

Model Series 38F • Underfloor Fan Coil/Booster Units • Performance Data NC Level Application Guide

Unit Size	Airflow cfm l/s		NC Levels	
			Octave Bands	
			Discharge	Radiated
1	450	212	34	34
	400	189	31	30
	300	142	22	24
	200	94	-	-
	110	52	-	-
3S	933	440	32	34
	800	378	26	30
	650	307	21	25
	500	236	-	20
	350	165	-	-
3	880	415	31	35
	700	330	24	25
	550	260	-	22
	400	189	-	-
	250	118	-	-
	150	71	-	-

Unit Size	Airflow cfm l/s		NC Levels	
			Octave Bands	
			Discharge	Radiated
5	1500	708	41	44
	1200	566	34	37
	900	425	27	28
	600	283	-	22
	300	142	-	-
6	1700	802	39	42
	1550	731	34	38
	1400	661	30	36
	1250	590	26	33
	1000	472	20	30
	850	401	-	26
	700	330	-	22
33	1760	831	35	39
	1400	661	26	30
	1100	519	-	25
	800	378	-	20
	500	236	-	-
	300	142	-	-

Discharge attenuation	Octave Band						
	2	3	4	5	6	7	
< 300 cfm	24	28	39	53	58	40	
300 – 700 cfm	27	29	40	51	53	39	
> 700 cfm	29	30	41	51	52	39	

3. Radiated sound attenuation deductions are based on an assumed effect of an access floor tile equal to 1/2" (13) gypsum board and environmental effect and are as follows:

Radiated attenuation	Octave Band						
	2	3	4	5	6	7	
Environmental effect	2	1	0	0	0	0	
Ceiling/Space effect	21	25	25	27	27	28	
Total dB Reduction	23	26	25	27	27	28	

4. Dash (-) in space denotes an NC level of less than 20.

Performance Notes:

1. NC levels are calculated from the published raw data and based on procedures outlined in Appendix E, ARI 885-98.

2. Discharge sound attenuation deductions are based on environmental effect, duct lining, branch power division, insulated flex duct, end reflection and space effect and are as follows:

Sound Power Levels

Unit Size	Airflow cfm l/s		Discharge Sound Power							Radiated Sound Power						
			Octave Bands							Octave Bands						
			2	3	4	5	6	7	2	3	4	5	6	7		
1	450	212	70	73	71	74	71	70	73	70	62	57	56	54		
	400	189	68	71	69	72	68	67	70	67	59	54	53	51		
	300	142	61	64	64	64	60	60	67	61	54	47	46	44		
	200	94	57	52	54	50	47	45	55	50	45	35	32	26		
	110	52	48	35	34	31	29	31	40	36	26	25	26	26		
3S	933	440	74	73	69	70	67	66	73	68	63	62	55	45		
	800	378	69	68	65	66	62	61	69	64	60	58	51	40		
	650	307	64	63	60	60	56	54	63	59	56	53	45	34		
	500	236	58	57	55	54	50	46	56	53	51	47	38	25		
	350	165	49	48	47	45	39	34	50	47	45	38	31	25		
3	880	415	73	72	68	70	67	66	75	68	62	57	52	52		
	700	330	67	65	63	64	60	59	68	63	57	52	46	46		
	550	260	60	58	57	58	54	51	63	57	53	47	40	38		
	400	189	53	52	51	50	45	41	59	52	48	40	36	33		
	250	118	54	45	43	40	35	32	59	46	40	34	31	30		
5	1500	708	84	79	77	79	78	77	82	74	68	64	59	56		
	1200	566	79	73	72	74	72	71	77	68	64	60	54	51		
	900	425	71	65	66	66	65	63	70	62	59	54	48	43		
	600	283	64	58	59	60	58	53	63	55	53	48	41	34		
	300	142	53	48	50	50	45	38	55	49	47	42	32	24		
6	1700	802	81	77	74	72	70	69	80	73	71	70	64	55		
	1550	731	78	74	71	68	66	65	76	69	67	66	59	49		
	1400	661	76	71	68	65	63	62	73	67	65	64	56	46		
	1250	590	72	68	65	62	59	58	70	64	63	61	53	43		
	1000	472	66	62	59	57	53	51	66	57	57	53	44	35		
	850	401	63	59	56	53	49	47	62	57	57	53	44	35		
	700	330	56	56	54	51	47	45	55	53	54	50	41	30		
33	1760	831	76	75	71	73	70	69	78	71	65	60	55	55		
	1400	661	70	68	66	67	63	62	71	66	60	55	49	49		
	1100	519	63	61	60	61	57	54	66	60	56	50	43	41		
	800	378	56	55	54	53	48	44	62	55	51	43	39	36		
	500	236	57	48	46	43	38	35	62	49	43	37	34	33		
	300	142	54	41	38	36	34	35	57	43	37	34	33	33		

Performance Notes:

1. Fan discharge (external) static pressure is 0.25" w.g. (63 Pa) in all cases. It is the difference (ΔP_s) in static pressure from fan coil unit discharge to the room.
2. Discharge sound power is the noise emitted from the unit discharge into the downstream duct.
3. Radiated sound power is the breakout noise transmitted through the unit casing walls.
4. Sound power levels are in decibels, dB re 10^{-12} watts.
5. All sound data listed by octave bands is raw data without any corrections for room absorption or duct attenuation.
6. Data derived from independent tests conducted in accordance with ARI Standard 880-98.