SERIES FAN COILS

MODEL AHSD

NEW PRODUCT





AHSS AHSD

Product Presentation

The L/M-STAT Series Ceiling Concealed Ducted Fan Coils have been specifically designed to match the most demanding market expectations.

- The AHSS model is single skin for ceiling concealed applications with 25mm filter and duct connection flange.
- The AHSD model is double skin for ceiling concealed applications with 20mm thickness casing, 25mm filter and duct flange.

Product Range

The L/M-STAT Series Ceiling Concealed Ducted Fan Coils Series offers a range of 230V/50Hz, with the following capacities:

- 13 sizes of 2 pipe 3 row models from 2.82kW to 26.9kW (9600 BTU/H to 91800 BTU/H) cooling capacity and 2.43kW to 26.65kW (8300 BTU/H to 90900 BTU/H) heating capacity.
- 2 pipe models 4 row also available.
- 4 pipe models available by adding an auxiliary heating coil (3+1).
- Variable External Static Pressures (ESP) up to 150 Pa (0.6 in.wg).





SONKOR GLOBAL HVAC SOLUTIONS

Product Features

- Framework. The L/M-STAT Series Ceiling Concealed Ducted Fan Coils have a frameless integrated folded steel structure. The units have been carefully designed to avoid any air leakage between casing and joint covers.
- Casing.
- •AHSS-unit case is using 1mm thickness galvanized steel with 10mm insulation inside of the unit. The unit is designed for ceiling concealed applications with 25mm filter and duct connection flange.
- •AHSD-double skin unit case is using double skin (Sandwich panel), consisting of two walls with inner insulation. Inner wall is made of plane galvanized steel of 0.8mm thickness.Outer wall is made of pre-coated steel 1.0mm thickness. The insulation consists of high pressure PU foam sandwiched in between, thus producing a rigid and robust panel. The final casing thickness shall be 20 mm. The unit is designed for ceiling concealed applications.
- Filter. 25mm Standard Nylon filter is easily removable and washable and is made from self-extinguishing acrylic with an efficiency of class Merv 2-4.

• Coil and Drain Pan. Standard coil Cu/Al 3/8"OD, with steel manifolds and threaded connections, provided with manual Air-Vent.

Pre-coated aluminum fins for protection by hydrophilic blue fin process and tested to 2.5MPa pressure. Coils are tested under water at 25bar for operation at 16bar maximum. Coil include manual air vent and water purge.

Single wall painted steel drain pan and outer wall lined with 5mm NBR insulation.

• Fans and Motors. Centrifugal double inlet, double width, type, direct drive impeller built from galvanized steel, dynamically and statically balanced.

All units have 3-speed fan motor, 220V-240V, single phase, 50Hz, permanent split-capacitor with ball bearing and build-in automatic reset thermal overload protection. Standard motor insulation is class B and IP20. Class F and IP44 is optional.

Standard Configuration

The L/M-STAT Series Ceiling Concealed Ducted Fan Coils offer as standard 25mm filter Nylon net filter[s] and drain pan with a 3/4" Male Pipe Thread (MPT) galvanized drain connection.

Control Options

The L/M-STAT Series Ceiling Concealed Ducted Fan Coils offer the following control possibilities to satisfy specific applications.

• Total Control Board (S type) - Field Programmable using easy to set dipswitches and controlled via Infra-red handset and/or wired wall pad. It offers the following control options: continuous with modulation or On/Off fan, 2 or 4 Pipe configuration, with or without valves, with or without electrical heater, preheat configuration, complete diagnostics.

It also allows control of up to 32 Secondary units via a single Main Unit with IR Handset or Wall Pad controller, and up to 2048 units via BMS (Building Management System) with Modbus platform.

• Terminal Strip Only (T type) – Terminal Strip provided for wired remote thermostat applications. Suitable for AC motor wired thermostats with L/M/H/*Auto speed on/off signals and with integrated fan relays 1-to-many zone control.

AHS AC L/M-STAT SERIES FAN COILS

Technical Specifications (Eurovent Standards)

AHS(3R)-V Hydronic Ductable Unit 3-row coil, 2 pipe 3 speed with AC motor

		AHS (3R)-	-[Size]-V	1	200	300	400	500	600	800
		Configu	ıration				2-r	ipe		
					Cin	ngle	- 1	Twin		Three
UNIT CONF	IGURATION	Number of F			311	igle				Tillee
		Power Suppl	ly	(V/Ph/Hz)			230 /	1 / 50		
		Operation	n Control	l				ontrol version. nal Strip Only.		
			Н		463	574	784	913	1085	1363
		Air Flow	М	m3/h	429	553	746	892	1051	1310
	Air		L		401	524	656	749	953	1146
		Available	H		58	54 50	59 50	55 50	62	56
		Pressure	M L	Pa	50 35	35	30	32	50 39	50 31
		Cooling Capacity	H M		2.82	3.39 3.29	4.34 4.19	5.13 5.02	5.84 5.7	8.39 8.13
		Cooling Capacity	L		2.52	3.17	3.79	4.43	5.3	7.35
			н		2.03	2.42	3.15	3.69	4.16	5.98
	Cooling	Sensible Cooling	М	kW	1.91	2.34	3.03	3.6	4.05	5.78
		Capacity	L		1.8	2.25	2.72	3.14	3.74	5.18
		Latent Cooling	Н		0.79	0.97	1.19	1.44	1.68	2.41
		Capacity	М		0.75	0.95	1.16	1.42	1.65	2.35
			L		0.72	0.92	1.07	1.29	1.56	2.17
	FCEER	Rati			42.4	40.8	33.5	39.1	33.2	38.7
	TOLLIN	Cla	ISS		C	С	D	D	D	D
			Н		2.43	3.04	3.98	4.67	5.52	7.13
	Heating	Heating Capacity	М	kW	2.32	2.95	3.82	4.6	5.38	6.94
	ricating		L		2.2	2.82	3.47	3.99	5.03	6.26
		Max. Elec. Heater Cap	acity		2	3	4		5	6
	FCCOP	Rati			37.1	36.4	30.5	35.2	31.3	32.9
PERFORMANCE	1 0001	Class			D	D	D	D	D	D
DATA	- Sound -	Sound Pressure Level	Sound Pressure Level (outlet)		48 / 47 / 43	50 / 49 / 46	52 / 50 / 44	52 / 51 / 46	54 / 52 / 49	53 / 52 / 47
			Sound Pressure Level [Inlet+Radiated] dB(A) Sound Power Level (outlet)		50 / 49 / 45	52 / 51 / 48	54 / 52 / 46	54 / 53 / 48	56 / 54 / 51	55 / 54 / 49
	Souriu				57 / 56 / 52	59 / 58 / 55	61 / 59 / 53	61 / 60 / 55	63 / 61 / 58	62 / 61 / 56
		Sound Power Level (Inlet+Radiated)			59 / 58 / 54	61 / 60 / 57	63 / 61 / 55	63 / 62 / 57	65 / 63 / 60	64 / 63 / 58
		Fan Motor	Н		67	82	120	123	167	204
		Power (1)	М	W	66	80	120	122	166	203
	Electrical		L		58	78	116	117	163	194
		Fan Motor Running Cur		Α	0.29	0.36	0.52	0.53	0.73	0.89
		Fan Motor Starting Curr			0.87	1.07	1.57	1.60	2.18	2.66
		Cooling Water	3		483	581	744	880	1002	1438
		Flow Rate	2	L/h	456	564 543	718	861	976	1394
			3		433 23.6	36.47	649 20.51	760 30.04	908 41.16	1260 46.3
		Cooling Pressure	2	kPa	21.42	34.68	19.29	28.9	39.41	43.94
		Drop	1		19.58	32.5	16.27	23.4	34.82	37
	Hydronic	Heating Water	3		417	522	682	801	947	1223
		Flow Rate	2	L/h	397	505	655	788	922	1190
			1		377	484	596	685	862	1074
		Heating Pressure	3		15.4	25.5	14.8	21.6	31.6	29.8
		Drop	1	kPa	14.2	24.1	13.8	21	30.2	28.4
		Water Centers		L	12.9	22.4	11.7	16.5	27	23.8
		Water Content			0.72	0.87	1.02	1.17	1.32	1.92
		Water		pe			Socket Thre	aded Female		
		Connections	In Out	in.			3/	'4"		
CONSTRUC		Condensate Drainage Co	nnection		nc.	055			44	4500
PACKIN	G DATA	Dimondiana	L		738	838	938		1138	1538
		Dimensions	W H	mm				30 96		
							2	/ 0		

Cooling mode (2 pipe):

Heating mode (2 pipe): Return air temperature: 20C.

Return air temperature: 27C DB/19C WB. Inlet/outlet water temperature: 7C/12C.

Inlet/outlet water temperature: 45C/40C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.

Heating mode (2 pipe):

Return air temperature: 27C DB/19C WB. Inlet/outlet water temperature: 7C/12C.

Cooling mode (2 pipe):

Return air temperature: 20C. Inlet/outlet water temperature: 45C/40C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.

		AHS (3R)	-[Size]-V		1000	1200	1400	1600	2000	2400	2800
		Configu	ıration					2-pipe			
UNIT CONF	IGURATION	Number of F	an Blow	ers	Three	Four	Three		Fo	our	
		Power Supp	ly	(V/Ph/Hz)				230 / 1 / 50			
		Operation	n Control	ı				: Total control e: Terminal Str			
			Н		1611	1915	2477	3198	4097	5171	5944
		Air Flow	М		1554	1871	2374	3019	3673	4654	5356
	Air		L		1413	1767	2247	2912	3346	4250	4884
		Available	H M	Pa	52 50	60 50	60 50	57 50	60 50	60 50	60 50
		Pressure	L		35	40	43	39	40	40	40
			Н		8.74	10.21	13.25	15.54	20.13	23.99	26.9
		Cooling Capacity	M		8.53	10.06	12.86	14.85	18.48	22.19	24.6
			L		7.95	9.67	12.27	14.4	17.24	20.82	22.9
		Sensible Cooling	Н		6.31	7.39	9.55	11.14	14.55	17.51	19.6
	Cooling	Capacity	М		6.15	7.27	9.25	10.62	13.31	16.15	18
			L		5.7	6.95	8.77	10.25	12.33	15.07	16.7
		Latent Cooling	H M		2.43	2.82	3.7 3.61	4.4 4.23	5.58	6.48	7.26 6.6
		Capacity	L		2.36	2.77	3.5	4.23	5.17 4.91	6.04 5.75	6.2
		Rat	ina		37.5	31.8	35.2	32.3	29.7	32.8	24.2
	FCEER	Cla			D D	D D	D D	D D	27.7 D	32.0 D	24.2 E
		010				9.52		15.3			
		Heating Capacity	H M		8.23 8.02	9.36	12.2 11.9	14.6	19.8 18.17	23.59 21.82	26.6
	Heating	ricating dapacity	L		7.42	8.96	11.4	14.3	16.95	20.47	22.5
		Max. Elec. Heater Cap	acity							9	
	FOCOD	Rati	ing		35.0	29.5	32.7	32.3	29.2	32.3	23.9
ERFORMANCE	FCC0P ^e	Cla			D	D	D	D	D	D	Е
DATA		Sound Pressure Level	(outlet)		56 / 54 / 50	58 / 55 / 52	58 / 54 / 50	59 / 57 / 55	63 / 61 / 59	65 / 63 / 60	67 / 64
		Sound Pressure L			58 / 56 / 52	60 / 57 / 54	60 / 56 / 52	61 / 59 / 57	63 / 61 / 59	65 / 63 / 60	67 / 64
	Sound	(Inlet+Radiated			65 / 63 / 59	67/64/61	67 / 63 / 59	68 / 66 / 64	72 / 70 / 68	74 / 72 / 69	76 / 73
		Sound Power Le	vel d)		67 / 65 / 61	69 / 66 / 63	69 / 65 / 61	70 / 68 / 66	72 / 70 / 68	74 / 72 / 69	76 / 73
		For Makes	Н		222	314	430	554	682	860	125
		Fan Motor Power (1)	М		220	310	365	494	614	690	104
	Electrical		L		216	307	345	424	584	620	928
		Fan Motor Running Cur			0.97	1.37	1.87	2.41	2.97	3.74	5.43
		Fan Motor Starting Cur	rent ld H		2.90	4.10	5.61	7.23	8.90	11.22	16.3
		Cooling Water	3		1498	1751	2272	2663	3451	4112	461
		Flow Rate	1		1463 1363	1724 1658	2205 2104	2546 2468	3167 2955	3804 3569	421 393
			3		17.45	24.15	44.88	63.92	35.27	47.52	57.7
		Cooling Pressure	2		16.75	23.52	42.65	59.2	30.49	41.62	49.6
		Drop	1		14.86	22	39.38	56.14	27.09	37.35	44.1
	Hydronic	Heating Water	3		1412	1632	2099	2615	3394	4044	456
		Flow Rate	1		1374 1272	1605 1535	2033 1947	2501 2444	3115 2906	3741 3510	414 387
			3		13.3	18.1	33.4	52.9	28.96	39.01	387 48
		Heating Pressure	2		12.7	17.6	31.6	49 1	25.03	34 17	40 7
		Drop	1		11.1	16.3	29.4	47.2	22.24	30.66	36.2
				L	2.07	2.22	2.59	2.87	4.032	4.032	4.03
		Water Content					6 1	et Female Thr	hahsa		
			Ту	pe			Sock	et i emate im			
		Water Content Water Connections	Ty _l In Out	pe in.		3/	50CK /4"	ect remate iiii	cauca	1-1/4"	
CONSTRUC	CTION AND	Water	In Out				/4"		cucu		
CONSTRUI PACKIN	CTION AND NG DATA	Water Connections Condensate Drainage Co	In Out onnection L	in.	1638	1738	/ 4 " 1638	1848	coucu	1848	
CONSTRUI PACKIN	CTION AND NG DATA	Water Connections	In Out		6:		/ 4" 1638 7				

AHS AC L/M-STAT SERIES FAN COILS

Technical Specifications (at High ΔT Condition)

AHS(4R)-V Hydronic Ductable Unit 4-row coil, 2 pipe 3 speed with AC motor

		AHS (4R)-	-[Size]-V	1	200	300	400	500	600	800	
		Configu	ıration				2-p	ipe			
UNIT CONF	FIGURATION	Number of F	an Blow	ers	Sir	ngle		Twin		Three	
		Power Suppl	ly	(V/Ph/Hz)			230 /	1 / 50			
		Operation	n Control	ι			S Type: Total o T Type: Termi	ontrol version. nal Strip Only.			
		Air Flow	H	m3/h	442 411	553 531	742 709	868 849	1040 1010	1294 1243	
	Air		L		386	504	629	721	921	1103	
	7	Available	H		58	54	59	55	62	56	
		Pressure	М	Pa	50	50	50	50	50	50	
			L		35	35	30	32	39	31	
			H 3		2.09	2.53	3.35	4.2	4.77	6.66	
		Cooling Capacity	M 2		1.98	2.46	3.26	4.11	4.66	6.47	
			L 1		1.89	2.36	2.97	3.64	4.34	5.9	
	Cooling	Sancible Cooling	H 3		1.46	1.75	2.32	2.92	3.31	4.61	
	Cooling	Capacity	M 2 L 1	kW	1.37	1.7	2.25 2.03	2.86 2.5	3.23	4.47	
			H 3		1.3 0.63	1.63 0.78	1.03	1.28	2.98 1.46	4.05 2.05	
		atont Cooling	н <u>з</u> М 2		0.63	0.76	1.03	1.25	1.43	2.05	
		Canacity	L 1		0.59	0.78	0.94	1.14	1.43	1.85	
PERFORMANCE			_								
DATA	Sound -	Sound Pressure Level Sound Pressure Level			48 / 47 / 43	50 / 49 / 46	52 / 50 / 44	52 / 51 / 46	54 / 52 / 49	53 / 52 / 47	
		(Inlet+Radiated	(Inlet+Radiated) Sound Power Level (outlet)		50 / 49 / 45 57 / 56 / 52	52 / 51 / 48 59 / 58 / 55	54 / 52 / 46 61 / 59 / 53	54 / 53 / 48 61 / 60 / 55	56 / 54 / 51 63 / 61 / 58	55 / 54 / 49 62 / 61 / 56	
		Sound Power Level (of			59 / 58 / 54	61 / 60 / 57	63 / 61 / 55	63 / 62 / 57	65/63/60	64 / 63 / 58	
		(Inlet+Radiated	1)		077 007 04	01700707	007 017 00	00702707	007 007 00		
		Fan Motor	Н		67	82	120	123	167	204	
	F1	Power(1)	М	W	66	80	120	122	166	203	
	Electrical	5 44 5 1 0	L		58	78	116	117	163	194	
		Fan Motor Running Cur		Α	0.29	0.36	0.52	0.53	0.73	0.89	
		Fan Motor Starting Curr	rent ld H		0.87	1.07	1.57	1.60	2.18	2.66	
		Cooling Water	3		200	241	319	400	454	634	
		Flow Rate	2	L/h	188	234	310	391	444	616	
	I leading in the		1		180	225	283	347	413	562	
	Hydronic	Cooling Pressure	3		7.2	11.19	20.18	10.82	14.69	15.71	
		Drop	2	kPa	6.52	10.64	19.21	10.42	14.13	14.96	
		Water Content		L	6.03	9.97	16.4	8.48	12.5	12.8	
		water Content			0.96	1.16	1.36	1.56	1.76	2.56	
		Water	Ту	ре			Socket Thre	aded Female			
		Connections	In Out	in.			3/	'"			
CONSTRU	CTION AND	Condensate Drainage Co					3/	4			
	NG DATA		L		738	838	938	1038	1138	1538	
		Dimensions	W	mm			6	30			
			Н		296						
		Net Weight		kg	17	24	27	30	33	39	

Cooling mode (2 pipe):

Return air temperature: 24C DB /18C WB. Inlet/outlet water temperature: 5.5C /14.5C.

For other High ΔT Condition Requirements, please refer to Sonkor Selection Software.

[1]: Fan motor power includes PCB power input.



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		AHS (4)	R)-[Size]-V	1000	1200	1400	1600	2000	2400	2800
		Confi	iguratio	n				2-pipe			
UNIT CONF	IGURATION	Number o	f Fan Bl	owers	Three	Four	Three		Fo	our	
S 33		Power Sup	pply	(V/Ph/Hz)				230 / 1 / 50			
		Operati	ion Cont	trol			S Type T Type	: Total control v :: Terminal Stri	version. ip Only.		
				4	1538	1832	2440	3046	3993	5044	5798
		Air Flow		M m3/h	1485 1361	1798 1706	2342 2215	2878 2782	3579 3262	4539 4146	5223 4765
	Air			-	52	60	60	57	60	60	60
		Available		H M Pa	50	50	50	50	50	50	50
		Pressure		YI Fa	35	40	43	39	40	40	40
					7.5	8.77	11.19	12.67	16.78	20.1	22.36
		Cooling Capacity		2	7.32	8.63	10.86	12.67	15.49	18.57	20.63
		cooking capacity		1	6.82	8.36	10.37	11.86	14.44	17.37	19.22
				3	5.17	6.05	7.8	8.85	11.72	14.17	15.85
	Cooling	Sensible Cooling		2 kW	5.03	5.94	7.56	8.46	10.78	13.05	14.57
		Capacity	L	1	4.66	5.73	7.18	8.26	9.96	12.15	13.53
		Latent Casling	Н :	3	2.33	2.72	3.39	3.82	5.06	5.93	6.51
		Latent Cooling Capacity	М :	2	2.29	2.69	3.3	3.67	4.71	5.52	6.06
		Oupacity	L	1	2.16	2.63	3.19	3.6	4.48	5.22	5.69
PERFORMANCE DATA	Sound -	Sound Pressure Le	vel (outlet	1	56 / 54 / 50	58 / 55 / 52	58 / 54 / 50	59 / 57 / 55	63 / 61 / 59	65 / 63 / 60	67 / 64 / 62
DATA		Sound Pressure Level (Inlet+Radiated)		dB(A)	58 / 56 / 52	60 / 57 / 54	60 / 56 / 52	61 / 59 / 57	63 / 61 / 59	65 / 63 / 60	67 / 64 / 62
	300110	Sound Power Level (outlet)			65 / 63 / 59	67 / 64 / 61	67 / 63 / 59	68 / 66 / 64	72 / 70 / 68	74 / 72 / 69	76 / 73 / 71
		Sound Power Level (Inlet+Radiated)		67 / 65 / 61	69 / 66 / 63	69 / 65 / 61	70 / 68 / 66	72 / 70 / 68	74 / 72 / 69	76 / 73 / 71	
		5 4.	Н		222	314	430	554	682	860	1250
		Fan Motor Power (1)	М	W	220	310	365	494	614	690	1040
	Electrical	1 ower (1)	L		216	307	345	424	584	620	928
		Fan Motor Running C	Current (a)	H A	0.97	1.37	1.87	2.41	2.97	3.74	5.43
		Fan Motor Starting C	Current @	Н	2.90	4.10	5.61	7.23	8.90	11.22	16.30
		Cooling Water	3		714	835	1065	1207	1598	1914	2130
		Cooling Water Flow Rate	2	L/h	697	822	1034	1155	1475	1769	1964
		T tow Nate	1		650	796	987	1130	1375	1654	1830
	Hydronic	Cooling Pressure	3		20.76	28.77	17.05	22.94	13.16	17.88	21.43
		Drop	2	kPa	19.93	28.01	16.2	21.31	11.48	15.63	18.68
			1		17.68	26.52	14.97	20.51	10.19	13.95	16.57
		Water Conte	nt	L	2.76	2.96	3.45	3.79	5.37	5.37	5.37
		Water		Туре			Sock	et Threaded F	emale		
		Connections	In							4.4/411	
CONCEDUC	STION AND	01	Out	in.		3/	4"		1-1/4"		
CONSTRUC PACKIN	CTION AND	Condensate Drainage	Connectio	n	1638	1720	1/20	1848	10/0		
FACKIN	DATA	Dimensions	W W			1738 30	1638	1848		1848 780	
		Difficilisions	W H	mm		30 76		50		400	
		Net Weigh	nt	kg	46	48	56	61	75	76	78
		- Net Weigh		- Ng	40	40	30	- 01	/3	70	70

Cooling mode (2 pipe):

Return air temperature: 24C DB /18C WB. Inlet/outlet water temperature: 5.5C /14.5C.

For other High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.

AHS AC L/M-STAT SERIES FAN COILS

Technical Specifications (Eurovent Standards)

AHS(3R+1)-P Hydronic Ductable Unit 3+1 row coil, 4 pipe with 3 speed AC Motor With Auxiliary Heating Coil (1 Row)

		AHS (3R+1)-[Si:	ze]-P	200	300	400	500	600	800
		Configura	ation			4-1	oipe		
UNIT CONF	IGUPATION	Number of Far	n Blowers	Si	ngle		Twin		Three
ONTI CONF	IOUNATION	Power Supply	(V/Ph/F	z)		230 /	1 / 50		
		Operation C				S Type: Total o	control version.		
		Operation C	Jonitrot			T Type: Term	inal Strip Only.		
			H	442	553	742	868	1040	1294
		Air Flow	M m3/h	411 386	531 504	709 629	849 721	1010 921	1243 1103
	Air		H	58	54	59	55	62	56
		Available Pressure	M Pa	50	50	50	50	50	50
			L	35	35	30	32	39	31
		Cooling Consolu	H	2.72	3.29	4.16	4.94	5.65	8.07
		Cooling Capacity	M L	2.56 2.45	3.19 3.07	4.03 3.69	4.87 4.27	5.55 5.14	7.82 7.15
		Canaible Casling	Н	1.95	2.34	3.01	3.54	4.01	5.73
	Cooling	Sensible Cooling Capacity	M kW	1.83	2.27	2.92	3.48	3.93	5.53
			L	1.74	2.17	2.64	3.02	3.63	5.03
		Latent Cooling	H M	0.77 0.73	0.95 0.92	1.15 1.11	1.4 1.39	1.64 1.62	2.34
		Capacity	L	0.71	0.72	1.05	1.25	1.51	2.12
	FOFFR	Rating		41	39.6	32.5	37.7	32.2	37.5
	FCEER	Class		С	С	D	D	D	D
			н	1.93	2.39	3.12	3.63	4.2	5.51
	Heating	Heating Capacity	M kW	1.82	2.32	3	3.57	4.09	5.32
	Heating		14	1.73	2.23	2.74	3.14	3.84	4.89
		Max. Elec. Heater Capaci		2	3	4		5	6
		Rating		29.2 D	28.7 D	24.1 D	27.6 D	23.9 D	25.5 D
PERFORMANCE		Class		U	U	U	U	U	U
DATA		Sound Pressure Level (or		48 / 47 / 43	50 / 49 / 46	52 / 50 / 44	46 / 41 / 23	54 / 52 / 49	53 / 52 / 47
		Sound Pressure Leve (Inlet+Radiated)		50 / 49 / 45	52 / 51 / 48	54 / 52 / 46	54 / 53 / 48	56 / 54 / 51	55 / 54 / 49
	Sound	Sound Power Level (outle	dB(A)	57 / 56 / 52	59 / 58 / 55	61 / 59 / 53	55 / 50 / 32	63 / 61 / 58	62 / 61 / 56
		Sound Power Level							
		(Inlet+Radiated)		59 / 58 / 54	61 / 60 / 57	63 / 61 / 55	63 / 62 / 57	65 / 63 / 60	64 / 63 / 58
			Н	67	82	120	123	167	204
	Flootrical	Power(1)	M W	66	80	120	122	166	203
	Electrical	Fan Motor Running Currer	nt @H	58 0.29	78 0.36	116 0.52	117 0.53	163 0.73	194 0.89
		Fan Motor Starting Curren	A	0.87	1.07	1.57	1.6	2.18	2.66
			3	466	564	713	847	968	1384
		Cooling Water Flow Rate	2 L/h	439	547	691	834	951	1340
			1	419	526	633	732	881	1226
		Cooling Pressure	3 2 kPa	22.23	34.68	19.05	28.16	38.82	43.36
		Drop	2 KPa	20.1 18.56	32.93 30.79	18.1 15.58	27.42 21.97	37.66 33.08	41.07 35.31
	Llydrania		3	165	205	267	311	360	473
	Hydronic	Heating Water Flow Rate	2 L/h	156	199	257	306	351	456
			1	149	191	235	269	329	419
		Heating Pressure	3 2 kPa	6.38 5.82	10.6 10.1	18.9 17.7	27.6 26.8	5.62 5.38	12.2 11.5
		Drop	1	5.33	9.39	15.1	21.6	4.83	9.96
		Cooling Water Conter	nt L	0.72	0.87	1.02	1.17	1.32	1.92
		Heating Water Conte	nt	0.24	0.29	0.34	0.39	0.44	0.64
		Water	Туре			Socket Thre	aded Female		
		Connections	In Dut in.						
CONSTRUC	CTION AND	Condensate Drainage Conn				3,	/4"		
	IG DATA		L	738	838	938	1038	1138	1538
			W mm				30		
		Net Weight	H kg	17	24	27	96 30	33	39
		- Net Weight	ку	17	24	21	30	33	3/

Cooling mode (4 pipe):

Heating mode (4 pipe):

Return air temperature: 27C DB/19C WB. Inlet/outlet water temperature: 7C/12C.

Return air temperature: 20C.

Inlet/outlet water temperature: 65C/55C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.

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		AHS (3R+1)	-[Size]-P		1000	1200	1400	1600	2000	2400	2800
		Confi	iguration					4-pipe			
UNIT CONF	IGURATION	Number o	f Fan Blov	vers	Three	Four	Three		Fo	our	
		Power Sup	ply	(V/Ph/Hz)				230 / 1 / 50			
		Operati	ion Contro	l				: Total control : e: Terminal Str			
			Н		1538	1832	2440	3046	3993	5044	579
		Air Flow	М	m3/h	1485	1798	2342	2878	3579	4539	522
	Air		L		1361	1706	2215	2782	3262	4146	476
		Available	H M	Pa	52 50	60 50	60 50	57 50	60 50	60 50	60 50
		Pressure	L	Pd	35	40	43	39	40	40	40
			Н		8.46	9.9	13.06	14.97	19.72	23.62	26.2
		Cooling Capac			8.24	9.75	12.67	14.28	18.2	21.82	24.2
			L		7.73	9.43	12.18	13.94	16.96	20.4	22.5
		Sensible Cooli	ng H		6.09	7.14	9.4	10.71	14.24	17.22	19.2
	Cooling	Capacity	M L	kW	5.92	7.01	9.09	10.16	13.1	15.86	17.
			н		5.53 2.37	6.76 2.76	8.7 3.66	9.89 4.26	12.11 5.48	14.76 6.4	16.4 7.0
		Latent Cooling	g M		2.32	2.74	3.58	4.12	5.1	5.96	6.5
		Capacity	L		2.2	2.67	3.48	4.05	4.85	5.64	6.1
	FCEER	F	Rating		36.4	31	34.8	31.2	29.2	32.1	23.
	TOLER		Class		D	D	D	D	D	D	Е
			H		6.36	7.38	9.34	11.3	15.24	18.25	20.3
	Heating	Heating Capac		kW	6.18	7.31	9.02	10.9	14.07	16.86	18.
		Max. Elec. Heater C	L		5.8	6.96	8.69 6	10.6	13.11	15.77 9	17.4
					27.2	22.9	24.9	24	22.6	24.9	18.
		Rating Class			D D	D D	D D	D D	22.0 E	24.7 E	10. E
ERFORMANCE DATA		Sound Pressure Lev			56 / 54 / 50	58 / 55 / 52	58 / 54 / 50	59 / 57 / 55	63 / 61 / 59	65 / 63 / 60	67 / 64
		Sound Pressure			58 / 56 / 52	60 / 57 / 54	60 / 56 / 52	61 / 59 / 57	63 / 61 / 59	65 / 63 / 60	67 / 64
	Sound	(Inlet+Radia Sound Power Level		dB(A)	65 / 63 / 59	67/64/61	67 / 63 / 59	68 / 66 / 64	72 / 70 / 68	74 / 72 / 69	76 / 73
		Sound Power (Inlet+Radia			67 / 65 / 61	69 / 66 / 63	69 / 65 / 61	70 / 68 / 66	72 / 70 / 68	74 / 72 / 69	76 / 73
			Н		222	314	430	554	682	860	125
		Fan Motor Power (1)	М	w	220	310	365	494	614	690	104
	Electrical		L		216	307	345	424	584	620	92
		Fan Motor Running C		Α	0.97	1.37	1.87	2.41	2.97	3.74	5.4
		Fan Motor Starting C	urrent @ H		2.9	4.1	5.61	7.23	8.9	11.22	16.
		Cooling Water	3	L/h	1451 1413	1698 1671	2239 2171	2566 2448	3380 3120	4049 3740	450
		Flow Rate	1	L/N	1326	1617	2087	2389	2907	3498	387
		Caslina B	3		16.52	22.91	43.76	59.98	34.05	46.28	55.
		Cooling Pressure Drop	2	kPa	15.8	22.3	41.55	55.39	29.72	40.45	48.
			1		14.17	21.08	38.85	53.15	26.36	36.1	42.
	Hydronic	Heating Water	2 _	L/h	545 530	632 627	800 773	968 931	1306 1206	1565 1445	174
		Flow Rate	1		498	597	745	909	1124	1352	149
		Heating Pressure	3		17	23.4	3.24	4.9	12.22	16.61	19.9
		Drop	2	kPa	16.1	23.1	3.06	4.58	10.66	14.51	17.3
		Cooling Water C	Content		14.5 2.07	21.2	2.87 2.59	4.4 2.84	9.46 4.032	12.95 4.032	15.3 4.03
		Heating Water (L	0.69	0.74	0.86	0.95	1.34	1.34	1.3
				/pe				et Female Thr			
		Water Connections	In .				3301				
			Out	in.		3,	/4"			1-1/4"	
CONSTRUC		Condensate Drainage	Connection		1/20	1700	1/20	10/0		10/0	
PACKIN	UAIA	Dimensions	L W	mm	1638	1738 30	1638	1848 20		1848 780	
		J.Melisions	H			96		50		400	

Cooling mode (4 pipe):

Heating mode (4 pipe):

Return air temperature: 27C DB/19C WB. Inlet/outlet water temperature: 7C/12C.

Return air temperature: 20C. Inlet/outlet water temperature: 65C/55C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.

MODEL AHSS-ECM MODEL AHSD-ECM

NEW PRODUCT





AHSS-ECM AHSD-ECM

Product Presentation

The ECO L/M-STAT Series Ceiling Concealed Ducted Fan Coils have been specifically designed to match the most demanding market expectations.

- The AHSS-ECM model is single skin for ceiling concealed applications with 25mm filter and duct connection flange.
- The AHSD-ECM model is double skin for ceiling concealed applications with 20mm thickness casing, 25mm filter and duct flange.

Product Range

The ECO L/M-STAT Series Ceiling Concealed Ducted Fan Coils Series offers a range of 230V/50Hz, with the following capacities:

- 13 sizes of 2 pipe 3 row models from 2.88kW to 26.9kW (9800 BTU/H to 91800 BTU/H) cooling capacity and from 2.49kW to 27.66kW (8500 BTU/H to 94400 BTU/hr) heating capacity.
- 2 pipe models 4 row also available.
- 4 pipe models available by adding an auxiliary heating coil (3+1).
- Variable External Static Pressures (ESP) up to 150 Pa (0.6 in.wg).





SONKOR GLOBAL HVAC SOLUTIONS

Product Features

• Energy Efficiency. The ECO L/M-STAT Series Ceiling Concealed Ducted Fan Coils incorporate a DC motor with step-less speed modulation using an integrated EC motor driver.

Energy saving or unit power input at set H/M/L speeds is reduced by 30 - 50% when compared to traditional on/off AC motors. Moreover, in Energy Saving Auto – Mode (ESM), as airflow is continuously varied (step-less progression) between 15% and 100% of the maximum high speed airflow, energy saving will be 50 – 70% while precisely meeting the required cooling and heating loads of the space.

This innovation eliminates the need for the motor to turn off and on periodically to maintain the desired temperature of the environment, leading to total energy savings of up to 50% on an installation/project basis. Modulation of airflow to meet heating and cooling requirements of the space will also result in reducing temperature fluctuations within the space, as well as reducing fan noise.

The motor is driven by a 0-5 VDC signal originating from an inverter board integrated into the unit onboard controller, which utilizes PID logic in order to modulate motor RPMs in Energy Saving Auto - Mode (ESM).

- Framework. The L/M-STAT Series Ceiling Concealed Ducted Fan Coils have a frameless integrated folded steel structure. The units have been carefully designed to avoid any air leakage between casing and joint covers.
- **Filter.** 25mm Standard Nylon filter is easily removable and washable and is made from self-extinguishing crylic with an efficiency of class Merv 2-4.

- Casing.
- •AHSS Unit case is using 1mm thickness galvanized steel with 10mm insulation inside of the unit. The unit is designed for ceiling concealed applications with 25mm filter and duct connection flange.
- •AHSD Double skin unit case is using double skin (Sandwich panel), consisting of two walls with inner insulation. Inner wall is made of plane galvanized steel of 0.8mm thickness. Outer wall is made of pre-coated steel 1.0mm thickness. The insulation consists of high pressure PU foam sandwiched in between, thus producing a rigid and robust panel. The final casing thickness shall be 20 mm. The unit is designed for ceiling concealed applications.
- **Coil and Drain Pan.** Standard coil Cu/Al 3/8"OD, with steel manifolds and threaded connections, provided with manual Air-Vent. Pre-coated aluminum fins for protection by hydrophilic blue fin process and tested to 2.5MPa pressure. Coils are tested under water at 25bar for operation at 16bar maximum. Coil include manual air vent and water purge.
- Fans and Motors. Centrifugal double inlet, double width, type, direct drive impeller built from galvanized steel, dynamically and statically balanced.

All units have 3-speed fan motor, 220V-240V, single phase, 50Hz, permanent split-capacitor with ball bearing and build-in automatic reset thermal overload protection. Standard motor insulation is class B and IP20. Class F and IP44 is optional.

Standard Configuration

The ECO L/M-STAT Series Ceiling Concealed Ducted Fan Coils offer as standard 25mm filter Nylon net filter[s] and drain pan with a 34" Male Pipe Thread (MPT) galvanized drain connection.

Control Options

The ECO L/M-STAT Series Ceiling Concealed Ducted Fan Coils offer the following control possibilities to satisfy specific applications.

• Total Control Board (S3 type) – Field Programmable using easy to set dipswitches and controlled via Infra-red handset and/or wired wall pad. It offers the following control options: continuous with modulation or On/Off fan, 2 or 4 Pipe configuration, with or without valves, with or without electrical heater, preheat configuration, complete diagnostics.

It also allows control of up to 32 Secondary units via a single Main Unit with IR Handset or Wall Pad controller, and up to 2048 units via BMS (Building Management System) with Modbus platform.

• Flexi Control Board (W3 type) – Flexible function control for External Thermostat applications, with control of Drain Pump, Zone Control product operations, and limited LED diagnostics.

AHS ECM ECO L/M-STAT SERIES FAN COILS

Technical Specifications (Eurovent Standards)

AHS(3R)-V-ECM Hydronic Ducted Unit 3-row coil, 2 pipe with EC motor

		AHS (3R)-[Si	ze]-V-E	СМ	200	300	400	500	600	800
		Configu	ration				2-1	ipe		
UNIT CONF	IGUPATION	Number of Fa	an Blow	ers	Sir	igle		Twin		Three
UNIT CONF	IGURATION	Power Supply		(V/Ph/Hz)			230 /	1 / 50		
								control version.		
		Operation	Contro	l			W3 Type: Flexible	control function	ı.	
			Н		477	606	825	905	1074	1510
		Air Flow	М	m3/h	419	561	762	891	1013	1322
	Air		L H		406 58	521 54	696 59	750 55	948 62	1190 56
		Available	M	Pa	50	50	50	50	50	50
		Pressure	L		35	35	30	32	39	31
			Н		2.88	3.54	4.53	5.1	5.8	9.09
		Cooling Capacity	М		2.6	3.34	4.25	5.02	5.55	8.2
			L		2.54	3.14	3.97	4.43	5.24	7.55
		Sensible Cooling	H		2.07	2.53	3.29	3.66	4.12	6.51
	Cooling	Capacity	M L	kW	1.86	2.38	3.08	3.6	3.93	5.83
			H		1.82 0.81	2.23 1.01	2.87 1.24	3.14 1.44	3.7 1.68	5.33 2.58
		Latent Cooling	М		0.74	0.96	1.17	1.42	1.62	2.37
		Capacity	L		0.72	0.91	1.1	1.29	1.54	2.22
	FOFFR	Ratii	na		79.4	82.8	92.1	81.3	75.9	77.8
	FCEER	Clas			В	В	Α	В	В	В
			Н		2.49	3.16	4.13	4.64	5.48	7.77
		Heating Capacity	М		2.26	2.97	3.88	4.6	5.23	7
	Heating		L	kW	2.22	2.82	3.64	3.99	4.98	6.47
DEDEODMANOE		Max. Elec. Heater Capa	acity		2	3	4	!	5	6
	ECCOR	FCCOP Rating Class			71.6	76.5	87	74.7	73.2	68.2
PERFORMANCE DATA	FCCUP				В	В	Α	В	В	В
DATA		6 10 1			48 / 47 / 43	50 / 49 / 46	52 / 50 / 44	52 / 51 / 46	54 / 52 / 49	53 / 52 / 47
		Sound Pressure Level			40 / 47 / 43	30 / 47 / 40	52 / 50 / 44	32 / 31 / 40	34 / 32 / 47	33 / 32 / 4/
	Cound	Sound Pressure Le (Inlet+Radiated	nd Pressure Level [Inlet+Radiated]		50 / 49 / 45	52 / 51 / 48	54 / 52 / 46	54 / 53 / 48	56 / 54 / 51	55 / 54 / 49
	Sound	Sound Power Level (ou	ıtlet)	dB(A)	57 / 56 / 52	59 / 58 / 55	61 / 59 / 53	61 / 60 / 55	63 / 61 / 58	62 / 61 / 56
		Sound Power Lev	rel		F0 / F0 / F/	(4 (0 55	10 14 155	(0 / (0 / 58	/F / / 0 / / 0	////0/50
		Sound Power Lev (Inlet+Radiated]		59 / 58 / 54	61 / 60 / 57	63 / 61 / 55	63 / 62 / 57	65 / 63 / 60	64 / 63 / 58
		Fan Motor	Н		53	63	83	96	102	150
	Electrical	Power(1)	М	W	43	52	58	68	84	128
			L Cont OLL		26	31	35	49	62	84
		Fan Motor Running Curr		A	0.46	0.55	0.72	0.83	0.89	1.3
		Cooling Water	3		493	606	776	874	993	1558
		Flow Rate	1	L/h	446 436	572 538	728 681	861 760	951 899	1405 1295
			3		24.44	39.23	22.02	29.66	40.59	53.04
		Cooling Pressure	2	kPa	20.62	35.57	19.78	28.9	37.66	44.53
		Drop	1		19.84	32.07	17.64	23.4	34.24	38.74
	Hydronic	Heating Water	3		427	542	708	795	939	1332
		Flow Rate	2	L/h	387	509	666	788	897	1201
			2		380	484	623	685	853	1109
		Heating Pressure	2	kPa	16.03	27.2	15.74	21.29 20.99	31.15	34.4 28.84
		Drop	1		13.56 13.15	24.46 22.42	14.19 12.68	16.52	28.82 26.48	28.84
		Water Content		L	0.72	0.87	1.02	1.17	1.32	1.92
			Tv	pe				aded Female		
		Water	In In				Journet Hille	adea i ciliate		
		Connections	Out	in.			3/	' 4 "		
CONSTRUC	CTION AND	Condensate Drainage Cor					3/	•		
PACKIN	IG DATA		L		738	838	938	1038	1138	1538
		Dimensions	W	mm				30		
			Н					96		
		Net Weight		kg	17	24	27	30	33	39

Cooling mode (2 pipe):

Heating mode (2 pipe): Return air temperature: 27C DB/19C WB. Return air temperature: 20C.

Inlet/outlet water temperature: 7C/12C.

Inlet/outlet water temperature: 45C/40C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.





		AHS (3R)-[Size]-\	/	1000	1200	1400	1600	2000	2400	2800
		Con	figuration					2-pipe			
UNIT CONF	IGURATION	Number	of Fan Blow	vers	Three	Four	Three		Fo	ur	
		Power St	ıpply	(V/Ph/Hz)				230 / 1 / 50			
		Opera	tion Contro	l			S3 Type: W3 Type:	e: Total control Flexible contro	version. ol function.		
	_		Н		1824	2047	2461	3173	4330	5453	5964
		Air Flow	М	m3/h	1569	1965	2379	2963	3783	4764	543
	Air		L		1357	1736	2214	2887	3283	4134	484
		Available	Н		52	55	60	57	60	60	60
		Pressure	М	Pa	50	50	50	50	50	50	50 40
					35	38	43	39	40	40	
		0.11.0	<u>H</u>		9.64	10.76	13.16	15.42	21.08	24.97	26.9
		Cooling Capac			8.6	10.45	12.86	14.62	19.03	22.58	24.8
			L H		7.66 7.02	9.51 7.81	12.18 9.47	14.4 11.06	17.1 15.27	20.27 18.29	22.8 19.6
	Cooling	Sensible Cooli	ng H	kW	6.2	7.57	9.25	10.44	13.72	16.44	18.1
	- Joseffing	Capacity	L		5.47	6.83	8.7	10.25	12.22	14.66	16.6
			Н		2.62	2.95	3.69	4.36	5.81	6.68	7.2
		Latent Coolin Capacity	g M		2.4	2.88	3.61	4.18	5.31	6.14	6.6
		Capacity	L		2.19	2.68	3.48	4.15	4.88	5.61	6.2
	FOFFR		Rating		57	69.6	58	61.6	58	55.9	53.
	FCEER		Class		С	В	С	В	С	С	С
			н		9.01	10.06	12,15	15,15	21.46	25.53	27.6
		Heating Capac			8.02	9.75	11.86	14.37	19.12	22.72	25.0
	Heating		í L		7.19	8.87	11.25	14.14	16.82	19.93	22.4
		Max. Elec. Heater	Capacity			4	6			9	
			Rating		54.3	66.9	55.3	62.6	58.9	57.6	55.5
PERFORMANCE	FCCOP ^e				С	В	С	В	С	С	С
DATA					E/ /E/ /E0	E0 / EE / E0	E0 / E/ / E0	E0 / E7 / E5	(2 (1 50	/E / /2 / /2	(7///
		Sound Pressure L			56 / 54 / 50	58 / 55 / 52	58 / 54 / 50	59 / 57 / 55	63 / 61 / 59	65 / 63 / 60	67 / 64
		Sound Pressure Level (Inlet+Radiated)		4D(A)	58 / 56 / 52	60 / 57 / 54	60 / 56 / 52	61 / 59 / 57	63 / 61 / 59	65 / 63 / 60	67 / 64
	Sound	Sound Power Leve		dB(A)	65 / 63 / 59	67 / 64 / 61	67 / 63 / 59	68 / 66 / 64	72 / 70 / 68	74 / 72 / 69	76 / 73
		Sound Powe (Inlet+Rad	r Level iated)		67 / 65 / 61	69 / 66 / 63	69 / 65 / 61	70 / 68 / 66	72 / 70 / 68	74 / 72 / 69	76 / 73
		Fan Motor	Н		205	224	363	380	520	672	728
	Electrical	Power (1)	М	W	174	190	286	310	400	546	630
	Licetificat		L		121	113	170	190	250	280	330
		Fan Motor Running	Current IdH	A	1.78	1.95	3.16	3.3	4.5	5.84	6.3
		Cooling Water	3		1653	1844	2255	2644	3613	4281	461
		Flow Rate	2	L/h	1475	1791	2205	2507	3262	3871	426
			1		1313	1631	2087	2468	2931	3474	391
		Cooling Pressure	3	kPa	20.61	26.38	44.32	63.12	38.15	50.89	57.7
		Drop	2	кРа	16.98 13.93	25.09 21.4	42.65 38.85	57.67 56.14	32.05 26.73	42.88 35.68	50.4 43.7
	Hydronic		3		1544	1725	2082	2596	3679	4377	47.7
	- Try at offic	Heating Water	2	L/h	1374	1672	2033	2463	3278	3895	429
		Flow Rate	1		1232	1521	1929	2425	2883	3417	385
		Heating Pressure	3		15.47	19.93	32.92	52.29	33.21	44.62	51.1
		Drop	2	kPa	12.69	18.9	31.6	47.8	27.29	36.6	43.1
			1		10.54	16.09	28.91	46.54	21.94	29.3	35.9
		Water Cont	ent	L	2.07	2.22	2.59	2.87	4.032	4.032	4.03
		Water	Ty	/pe			Sock	et Threaded Fe	emale		
		Water Connections	In						_	1-1/4"	
			Out	in.		3,	/4"				
CONSTRUC		Condensate Draina	ge Connection		1/00	4500	1/00	1010		3/4"	
PACKIN	U DATA	Dimensions	L		1638	1738	1638			1848 780	
		- Dimensions	W H	mm		30 96		20 50		400	
		Net Weig		kg	46	48	56	61	75	76	78
		ivet weit		ny ny				J 1	, 0	. 0	, 0

Cooling mode (2 pipe):

Return air temperature: 27C DB/19C WB. Inlet/outlet water temperature: 7C/12C.

Heating mode (2 pipe):

Return air temperature: 20C. Inlet/outlet water temperature: 45C/40C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.

AHS ECM ECO L/M-STAT SERIES FAN COILS

Technical Specifications (at High ΔT Condition)

AHS(4R)-V-ECM Hydronic Ducted Unit 4-row coil, 2 pipe with EC motor

		AHS (4R)-[Siz	e]-V-ECM	200	300	400	500	600	800
		Configura	ation			2-1	oipe		
UNIT CONF	GURATION	Number of Fa	n Blowers	Sir	ngle		Twin		Three
		Power Supply	(V/Ph/Hz)			230 /	1 / 50		
		Operation (Control			S3 Type: Total W3 Type: Flexibl	control version. e control version		
			Н	511	669	842	912	1034	1557
		Air Flow	M m3/h	449 415	588 530	797 719	847	1077 833	1392 1289
	Air		H	415 58	530	59	726 55	62	1289 56
		Available	M Pa	50	50	50	50	50	50
		Pressure	L	35	35	30	32	39	31
		Н	3	2,33	2.92	3,71	4.36	4.73	7.64
		Cooling Capacity M	2	2.12	2.66	3.55	4.11	4.73	7.03
		L	1	1.99	2.46	3.28	3.67	4.03	6.61
		Н	3	1.63	2.04	2.58	3.04	3.28	5.33
	Cooling	Sensible Cooling Capacity	2 kW	1.48	1.84	2.46	2.86	3.41	4.88
		L	1	1.38	1.7	2.27	2.52	2.76	4.57
		Latent Cooling H	3	0.7	0.88	1.13	1.32	1.45	2.31
		Capacity	2	0.64	0.82	1.09	1.25	1.5	2.15
		L	1	0.61	0.76	1.01	1.15	1.27	2.04
PERFORMANCE DATA		Sound Pressure Level (o	outlet)	48 / 47 / 43	50 / 49 / 46	52 / 50 / 44	52 / 51 / 46	54 / 52 / 49	53 / 52 / 47
	Sound	Sound Pressure Lev (Inlet+Radiated)	el dB(A)	50 / 49 / 45	52 / 51 / 48	54 / 52 / 46	54 / 53 / 48	56 / 54 / 51	55 / 54 / 49
	Souriu	Sound Power Level (outl		57 / 56 / 52	59 / 58 / 55	61 / 59 / 53	61 / 60 / 55	63 / 61 / 58	62 / 61 / 56
		Sound Power Level (Inlet+Radiated)	ι	59 / 58 / 54	61 / 60 / 57	63 / 61 / 55	63 / 62 / 57	65 / 63 / 60	64 / 63 / 58
			Н	53	63	83	96	102	150
	er er e	Fan Motor Power (1)	M W	43	52	58	68	84	128
	Electrical	Power(I)	L	26	31	35	49	62	84
		Fan Motor Running Curre	nt @H A	0.46	0.55	0.72	0.83	0.89	1.30
			3	222	278	353	415	451	728
		Cooling Water Flow Rate	2 L/h	202	253	338	391	468	670
		r tow reate	1	190	234	312	350	384	629
	Hydronic	Cooling Pressure	3	8.65	14.29	23.97	11.51	14.5	19.87
		Drop	2 kPa	7.37	12.17	22.2	10.42	15.45	17.26
			1	6.61	10.64	19.45	8.61	11.06	15.52
		Water Content	L	0.96	1.16	1.36	1.56	1.76	2.56
		Water	Туре			Socket Thre	aded Female		
CONSTRU	CTION AND NG DATA	Connections	In Out in. nection			3/	/4 "		
PACKIN	NO DATA		L	738	838	938	1038	1138	1538
		Dimensions	W mm			6	30		
			Н			2	96		
		Net Weight	kg	17	24	27	30	33	39

Cooling mode (2 pipe):

Return air temperature: 24C DB /18C WB. Inlet/outlet water temperature: 5.5C /14.5C.

For other High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.



		AHS (4R)-[Size]-V-E	СМ	1000	1200	1400	1600	2000	2400	2800	
		Config	guration					2-pipe				
UNIT CON	FIGURATION	Number of	Fan Blow	ers	Three	Four	Three		Fo	our		
		Power Sup	ply	(V/Ph/Hz)				230 / 1 / 50				
		Operation	on Control	ι				: Total control Flexible contro				
			Н		1734	1796	2701	3027	4228	5324	5880	
		Air Flow	М	m3/h	1614	1699	2571	2992	3665	4616	5289	
	Air		L		1193	1466	2064	2785	3142	3957	4664	
		Available	Н		52	55	60	57	60	60	60	
		Pressure	М	Pa	50	50	50	50	50	50	50	
			L		35	38	43	39	40	40	40	
			H 3		8.21	8.63	12.09	12.58	17.6	20.84	22.63	
		Cooling Capacity	M 2		7.74	8.28	11.68	12.49	15.73	18.78	20.84	
			L 1		6.17	7.41	9.86	11.86	14.07	16.66	18.89	
		Sensible Cooling	H 3		5.7	5.94	8.46	8.78	12.32	14.73	16.01	
	Cooling	Capacity	M 2	kW	5.35	5.68	8.16	8.72	10.95	13.21	14.73	
		Capacity	L 1		4.2	5.05	6.8	8.26	9.69	11.64	13.29	
		Latent Cooling	H 3		2.51	2.69	3.63	3.8	5.28	6.11	6.62	
		Capacity	M 2		2.39	2.6	3.52	3.77	4.78	5.57	6.11	
BEDEOD!!!!!		Oupacity	L 1		1.97	2.36	3.06	3.6	4.38	5.02	5.6	
PERFORMANCE DATA		Sound Pressure Leve	el (outlet)		56 / 54 / 50	58 / 55 / 52	58 / 54 / 50	59 / 57 / 55	63 / 61 / 59	65 / 63 / 60	67 / 64 / 62	
	Sound	Sound Pressure (Inlet+Radiat		dB(A)	58 / 56 / 52	60 / 57 / 54	60 / 56 / 52	61 / 59 / 57	63 / 61 / 59	65 / 63 / 60	67 / 64 / 62	
	Journa	Sound Power Level ((outlet)	,,	65 / 63 / 59	67 / 64 / 61	67 / 63 / 59	68 / 66 / 64	72 / 70 / 68	74 / 72 / 69	76 / 73 / 71	
		Sound Power L (Inlet+Radiat			67 / 65 / 61	69 / 66 / 63	69 / 65 / 61	70 / 68 / 66	72 / 70 / 68	74 / 72 / 69	76 / 73 / 71	
		-	Н		205	224	363	380	520	672	728	
	Florenteel	Fan Motor Power (1)	М	W	174	190	286	310	400	546	630	
	Electrical	Power (1)	L		121	113	170	190	250	280	330	
		Fan Motor Running Cu	urrent @H	Α	1.78	1.95	3.16	3.30	4.5	5.84	6.33	
			3		782	822	1152	1198	1676	1984	2155	
		Cooling Water	2	L/h	737	789	1112	1189	1498	1789	1984	
		Flow Rate	1		588	706	939	1130	1340	1587	1799	
	Hydronic		3		24.23	28.01	19.45	22.66	14.27	19.01	21.87	
		Cooling Pressure	2	kPa	21.89	26.13	18.34	22.39	11.78	15.93	19.01	
		Drop	1		14.92	21.61	13.76	20.51	9.75	13	16.08	
		Water Conten	t	L	2.76	2.96	3.45	3.79	5.37	5.37	5.37	
			Ty	pe			Sock	et Threaded Fe	emale			
		Water Connections	In							1 1//"		
			Out	in.		3/	4"			1-1/4"		
	CTION AND	Condensate Drainage (Connection						3/4"			
PACKII	NG DATA		L		1638	1738	1638	1848		1848		
		Dimensions	W	mm	63		7:			780		
			Н		29		3!			400		
		Net Weight		kg	46	48	56	61	75	76	78	

Cooling mode (2 pipe):

Return air temperature: 24C DB /18C WB. Inlet/outlet water temperature: 5.5C /14.5C.

For other High ΔT Condition Requirements, please refer to Sonkor Selection Software.

[1]: Fan motor power includes PCB power input.

AHS ECM ECO L/M-STAT SERIES FAN COILS

Technical Specifications (Eurovent Standards)

AHS(3R+1)-P-ECM Hydronic Ducted Unit 3+1 row coil, 4 pipe with EC Motor With Auxiliary Heating Coil (1Row)

UNIT CONFIGURATION		AHS (3R+1)-[Size]-P-ECM Configuration			200	300	400	500	600	800		
					4-pipe							
		Number of Fan Blowers			Single		Three					
		Power Supply	,	(V/Ph/Hz)			230 /	1/50				
					S3 Type: Total control version.							
			Operation Control		W3 Type: Flexible control version.							
	Air		Н	m3/h Pa	511	669	842	912	1034	1557		
		Air Flow	M L		449 415	588 530	797 719	847 726	1077 833	1392 1289		
			H		58	54	59	55	62	56		
		Available Pressure	М		50	50	50	50	50	50		
			L		35	35	30	32	39	31		
		0 - 1 - 0 1 -	H		3.04	3.82	4.59	5.13	5.65	9.28		
		Cooling Capacity	M L		2.74 2.58	3.46 3.19	4.4 4.06	4.83 4.31	5.8 4.77	8.51 8.01		
			H		2.2	2.74	3.34	3.69	4.01	6.65		
	Cooling	Sensible Cooling Capacity	М	kW	1.97	2.47	3.2	3.45	4.12	6.08		
		Suparity	L		1.85	2.27	2.94	3.05	3.36	5.68		
		Latent Cooling	H		0.84	1.08	1.25	1.44	1.64	2.63		
		Capacity	L		0.77 0.73	0.99 0.92	1.2 1.12	1.38 1.26	1.68 1.41	2.43		
		Ratin			81.7	84.9	94.5	79.0	72.6	81.8		
	FCEER	Class			В.	В	Α	В	В В	В		
	Heating		Н		2.15	2.78	3.42	3.75	4.2	6.33		
		Heating Capacity	М	1.047	1.94	2.5	3.28	3.57	4.3	5.83		
			L	kW	1.84	2.32	3.05	3.14	3.54	5.51		
		Max. Elec. Heater Capac	city		2	3	4		5	6		
	FCCOP	Rating			59.5	63.6	73.0	58.7	54.3	57.6		
PERFORMANCE	1 0001	Class	5		С	В	В	С	С	С		
DATA	Sound	Sound Pressure Level (outlet) Sound Pressure Level (Inlet+Radiated) Sound Power Level (outlet)		dB(A)	48 / 47 / 43	50 / 49 / 46	52 / 50 / 44	52 / 51 / 46	54 / 52 / 49	53 / 52 / 47		
					50 / 49 / 45	52 / 51 / 48	54 / 52 / 46	54 / 53 / 48	56 / 54 / 51	55 / 54 / 49		
					57 / 56 / 52	59 / 58 / 55	61 / 59 / 53	61 / 60 / 55	63 / 61 / 58	62 / 61 / 56		
		Sound Power Level (Inlet+Radiated)			59 / 58 / 54	61 / 60 / 57	63 / 61 / 55	63 / 62 / 57	65 / 63 / 60	64 / 63 / 58		
	Electrical	Fan Motor	Н		53	63	83	96	102	150		
		Power (1)	M	W	43	52	58	68	84	128		
		Fan Motor Running Curre	L ant BH	A	26 0.46	31 0.55	35 0.72	49 0.83	62 0.89	1 20		
		Tan Motor Running Culte	2	^						1.30		
		Cooling Water	2	L/h	521 469	656 593	786 755	880 828	968 993	1590 1460		
		Flow Rate	1	L/II	442	547	697	739	818	1373		
		Cooling Pressure	3		27	44.83	22.53	30.04	38.82	54.95		
		Drop	2	kPa	22.5	37.84	21.01	27.06	40.59	47.5		
			3		20.4 184	32.93 238	18.34 293	22.33 322	29.16 360	42.78 542		
	Hydronic	Heating Water	2	L/h	166	238	293	306	369	500		
		Flow Rate	1		157	199	261	269	304	473		
		Heating Pressure	3		7.68	13.65	22.14	29.22	5.62	15.44		
		Drop	1	kPa	6.47	11.44	20.62	26.78	5.86	13.43		
		Cooling Water Conte	ent _		5.9 0.72	10.06 0.87	18.18 1.02	21.58 1.17	4.21 1.32	12.22 1.92		
				L	0.72	0.87	0.34	0.39	0.44	0.64		
		Treating Water Conte	Heating Water Content									
		Water In Connections Out		pe	Socket Threaded Female 3/4"							
				in.								
CONSTRUC	CTION AND	Condensate Drainage Con					3/	4				
	IG DATA		L		738	838	938	1038	1138	1538		
		Dimensions W		mm				30				
			Н	ka	17	24	27	96 30	33	39		
	Net Weight		kg	17	24	21	30	33	37			

Cooling mode (4 pipe):

Heating mode (4 pipe):

Return air temperature: 27C DB/19C WB. Inlet/outlet water temperature: 7C/12C.

Return air temperature: 20C. Inlet/outlet water temperature: 65C/55C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.





UNIT CONFIGURATION		AHS (3R+1)-[Size]-P-ECM			1000	1200	1400	1600	2000	2400	2800	
		Configu	Configuration					4-pipe				
		Number of F	Number of Fan Blowers			hree Four Three Four						
		Power Suppl	у	(V/Ph/Hz)		230 / 1 / 50						
		Operation	Operation Control		S3 Type: Total control version. W3 Type: Flexible control function.							
	_		Н		1734	1796	2701	3027	4228	5324	5880	
	Air	Air Flow	М	m3/h	1614	1699	2571	2992	3665	4616	5289	
			L		1193	1466	2064	2785	3142	3957	4664	
		Available	Н		52	55	60	57	60	60	60	
		Pressure	M L	Pa	50 35	50 38	50 43	50 39	50 40	50 40	50 40	
		Cooling Conneity	H M		9.23	9.75	14.14	14.85	20.68	24.48	26.59	
		Cooling Capacity	L		8.74 6.97	9.35 8.35	13.65 11.57	14.74 13.94	18.48 16.53	22.06 19.58	24.48 22.19	
			H		6.7	7.01	10.21	10.62	14.97	17.9	19.45	
	Cooling	Sensible Cooling	М	kW	6.31	6.7	9.84	10.53	13.31	16.05	17.9	
		Capacity	L		4.97	5.95	8.23	9.89	11.78	14.14	16.15	
		Latent Cooling	Н		2.53	2.74	3.93	4.23	5.71	6.58	7.14	
		Latent Cooling Capacity	М		2.43	2.65	3.81	4.21	5.17	6.01	6.58	
		- oapacity	L		2	2.4	3.34	4.05	4.75	5.44	6.04	
	ECEED	Rati	ng		54.0	61.6	57.5	60.4	56.2	54.2	52.5	
	FCEER	Cla	Class		C	В	С	В	С	С	С	
	Heating		Н		6.96	7.31	10.1	11.29	15.98	18.92	20.65	
		Heating Capacity	М	1.00	6.6	6.96	9.72	11.21	14.28	17.05	18.92	
			L	kW	5.22	6.24	8.19	10.6	12.78	15.13	17.15	
		Max. Elec. Heater Capacity		6								
	FOCOD	Rating			40.9	47.3	41.8	47.4	44.5	43.6	42.2	
PERFORMANCE	FCCOP	Clas	SS		С	С	С	С	С	С	С	
DATA	Sound	Sound Pressure Level (outlet)			56 / 54 / 50	58 / 55 / 52	58 / 54 / 50	59 / 57 / 55	63 / 61 / 59	65 / 63 / 60	67 / 64 / 62	
		Sound Pressure Level (Inlet+Radiated) Sound Power Level (outlet)		dB(A)	58 / 56 / 52	60 / 57 / 54	60 / 56 / 52	61 / 59 / 57	63 / 61 / 59	65 / 63 / 60	67 / 64 / 62	
					65 / 63 / 59	67 / 64 / 61	67 / 63 / 59	68 / 66 / 64	72 / 70 / 68	74 / 72 / 69	76 / 73 / 71	
			Sound Power Level (Inlet+Radiated)		67 / 65 / 61	69 / 66 / 63	69 / 65 / 61	70 / 68 / 66	72 / 70 / 68	74 / 72 / 69	76 / 73 / 71	
	Electrical		Н		205	224	363	380	520	672	728	
		Fan Motor Power (1)	М	W	174	190	286	310	400	546	630	
		Power (1)	L		121	113	170	190	250	280	330	
		Fan Motor Running Curr	rent @H	А	1.78	1.95	3.16	3.30	4.5	5.84	6.33	
			3		1581	1671	2424	2546	3545	4196	4558	
		Cooling Water Flow Rate	2	L/h	1498	1603	2339	2526	3167	3783	4196	
		1 tow Nate	1		1194	1431	1983	2389	2834	3356	3804	
		Cooling Pressure	3		19.12	22.3	50.08	59.2	36.93	49.19	56.6	
		Drop	2	kPa	17.45	20.77	47.16	58.43	30.49	41.23	49.19	
			1		11.87	17.14	35.6	53.15	25.24	33.65	41.62	
	Hydronic	Heating Water	3 2	L/h	596 566	627 597	866 833	968 961	1370 1224	1622 1462	1770 1622	
		Flow Rate	1	L/11	448	535	702	909	1095	1297	1470	
			3		19.71	23.05	3.71	4.9	13.25	17.65	20.48	
		Heating Pressure	2	kPa	18.04	21.21	3.47	4.83	10.94	14.79	17.65	
		Drop	1		12.11	17.61	2.6	4.4	9.06	12.07	14.94	
		Cooling Water Con			2.07	2.22	2.59	2.84	4.032	4.032	4.032	
		Heating Water Con	tent	L	0.69	0.74	0.86	0.95	1.34	1.34	1.34	
		Water		уре			Sock	et Threaded F	emale			
CONSTRUCTION AND		Connections In Out		in.		3	/4"		1-1/4"			
		Condensate Drainage Co	Condensate Drainage Connection						3/4"			
	PACKING DATA				1638	1738	1638	1848		1848		
	DAIA	a: .	147									
		Dimensions	W H	mm		30 96		20 50	_	780 400		

Cooling mode (4 pipe):

Return air temperature: 27C DB/19C WB. Inlet/outlet water temperature: 7C/12C.

Heating mode (4 pipe):

Return air temperature: 20C. Inlet/outlet water temperature: 65C/55C.

For High ΔT Condition Requirements, please refer to Sonkor Selection Software.

(1): Fan motor power includes PCB power input.

MODEL AHSS
MODEL AHSD
MODEL AHSS-ECM
MODEL AHSD-ECM



Product Accessories



INFRA-RED HANDSET CONTROLLER + WALL HOLDER

(AVAILABLE ONLY FOR TOTAL CONTROL BOARD)

With Global Control functionality for Main and Secondary Unit groups.



ABS EXTERNAL LED RECEIVER

IR receiver in ABS housing with 70 inches length prewiring, which can be connected with S Type controls only. LED lights show working mode or error code.



UNLIMITED WIRED WALL PAD CONTROLLER

(AVAILABLE ONLY FOR TOTAL CONTROL BOARD)

Features: 7 day ON/OFF timer program. Addressable Main and Secondary units allowing control of up to 32 Secondary units via a single Main Unit with set or check of each unit parameters individually. Error display with addressable error diagnostic (Main unit Wall Pad displays Secondary unit address and error type). One Touch Global Control (Global Control Main Unit Wall Pad controls all units in the group). Onboard Room Air Temperature Sensor.



CONTROL ACCESSORIES

DIP SWITCH CONFIGURATION SERVICE

Preset Dip switch configuration for addressing Main Unit to Secondary Units. Dip Switch configuration labelled with carton tag.



UNIVERSAL EC THERMOSTAT

(FOR FLEXI CONTROL BOARD)

Main functions: 2-pipe, 4-pipe, 2-pipe +floor heating mode, floor heating, cooling. AC/EC motor 3-speed control. Motorized valve control. 0~10 VDC Modulating valve. EC motor RPM control. Low temperature protection. Remote ON/OFF function. Cooling and heating contact. Modbus protocol. Power supply: 24 Vac or VDC. Working environment: 0~50°C, 5~95%RH (no condensate). Self-power consumption: <2W. Protection class: IP30.



STCD SERIES THERMOSTATS

(FOR FLEXI CONTROL BOARD)

Please visit www.sonkor.com for further information on our STCD thermostat range.



ELECTRICAL HEATERS

The electric heater module is supplied for winter heating as an alternative to the auxiliary hot water coil. We offer a complete range of PTC (Positive Thermal Coefficient) electric heaters kits, easy to connect to control box, with mounting fixture. The electric heater configuration is selectable by DIP switch on the internal control board.



AUXILIARY HEATING COILS

Factory installed heating coil for 4 pipe applications.



VALVES + VALVE KITS

2-way On/Off or 3-way bypass ball valves, 34" and 1" size, with motorized or modulating 24VAC actuators.

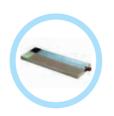
Stainless Steel Hose and Copper Piping Connection Kits for 2-way and 3-way valve options. Distance between inlet and outlet pipe connections standardized at 40mm (1.6in) for hot water circuit, and 50mm (2in) for cold water circuit.



MORE ACCESSORIES

INSULATION FOR SOUND ATTENUATION

5mm (0.20 inches), 10mm (0.40 inches) or 15mm (0.60 inches) NBR material insulation for sound attenuation.



PLENUMS

OPTIONAL STAINLESS STEEL DRAIN PAN



RETURN AIR AND DISCHARGE

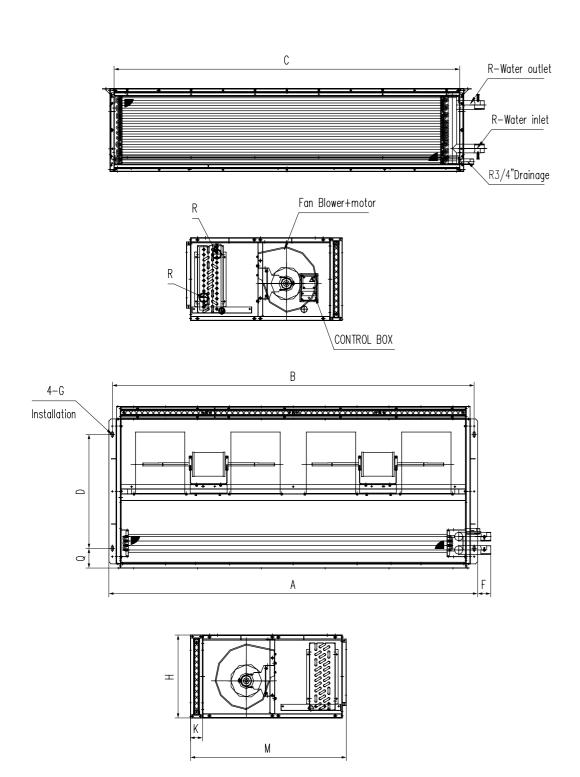


DISCHARGE PLENUM WITH CIRCULAR FITTINGS



MODEL AHSS
MODEL AHSD-ECM
MODEL AHSD-ECM

Dimensional Drawings (mm) AHS (3R) 2 Pipe / AHS (3R+1) 4 Pipe, AC & ECM Models



Model	Unit Dimensions (mm)										
	А	В	С	D	F	Н	K	М	Q	R	
AHS-200	738	704	623	400	65	296	60	630	95	3/4"	
AHS-300	838	804	723	400	65	296	60	630	95	3/4"	
AHS-400	938	904	823	400	65	296	60	630	95	3/4"	
AHS-500	1038	1004	923	400	65	296	60	630	95	3/4"	
AHS-600	1138	1104	1023	400	65	296	60	630	95	3/4"	
AHS-800	1538	1504	1423	400	65	296	60	630	95	3/4"	
AHS-1000	1638	1604	1523	400	65	296	60	630	95	3/4"	
AHS-1200	1738	1704	1623	400	65	296	60	630	95	3/4"	
AHS-1400	1638	1604	1523	490	65	350	60	720	95	3/4"	
AHS-1600	1848	1814	1733	490	65	350	60	720	95	3/4"	
AHS-2000	1848	1814	1733	550	65	400	60	780	95	1 1/4"	
AHS-2400	1848	1814	1733	550	65	400	60	780	95	1 1/4"	
AHS-2800	1848	1814	1733	550	65	400	60	780	95	1 1/4"	