

EC ICQ Series - square centrifugal duct fans



The EC ICQ series of duct mounted fans incorporates very high efficiency electronically commutated DC motors with on board infinitely variable control modules. These fans are AC powered with control and power conversion electronics integrated into the motor. Motor speeds can be controlled with 0-10V input signal or 10K potentiometer.

The ability to control the speed at which the fan operates in response to real time ventilation demands is the basis of our energy saver range. Fan power consumption changes to the cube of speed reduction while air flow reduction stays proportional to reduced speed. This means that tailoring fan speed to meet exact air flow requirements has the potential to greatly reduce energy consumption through the removal of redundant fan capacity.

Construction

Casings for all models are of galvanised sheet steel. Backward curved centrifugal impellers are matched with very high efficiency DC external rotor motors incorporating sealed for life bearings.

Testing

Rated fan performance has been determined by testing to ISO 5801 (2007). Fan sound data has been determined by testing to ISO 13347 : 2004.

Wiring Diagrams

Refer to the latest product datasheet for individual model wiring instructions, data and specifications. Datasheets are available from our electronic selection software **FansSelect** downloadable at www.pacificHVAC.com. It is a condition of our warranty that all equipment supplied is installed according to the requirements of AS/NZS3000:2007 Australian/New Zealand wiring rules.

Application

All units are suitable for internal or external operation at any installed angle.

Suggested Specification

The centrifugal fans shall be of the EC ICQ series manufactured by Pacific HVAC Engineering Pty Ltd

High performance backward curved centrifugal impellers shall be driven by EC motors incorporating on-board variable speed control.

All models shall be performance tested to ISO 5801 : 2007 for air flow and ISO 13347 : 2004 for sound.

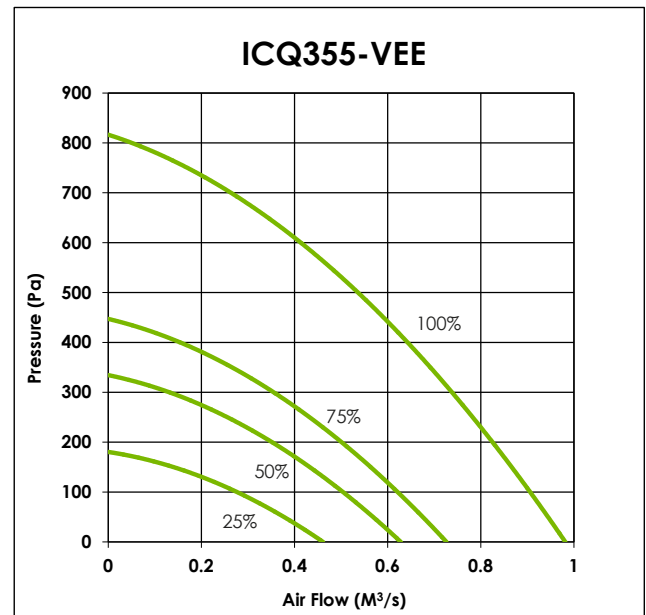
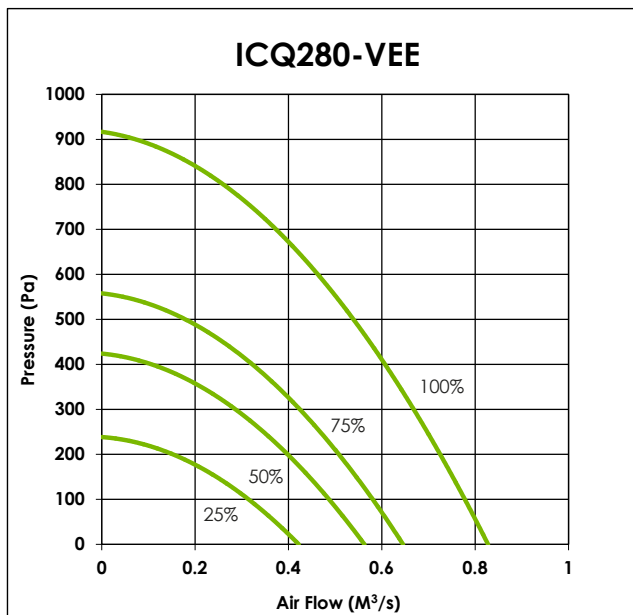
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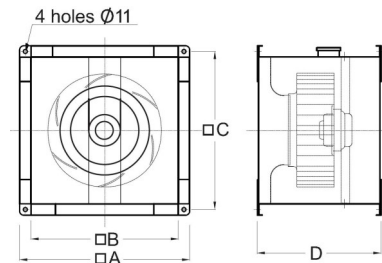
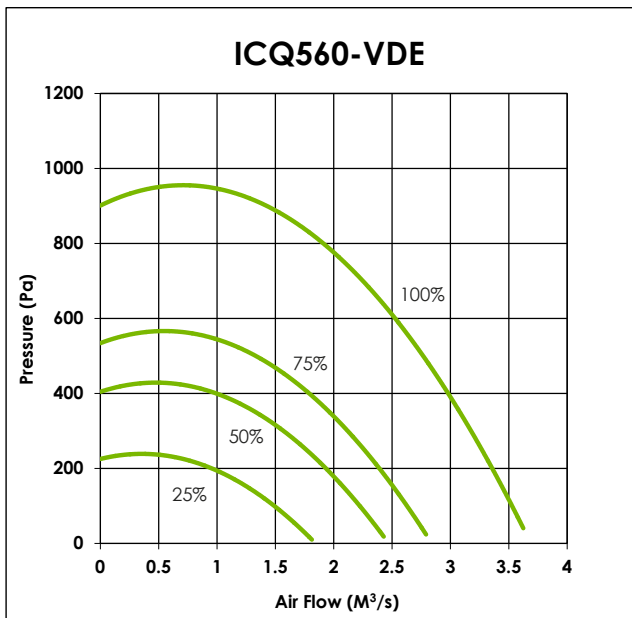
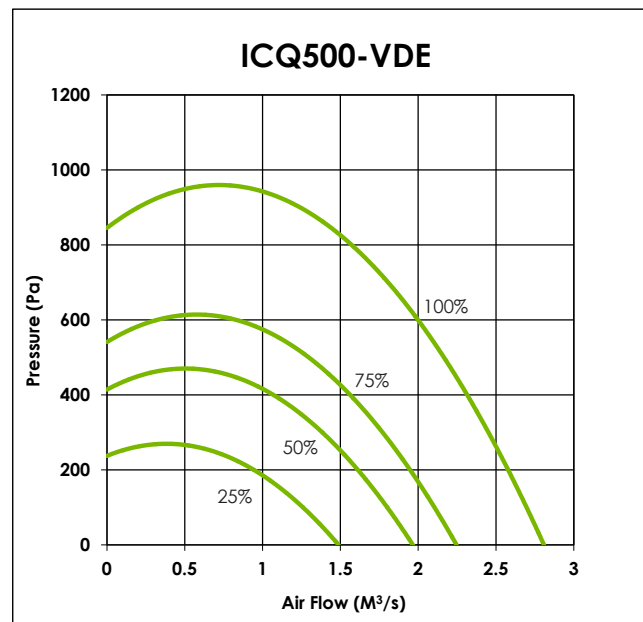
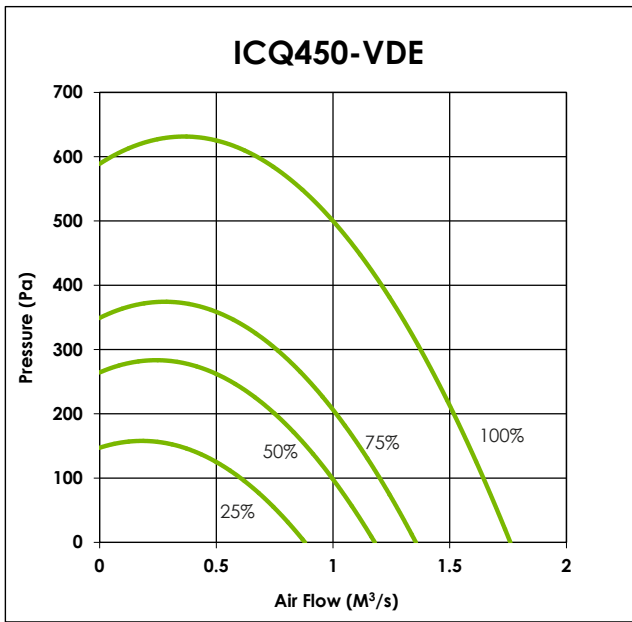
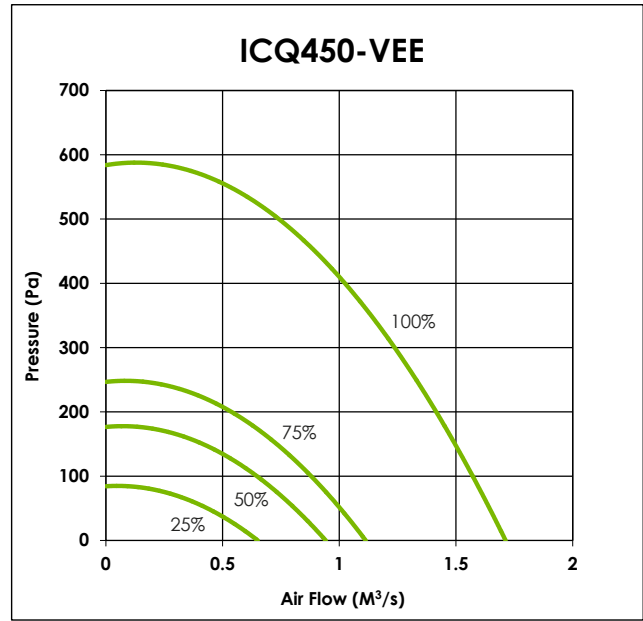
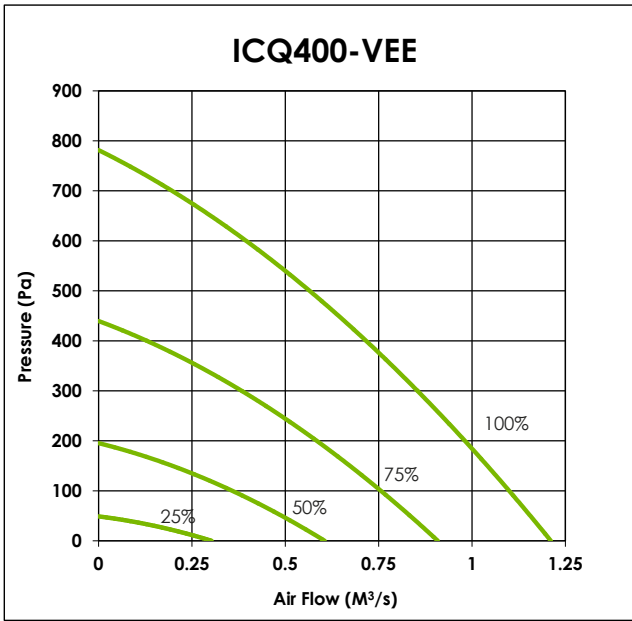
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Model	% Speed	kW	Amps	RPS	dB(A) @ 3m	SPL dB referred to 10 ⁻¹² W							
						63	125	250	500	1K	2K	4K	8K
ICQ280-VEE	100	0.50	2.20	45	58	90	85	82	77	70	67	66	63
	75	0.21	0.93	34	51	83	78	75	70	63	60	59	56
	50	0.06	0.28	23	41	73	68	65	60	53	50	49	46
	25	0.01	0.03	11	24	56	51	48	43	36	33	32	29
ICQ355-VEE	100	0.50	3.15	32	52	83	81	78	69	61	59	57	50
	75	0.21	1.33	24	45	76	74	71	62	54	52	50	43
	50	0.06	0.39	16	35	66	64	61	52	44	42	40	33
	25	0.01	0.05	8	18	49	47	44	35	27	25	23	16
ICQ400-VEE	100	0.50	2.20	31	51	82	80	77	68	62	58	56	49
	75	0.21	0.93	23	44	75	73	70	61	55	51	49	42
	50	0.06	0.28	15	34	65	63	60	51	45	41	39	32
	25	0.01	0.03	8	17	48	46	43	34	28	24	22	15
ICQ450-VEE	100	0.75	3.30	24	51	71	72	74	71	66	61	60	49
	75	0.32	1.39	18	44	64	65	67	64	59	54	53	42
	50	0.09	0.41	12	34	54	55	57	54	49	44	43	32
	25	0.01	0.05	6	17	37	38	40	37	32	27	26	15
ICQ450-VDE	100	0.97	1.70	26	54	85	84	77	73	66	66	59	44
	75	0.41	0.72	19	47	78	77	70	66	59	59	52	37
	50	0.12	0.21	13	37	68	67	60	56	49	49	42	27
	25	0.02	0.03	6	20	51	50	43	39	32	32	25	10
ICQ500-VDE	100	0.97	1.70	26	54	85	84	77	73	66	66	59	44
	75	0.41	0.72	19	47	78	77	70	66	59	59	52	37
	50	0.12	0.21	13	37	68	67	60	56	49	49	42	27
	25	0.01	0.03	6	20	51	50	43	39	32	32	25	10
ICQ560-VDE	100	2.90	4.43	28	62	79	84	81	81	78	71	70	67
	75	1.22	1.87	21	55	72	77	74	74	71	64	63	60
	50	0.36	0.55	14	45	62	67	64	64	61	54	53	50
	25	0.05	0.07	7	28	45	50	47	47	44	37	36	33

VEE = single phase. VDE = three phase



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Size	A	B	C	D	kg
280	480	410	445	350	27
355	520	450	485	550	34
400	570	500	535	550	36
450	620	550	585	600	39
500	720	650	685	650	58
560	870	800	835	750	72