a variable speed drive is used.

Standard direct-drive TEFC/TEAO motors can be single or multi-speed and can be speed-controlled using a variable speed drive.

See pages O-2/3 for details on external rotor motors and pages O-3/4 for details on standard direct-drive TEFC/TEAO motors.

Internal Thermal Protection

Automatic-reset type is fitted as standard to external rotor motors and is an optional extra on standard frame motors.

Testing

Air flow tests based on ISO5801: 2007

Noise tests based on ISO13347: Part 3, 2004

Wiring Diagram

See pages N-8, diagrams ER1, 2, 3, 4, 5 for external rotor motors and N-6/7, diagrams DD1, 2, 3, 7, 9 for standard direct-drive TEFC/TEAO motors.

SUGGESTED SPECIFICATION

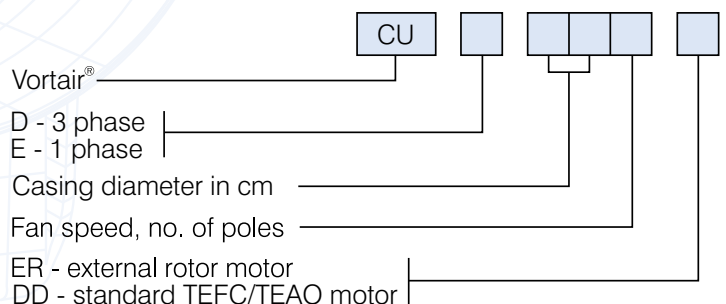
The duct mounted fans shall be of the Vortair® Mixed-Flow Series as designed and manufactured by Fantech Pty. Ltd. and be of the model numbers shown on the schedule/drawings.

They shall include a heavy duty galvanised steel circular fan casing.

Impellers shall be made from high performance injection moulded composite plastic material and driven by external rotor or standard direct-drive TEFC/TEAO motors as nominated.

All performance data shall be for a complete assembled unit based on ISO5801: 2007 for air flow and ISO13347: Part 3, 2004 for noise.

HOW TO ORDER



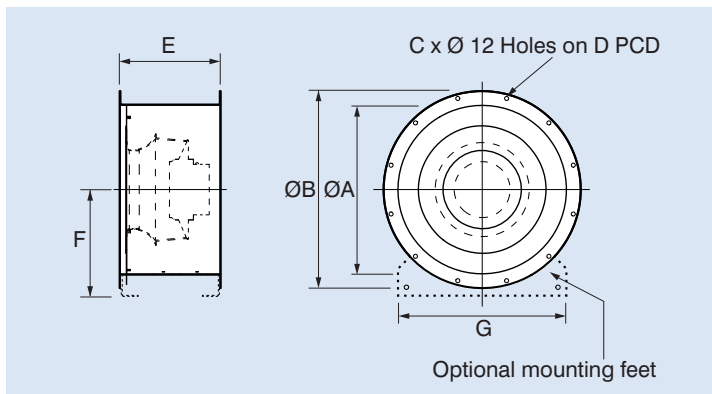
Note

Performance curves shown are based on nominal speeds.

As motor speeds may vary from one manufacturer to another, and from one motor type to another, it is possible actual fan speeds may differ and, therefore, the performance of the fan.

For Direct-Drive performance refer to Fans by Fantech Selection Program.

DIMENSIONS

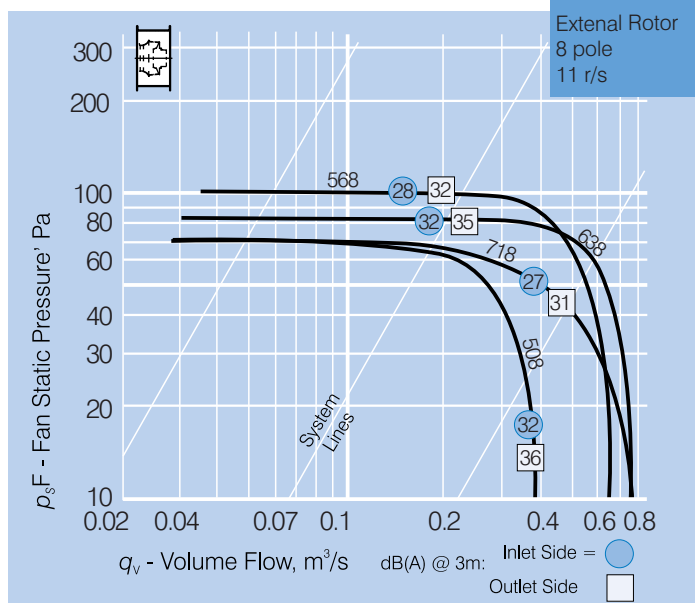
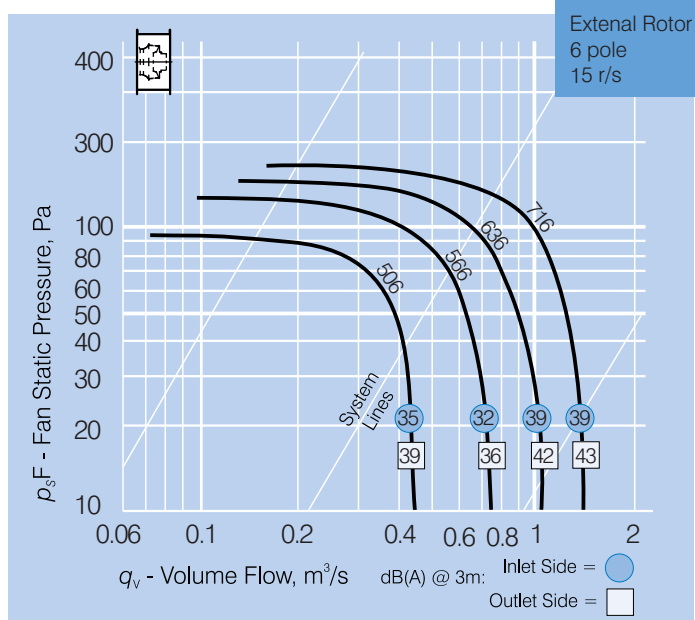
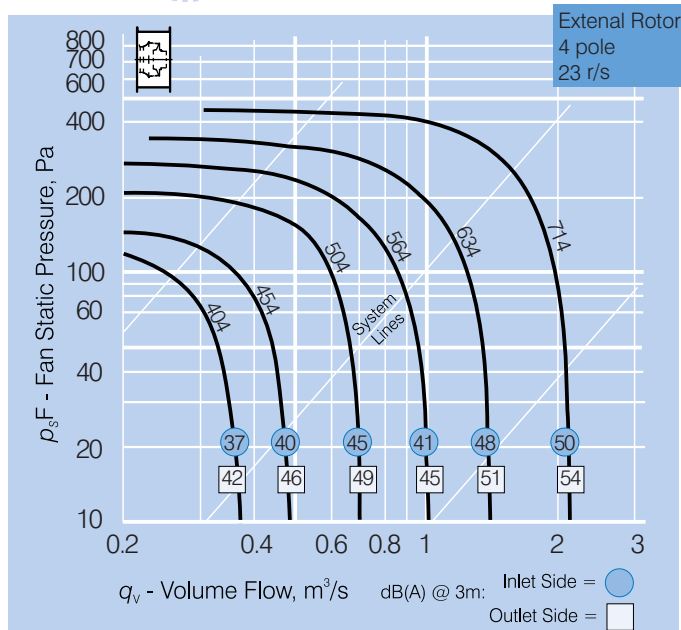


Model	Dimensions, mm								App. wt.	App. vol.
CUE..	AØ	B	C	D	E*	E**	F	G	kg*	m³
404.	400	485	8	450	450	300	250	400	41	0.14
454.	450	535	8	500	450	300	280	450	43	0.17
504	500	585	12	560	450	300	315	500	45	0.20
506	500	585	12	560	600	300	315	500	45	0.26
508	500	585	12	560	-	300	315	500	45	0.14
564	560	645	12	620	450	300	355	560	51	0.24
566	560	645	12	620	600	300	355	560	51	0.31
568	560	645	12	620	-	300	355	560	51	0.17
634	630	715	12	690	600	400	400	630	57	0.38
636	630	715	12	690	600	400	400	630	57	0.38
638	630	715	12	690	-	400	400	630	57	0.26
714	710	795	16	770	600	400	450	710	66	0.46
716	710	795	16	770	600	400	450	710	66	0.46
718	710	795	16	770	-	400	450	710	66	0.32

* Fan with direct-drive motor - DD

** Fan with external rotor motor - ER

Weight and volume for fan with direct-drive motor only except where there is only external rotor motors available



TECHNICAL DATA & NOISE LEVELS

Model CUD.. CUE..	Nom. speed, rev/sec	Max. Operating Temp	CUD/CUE... AVG. dB(A) @ 3m **	CUE...ER 1 ph.		CUD...ER 3 ph.		CUD...DD 3 ph. kW*	In-Duct Sound Power Levels, dB								
				kW	Amps	kW	Amps		63	125	250	500	1k	2k	4k	8k	
404**	24	60	Inlet	37	0.10	0.48	-	-	0.25	65	62	55	55	52	53	45	37
			Outlet	42						64	64	59	58	56	60	51	42
454**	24	60	Inlet	40	0.13	0.66	-	-	0.25	64	62	60	58	54	55	49	41
			Outlet	46						64	64	62	61	60	63	55	46
504	23	60	Inlet	45	0.22	1.10	0.21	0.50	0.25	74	71	64	61	59	59	54	48
			Outlet	49						74	72	64	64	63	65	56	51
506	15	60	Inlet	35	0.09	0.48	0.09	0.26	0.25	61	61	54	51	49	49	44	38
			Outlet	39						64	62	54	54	53	55	46	41
508	13	60	Inlet	32	-	-	0.05	0.11	-	58	58	51	48	46	46	41	35
			Outlet	36						61	59	51	51	50	52	43	38
564	23	60	Inlet	41	0.37	1.85	0.33	0.68	0.37	65	69	61	57	53	55	50	44
			Outlet	45						66	68	61	59	61	59	53	47
566	16	60	Inlet	32	0.12	0.56	0.13	0.36	0.25	56	60	52	48	44	46	41	35
			Outlet	36						57	59	52	50	52	50	44	38
568	13	60	Inlet	28	-	-	0.07	0.14	-	52	56	48	44	40	42	37	31
			Outlet	32						53	55	48	46	48	46	40	34
634	22	60	Inlet	48	0.58	2.60	0.54	1.20	0.75	69	74	66	65	59	62	57	51
			Outlet	51						71	72	66	66	67	66	59	53
636	15	60	Inlet	39	0.28	1.35	0.22	0.56	0.25	60	65	57	56	50	53	48	42
			Outlet	42						62	63	57	57	58	57	50	44
638	11	60	Inlet	32	-	-	0.13	0.28	-	53	58	50	49	43	46	41	35
			Outlet	35						55	56	50	50	51	50	43	37
714	23	60	Inlet	50	1.10	5.20	1.00	1.95	1.10	76	75	73	65	63	65	62	57
			Outlet	54						81	74	75	69	70	68	64	58
716	15	60	Inlet	39	0.37	1.75	0.32	0.70	0.37	65	64	62	54	52	54	51	46
			Outlet	43						70	63	64	58	59	57	53	47
718	9	60	Inlet	27	-	-	0.19	0.39	-	53	52	50	42	40	42	39	34
			Outlet	31						58	51	52	46	47	45	41	35

* Amperages for standard TE motors can be obtained at time of order. Check fan nameplate for exact amperage of all motors.

** Sound data for single phase external rotor motors