



Supplemental Data

AHRI 260 Sound Power Ratings

FXDQ-MV





Supplemental Data

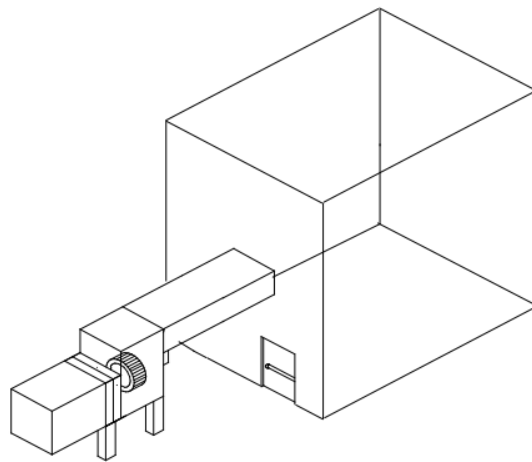
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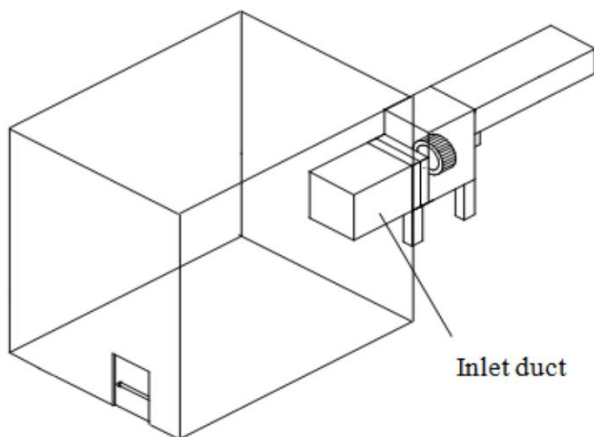
The following sound power data is based on measurements made in a reverberation room in accordance with AHRI Standard 260 2017 – Sound Ratings of Ducted Air Moving and Conditioning Equipment. This data is supplemental to the data provided in the indoor unit engineering manual. Sound power and pressure levels of the engineering manual are based on JIS standards and may vary from those obtained from AHRI standard 260.

Data for the following test configurations is provided:

Reverberation Room Ducted Discharge

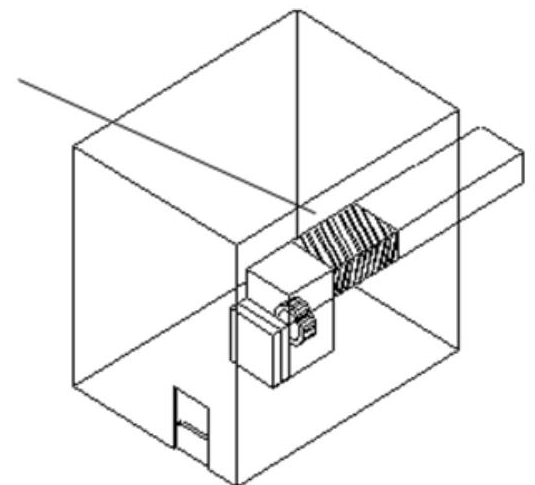


Reverberation Room Ducted Inlet



Reverberation Room Casing Radiated with Free Inlet

High transmission loss duct





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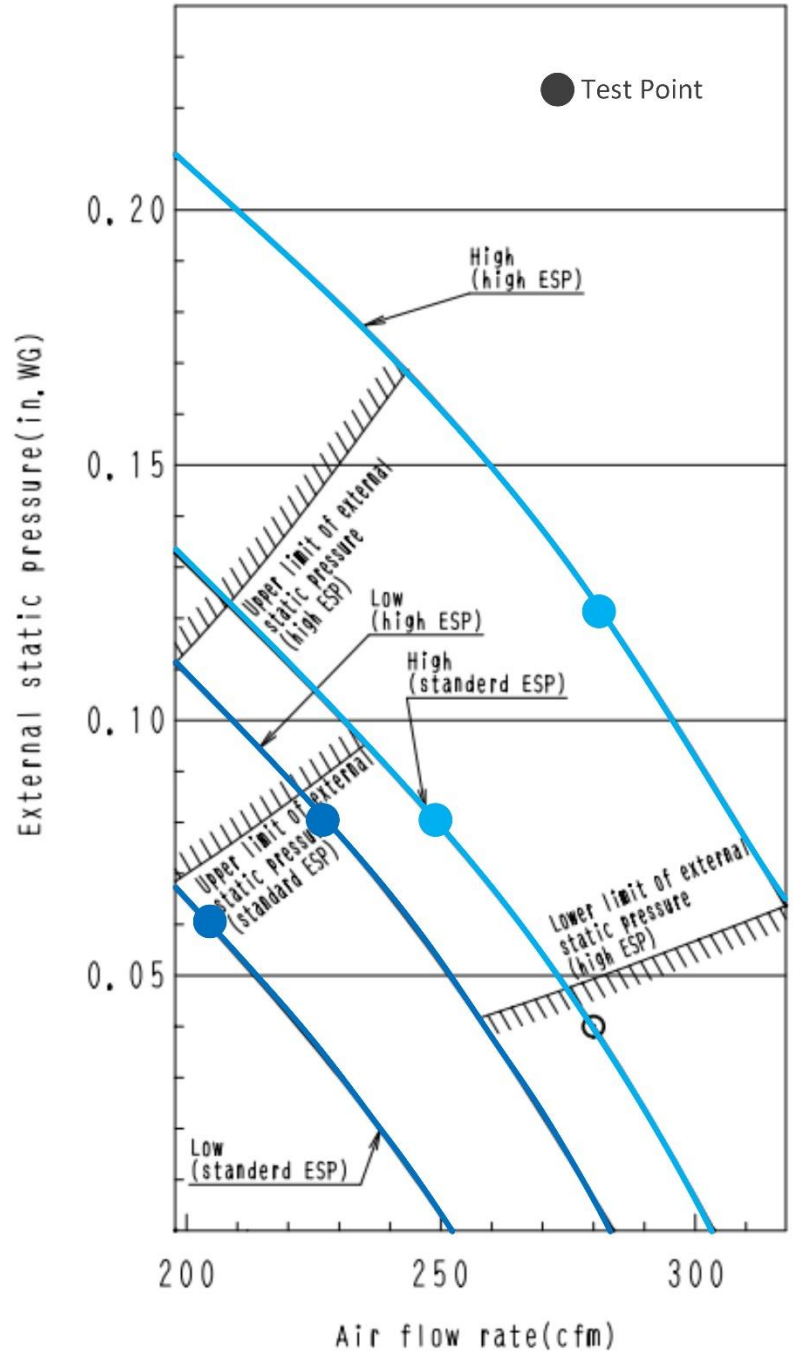
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An example of the test points for the FXDQ12MVJU is shown on the indoor unit fan characteristic curves from the engineering manual. This supplemental data manual includes three data points for each fan speed of each size FXDQ_MV unit. The external static pressure and the fan characteristic curves can be used to determine the approximate airflow rate for any particular test point.

Fan Speed	E.S.P (in W.C.)
H	0.12
	0.08
L	0.08
	0.06

Example FXDQ12MVJU Test Points





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Size (MBH)	Rating	Fan Speed	E.S.P (in W.C.)	IDU Field Setting	Octave Band Sound Power Level re 1pW* (Hz)								A-Weighted Sound Power
					63	125	250	500	1000	2000	4000	8000	dBA
07/09	Ducted Discharge	H	0.12	13(23)-05-02	55.3	57.2	53	46.7	45.5	38.7	31.7	30.9	50.4
			0.08	13(23)-05-01	53.4	54.6	50.5	43.6	41.4	34.4	27.2	30.2	47
		L	0.08	13(23)-05-02	53.4	52.8	47.6	41.8	39	31.8	25.1	30.1	44.9
			0.06	13(23)-05-01	51.7	50.4	44.5	39.2	35.4	27.7	23.2	30.1	42
	Ducted Inlet	H	0.12	13(23)-05-02	51	49.9	51.9	44.5	44.3	40.7	35	31.9	50.5
			0.08	13(23)-05-01	48.7	47	49.1	41.8	40.7	37.1	30.5	30.9	47.4
		L	0.08	13(23)-05-02	47	45.6	47.2	40.1	38.4	34.7	28	30.6	45.5
			0.06	13(23)-05-01	45.3	42.9	43.6	37.4	35.4	31.2	25.1	30.5	42.5
	Casing Radiated + Free Inlet	H	0.12	13(23)-05-02	47.2	51.6	54.2	47.3	48.9	43.8	38.4	33.6	52.7
			0.08	13(23)-05-01	46.1	49.3	51.5	44.7	45.2	40.1	33.6	31.5	49.3
		L	0.08	13(23)-05-02	43.5	47	49	43	43.1	37.8	30.9	31	47.2
			0.06	13(23)-05-01	45.5	44.9	46.1	40.4	40.1	34.6	27.5	30.7	44.4
12	Ducted Discharge	H	0.12	13(23)-05-02	55.5	58.9	53.2	46.5	46	38.7	32	30.9	50.7
			0.08	13(23)-05-01	53.4	56.4	51	44	42.8	35.2	28.2	30.4	48
		L	0.08	13(23)-05-02	52.5	55.1	48.9	42.3	40.7	32.8	26.1	30.3	46.1
			0.06	13(23)-05-01	51.4	52.8	46.2	40.1	38.1	29.6	24.1	30.2	43.7
	Ducted Inlet	H	0.12	13(23)-05-02	50.8	51.7	51.8	49.4	47.2	44.4	37.8	32.7	53.1
			0.08	13(23)-05-01	49.4	49.9	50	47.1	44.5	41	33.6	31.4	50.5
		L	0.08	13(23)-05-02	46.6	48.3	48	46	42.9	38.9	31.3	31	48.9
			0.06	13(23)-05-01	45.8	47.1	45.4	44.1	40.6	36	28.4	30.8	46.8
	Casing Radiated + Free Inlet	H	0.12	13(23)-05-02	47.8	52.5	54.9	51.8	52.1	46.8	40.4	34	55.6
			0.08	13(23)-05-01	42.7	50.5	52.9	50	49.4	43.4	36.1	31.5	53
		L	0.08	13(23)-05-02	43.9	48.7	51.3	48.6	47.6	41.4	33.7	30.7	51.2
			0.06	13(23)-05-01	42	48.4	49.5	47.4	45.2	38.3	29.7	30.3	49.2

Notes:

1. Data measured in an actual installation could provide different values from those published due to differences in the actual unit installation, measuring device accuracy/resolution, or the measurement environment.
2. Ducted discharge sound rating values include a background correction and duct end correction.
3. Ducted inlet sound rating values include a background correction and duct end correction.
4. Casing Radiated + Freed Inlet sound rating values include a background correction.



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Size (MBH)	Rating	Fan Speed	E.S.P (in W.C.)	IDU Field Setting	Octave Band Sound Power Level re 1pW* (Hz)								A-Weighted Sound Power
					63	125	250	500	1000	2000	4000	8000	dBA
18	Ducted Discharge	H	0.17	13(23)-05-02	54.7	60.1	54.6	49.4	51.4	44	37.8	33.1	54.6
			0.11	13(23)-05-01	52.6	55.7	49.8	45.8	46	38.2	31.8	30.3	49.7
		L	0.11	13(23)-05-02	53.5	54.8	48.9	45.4	45.5	37.3	30.8	30.2	49.1
			0.07	13(23)-05-01	50.9	51.3	44.6	40.1	40	31.8	26.6	29.7	44
	Ducted Inlet	H	0.17	13(23)-05-02	44.6	54.4	52.8	47.5	48.3	45	40.9	34.1	53.5
			0.11	13(23)-05-01	48.9	49.6	48.7	44.1	44.3	40.8	38	31.4	49.6
		L	0.11	13(23)-05-02	47.9	48.7	47.2	42.9	43.1	39.7	37.4	31	48.5
			0.07	13(23)-05-01	48.6	44.6	43.3	39.3	38.8	35.6	35.6	30.4	44.9
	Casing Radiated + Free Inlet	H	0.17	13(23)-05-02	52.2	55.8	56.8	51.1	52.6	48.4	45.6	38.5	56.7
			0.11	13(23)-05-01	49.1	52	52.9	47.8	48.8	44.5	42.7	34	53
		L	0.11	13(23)-05-02	48	50.7	51.7	46.4	47.3	43.3	42	33	51.7
			0.07	13(23)-05-01	44.7	47.5	48	42.8	43.1	39.7	40.2	30.9	48.2
24	Ducted Discharge	H	0.16	13(23)-05-02	54.3	62.3	55.3	50.3	51.9	44.2	38.6	33.4	55.3
			0.11	13(23)-05-01	51.8	56.1	51	46.5	47.6	39.1	32.7	30.5	50.8
		L	0.11	13(23)-05-02	52.4	56	49.9	45.5	46.3	37.9	31.5	30.3	49.7
			0.07	13(23)-05-01	50.3	52.1	45.7	41.5	41	32.1	25.8	29.5	45
	Ducted Inlet	H	0.16	13(23)-05-02	45.5	59.4	54.3	48.5	50.2	46.9	41.3	35.5	55.4
			0.11	13(23)-05-01	41.8	55.5	50.6	45	46.1	42.4	36.6	31.7	51.4
		L	0.11	13(23)-05-02	40.4	55.2	49.4	43.9	44.8	40.9	35.1	31.1	50.3
			0.07	13(23)-05-01	43.1	53.2	45.7	40.2	40.4	36.3	31.8	30.2	46.8
	Casing Radiated + Free Inlet	H	0.16	13(23)-05-02	55.4	59.3	58.6	53	54.3	49.8	44.9	38.8	58.2
			0.11	13(23)-05-01	54.6	56.7	55.8	50.1	50.4	46.3	41.1	34.3	54.8
		L	0.11	13(23)-05-02	49.1	55.9	54.7	48.3	49	44.1	39	32.6	53.2
			0.07	13(23)-05-01	45.7	54.6	50.3	44.2	44.3	39.2	34.9	30.6	48.9

Notes:

1. Data measured in an actual installation could provide different values from those published due to differences in the actual unit installation, measuring device accuracy/resolution, or the measurement environment.
2. Ducted discharge sound rating values include a background correction and duct end correction.
3. Ducted inlet sound rating values include a background correction and duct end correction.
4. Casing Radiated + Freed Inlet sound rating values include a background correction.