



COIL – HCM4pipe

CHARACTERISTICS

- ✘ cooling output higher than 2 kW for 2-meter long convector
- ✘ directed air is blown far into the space
- ✘ active demisting of window surfaces
- ✘ the most powerful MINIB floor convector
- ✘ the convector is suitable for connection to the 4-pipe system with the separated heating and cooling circuit
- ✘ implied condensate outlet

DIMENSIONS

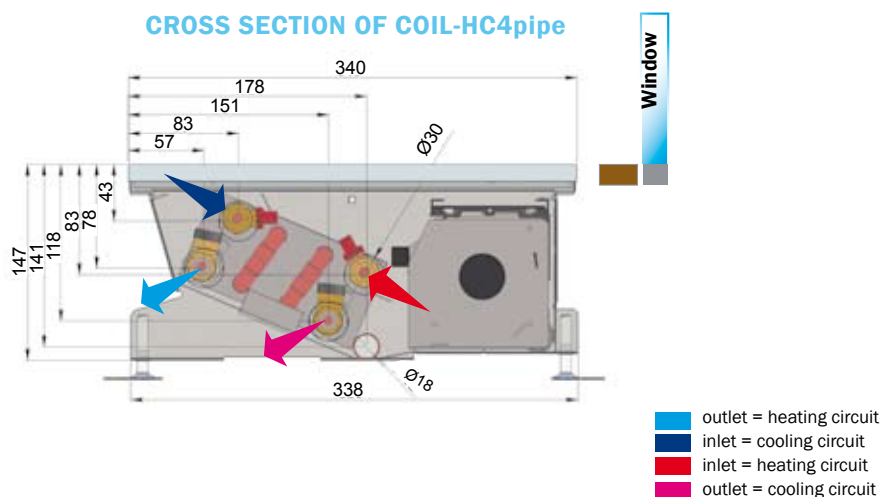
total width	340 mm
construction height	147 mm
length L	900 to 2000 mm

USAGE

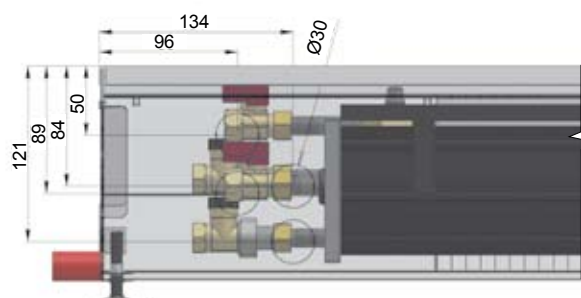
COIL-HCM4pipe is a MINIB floor convector specially designed for intensive heating and cooling of the space. The convector has the 4-pipe connection. The air is tangentially blown to the floor of the room up to a distance of 3 to 4 m – so that in summer there is a lightly flowing cool air effect in locations remote from the windows.

This convector has been supplied with connection fittings and flexible hoses “3/8” for connection of the heat exchanger since 1st May 2009.

CROSS SECTION OF COIL-HC4pipe



LONGITUDINAL SECTION COIL-HC4pipe



HEAT TRANSFER RATE Q [W] COIL - HCM4P

		1 min. speed			2 med. speed			3 max. speed				
		length L (mm) 900			length L (mm) 900			length L (mm) 900				
		mean air temperature tA			mean air temperature tA			mean air temperature tA				
		15	20	22	15	20	22	15	20	22		
mean water temperature tw	90	1 292	1 201	1 165	90	1 445	1 343	1 303	90	1 625	1 510	1 464
	80	1 110	1 020	984	80	1 242	1 141	1 101	80	1 396	1 283	1 237
	70	930	841	805	70	1 040	941	901	70	1 170	1 057	1 013
	50	576	490	455	50	645	548	509	50	725	616	572
		length L (mm) 1000			length L (mm) 1000			length L (mm) 1000				
		mean air temperature tA			mean air temperature tA			mean air temperature tA				
		15	20	22	15	20	22	15	20	22		
mean water temperature tw	90	1 507	1 401	1 359	90	1 686	1 567	1 520	90	1 895	1 762	1 709
	80	1 295	1 190	1 148	80	1 449	1 331	1 284	80	1 629	1 496	1 444
	70	1 085	981	940	70	1 214	1 097	1 051	70	1 365	1 234	1 181
	50	672	571	531	50	752	639	594	50	845	718	668
		length L (mm) 1250			length L (mm) 1250			length L (mm) 1250				
		mean air temperature tA			mean air temperature tA			mean air temperature tA				
		15	20	22	15	20	22	15	20	22		
mean water temperature tw	90	2 046	1 902	1 844	90	2 288	2 127	2 063	90	2 572	2 391	2 319
	80	1 758	1 615	1 558	80	1 966	1 806	1 743	80	2 210	2 031	1 959
	70	1 473	1 331	1 275	70	1 647	1 489	1 426	70	1 852	1 674	1 603
	50	913	775	720	50	1 021	867	806	50	1 147	975	906
		length L (mm) 1500			length L (mm) 1500			length L (mm) 1500				
		mean air temperature tA			mean air temperature tA			mean air temperature tA				
		15	20	22	15	20	22	15	20	22		
mean water temperature tw	90	2 584	2 402	2 329	90	2 890	2 687	2 605	90	3 249	3 020	2 929
	80	2 221	2 040	1 968	80	2 484	2 282	2 201	80	2 792	2 565	2 475
	70	1 861	1 682	1 611	70	2 081	1 881	1 801	70	2 339	2 115	2 025
	50	1 153	979	910	50	1 289	1 095	1 018	50	1 449	1 231	1 144
		length L (mm) 1750			length L (mm) 1750			length L (mm) 1750				
		mean air temperature tA			mean air temperature tA			mean air temperature tA				
		15	20	22	15	20	22	15	20	22		
mean water temperature tw	90	3 122	2 902	2 815	90	3 492	3 246	3 148	90	3 926	3 649	3 539
	80	2 683	2 465	2 378	80	3 001	2 757	2 660	80	3 374	3 100	2 990
	70	2 248	2 032	1 946	70	2 514	2 273	2 177	70	2 827	2 555	2 447
	50	1 393	1 183	1 100	50	1 558	1 323	1 230	50	1 751	1 488	1 383
		length L (mm) 2000			length L (mm) 2000			length L (mm) 2000				
		mean air temperature tA			mean air temperature tA			mean air temperature tA				
		15	20	22	15	20	22	15	20	22		
mean water temperature tw	90	3 661	3 403	3 300	90	4 094	3 806	3 691	90	4 603	4 279	4 149
	80	3 146	2 890	2 788	80	3 519	3 233	3 119	80	3 956	3 634	3 506
	70	2 636	2 383	2 282	70	2 948	2 665	2 552	70	3 314	2 996	2 869
	50	1 633	1 387	1 289	50	1 826	1 551	1 442	50	2 053	1 744	1 621

COOLING TRANSFER RATE Q [W] COIL - HCM4P

		2 med. speed				3 max. speed				
		length L (mm) 900				length L (mm) 900				
		mean air temperature tA				mean air temperature tA				
		24	25	26	27	24	25	26	27	
mean water temperature tw	9	479	511	543	575	9	624	666	708	749
	11	415	447	479	511	11	541	583	624	666
	13	351	383	415	447	13	458	499	541	583
	15	287	319	351	383	15	375	416	458	499
	16	255	287	319	351	16	333	375	416	458
		length L (mm) 1000				length L (mm) 1000				
		mean air temperature tA				mean air temperature tA				
		24	25	26	27	24	25	26	27	
mean water temperature tw	9	559	596	633	670	9	728	777	826	874
	11	484	521	559	596	11	631	680	728	777
	13	410	447	484	521	13	534	583	631	680
	15	335	372	410	447	15	437	486	534	583
	16	298	335	372	410	16	388	437	486	534
		length L (mm) 1250				length L (mm) 1250				
		mean air temperature tA				mean air temperature tA				
		24	25	26	27	24	25	26	27	
mean water temperature tw	9	758	809	859	910	9	989	1 054	1 120	1 186
	11	657	708	758	809	11	857	923	989	1 054
	13	556	606	657	708	13	725	791	857	923
	15	455	505	556	606	15	593	659	725	791
	16	404	455	505	556	16	527	593	659	725
		length L (mm) 1500				length L (mm) 1500				
		mean air temperature tA				mean air temperature tA				
		24	25	26	27	24	25	26	27	
mean water temperature tw	9	958	1 021	1 085	1 149	9	1 249	1 332	1 415	1 498
	11	830	894	958	1 021	11	1 082	1 165	1 249	1 332
	13	702	766	830	894	13	916	999	1 082	1 165
	15	575	638	702	766	15	749	832	916	999
	16	511	575	638	702	16	666	749	832	916
		length L (mm) 1750				length L (mm) 1750				
		mean air temperature tA				mean air temperature tA				
		24	25	26	27	24	25	26	27	
mean water temperature tw	9	1 157	1 234	1 311	1 389	9	1 509	1 609	1 710	1 811
	11	1 003	1 080	1 157	1 234	11	1 308	1 408	1 509	1 609
	13	849	926	1 003	1 080	13	1 106	1 207	1 308	1 408
	15	694	771	849	926	15	905	1 006	1 106	1 207
	16	617	694	771	849	16	805	905	1 006	1 106
		length L (mm) 2000				length L (mm) 2000				
		mean air temperature tA				mean air temperature tA				
		24	25	26	27	24	25	26	27	
mean water temperature tw	9	1 357	1 447	1 538	1 628	9	1 769	1 887	2 005	2 123
	11	1 176	1 266	1 357	1 447	11	1 533	1 651	1 769	1 887
	13	995	1 085	1 176	1 266	13	1 297	1 415	1 533	1 651
	15	814	904	995	1 085	15	1 061	1 179	1 297	1 415
	16	724	814	904	995	16	943	1 061	1 179	1 297

TEMPERATURE EQUATION FOR HEATING

$$Q = Q_N \left(\frac{t_w - t_A}{50} \right)^m$$

- m**= 1,0592 temperature exponent
- t_w** mean heating water temperature,
- t_A** mean air temperature [°C]
- Q_N** nominal heat transfer rate for temperatures tw / tA = 70/20 °C [W]
- Q** heat transfer rate for other temperatures [W]

TEMPERATURE EQUATION FOR COOLING

$$Q = Q_N \left(\frac{t_w - t_A}{17} \right)^m$$

- m**= 1,0 temperature exponent
- t_w** mean heating water temperature,
- t_A** mean air temperature [°C]
- Q_N** nominal heat transfer rate for temperatures tw / tA = 9/26 °C [W]
- Q** heat transfer rate for other temperatures [W]

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