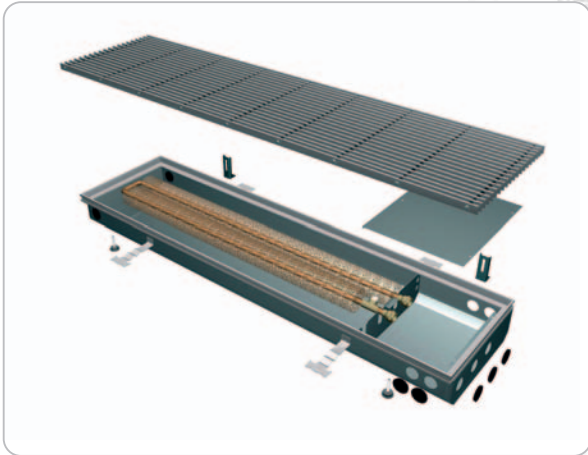


CONVECTOR WITH NATURAL CONVECTION

OPLFLEX FLK

APPLICATION

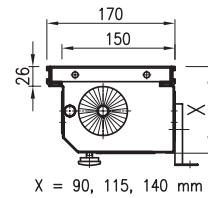
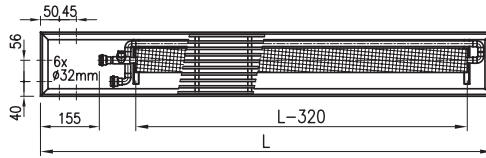
Background heater for moderate heating nearby window areas. Application in combination with other forms of heating. Lower outputs due to the convector depth. Possibility to adjust the convector for submergence with downflow bottom and draining.



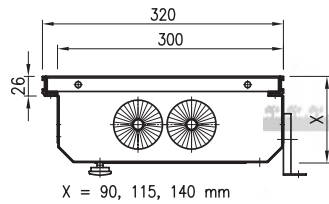
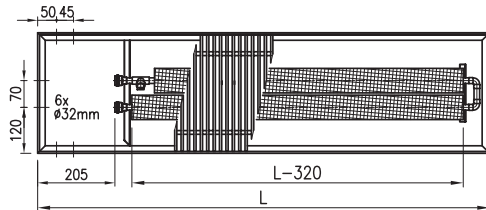
DIMENSIONS AND SECTIONS

CONVECTION height (mm)	width (mm)				length (mm) in 40 mm segments
	170	320	360	420	
90	FLK 10-09	FLK 20-09	FLK 30-09	FLK 40-09	800–4 800
115	FLK 10-11	FLK 20-11	FLK 30-11	FLK 40-11	
140	FLK 10-14	FLK 20-14	FLK 30-14	FLK 40-14	

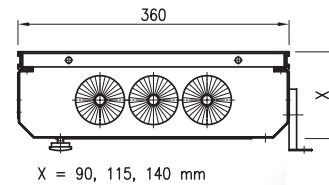
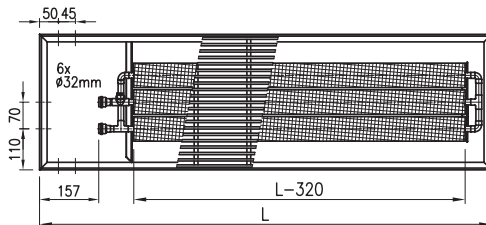
- FLK 10-09
- FLK 10-11
- FLK 10-14



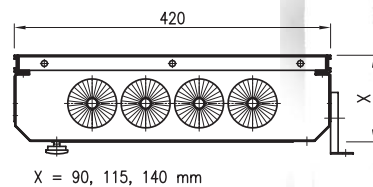
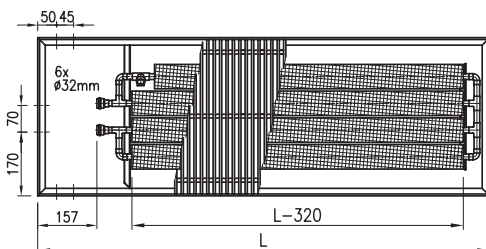
- FLK 20-09
- FLK 20-11
- FLK 20-14



- FLK 30-09
- FLK 30-11
- FLK 30-14



- FLK 40-09
- FLK 40-11
- FLK 40-14



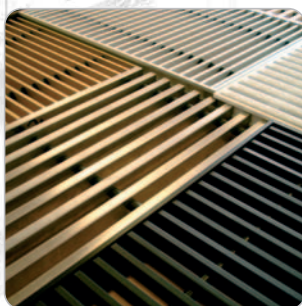
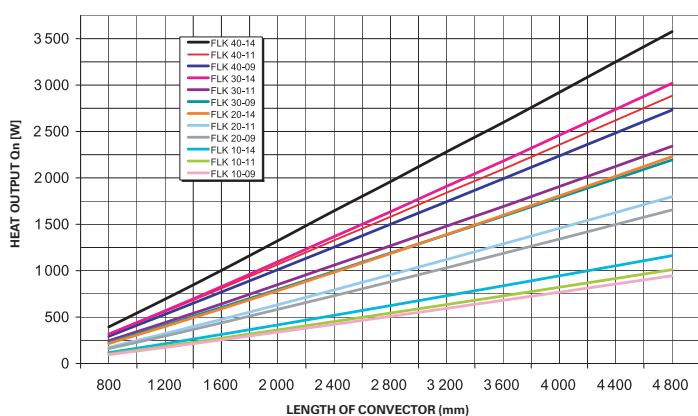
FLK



OPERATING CONDITIONS

- hot water heating system with forced circulation
- internal connecting thread G1/2"
- maximum operating temperature of the heating medium 110 °C
- maximum operating pressure of the heating medium 1 MPa
- the convector as a whole is constructed for ambient temperatures of +2 up to 40 °C at relative water content 20–70 %

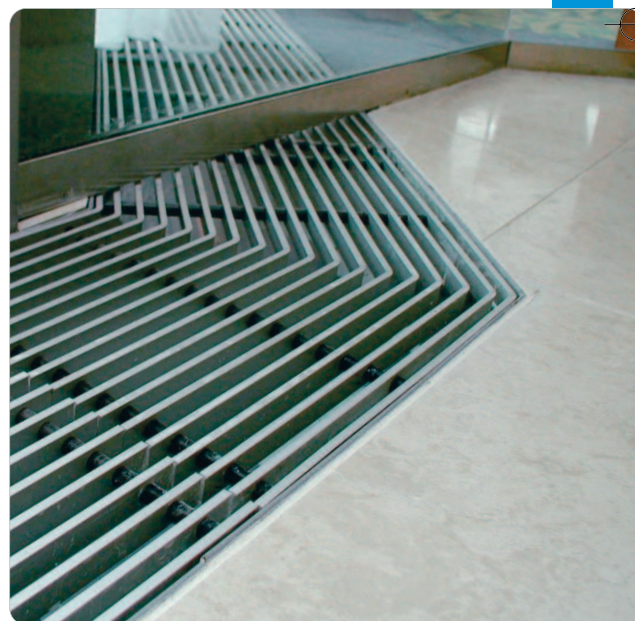
Performance curves of FLK convectors at 75/65/20 °C



TECHNICAL INFORMATION

Convector contains:

- convector cabinet made of 17 240 stainless steel of 1 mm gauge
- upper frame from satin anodized aluminium
- walkway grill according to customer's specifications (page 30)
- Cu-Cu wire exchanger with a ventilation valve
- cover plate for water connection
- regulation screwing and ball cock
- installation angle bars and aligner screws
- installation instructions
- installation chipboard sheet
- double shipping container



Order example (CODE)

F L K 2 0 - 1 1 1 6 0 - N R 6 1 0

Specifications: FLK convector, H = 115 mm, W = 320 mm, L = 1 600 mm, Al natur frame, natural beech – wooden grill, without regulation (not possible)

For detailed description HOW TO MAKE AN ORDER please see page 31.

CAUTION

- the positioning of convector in the floor (page 26)
- exchanger hydraulics (page 25)
- technical calculations (page 24)
- by special order we delivered with axial fans – description FLA (heating outputs see www.opltherm.cz)



FLK

DETAILED OUTPUT TABLES

	m 1,45 t _w (t1 / t2)	800 mm			1 200 mm			1 600 mm			2 000 mm			2 400 mm		
		t _i °C			t _i °C			t _i °C			t _i °C			t _i °C		
		15	20	22	15	20	22	15	20	22	15	20	22	15	20	22
FLK 10-09	80 (90/70)	129	118	113	237	214	205	351	316	302	467	419	400	584	523	499
	70 (75/65)	105	95	90	195	173	164	289	255	241	384	338	319	481	422	399
	60 (65/55)	78	68	65	145	125	117	215	184	172	287	244	228	359	305	284
	50 (55/45)	53	45	41	98	81	74	147	120	109	196	159	144	246	199	181
FLK 10-11	80 (90/70)	137	126	121	254	230	220	376	338	323	499	448	427	625	560	534
	70 (75/65)	113	102	97	210	186	176	309	273	258	412	362	342	515	452	427
	60 (65/55)	83	73	69	156	134	125	230	197	184	307	261	244	384	326	304
	50 (55/45)	57	48	44	107	88	80	158	129	117	211	171	155	263	213	193
FLK 10-14	80 (90/70)	158	144	139	292	264	253	432	388	371	574	515	492	719	644	614
	70 (75/65)	130	117	112	241	213	203	356	313	297	473	416	393	592	519	491
	60 (65/55)	96	84	79	179	154	144	265	226	211	353	300	280	442	375	350
	50 (55/45)	65	55	51	123	101	92	182	148	135	242	196	179	303	244	222
FLK 20-09	80 (90/70)	217	199	191	404	366	350	600	541	517	802	721	689	1 005	902	861
	70 (75/65)	178	161	154	333	296	281	496	438	415	662	583	552	831	730	690
	60 (65/55)	132	115	109	247	213	200	369	316	295	493	421	393	619	527	492
	50 (55/45)	90	76	70	170	140	128	255	208	190	341	277	252	428	347	315
FLK 20-11	80 (90/70)	234	215	207	440	398	381	652	587	561	871	783	748	1 092	980	936
	70 (75/65)	193	174	166	363	322	306	538	475	450	719	633	599	902	793	750
	60 (65/55)	143	126	119	270	233	218	401	344	321	536	458	428	673	574	535
	50 (55/45)	99	84	77	187	154	141	278	227	207	372	303	276	467	379	345
FLK 20-14	80 (90/70)	291	266	256	545	493	473	808	727	696	1 080	970	927	1 354	1 215	1 160
	70 (75/65)	239	215	206	450	399	379	667	589	558	892	784	743	1 119	983	930
	60 (65/55)	178	156	148	335	289	271	498	426	399	665	568	530	835	711	664
	50 (55/45)	123	104	96	231	190	175	344	281	257	462	375	342	579	469	428
FLK 30-09	80 (90/70)	308	282	271	565	511	489	829	747	714	1 097	986	942	1 368	1 227	1 171
	70 (75/65)	252	227	217	465	413	392	684	604	572	905	797	754	1 129	992	938
	60 (65/55)	187	164	155	346	298	280	510	437	408	675	576	538	842	717	669
	50 (55/45)	140	118	109	256	211	193	376	307	280	499	406	370	624	506	460
FLK 30-11	80 (90/70)	333	305	293	603	546	523	883	795	760	1 171	1 052	1 005	1 461	1 311	1 252
	70 (75/65)	274	246	235	497	441	419	727	642	608	966	850	804	1 206	1 060	1 002
	60 (65/55)	204	178	170	371	320	302	543	465	438	721	615	579	901	767	722
	50 (55/45)	140	118	109	256	211	193	376	307	280	499	406	370	624	506	460
FLK 30-14	80 (90/70)	430	393	378	779	704	675	1 139	1 025	981	1 511	1 357	1 297	1 885	1 691	1 615
	70 (75/65)	353	317	303	641	568	540	938	828	785	1 246	1 096	1 038	1 556	1 367	1 293
	60 (65/55)	263	230	219	479	412	390	701	600	566	930	794	748	1 162	990	931
	50 (55/45)	181	152	141	331	272	249	485	396	361	644	523	477	805	652	594
FLK 40-09	80 (90/70)	399	365	351	725	656	628	1 058	953	911	1 392	1 251	1 195	1 730	1 552	1 482
	70 (75/65)	326	293	280	598	530	503	873	770	729	1 149	1 011	957	1 427	1 254	1 186
	60 (65/55)	243	212	200	446	384	360	651	557	521	857	732	683	1 066	908	847
	50 (55/45)	190	160	148	342	282	258	497	406	371	658	535	488	820	665	605
FLK 40-11	80 (90/70)	432	395	380	767	694	665	1 114	1 003	959	1 470	1 321	1 262	1 830	1 642	1 568
	70 (75/65)	354	318	303	631	560	532	917	809	766	1 213	1 067	1 010	1 510	1 327	1 255
	60 (65/55)	264	231	221	472	406	386	685	586	555	906	773	731	1 128	961	909
	50 (55/45)	181	152	140	326	268	245	474	387	353	626	509	464	781	633	576
FLK 40-14	80 (90/70)	536	489	471	952	860	824	1 381	1 243	1 189	1 823	1 638	1 565	2 270	2 036	1 944
	70 (75/65)	439	394	376	783	694	659	1 137	1 003	950	1 504	1 323	1 252	1 873	1 645	1 556
	60 (65/55)	328	287	274	585	504	478	849	727	689	1 123	959	907	1 399	1 192	1 127
	50 (55/45)	225	188	174	404	332	304	588	479	438	777	631	575	968	784	714



2 800 mm			3 200 mm			3 600 mm			4 000 mm			4 400 mm			4 400 mm		
t _i °C			t _i °C			t _i °C			t _i °C			t _i °C			t _i °C		
15	20	22	15	20	22	15	20	22	15	20	22	15	20	22	15	20	22
704	630	601	823	736	701	944	844	804	1 065	952	907	1 190	1 063	1 013	1 312	1 172	1 117
580	508	480	678	594	561	778	681	643	878	768	725	980	857	809	1 081	945	891
433	367	342	506	429	400	581	492	458	656	555	517	732	620	576	808	683	635
297	240	218	347	280	254	398	321	291	451	363	329	503	405	367	555	446	404
752	673	642	880	787	750	1 009	902	860	1 140	1 019	971	1 271	1 135	1 081	1 403	1 253	1 194
619	543	513	725	635	599	832	728	687	940	822	776	1 048	916	864	1 157	1 011	954
462	392	365	541	459	427	621	526	489	701	594	553	782	662	616	864	731	679
317	256	232	372	300	272	427	344	312	482	388	352	538	433	392	594	478	433
865	773	738	1 012	905	863	1 160	1 037	989	1 311	1 171	1 117	1 461	1 305	1 244	1 614	1 440	1 373
712	624	590	834	730	689	957	837	790	1 081	945	892	1 205	1 053	994	1 330	1 162	1 097
531	451	420	622	527	491	714	605	563	807	683	635	900	761	708	993	840	781
364	294	267	428	345	313	491	395	359	554	446	404	619	497	451	684	549	498
1 214	1 088	1 038	1 425	1 276	1 217	1 638	1 466	1 398	1 852	1 657	1 580	2 069	1 851	1 765	2 288	2 046	1 951
1 002	880	832	1 177	1 032	975	1 353	1 186	1 120	1 531	1 341	1 267	1 711	1 498	1 415	1 891	1 655	1 563
748	636	593	878	746	695	1 010	857	798	1 142	969	903	1 277	1 083	1 008	1 411	1 197	1 114
518	419	381	609	492	447	700	565	513	792	639	580	885	714	648	979	789	716
1 319	1 182	1 128	1 547	1 386	1 322	1 778	1 592	1 519	2 013	1 801	1 718	2 248	2 011	1 918	2 486	2 223	2 120
1 089	956	904	1 278	1 121	1 059	1 470	1 288	1 217	1 663	1 457	1 376	1 858	1 627	1 537	2 054	1 798	1 698
813	692	645	954	811	756	1 097	932	868	1 242	1 054	982	1 388	1 177	1 096	1 534	1 301	1 211
564	457	415	663	536	487	762	616	560	862	696	632	963	777	705	1 065	859	780
1 635	1 465	1 399	1 919	1 718	1 640	2 205	1 974	1 883	2 496	2 233	2 130	2 788	2 493	2 378	3 083	2 756	2 629
1 351	1 185	1 121	1 585	1 390	1 314	1 822	1 597	1 509	2 063	1 806	1 707	2 304	2 017	1 905	2 547	2 229	2 105
1 008	858	800	1 183	1 006	937	1 361	1 156	1 076	1 540	1 307	1 217	1 721	1 460	1 359	1 902	1 613	1 502
700	566	515	822	664	604	946	763	694	1 069	863	784	1 194	963	875	1 321	1 065	967
1 642	1 472	1 405	1 916	1 716	1 637	2 194	1 964	1 874	2 472	2 212	2 110	2 752	2 462	2 348	3 031	2 711	2 585
1 356	1 190	1 125	1 583	1 388	1 312	1 812	1 588	1 500	2 042	1 789	1 690	2 274	1 991	1 880	2 505	2 193	2 071
1 012	861	802	1 181	1 004	935	1 353	1 149	1 070	1 525	1 294	1 205	1 698	1 440	1 341	1 871	1 586	1 477
749	606	551	876	708	643	1 000	808	734	1 129	911	827	1 258	1 015	922	1 387	1 118	1 015
1 749	1 568	1 497	2 045	1 832	1 748	2 336	2 091	1 995	2 635	2 358	2 249	2 936	2 626	2 504	3 237	2 895	2 761
1 445	1 268	1 199	1 689	1 481	1 400	1 930	1 691	1 598	2 177	1 907	1 801	2 426	2 124	2 006	2 674	2 341	2 211
1 079	918	863	1 261	1 072	1 007	1 441	1 224	1 150	1 626	1 380	1 296	1 812	1 537	1 444	1 998	1 694	1 591
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1 864	1 635	1 546	2 179	1 910	1 806	2 489	2 181	2 061	2 809	2 460	2 324	3 129	2 739	2 588	3 450	3 019	2 852
1 392	1 184	1 113	1 627	1 383	1 300	1 859	1 579	1 483	2 098	1 781	1 672	2 338	1 983	1 862	2 577	2 186	2 052
966	781	711	1 130	913	830	1 291	1 042	947	1 456	1 175	1 067	1 623	1 309	1 189	1 789	1 442	1 309
2 071	1 856	1 772	2 407	2 156	2 057	2 750	2 462	2 349	3 092	2 767	2 639	3 435	3 073	2 931	3 775	3 376	3 220
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1 276	1 086	1 012	1 485	1 262	1 176	1 696	1 440	1 342	1 907	1 619	1 508	2 119	1 798	1 674	2 330	1 976	1 840
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2 180	1 954	1 865	2 543	2 278	2 174	2 893	2 590	2 471	3 258	2 915	2 781	3 623	3 241	3 091	3 989	3 567	3 402
1 800	1 580	1 494	2 100	1 841	1 740	2 389	2 094	1 979	2 691	2 357	2 227	2 993	2 621	2 476	3 295	2 884	2 724
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2 704	2 422	2 313	3 154	2 824	2 696	3 588	3 211	3 064	4 040	3 614	3 448	4 493	4 018	3 833	4 946	4 423	4 218
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1 668	1 419	1 341	1 945	1 653	1 561	2 214	1 880	1 775	2 493	2 116	1 998	2 773	2 353	2 221	3 053	2 589	2 444
1 157	936	851	1 350	1 091	992	1 536	1 240	1 127	1 730	1 396	1 268	1 927	1 553	1 411	2 118	1 707	1 550