

Acpac Sound Levels

Cat. No.	Acpac Model	Sound Power dBA
----------	-------------	-----------------

Medium Temperature

259003	AP1.7M1-1	62
259004	AP2.1M1-1	63
259005	AP2.5M1-1	64
259006	AP2.8M1-1	65
259007	AP3.9M1-1	68
259008	AP4.1M1-1	70
259013	AP5.7M2-1	69
259015	AP7.8M2-1	75
259017	AP8.8M2-1	78
259019	AP10.7M2-1	78
259021	AP13.1M2-1	77
259022	AP15.8M-TAGD	83
259024	AP19.2M2-TAGD	83
259026	AP22.0M2-TAGD	83
259028	AP26.3M2-TAGD	82

Low Temperature

259032	AP1.1L1-1	63
259034	AP1.6L1-1	67
259036	AP1.9L1-1	67
259038	AP2.9L1-1	69
259043	AP3.3L2-1	72
259045	AP4.8L2-1	71
259047	AP6.2L2-1	76
259048	AP10.1L2-TAGD	79
259050	AP12.7L2-TAGD	81

Sound Pressure Level at Distance [metres]								
1	2	3	4	5	6	7	8	10

54	48	45	42	40	39	37	36	34
55	49	46	43	41	40	38	37	35
56	50	47	44	42	41	39	38	36
57	51	48	45	43	42	40	39	37
60	54	51	48	46	45	43	42	40
62	56	53	50	48	47	45	44	42
61	55	52	49	47	46	44	43	41
67	61	58	55	53	52	50	49	47
70	64	61	58	56	55	53	52	50
70	64	61	58	56	55	53	52	50
69	63	60	57	55	54	52	51	49
75	69	66	63	61	60	58	57	55
75	69	66	63	61	60	58	57	55
75	69	66	63	61	60	58	57	55
74	68	65	62	60	59	57	56	54

55	49	46	43	41	40	38	37	35
59	53	50	47	45	44	42	41	39
59	53	50	47	45	44	42	41	39
61	55	52	49	47	46	44	43	41
64	58	55	52	50	49	47	46	44
63	57	54	51	49	48	46	45	43
68	62	59	56	54	53	51	50	48
71	65	62	59	57	56	54	53	51
73	67	64	61	59	58	56	55	53

Actrol reserves the right to change specifications without notice.

Sound Pressure Level (SPL) and Sound Power Level (SWL)

The Sound Power Level is a measure of how much acoustic power is produced by the equipment. The Sound Pressure Level is the resulting noise level from the operation of the equipment. The Sound Pressure Level depends on the location of the sound source, how many reflecting surfaces are nearby (how reverberant the space is) and the distance between the equipment and the receiver.

The Sound Power Level is an intrinsic property of the equipment where as the Sound Pressure Level depends on the Sound Power Level and the environment. For example, the Sound Power Level maybe thought of as the Watts of a light bulb, while the Sound Pressure Level is similar to the overall brightness - it depends on the environment (e.g. size of room, colour of walls) as well as the power of the light bulb.

Generally, the Sound Pressure Level is lower than the Sound Power Level. In a 'Free Field' with no reflecting surfaces such as walls nearby, the Sound Pressure Level is approximately 8 dBA lower than the Sound Power Level at one metre from the equipment (assuming source is on a hard surface).

Please refer to pages 430 to 438 of the Edition 9 Actrol Catalogue & Technical Manual for more details on how to achieve low noise refrigeration installations.