

POWERLINE ULTRA (PUD DOUBLE SKIN)

In-Line Mixed-Flow Fan

ELTA



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Description

The PowerLine Ultra (PUD double skin) of In-Line Mixed-Flow Fans is designed for a wide range of duct mounted applications. They are most suitable in commercial and industrial applications where medium pressure is required. They are available in various speed options and 7 sizes, extending from 315 to 630mm diameter.

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

- Corrosion resistant aluminium frame with fibreglass reinforced corners for strength and durability.
- Unit is constructed from double insulated panels filled with 25mm polyurethane (pu) insulation reducing radiated noise.
- Removable side panel, provides easy access for onsite inspection and maintenance.
- standard direct-drive TEFC motors.
- Large choice of speeds available.
- To improve energy efficiency, motors can be speed-controlled.
- Motors complying with Ex d, Ex e, Ex nA and Ex tD Standards can be fitted.
- A range of matched ancillaries is also available.

Construction

The casing shall be constructed from self-supporting corrosion-resistant extruded aluminium section assembled with fibreglass reinforced corners and 25mm thick double skinned panels. Double skin panels are manufactured from pre-painted galvanised steel for outer skin and pre-galvanised steel inner skin, in-filled with polyurethane (PU) injected insulation.

Mixed-flow impellers are made from high performance injection moulded composite material.

Motors

- Supplied with standard direct-drive TEFC motors
- Electricity supply - single or three-phase to suit a wide range of voltages and frequencies
- Ball Bearing - sealed for life
- Standard direct-drive TEFC motors can be single or multi-speed and can be speed-controlled using a variable speed drive

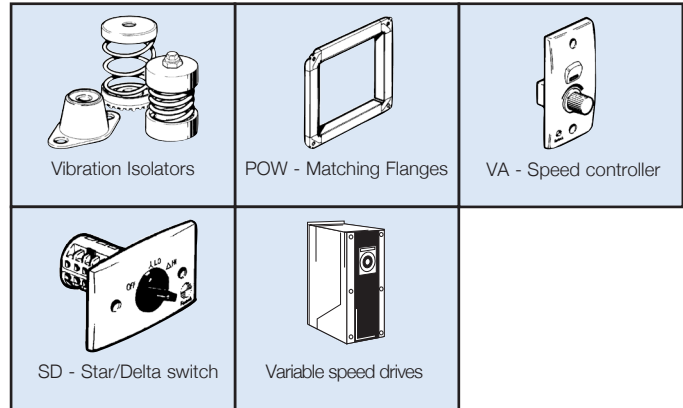
Internal Thermal Protection

- Optional extra on standard frame motors

Testing

- Airflow tests to ISO5801:2007
- Noise tests to BS848:Part 2, 1985
*Performance tests & data are based on PowerLine Ultra

Ancillary Equipment



Suggestion Specification

The duct mounted fans shall be of the In-line Mixed-Flow PowerLine Ultra (PUD double skin) as designed and manufactured by Elta and be of the model numbers shown on the schedule/drawings.

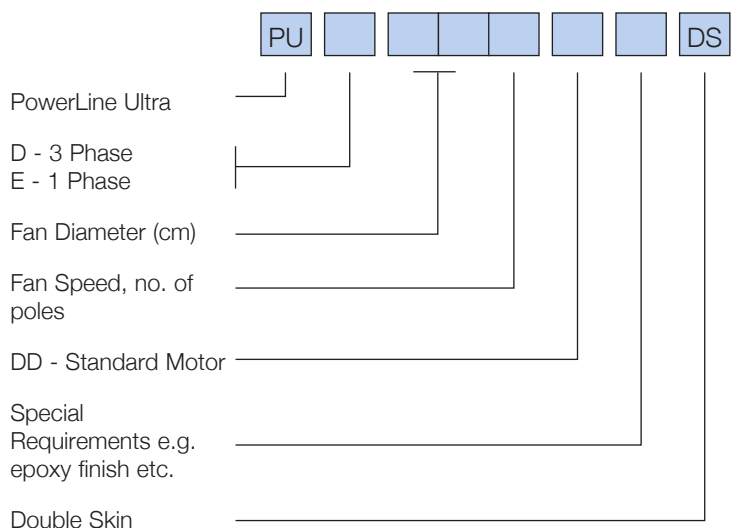
They shall include double skin cabinet housing with 25mm PU injected panels.

The Mixed-Flow impellers shall be made from high performance injected moulded composite plastic and driven by standard direct-drive motors as nominated.

All performance data shall be for a complete assembled unit based on ISO5801 for air flow and BS848: Part 2, 1985 or ISO13347-3 for noise.

*Performance tests & data are based on PowerLine Ultra

How To Order



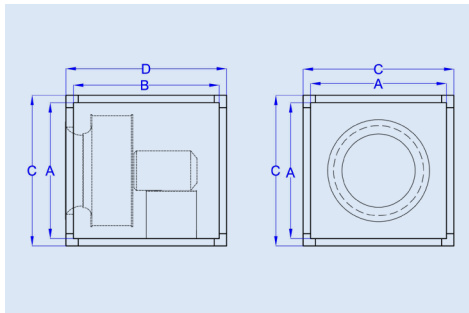
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Note

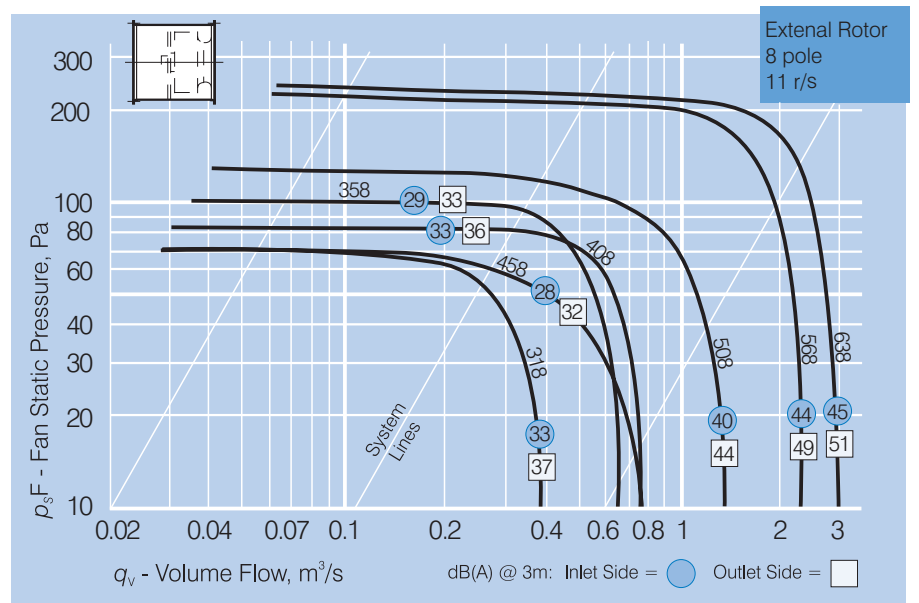
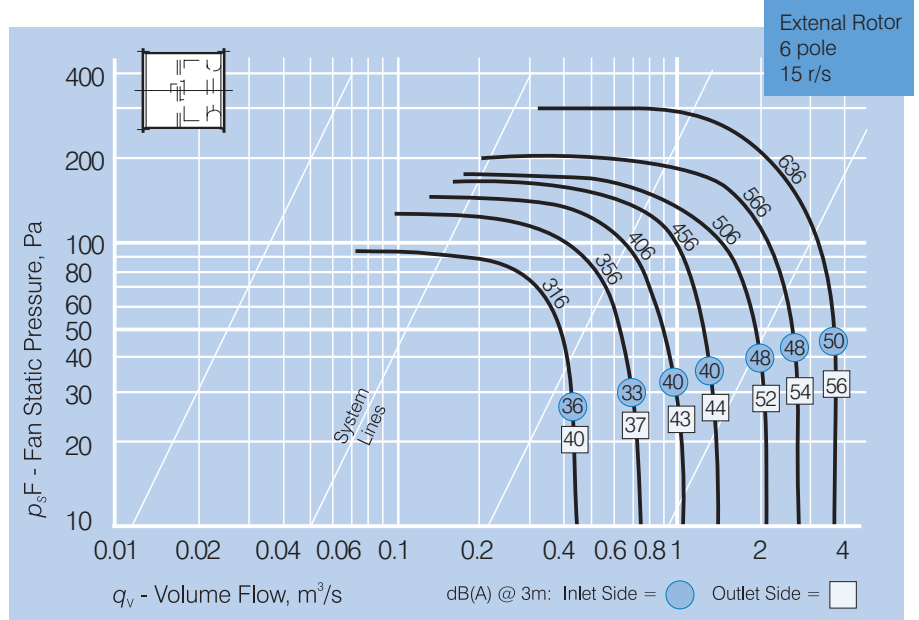
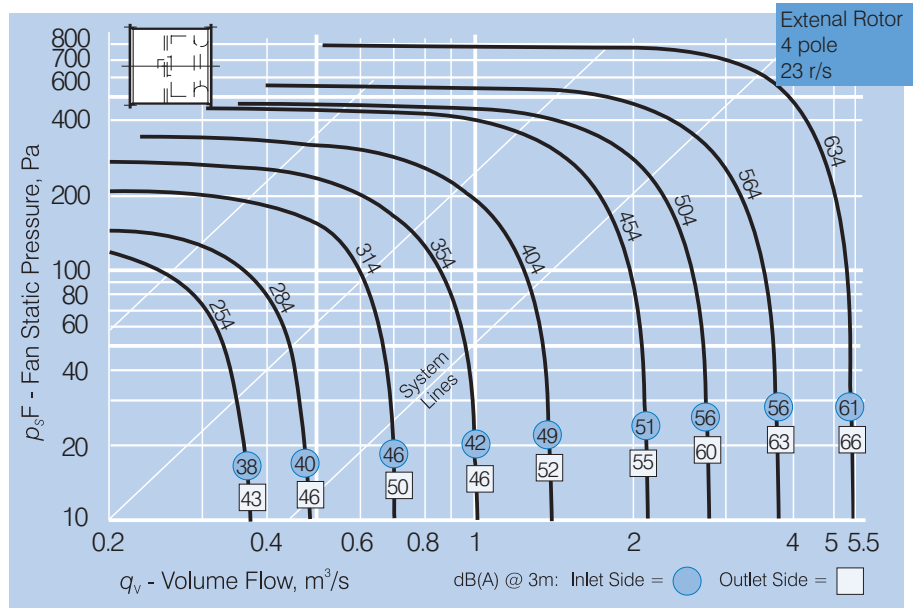
Performance curves shown are based on nominal speeds.

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.

Dimensions



Model	Dimensions, mm				App. wt. kg*
	A	B	C	D	
PUD...DD-DS PUE...DD-DS 31	400	460	460	520	32
35	450	510	510	570	36
40	500	510	560	570	48
45	550	560	610	620	55
50	650	660	710	720	67
56	725	760	785	820	101
63	800	810	860	870	138



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Technical Data & Noise Levels

Model PUD...DD-DS PUE...DD-DS	Nom. speed, rev/sec		PUD/PUE... DD-DS AVG. dB(A) @ 3m	PUE...DD-DS 1 ph.		PUD... DD-DS 3 ph. kW*	In-Duct Sound Power Levels, dB							
				kW	Amps		63	125	250	500	1k	2k	4k	8k
314	23	Inlet	46	0.25	1.80	0.37	74	70	64	62	60	60	59	53
		Outlet	50				74	71	64	65	64	66	61	56
316	15	Inlet	36	0.12	1.05	0.37	61	60	54	52	50	50	49	43
		Outlet	40				64	61	54	55	54	56	51	46
318	13	Inlet	33	-	-	-	58	57	51	49	47	47	46	40
		Outlet	37	61	58	51	52	51	53	48	43			
354	23	Inlet	42	0.25	1.80	0.37	65	68	61	58	54	56	55	49
		Outlet	46				66	67	61	60	62	60	58	52
356	16	Inlet	33	0.12	1.05	0.37	56	59	52	49	45	47	46	40
		Outlet	37				57	58	52	51	53	51	49	43
358	13	Inlet	29	-	-	-	52	55	48	45	41	43	42	36
		Outlet	33	53	54	48	47	49	47	45	39			
404	22	Inlet	49	0.75	4.90	0.75	69	73	66	66	60	63	62	56
		Outlet	52				71	71	66	67	68	67	64	58
406	15	Inlet	40	0.18	1.55	0.37	60	64	57	57	51	54	53	47
		Outlet	43				62	62	57	58	59	58	55	49
408	11	Inlet	33	-	-	-	53	57	50	50	44	47	46	40
		Outlet	36	55	55	50	51	52	51	48	42			
454	23	Inlet	51	-	-	1.10	73	75	70	67	64	65	63	58
		Outlet	55	78	74	72	71	71	68	65	59			
456	15	Inlet	40	-	-	0.37	62	64	59	56	53	54	52	47
		Outlet	44	67	63	61	60	60	57	54	48			
458	9	Inlet	28	-	-	-	50	52	47	44	41	42	40	35
		Outlet	32	55	51	49	48	48	45	42	36			
504	21	Inlet	56	-	-	1.50	77	81	76	71	70	69	66	61
		Outlet	60	85	81	82	73	76	72	67	60			
506	14	Inlet	48	-	-	0.55	69	73	68	63	62	61	58	53
		Outlet	52	77	73	74	65	68	64	59	52			
508	11	Inlet	40	-	-	-	61	65	60	55	54	53	50	45
		Outlet	44	69	65	66	57	60	56	51	44			
564	22	Inlet	56	-	-	3.00	79	81	77	72	71	71	69	64
		Outlet	63	82	84	80	79	78	77	75	69			
566	15	Inlet	48	-	-	0.75	73	73	69	64	63	64	59	52
		Outlet	54	75	76	71	70	70	69	64	57			
568	13	Inlet	44	-	-	-	69	73	67	61	59	57	53	46
		Outlet	49	72	73	68	67	66	63	58	50			
634	24	Inlet	61	-	-	5.50	71	82	79	78	77	76	72	68
		Outlet	66	74	85	82	85	83	81	77	69			
636	15	Inlet	50	-	-	1.10	65	73	69	67	66	65	61	57
		Outlet	56	68	76	72	74	72	70	66	58			
638	12	Inlet	45	-	-	-	65	67	65	61	61	59	55	49
		Outlet	51	69	71	68	70	67	64	59	50			

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

** Test and Performance data are based on PowerLine Ultra



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