

Trade Name	Model	CS class	CAL class - 400 Pa	CAL class +700 Pa	FBL class	TT class	TBF class	Casing accoustical insulation at 125 Hz	Casing accoustical insulation at 250 Hz	Casing accoustical insulation at 500 Hz	Casing accoustical insulation at 1000 Hz	Casing accoustical insulation at 2000 Hz	Casing accoustical insulation at 4000 Hz	Casing accoustical insulation at 8000 Hz
								[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
ATC	Model Box RW 45mm	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB2	17	22	30	33	30	40	51
ACS	ACS50 RW NEW-P	D1(M)	L1(M)	L1(M)	F8(M)	T4	TB3	18	27	30	31	27	36	41
ACS	ACS50 RW	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB4	11	14	15	15	29	23	38
AIRPLUS	AHUPPLUS-MB	D1(M)	L1(M)	L1(M)	F9(M)	T4	TB4	19	27	31	34	34	37	42
ALARKO	ALS-AL	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	16	24	31	32	30	36	40
ALARKO	ALS-CELIK	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	15	21	29	31	27	34	39
CARRIER	INOX (in/out B)	D2(M)	L2(M)	L2(M)	F9(M)	T2	TB3	17	20	20	22	21	29	36
CARRIER	INOX (in B)	D2(M)	L2(M)	L2(M)	F9(M)	T2	TB1	17	20	20	22	21	29	36
CARRIER	INOX (in/out A)	D2(M)	L2(M)	L2(M)	F9(M)	T2	TB3	17	20	20	22	21	29	36
CARRIER	INOX (in A)	D2(M)	L2(M)	L2(M)	F9(M)	T2	TB1	17	20	20	22	21	29	36
CARRIER	RP125	D1(M)	L2(M)	L2(M)	F9(M)	T3	TB2	17	18	18	21	24	31	36
CARRIER	RR125A	D3(M)	L1(M)	L2(M)	F9(M)	T3	TB2	23	25	25	24	25	32	34
CARRIER	RP080 60mm PIR foam + rockwool	D1(M)	L2(M)	L2(M)	F9(M)	T2	TB2	17	20	20	22	21	29	36
CARRIER	GP080PIR mm PIR foam + glasswool	D1(M)	L2(M)	L2(M)	F9(M)	T2	TB2	19	19	20	22	21	30	36
ALDAG	ROCKWOOL 50	D1(M)	L2(M)	L2(M)	F9(M)	T3	TB3	11	14	15	15	29	23	34
TEKNOGEN	TKS	D2(M)	L1(M)	L2(M)	F9(M)	T3	TB3	18	22	31	36	38	41	48
Can Klimateknik	New 4EST	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	23	24	26	25	28	31	38
DencoHappel	SX-K	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB3	20	24	28	25	23	32	34
DencoHappel	SX-M	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB2	14	23	30	31	29	29	39
FOUR SEASON	60mm rockwool	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB2	19	27	31	30	25	34	39
FOUR SEASON	51mm rockwool	D1(M)	L1(M)	L2(M)	F9(M)	T3	TB3	18	25	32	34	31	37	41
ENEKO	EROVENT/EPOVENT	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	14	21	27	33	36	43	47
FITA	FAHU 50RW	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	19	27	31	34	34	37	42
GONKA	GKS-ST	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	17	26	30	32	29	36	43
GONKA	GKS-AL	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB3	12	20	23	22	23	32	39
İmeksan	IKS-Alu	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB3	21	26	32	34	34	37	45
İmeksan	IKS-Celik	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB1	20	26	33	37	37	41	55
İmeksan	RW 55	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB3	25	26	28	30	28	32	41
YORK	PU6055TB-L2-2016	D1(M)	L1(M)	L2(M)	F9(M)	T2	TB2	12	15	17	16	23	36	43
YORK	PU6055TB-L1-2016	D1(M)	L1(M)	L1(M)	F9(M)	T1	TB2	11	11	17	13	17	30	35
YORK	RW6055ST-2016	D2(M)	L2(M)	L2(M)	F9(M)	T2	TB3	20	24	31	26	24	31	33
YORK	RW6055TB-2016	D1(M)	L2(M)	L2(M)	F9(M)	T2	TB2	20	24	32	29	27	33	36
YORK	PU6055ST-2016	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB3	10	13	17	15	23	36	42
YORK	PU6055TB	D1(M)	L2(M)	L3(M)	M6(M)	T2	TB3	11	11	17	13	17	30	35
YORK	RW6055ST	D2(M)	L3(M)	L3(M)	M6(M)	T4	TB4	20	24	31	26	24	31	33
YORK	RW6055TB	D2(M)	L3(M)	L3(M)	M6(M)	T3	TB3	20	24	32	29	27	33	36

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								[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
YORK	PU6055ST	D1(M)	L2(M)	L2(M)	M6(M)	T3	TB4	12	11	16	13	16	29	32
YORK	PU6055TB	D1(M)	L2(M)	L3(M)	M6(M)	T2	TB3	11	11	17	13	17	30	35
YORK	RW6055TB	D2(M)	L3(M)	L3(M)	M6(M)	T3	TB3	20	24	32	29	27	33	36
YORK	PU6055ST	D1(M)	L2(M)	L2(M)	M6(M)	T3	TB4	12	11	16	13	16	29	32
YORK	RW6055ST	D2(M)	L3(M)	L3(M)	M6(M)	T4	TB4	20	24	31	26	24	31	33
KLS	KSA-AL	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	16	24	31	32	30	36	40
KLS	KSA-CELIK	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	15	21	29	31	27	34	39
KLISOM	KKS 50mmm	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB3	16	22	27	30	31	34	38
<b>BOREAS</b>	<b>RW-50</b>	<b>D1(M)</b>	<b>L1(M)</b>	<b>L1(M)</b>	<b>F9(M)</b>	<b>T2</b>	<b>TB1</b>	<b>20</b>	<b>26</b>	<b>30</b>	<b>34</b>	<b>36</b>	<b>41</b>	<b>46</b>
TRANE	CCSA-RW	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	23	24	26	25	28	31	38
UNTES	PKC60	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	18	28	34	35	33	41	52
UNTES	PKH50	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB3	18	23	29	34	36	35	43
UNTES	PK25	D1(M)	L1(M)	L1(M)	F9(M)	T4	TB4	13	11	12	15	15	26	32

**Factory Country : Germany**

ALKO	AT4-F	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	16	25	28	30	32	37	40
ALKO	AT4-T	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB1	15	26	27	30	33	37	42
ALKO	AT4	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB3	16	22	28	31	33	38	40
DencoHappel	SX-K	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB3	20	24	28	25	23	32	34
DencoHappel	SX-K	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB3	20	24	28	25	23	32	34
DencoHappel	SX-M	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB2	14	23	30	31	29	29	39
Huber&Ranner	Model Box1	D2(M)	L1(M)	L1(M)	F9(M)	T3	TB3	14	21	26	30	33	39	45
Huber&Ranner	Model Box1	D2(M)	L1(M)	L1(M)	F9(M)	T3	TB3	14	21	26	30	33	39	45
Menerga	MB 50 pur	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB1	14	17	16	18	19	32	37
Menerga	MB 50 mw	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB1	19	23	23	26	26	31	36
Menerga	MB 50	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB1	14	17	16	18	19	32	37
ROBATHERM	RL	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB1	12	19	29	33	40	44	43
ROBATHERM	RM	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB1	15	21	30	37	43	43	43
ROSENBERG	S40-L (large)	D1(M)	L2(M)	L2(M)	F9(M)	T3	TB4	13	20	23	25	27	31	40
ROSENBERG	S40	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB4	17	22	30	30	29	29	38
ROSENBERG	T60	D2(M)	L1(M)	L1(M)	F9(M)	T2	TB2	15	25	28	30	29	31	35
ROSENBERG	F40	D2(M)	L2(M)	L2(M)	F8(M)	T3	TB3	11	21	30	34	34	37	39
ROX	HYD Climate	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	16	26	24	28	33	41	43
ROX	HYD Standard	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB3	16	18	17	17	28	38	43
ROX	HYD LC	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	14	19	17	17	25	37	43
SIEGLE+EPPLE	AHU-EV 100	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB2	17	26	27	28	32	44	51
SIEGLE+EPPLE	AHU-EV 050	D1(M)	L1(M)	L1(M)	F9(M)	T3	TB2	17	26	27	28	32	44	51
TROX X-CUBE	X-CUBE PUR	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	16	16	17	23	30	33	42
TROX X-CUBE	X-CUBE	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB2	20	24	27	31	32	33	43
WOLF	AHU-TE 1	D1(M)	L1(M)	L1(M)	F9(M)	T2	TB3	17	23	31	34	36	42	48

Comparison of the changes between the model box test according to the standard EN 1886

Model box	
Obsolete	Existing
Each section have one access door.	The operating side of each section shall have at least one access door (with hinges and standard closure, but no window) and shall include at least one fixed panel.
Weatherproof units shall not be covered (e.g. with a roof or roofing membrane) when the thermodynamic values are determined.	
Assembling of the test from test engineer in test lab according to normal assembling rules by manufacturer.	
Mechanical strength of the casing	
Obsolete	Existing
Test pressure: ±1500Pa Classification: Max. deflection 4 mm => class 2 Max. deflection 10 mm => class1 Max. deflection > 10mm => class 1B  If after the test pressure of ±2500Pa the remaining deflection is less than 2 mm: Max. deflection 4 mm => class2(A) Max. deflection 10 mm => class1(A)	Test pressure: ±1000 Pa Classification: The remaining deflection after a test pressure of ±2500 Pa must be less than 2 mm. Max. deflection 4 mm => class D1(M) Max. deflection 10 mm => class D2(M) Max. deflection > 10 mm => class D3(M)
Casing air leakage	
Obsolete	Existing
Test pressure: -400 Pa Classification: Max. leakage rate 0,44 l/sm <sup>2</sup> => class B Max. leakage rate 1,32 l/sm <sup>2</sup> => class A Max. leakage rate 3,96 l/sm <sup>2</sup> => class 3A  Test pressure: +700 Pa Classification: Max. leakage rate 0,63 l/sm <sup>2</sup> => class B Max. leakage rate 1,90 l/sm <sup>2</sup> => class A Max. leakage rate 5,70 l/sm <sup>2</sup> => class 3A	Test pressure: -400 Pa Classification: Max. leakage rate 0,15 l/sm <sup>2</sup> => class L1(M) Max. leakage rate 0,44 l/sm <sup>2</sup> => class L2(M) Max. leakage rate 1,32 l/sm <sup>2</sup> => class L3(M)  Test pressure: +700 Pa Classification: Max. leakage rate 0,22 l/sm <sup>2</sup> => class L1(M) Max. leakage rate 0,63 l/sm <sup>2</sup> => class L2(M) Max. leakage rate 1,90 l/sm <sup>2</sup> => class L3(M)  <b>The leakage test shall be done after the strength test.</b>
Filter bypass leakage	
Obsolete	Existing
The filter frame shall be placed away from the section joints so that negative pressure impinges on the joint during the casing leakage test	
Thermal tests	
Obsolete	Existing
The assembly shall be supported by insulating blocks, with the bottom or the base frame of the enclosure minimum 100mm above the floor of a draught-free room.	The assembly shall be supported by insulating blocks, with the bottom or the base frame of the enclosure <b>300mm to 400 mm above</b> the floor of a draught-free room ( <b>air velocity less than 0,11/s</b> ).
The following shall be mounted inside the enclosure: - electrical heater elements, controllable externally; - one circular fan with a total free air volume performance of minimal 100 air changes per hour.	The following shall be mounted inside the enclosure: - one or more electrical heater elements, controllable externally; - one or more circular fans with a total free air volume performance <b>equal to 100 to 110 air changes per hour</b> , allowing the internal air temperature difference across the measurement points <b>to be not greater than 2,0K</b>
For the determination of the internal temperature 10 sensors are used.	For the determination of the internal temperature <b>16 sensors</b> are used.
The accuracy of the air temperature measuring device shall be 0,5K.	The <b>accuracy</b> of the air temperature measuring device shall be <b>0,1K</b> .
The external air temperature shall be measured at point 1,0 m distance from the center at all four vertical sides of the unit.	The external air temperature shall be measured at point 0,25 m distance from the center of <b>top, bottom</b> and all four vertical sides of the unit.
Both sets of measurements shall yield a standard deviation not exceeding 1,5K during a period of 30 minutes.	Both sets of measurements (mean internal/mean external temperature) shall yield a standard <b>deviation not exceeding 1,0K during a period of 30 minutes</b> .
Thermal transmittance	
Obsolete	Existing
Temperature difference during measurement: 20 K to 25 K.	Temperature difference during measurement: <b>20 K fixed</b> .
Thermal bridging	
Obsolete	Existing
Temperature difference during measurement: 20 K to 25 K.	Temperature difference during measurement: <b>20 K</b> .
For the determination of the internal temperature, the mean of all 10 sensors will be used.	The model box will be <b>divided in three parts</b> . For the determination of the internal temperature, the average of the 8 temperature sensors which limiting each section will be used. Together with the maximum outside temperature of the section, the Kb value will be calculated. The lowest value for the three sections shall be taken as the Kb value of the whole model box.
Acoustic insulation of casing	
Obsolete	Existing
Inside the enclosure, a sound source, designed to prevent vibration to the floor, shall be mounted in the middle of the model box.	Inside the enclosure, a sound source, designated to prevent vibration to the floor, shall be resiliently mounted <b>in two successive positions</b> . The average of both measurements will be used for the determination of the sound insertion loss.