

Acoustic data



Standard: BS EN 13141-7:2010

Ventilation for buildings. Performance testing of components/products for residential ventilation. Performance testing of a mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for single family dwellings

Product

HRV1.65 Q Plus Eco

Speed		'A' Weighted Sound Power Levels dB re. 1pW								Overall L _W	Overall L _{WA}	Casing Breakout dBA @ 3m
		Frequency Hz										
		63	125	250	500	1k	2k	4k	8k			
11l/s @ 1.5Pa (18%)	Induct Outlet	27	25	27	27	19	15	18	20	53	33	7
	Induct Inlet	27	25	23	19	14	14	18	20	53	31	
	Breakout	6	6	12	17	16	15	18	20	33	25	
32l/s @ 11Pa (29.7%)	Induct Outlet	35	46	45	47	42	33	22	20	65	52	15
	Induct Inlet	27	38	39	37	30	22	18	20	57	43	
	Breakout	17	15	26	28	25	18	18	20	44	32	
52l/s @ 28Pa (41.4%)	Induct Outlet	42	50	65	59	54	47	36	27	76	66	25
	Induct Inlet	30	47	59	48	41	35	25	26	70	60	
	Breakout	17	24	38	38	35	30	21	22	50	42	
63l/s @ 41Pa (53.1%)	Induct Outlet	44	53	64	61	59	52	42	34	76	67	31
	Induct Inlet	33	51	57	53	46	40	26	21	70	59	
	Breakout	19	34	46	42	41	35	24	20	57	49	
75l/s @ 52Pa (64.8%)	Induct Outlet	47	57	72	64	62	57	47	39	82	73	34
	Induct Inlet	38	52	65	55	49	45	31	23	75	65	
	Breakout	19	33	49	45	44	39	28	20	59	51	
88l/s @ 72Pa (76.5%)	Induct Outlet	49	57	72	68	66	61	51	44	83	74	38
	Induct Inlet	42	54	63	59	53	49	35	26	75	65	
	Breakout	26	37	52	49	47	43	32	21	63	55	
99l/s @ 95Pa (88.2%)	Induct Outlet	51	63	69	82	69	65	55	48	87	82	47
	Induct Inlet	43	56	64	68	56	52	39	31	78	70	
	Breakout	41	40	52	65	51	46	36	23	71	65	
99l/s @ 100Pa (100%)	Induct Outlet	51	65	70	84	69	65	55	48	89	84	47
	Induct Inlet	44	57	64	70	56	52	39	30	79	72	
	Breakout	41	40	51	64	52	46	36	22	71	64	

Measurements taken at full speed with a resistance of 100Pa, then at the stated percentage speed settings of the unit and corresponding reduced pressure

Inlet and outlet levels are Induct (BS EN 13141-7 clause 6.4.2 requirement), casing breakout is hemispherical - for spherical subtract 3dB

Titon acoustic data is independently tested at Sound Research Laboratories

Data is specifically tested for the Eco unit (100% bypass) - non bypass variants with deeper heat exchangers will offer lower acoustic levels

Product

HRV1.65 Q Plus Eco

Speed		Sound Power Levels dB re. 1pW								Overall L_W	Overall L_{WA}	Overall dBA @ 3m Hemispherical	Overall dBA @ 3m Spherical
		Frequency Hz											
		63	125	250	500	1k	2k	4k	8k				
11l/s @ 1.5Pa (18%)	Open Outlet	35	28	29	27	18	14	17	21	37	28	10	7
	Open Inlet	35	28	25	19	13	13	17	21	36	25	7	4
	Breakout	32	22	21	20	16	14	17	21	33	25	7	4
32l/s @ 11Pa (29.7%)	Open Outlet	43	49	47	47	41	32	21	21	53	47	29	26
	Open Inlet	35	41	41	37	29	21	17	21	45	38	20	17
	Breakout	43	31	35	31	25	17	17	21	44	32	15	12
52l/s @ 28Pa (41.4%)	Open Outlet	50	53	67	59	53	46	35	28	68	61	43	40
	Open Inlet	38	50	61	48	40	34	24	27	62	53	36	33
	Breakout	43	40	47	41	35	29	20	23	50	42	25	22
63l/s @ 41Pa (53.1%)	Open Outlet	52	56	66	61	58	51	41	35	68	63	45	42
	Open Inlet	41	54	59	53	45	39	25	22	61	54	36	33
	Breakout	45	50	55	45	41	34	23	21	57	49	31	28
75l/s @ 52Pa (64.8%)	Open Outlet	55	60	74	64	61	56	46	40	75	68	50	47
	Open Inlet	46	55	67	55	48	44	30	24	67	59	42	39
	Breakout	45	49	58	48	44	38	27	21	59	51	34	31
88l/s @ 72Pa (76.5%)	Open Outlet	57	60	74	68	65	60	50	45	75	70	53	50
	Open Inlet	50	57	65	59	52	48	34	27	67	60	43	40
	Breakout	52	53	61	52	47	42	31	22	63	55	38	35
99l/s @ 95Pa (88.2%)	Open Outlet	59	66	71	82	68	64	54	49	83	79	62	59
	Open Inlet	51	59	66	68	55	51	38	32	71	66	49	46
	Breakout	67	56	61	68	51	45	35	24	71	65	47	44
99l/s @ 100Pa (100%)	Open Outlet	59	68	72	84	68	64	54	49	84	81	63	60
	Open Inlet	52	60	66	70	55	51	38	31	72	68	51	48
	Breakout	67	56	60	67	52	45	35	23	71	64	47	44

Measurements taken at full speed with a resistance of 100Pa, then at the stated percentage speed settings of the unit and corresponding reduced pressure

To enable simplified comparisons with other manufacturers data the above information is tested in accordance with BS EN 13141-7, the end reflection as defined in EN ISO 5135

for a 125mm (204x60mm) duct mounted flush with the wall, has been removed to provide an open outlet/open inlet sound power measurement (see page 1 of 2 for original data)

Figures shown are not 'A' weighted (other than the overall L_{WA} /dBA columns)

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