

T TRENCH HEATERS WITH A FAN



heat pump



heating



with a fan



dry environment



T series convectors are our smallest units designed for efficient heating. They are a great choice for use with heat pumps due to efficient heat transfer even at low heating medium temperatures.

Quiet operation

T convectors show low noise values in their category. At low and medium speeds, noise does not exceed the common noise background. The microprocessor control unit takes care of the smooth operation of the fan.

Compatibility with control systems

The control unit also offers a wide range of settings, allowing the optimal convector control by various types of thermostats, BMS or Smart Home systems.

Ecological and economic solution

Due to the low volume of water in the exchanger and the high heat transfer efficiency, are the T convectors valuable for environmentally friendly and energy efficient heating. Low water volume minimizes losses in distribution and reduces the reaction times of the system.

A wide range of accessories

For your comfort, the T series convectors can be ordered with the complete accessories needed for easy installation and a reliable function. An overview of available accessories can be found on the MINIB website.

CHARACTERISTICS

- **forced convection unit (heats also when the fan is off)**
- high quality stainless steel body
- for installations within limited space
- electronically commutated (EC) motor
- safe voltage 12/24 V DC
- own microprocessor-controlled unit with a wide range of settings
- suitable for heat pumps and other renewable energy sources

DIMENSIONS

widths (with standard frame)	165 / 243 mm
heights	65 ³⁾ / 80 / 125 mm
length ¹⁾	900 - 3000 mm
connection ²⁾	G1/2", G3/8"

1) for non-standard lengths please contact your sales representative

2) without water connection accessories

3) 57mm when choosing the 10mm silver grill

ORDER CODE

KPSD	P*	165	09*	65	21C
Category	Orientation	Width	Length	Height	Type

165 x 65	KPSD P* 165 09* 065 21C
165 x 125	KPSD P* 165 09* 125 21C
243 x 65	KPSD P* 243 09* 065 21C
243 x 80	KPSD P* 243 09* 080 21C

* Orientation

P = right connection, L = left connection

Length:

09 = 900 mm, 10 = 1000 mm, 12 = 1250 mm, 15 = 1500 mm, 17 = 1750 mm, 20 = 2000 mm, 22 = 2250 mm, 25 = 2500 mm, 27 = 2750 mm, 30 = 3000 mm

ORIENTATION AND CONNECTION

When ordering T series convectors, it is necessary to specify the orientation of the convector (left/right) and the water connection (straight/corneous).

Convector as the main source of heating

If the convector works as the main heat source we recommend to install the convector with the exchanger to the room side.

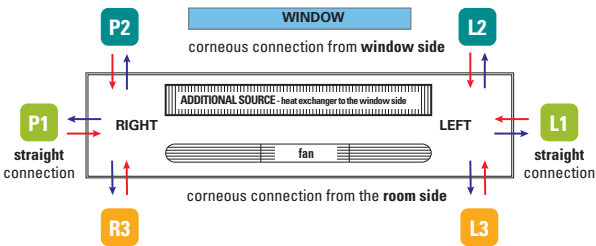
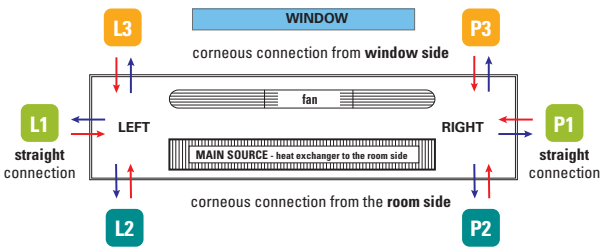
Convector as an additional source of heatling

If the convector is used as an additional heat source, which prevents the condensation of the window, install the convector with the heat exchanger towards the window.

CONNECTION OPENINGS

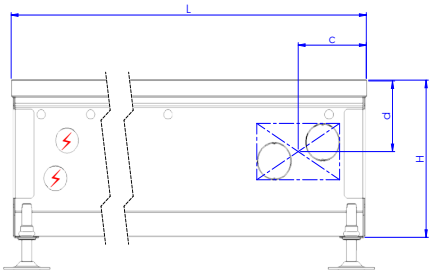
The convector is supplied with pre-cut holes for all connection directions and all variants of connection accessories. Simply push-out the holes according to the connection direction you have chosen.

The positions of the connection openings for the individual dimensions of the convector are shown in the drawings. The openings are placed symmetrically according to the longitudinal and transverse axes of the convector.

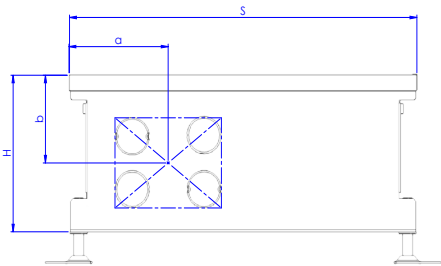


	S	H	a	b	c	d	e	f
T 165 x 65	165	65	83	41	57	41	82	41
T 165 x 125	165	125	81	55	57	72	67	72
T 243 x 65	243	65	84	46	57	38	82	45
T 243 x 80	243	80	84	46	57	50	82	50

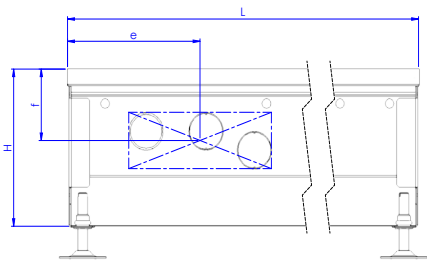
CORNEOUS CONNECTION P2



STRAIGHT CONNECTION P1



CORNEOUS CONNECTION P3



HEATING POWER

T 165 x 65

T 165 x 65 heating power Q [W]					
length L [mm]	input/ output water temperature [°C]	fan speed			
		off	low	medium	high
		air temperature TA=20°C			
900	85/75	70	381	484	690
	75/65	57	311	395	563
	65/55	44	243	309	440
	45/40	23	129	163	233
1000	85/75	81	445	565	805
	75/65	66	363	461	657
	65/55	52	284	360	513
	45/40	27	150	191	271
1250	85/75	110	604	766	1092
	75/65	90	493	626	892
	65/55	70	385	489	697
	45/40	37	204	259	368
1500	85/75	139	762	968	1379
	75/65	114	623	791	1127
	65/55	89	487	618	880
	45/40	47	257	327	465
1750	85/75	168	921	1170	1667
	75/65	137	753	956	1362
	65/55	107	588	746	1064
	45/40	57	311	395	562
2000	85/75	197	1080	1371	1954
	75/65	161	883	1121	1597
	65/55	126	689	875	1247
	45/40	66	364	463	659
2250	85/75	226	1239	1573	2241
	75/65	185	1012	1285	1831
	65/55	144	791	1004	1430
	45/40	76	418	531	756
2500	85/75	255	1398	1775	2529
	75/65	208	1142	1450	2066
	65/55	163	892	1133	1614
	45/40	86	472	599	853
2750	85/75	284	1557	1976	2816
	75/65	232	1272	1615	2301
	65/55	181	993	1261	1797
	45/40	96	525	667	950
3000	85/75	313	1715	2178	3103
	75/65	256	1402	1780	2536
	65/55	200	1095	1390	1980
	45/40	106	579	735	1047

T 165 x 125

T 165 x 125 heating power Q [W]					
length L [mm]	input/ output water temperature [°C]	fan speed			
		off	low	medium	high
		air temperature TA=20°C			
900	85/75	107	536	605	796
	75/65	86	432	487	641
	65/55	66	331	373	492
	45/40	33	167	188	248
1000	85/75	125	626	705	929
	75/65	101	504	568	748
	65/55	77	386	436	574
	45/40	39	195	220	289
1250	85/75	170	849	957	1260
	75/65	137	684	771	1015
	65/55	105	524	591	778
	45/40	53	265	298	393
1500	85/75	214	1073	1209	1592
	75/65	173	864	974	1282
	65/55	132	663	747	983
	45/40	67	334	377	496
1750	85/75	259	1296	1461	1924
	75/65	208	1044	1177	1549
	65/55	160	801	902	1188
	45/40	81	404	455	599
2000	85/75	304	1520	1713	2255
	75/65	244	1224	1380	1816
	65/55	187	939	1058	1393
	45/40	95	474	534	703
2250	85/75	348	1743	1965	2587
	75/65	280	1404	1582	2083
	65/55	215	1077	1214	1598
	45/40	108	543	612	806
2500	85/75	393	1967	2217	2919
	75/65	316	1584	1785	2350
	65/55	243	1215	1369	1802
	45/40	122	613	691	910
2750	85/75	437	2190	2469	3250
	75/65	352	1764	1988	2617
	65/55	270	1353	1525	2007
	45/40	136	683	770	1013
3000	85/75	482	2414	2721	3582
	75/65	388	1943	2191	2884
	65/55	298	1491	1681	2212
	45/40	150	752	848	1116

ACOUSTIC PRESSURE - measurement at a distance of 2m from the noise source at 1m height

T 165 x 65

length L [mm]	Speed		
	speed 1	speed 2	speed 3
	Equivalent acoustic pressure level LAeq,2m [dB]		
900	<20	23,7	36,4
1000	<20	23,8	36,5
1250	<20	24,1	36,8
1500	<20	24,3	37,1
1750	20,1	24,6	37,3
2000	20,3	24,8	37,5
2250	20,6	25,0	38,1
2500	20,8	25,1	38,6
2750	21,8	26,1	39,6
3000	22,8	27,1	40,6

T 165 x 125

length L [mm]	Speed		
	speed 1	speed 2	speed 3
	Equivalent acoustic pressure level LAeq,2m [dB]		
900	21,3	23,6	34,9
1000	21,6	23,9	35,2
1250	22,4	24,7	36,0
1500	23,1	25,4	36,7
1750	23,7	26,0	37,3
2000	24,3	26,6	37,9
2250	24,8	27,1	38,4
2500	25,3	27,6	38,9
2750	25,8	28,1	39,4
3000	26,3	28,6	39,9

HEATING POWER

T 243 x 65

T 243 x 65 heating power Q [W]					
length L [mm]	input/output water temperature [°C]	fan speed			
		off	low	medium	high
		air temperature TA=20°C			
900	85/75	134	830	936	1113
	75/65	110	682	769	914
	65/55	86	536	604	719
	45/40	46	288	325	386
1000	85/75	156	968	1092	1298
	75/65	128	795	897	1066
	65/55	101	625	705	838
	45/40	54	336	379	451
1250	85/75	212	1314	1482	1762
	75/65	174	1079	1217	1447
	65/55	137	848	957	1138
	45/40	74	456	514	612
1500	85/75	268	1660	1871	2225
	75/65	220	1363	1537	1828
	65/55	173	1072	1209	1437
	45/40	93	576	650	773
1750	85/75	324	2005	2261	2689
	75/65	266	1647	1858	2209
	65/55	209	1295	1460	1736
	45/40	112	696	785	934
2000	85/75	379	2351	2651	3152
	75/65	312	1931	2178	2590
	65/55	245	1518	1712	2036
	45/40	132	816	921	1095
2250	85/75	435	2697	3041	3616
	75/65	358	2215	2498	2971
	65/55	281	1741	1964	2335
	45/40	151	936	1056	1256
2500	85/75	491	3042	3431	4080
	75/65	403	2499	2819	3351
	65/55	317	1965	2216	2635
	45/40	170	1056	1191	1416
2750	85/75	547	3388	3821	4543
	75/65	449	2783	3139	3732
	65/55	353	2188	2467	2934
	45/40	190	1176	1327	1577
3000	85/75	603	3734	4211	5007
	75/65	495	3067	3459	4113
	65/55	389	2411	2719	3233
	45/40	209	1296	1462	1738

T 243 x 80

T 243 x 80 heating power Q [W]					
length L [mm]	input/output water temperature [°C]	fan speed			
		off	low	medium	high
		air temperature TA=20°C			
900	85/75	149	797	952	1228
	75/65	123	657	785	1014
	65/55	97	520	621	802
	45/40	53	284	339	438
1000	85/75	174	929	1110	1433
	75/65	144	767	916	1183
	65/55	114	607	725	935
	45/40	62	331	396	511
1250	85/75	236	1261	1507	1945
	75/65	195	1041	1244	1605
	65/55	154	823	983	1270
	45/40	84	449	537	693
1500	85/75	299	1593	1903	2457
	75/65	247	1315	1571	2028
	65/55	195	1040	1242	1604
	45/40	106	568	678	875
1750	85/75	361	1925	2300	2969
	75/65	298	1589	1898	2450
	65/55	236	1256	1501	1938
	45/40	129	686	819	1058
2000	85/75	423	2257	2696	3481
	75/65	349	1863	2226	2873
	65/55	276	1473	1760	2272
	45/40	151	804	961	1240
2250	85/75	485	2589	3093	3992
	75/65	401	2137	2553	3295
	65/55	317	1690	2019	2606
	45/40	173	922	1102	1422
2500	85/75	547	2921	3489	4504
	75/65	452	2411	2880	3718
	65/55	357	1906	2277	2940
	45/40	195	1041	1243	1605
2750	85/75	610	3253	3886	5016
	75/65	503	2685	3207	4140
	65/55	398	2123	2536	3274
	45/40	217	1159	1384	1787
3000	85/75	672	3584	4282	5528
	75/65	555	2959	3535	4563
	65/55	439	2340	2795	3608
	45/40	239	1277	1526	1970

INPUT POWER

length [mm]	power [W]
	
900	6
1000	6
1250	10
1500	11
1750	12
2000	16
2250	17
2500	17
2750	22
3000	22

ACOUSTIC PRESSURE - measurement at a distance of 2m from the noise source at 1m height

T 243 x 65

length L [mm]	Speed		
	speed 1	speed 2	speed 3
	Equivalent acoustic pressure level LAeq,2m [dB]		
900	21,1	25,9	38,3
1000	21,2	26,0	38,3
1250	21,4	26,2	38,4
1500	21,5	26,3	38,5
1750	21,9	26,7	38,9
2000	22,2	27,0	39,3
2250	22,3	27,1	39,4
2500	22,4	27,2	39,5
2750	23,4	28,2	40,5
3000	24,4	29,2	41,5

T 243 x 80

length L [mm]	Speed		
	speed 1	speed 2	speed 3
	Equivalent acoustic pressure level LAeq,2m [dB]		
900	20,3	25,4	36,6
1000	20,7	25,8	37,0
1250	21,7	26,8	38,0
1500	22,6	27,9	38,9
1750	23,8	28,7	40,1
2000	24,7	29,8	41,0
2250	25,7	30,8	42,0
2500	26,6	31,9	42,9
2750	27,8	32,7	44,1
3000	28,7	33,8	45,0

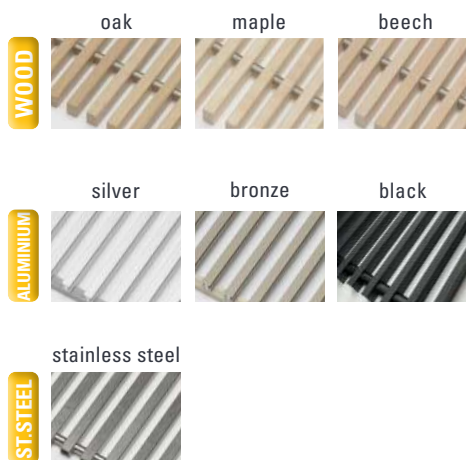
ACCESSORIES

The standard delivery includes convector, standard frame and anchoring accessories. All other accessories (convector grille, connection accessories, control elements, etc.) must be ordered and specified separately.

COMPATIBLE GRILLES

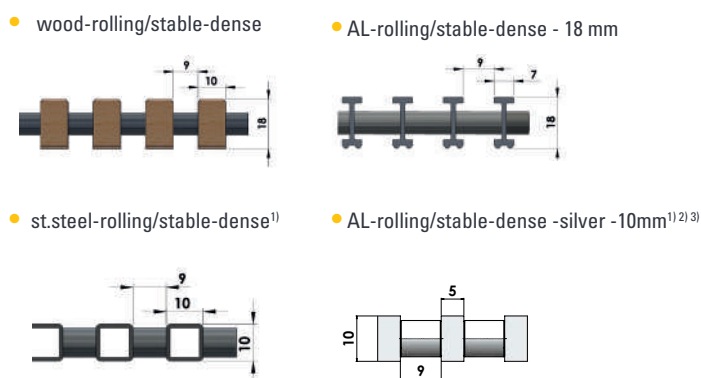
The grille must be ordered with the convector due to the modification of the convector construction. Standard grilles are sparse, transverse. If you are interested in LONGITUDINAL GRILLES, please contact your sales representative.

GRILLES - materials



(shades of the grilles are only illustrative)

GRILLES - PROFILE



1) stainless steel grill and AL grill 10 mm must be ordered together with the convector

2) standard color is silver, other colors on order with longer delivery time, contact your sales representative for more information

3) can only be combined with convector models T 165 x 65 and T 243 x 65 -final height of convectors is only 57 mm

COMPATIBLE FRAMES

The frame is assembled from an aluminum profile with 45 degree joints. It comes in the same basic colors as the aluminum grilles. For other terminations of the convector trough, please contact your sales representative.

- Standard frame (AL-aluminium)
- Covering frame (AL-aluminium)



Convectors are designed to the CONCRETE FLOOR, in case of HOLLOW FLOOR installation, please consult with your sales representative.

WATER CONNECTION ACCESSORIES

- connection **WITHOUT HEAD**
- connection **WITH ELECTROTHERMAL HEAD**
- connection **WITH CUSTOMER HEAD** (after consultation)

The type of connection accessories varies according to the size and direction of the connection. Connection accessories are packed separately and are not included in the standard convector delivery.

The table below shows compatible connection accessory sets. If you require non-standard or custom connection accessories, please contact your sales representative.

Connection set typically include:

- flex hoses
- ball valve or screw fitting
- thermostatic valve (only sets ready for head)

	WITHOUT head			READY for head		
	L1/R1	L2/R2	L3/R3	L1/R1	L2/R2	L3/R3
T 165 x 65	PB 2)	PF 1)	PF1)	-	-	-
T 165 x 125	PA 1)	PE 1)	PE 1)	PI 3)	PM 3)	PM 3)
T 243 x 65	PA 2)	PE 1)	PE 1)	PI 1)	PM 3)	PN 3)
T 243 x 80	PA	PE	PE	PI	PM	PN

1) due to small size of the convector, it is necessary to take into account less space for connection accessories

2) the valve tap/faucet must be removed

3) only with electrothermic head

CONVECTOR JOINTS

T series convectors are manufactured up to 3000 mm in lengths as standard. Larger lengths can be achieved by joining multiple convectors behind each other. Optically, the joint appears to be one long convector. In this way, any lengths can be achieved, including the connection of angle, corner and to the arc.

POSSIBLE ANGLES AND ARCS OF TRENCH HEATERS

ANGLE TYPE OF CONNECTION



ARC TYPE OF CONNECTION



The convector comes completely assembled and ready for immediate installation. Thanks to the output inspection in the production plant, we can guarantee the highest quality and functionality of MINIB products.

The technical parameters are set according to the relevant standards. In fact, they may vary depending on the location of the convector, the cover grille, the connection type.

As a part of the product development, MINIB, a.s. reserves the right of construction and price adjustments.

REGULATION OPTIONS

Type of regulation	Function of the convector	Control	Switched sources
EB-A ¹⁾ manual	heating	thermostat UT15 customer thermostat for 24V or 230V + ADA converter BMS superior system	
EB-B automatic	heating	thermostat UT15 thermostat CH110 thermostat TH343 customer thermostat for 12V or 230V + ADA converter	for DIN rail: PSD 55W PSD 90W
EB-C semi-automatic	heating	thermostat UT15 customer thermostat for 24V or 230V + ADA converter	

IT IS POSSIBLE TO USE YOUR OWN REGULATION.

1) it is necessary to reset the control unit-EB-block (by default it is set to EB-B / EB-C)

thermoelectric valve head



A floating contact thermostat, such as CH110 or UT15, is suitable for controlling thermoelectric heads.



CH110 thermostat



UT15 thermostat



CLIMATE DESIGN D.O.O. Javorska 6, 11226 Beograd,
Tel: +38162290789, +38162290599
E-mail: veleprodaja@climatedesign.rs, www.climatedesign.rs

