

# PRODUCT PORTFOLIO

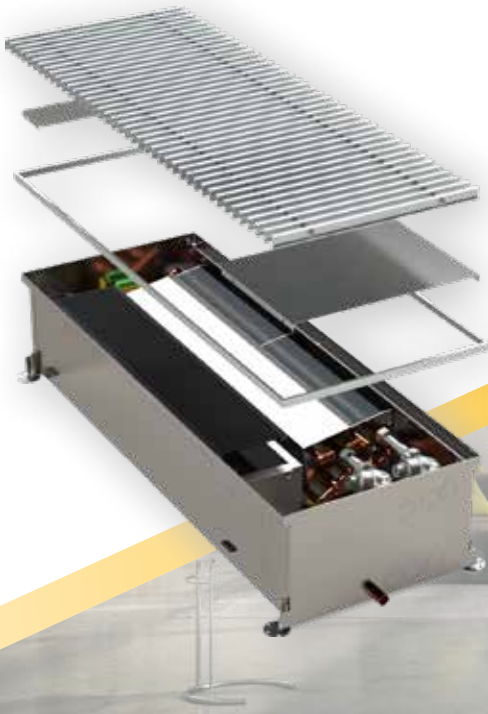
TRENCH HEATERS

FREE-STANDING CONVECTORS

WALL-MOUNTED CONVECTORS

SPECIAL CONVECTORS

CHILLED BEAM



# ABOUT US



## ABOUT THE COMPANY

MINIB, a.s. ranks among the leading manufacturers of convectors in the Czech Republic and also in Europe. It currently exports its products to more than thirty countries in Europe, Asia, Australia, and America.

Since 1999, MINIB has been systematically innovating production technology and its products, and it invests quite considerable amounts in its own development and design, with the goal of offering its customers advanced technical and aesthetic solutions.

MINIB, a.s. is an economically stable company which has been consistently generating profit. This allows us to invest in research and development, technology, and above all, human resources in order to ensure long-term successful development of our company.

## ABOUT THE MANUFACTURING PROCESS

The manufacturing facility is located in Býkev near Mělník, and has excellent road connections. It is furnished with state-of-the-art manufacturing technology. Most manufacturing operations are carried out on CNC machines, which allows us to meet even the most sophisticated requirements of our demanding customers.

To meet the individual requirements of our customers, we are able to manufacture bespoke products to meet their specific needs.

All products are made only from high-quality materials with long life cycle, which allows us to offer ten-year warranty on the heat exchangers and the stainless steel convector troughs.

MINIB, a.s. is a holder of an ISO 9001:2016 certificate and numerous utility models and patents.

The complete product portfolio is tested in an independent accredited testing chamber of HEATEST, s.r.o., according to EN 442, EN 16430 and EN 15116 which allows us to guarantee the stated heating and cooling output values.

## ABOUT THE PRODUCTS

Minib's product portfolio includes more than **70 types of convectors and also chilled beam**. Customers can therefore choose the suitable convector for any interior environment.

The main benefit of convectors is that they are effective, modern, efficient and aesthetic heating units designed for dry and wet environment. Significant energy savings are achieved by the low water consumption for immediate heating or cooling of the room. The low water consumption results in low consumption of energy needed for water heating. In addition to the energy and water savings, the great heating and cooling dynamics is also important. Another benefit of these products is undoubtedly low space requirements. Convectors do not disturb the aesthetic experience of the room, offer modern design, and are safe thanks to the 12V power supply.

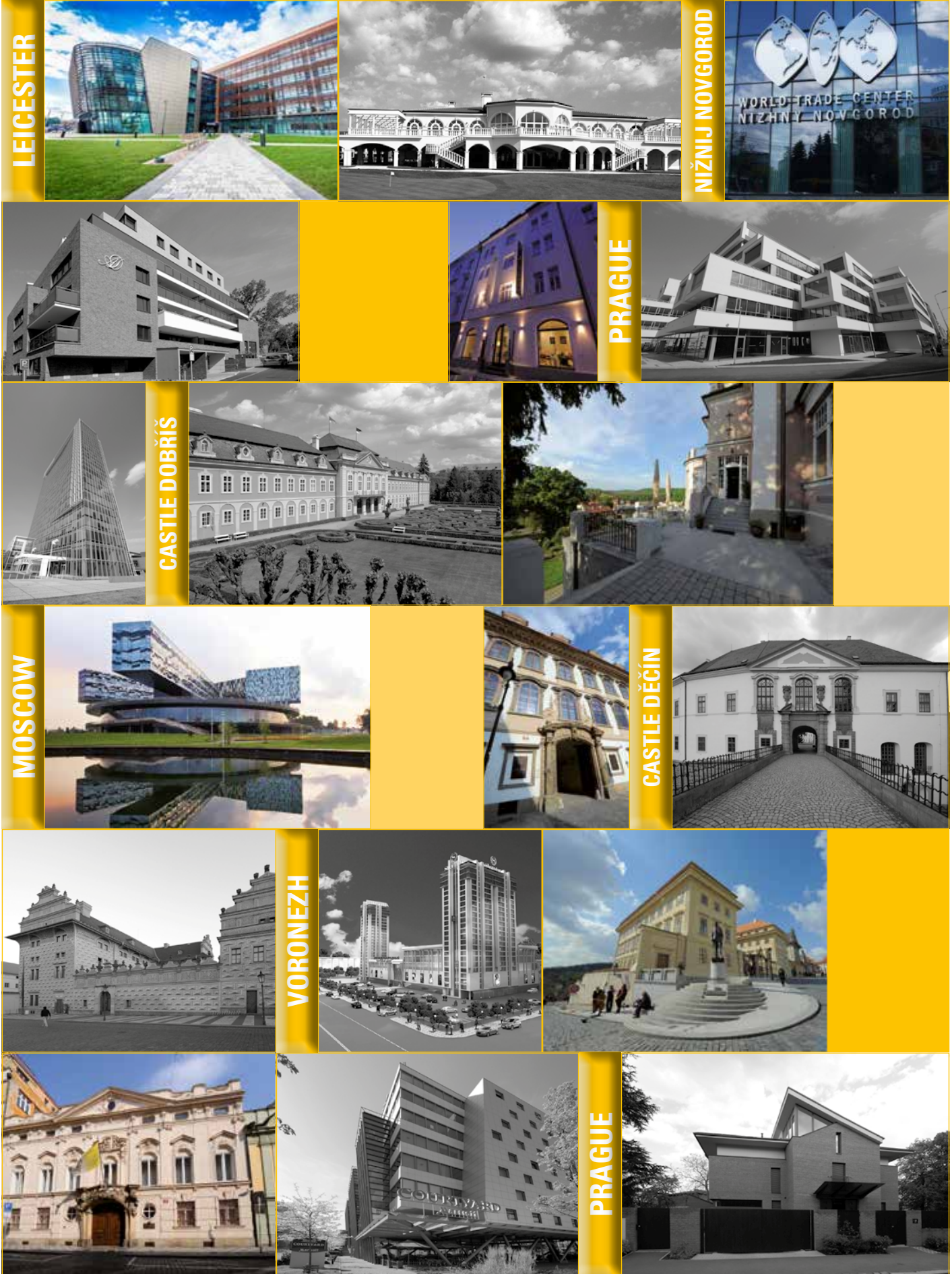
The product range includes different types of convectors:

- › **FLOOR** convectors without fan which use the natural convection principle. The principle of forced convection is used in convectors with a fan.
- › **FREE-STANDING AND WALL-MOUNTED** convectors are also available with or without fan. For wet or for dry environment (pools, bathrooms).
- › A unique patent series is **DESIGNED** convectors which use, in addition to convection, also radiation for heating. These convectors are equipped with a face panel made of aluminium composite with a broad selection of modern designs, made of smooth glass of various colour shades or glass decorated by sand-blasting. We can also offer a granite face panel.
- › **SPECIAL CONVECTORS** with a wide range of application
- › **CHILLED BEAM** for cooling, heating and ventilation with minimal energy requirements

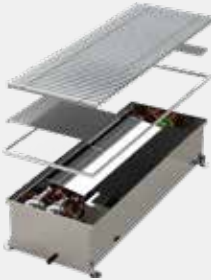
MINIB's advantage is its ability to satisfy also specific non-typical requirements of customers. MINIB pursues high standard of user comfort. All products are easy to install and maintain.

A broad selection of accessories is available for each convector type. MINIB has received a number of national and international awards for its products.










# REFERENCES



# CONTENTS

Type	Fan	Function	Environment	Convector				Page	
				Convector name	Width [mm]	Height [mm]	Output [W/m]		
<b>TRENCH HEATERS</b> 	without a fan	heating	dry	P	243	125	297	6	
				P 80	243	80	221	6	
				PT	303	125	346	6	
				PT 4	303	125	392	7	
				PT 80	303	80	227	7	
				PT 105	303	105	294	7	
				PT 180	303	180	391	7	
				PB 90 / PB 90E	180	90	194	8	
				PB 110 / PB 110E	180	110	195	8	
				PB 140 / PB 140E	180	140	329	8	
				PM 90 / PM 90E	260	90	242	9	
				PM 110 / PM 110E	260	110	286	9	
				PM 140 / PM 140E	260	140	412	9	
				PW 90 / PW 90E	340	90	322	9	
				PW 110 / PW 110E	340	110	383	10	
				PW 140 / PW 140E	340	140	491	10	
				PMW 90 / PMW 90E	420	90	334	10	
				PMW 110 / PMW 110E	420	110	425	10	
				PMW 125	420	125	443	11	
				PMW 140 / PMW 140E	420	140	576	11	
				PMW 205	420	205	657	11	
				wet	PO4	303	125	368	11
	with a fan	heating	dry	TE - electric	303	125	1500	12	
				T 50	161	50	461	12	
				T 60	243	65	887	12	
				T 80	243	80	916	13	
				KT 0	109	125	417	13	
				KT 1	164	125	545	13	
				KT 3	243	125	1062	13	
				KT 3-105	243	105	1024	13	
				KT	303	125	1200	14	
				KT 110	303	110	1139	14	
				MT	303	125	1395	14	
				wet	TO 85	243	85	1094	14
				MO	303	125	1395	14	
heating (H) and cooling (C)		dry				H	C		
			HCA	200	110	1062	256	15	
			HCM	340	147	2401	726	15	
			HCM 4pipe	340	147	1210	612	16	
			HCM air	356	149	2401	726	16	
			HCM 4pipe air	356	149	1210	612	16	
			HCX	340	195	3626	816	16	
	HCX 4pipe		340	195	2884	652	17		
	HC 4pipe		303	132	1004	305	17		
wet	HC	243	125	1285	383	17			
grilles							18-19		

# CONTENTS

Type	Fan	Function	Environment	Convector			Page			
				Convector name	Width [mm]	Height [mm]		Output [W/m]		
 <p>FREE-STANDING</p> 	without a fan	heating	dry or wet	SUF1	115	248	516	21		
				SUF2	115	418	655	21		
				SPF0	150	148	373	21		
				SPF1	150	248	665	21		
				SPF2	150	418	1047	22		
				SMF1	195	248	1031	22		
				SWF1	220	248	1248	22		
				SWF2	220	418	1539	22		
				SWF3	220	588	1776	22		
	with a fan	heating	dry	SKF1	150	248	2095	23		
				SKF2	150	418	2223	23		
				SKF PTG	150	318	1289	23		
 <p>WALL-MOUNTED</p> 	without a fan	heating	dry or wet	NUF1	115	178	516	24		
				NUF2	115	348	655	24		
				NPF1	150	178	665	24		
				NPF2	150	348	1047	25		
				NMF1	195	178	1031	25		
				NWF1	220	178	1248	25		
				NWF2	220	348	1539	25		
				NWF3	220	518	1776	25		
				with a fan	heating (H) and cooling (C)	dry	NKF1	150	178	2095
	NKF2	150	348				2223	26		
	NKF PTG	150	256				1289	26		
							H	C		
	NCA	156	469				3613	740	27	
	NCA 4P	156	469				1526	606	27	
	 <p>SPECIAL</p> 	without a fan	heating	dry	PS - design	72	480	606	29	
GS - design					78	480	591	29		
SD - design					180	270	1690	29		
ND - design					115	500	1366	30		
with a fan		heating and cooling			ST	330	190	1084	30	
					KP	272	135	1098	30	
					KZ	91	328	1358	31	
					SK	300	115	see page 31	31	
					CHC	592	215	see page 31	31	
 <p>CHILLED BEAM</p>	without a fan	heating and cooling	dry	IJ-2P	592	186	see page 32	32		
				IJ-4P	592	186	see page 32	32		
 <p>Accessories</p>							33			
 <p>Physical properties</p>							35			



heating



cooling



fan



dry environment



wet environment

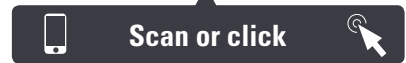
# TRENCH HEATERS WITHOUT A FAN



## CHARACTERISTICS

- body made from high quality stainless steel
- high natural convection output
- short response time

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



TRENCH HEATERS

FREE-STANDING CONNECTORS

WALL-MOUNTED CONNECTORS

SPECIAL CONNECTORS

CHILLED BEAM

ACCESSORIES / PHYS. PROPERTIES

## P



### DIMENSIONS

width	243 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	255	297	403	509	615	721	933	1145

## P 80



### DIMENSIONS

width	243 mm
height	80 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	190	221	300	379	458	537	695	853

## PT



### DIMENSIONS

width	303 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	296	346	469	592	716	839	1086	1333

*i* Grilles you can find on page 19.

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.

## ▶ PT 4



### DIMENSIONS

width	303 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	336	392	532	672	812	952	1232	1512

## ▶ PT 80



### DIMENSIONS

width	303 mm
height	80 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	195	227	308	389	470	551	713	875

## ▶ PT 105



### DIMENSIONS

width	303 mm
height	105 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	252	294	399	504	609	714	924	1134

## ▶ PT 180



### DIMENSIONS

width	303 mm
height	180 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	336	391	531	671	811	951	1230	1510

*i* Grilles you can find on page 19.

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.

# TRENCH HEATERS WITHOUT A FAN WITH UNIVERSAL CONSTRUCTION SOLUTION

TRENCH HEATERS

FREE-STANDING CONVECTORS

WALL-MOUNTED CONVECTORS

SPECIAL CONVECTORS

CHILLED BEAM

ACCESSORIES / PHYS. PROPERTIES



heating

## CHARACTERISTICS - STANDARD

- body made from high quality stainless steel
- high natural convection efficiency
- short response time



dry environment

## CHARACTERISTICS - ECONOMIC LINE / E

- The ECONOMY LINE convectors are made of galvanised steel sheet with internal black coating
- high natural convection efficiency
- short response time
- universal right-left design (supplied as a RIGHT VERSION, but can be converted to the left version by the customer)
- the new design enables joining the convectors



without a fan

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



## PB 90 / PB 90E



### DIMENSIONS

width	180 mm
height	90 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	166	194	263	332	401	470	609	747

## PB 110 / PB 110E



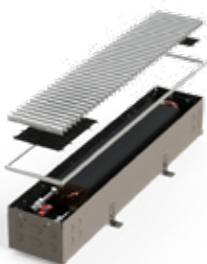
### DIMENSIONS

width	180 mm
height	110 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	167	195	265	335	404	474	614	753

## PB 140 / PB 140E



### DIMENSIONS

width	180 mm
height	140 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	282	329	447	565	682	800	1035	1271

*i* Grilles you can find on page 19.

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.



## PM 90 / PM 90E



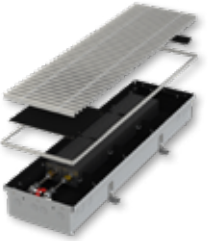
### DIMENSIONS

width	260 mm
height	90 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	207	242	328	415	501	588	761	934

## PM 110 / PM 110E



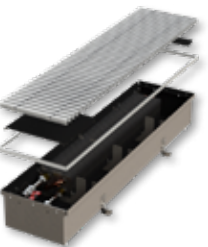
### DIMENSIONS

width	260 mm
height	110 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	245	286	388	490	592	695	899	1103

## PM 140 / PM 140E



### DIMENSIONS

width	260 mm
height	140 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	353	412	559	706	853	1000	1294	1588

## PW 90 / PW 90E



### DIMENSIONS

width	340 mm
height	90 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	276	322	437	552	667	782	1012	1242

Grilles you can find on page 19.

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.

## PW 110 / PW 110E



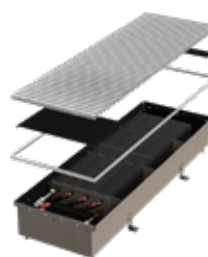
### DIMENSIONS

width	340 mm
height	110 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	328	383	519	656	792	929	1202	1475

## PW 140 / PW 140E



### DIMENSIONS

width	340 mm
height	140 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	421	491	667	842	1017	1193	1544	1895

## PMW 90 / PMW 90E



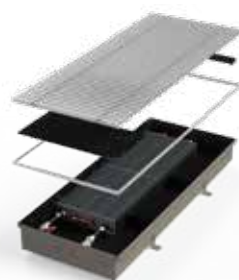
### DIMENSIONS

width	420 mm
height	90 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	286	334	453	572	691	811	1049	1288

## PMW 110 / PMW 110E




### DIMENSIONS

width	420 mm
height	110 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	365	425	577	729	881	1033	1337	1641

 Grilles you can find on page 19.

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

## PMW 125



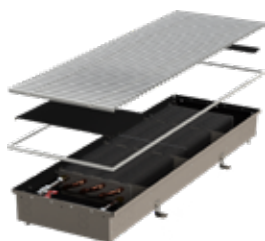
### DIMENSIONS

width	420 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	380	443	601	760	918	1076	1393	1709

## PMW 140 / PMW 140E



### DIMENSIONS

width	420 mm
height	140 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	494	576	782	988	1194	1400	1812	2224

## PMW 205

### DIMENSIONS

width	420 mm
height	205 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

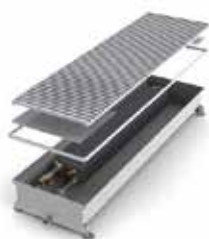
length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	563	657	892	1126	1361	1596	2065	2534

## TRENCH HEATER WITHOUT A FAN FOR WET ENVIRONMENT

## PO 4



wet environment



### DIMENSIONS

width	303 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	315	368	499	630	761	893	1155	1418

*i* Grilles you can find on page 19.

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.

# TRENCH HEATERS WITH A FAN

TRENCH HEATERS

FREE-STANDING CONNECTORS

WALL-MOUNTED CONNECTORS

SPECIAL CONNECTORS

CHILLED BEAM

ACCESSORIES / PHYS. PROPERTIES



## CHARACTERISTICS

- body made from high quality stainless steel
- high forced convection output
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage (HCX 24 V DC)
- contains own microprocessor-controlled unit
- also suitable for heat pump
- electronically commutated (EC) motor

## INDIVIDUAL CALCULATION

of technical data you can find on our website.



## TE



### DIRECT-ELECTRICITY 230 V CONNECTOR WITH A FAN

- suitable for interior applications with no hot water supply
- suitable for wooden interiors and wooden constructions

#### DIMENSIONS

width	303 mm
height	125 mm
length	500 - 2500 mm

#### HEATING OUTPUT

length L [mm]	500	1000	1500	2000	2500
HEATING OUTPUT [W]	750	1500	2250	3000	3750

230 V

## T 50



- suitable for interior applications where the lowest possible installation height is required
- **EXTRUDED BODY OF HIGH STRENGTH ALLOY OF ALUMINIUM**

#### DIMENSIONS

width	161 mm
height	50 mm
length	900 - 3000 mm
connection	G3/8"

#### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	396	461	626	791	956	1121	1450	1780

## T 60



#### DIMENSIONS

width	243 mm
height	65 mm
length	900 - 3000 mm
connection	G1/2"

#### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	761	887	1204	1521	1838	2155	2789	3423

*i* Grilles you can find on page 19.

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

## T 80



### DIMENSIONS

width	243 mm
height	80 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	786	916	1244	1571	1898	2226	2880	3535

## KT 0



### DIMENSIONS

width	109 mm
height	125 mm
length	900 - 3000 mm
connection	G3/8"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	357	417	566	715	864	1012	1310	1608

## KT 1



### DIMENSIONS

width	164 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	468	545	740	935	1130	1325	1714	2104

## KT 3



### DIMENSIONS

width	243 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	911	1062	1442	1821	2201	2580	3339	4098

## KT 3-105



### DIMENSIONS

width	243 mm
height	105 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	878	1024	1390	1756	2121	2487	3218	3950

*i* Grilles you can find on page 19.

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.

## KT



### DIMENSIONS

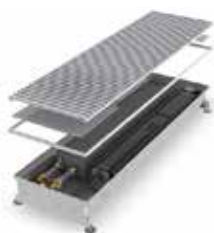
width	303 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1029	1200	1629	2058	2486	2915	3772	4629

## KT 110



### DIMENSIONS

width	303 mm
height	110 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	976	1139	1545	1952	2359	2765	3579	4392

## MT



### DIMENSIONS

width	303 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1196	1395	1893	2392	2890	3388	4385	5381

## TRENCH HEATERS WITH A FAN FOR WET ENVIRONMENT

## TO 85



wet environment

### DIMENSIONS

width	243 mm
height	85 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	938	1094	1485	1876	2267	2658	3439	4221

## MO



wet environment

### DIMENSIONS

width	303 mm
height	125 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING OUTPUT

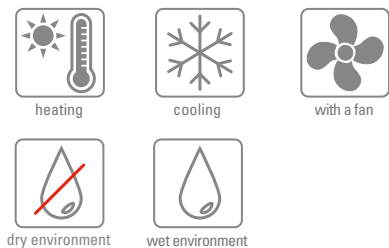
*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1196	1395	1893	2392	2890	3388	4385	5381

*i* Grilles you can find on page 19.

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.

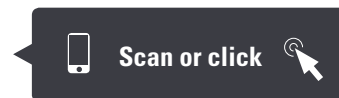
# TRENCH HEATERS WITH COOLING OPTION



## CHARACTERISTICS

- body made from high quality stainless steel
- high forced convection output
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage (HCX 24 V DC)
- contains own microprocessor-controlled unit
- also suitable for heat pump
- electronically commutated (EC) motor
- designed also for cooling

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



## HCA



### DIMENSIONS

width	200 mm
height	110 mm
length	900 - 3000 mm
connection	G3/8"

### HEATING AND COOLING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	911	1062	1442	1821	2200	2580	3339	4097
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	220	256	348	439	531	622	806	989

## HCM



### DIMENSIONS

width	340 mm
height	147 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING AND COOLING OUTPUT

**i** Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	2058	2401	3259	4116	4974	5831	7546	9261
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	622	726	986	1245	1504	1764	2282	2801

**i** Grilles you can find on page 19.

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.

## HCM 4-pipe



- **double-circuit connection** - the heating and cooling **circuit can be used separately**

### DIMENSIONS

width	340 mm
height	147 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING AND COOLING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1037	1210	1642	2074	2506	2939	3803	4667
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	524	612	830	1049	1267	1486	1923	2360

## HCM air



WITH A CONNECTION TO HVAC

### DIMENSIONS

width	356 mm
height	149 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING AND COOLING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	2058	2401	3259	4116	4974	5831	7546	9261
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	622	726	986	1245	1504	1764	2282	2801

## HCM 4-pipe air WITH A CONNECTION TO HVAC

- **double-circuit connection** - the heating and cooling **circuit can be used separately**

### DIMENSIONS

width	356 mm
height	149 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING AND COOLING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1037	1210	1642	2074	1506	2939	3803	4667
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	524	612	830	1049	1267	1486	1923	2360

## HCX



- voltage 24 V DC

### DIMENSIONS

width	340 mm
height	195 mm
length	900 - 3000 mm
connection	G1/2"

### HEATING AND COOLING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	3108	3626	4921	6216	7511	8806	11396	13986
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	699	816	1107	1398	1690	1981	2563	3146

*i* Grilles you can find on page 19.

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.



# HCX 4-pipe

- **double-circuit connection** - the heating and cooling **circuit can be used separately**



## DIMENSIONS

width	340 mm
height	195 mm
length	900 - 3000 mm
connection	G1/2"

## HEATING AND COOLING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	2472	2884	3914	4944	5974	7004	9064	11124
cooling output with mean temp. 7 / 12 / 27 ° C [W]-speed 2 (sensitive)	559	652	884	1117	1350	1583	2048	2514

# HC 4-pipe

- **double-circuit connection** - the heating and cooling **circuit can be used separately**



## DIMENSIONS

width	303 mm
height	132 mm
length	900 - 3000 mm
connection	G3/8"

## HEATING AND COOLING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	861	1004	1362	1721	2080	2438	3155	3872
cooling output with mean temp. 7 / 12 / 27 ° C [W]-speed 2 (sensitive)	261	305	414	523	632	741	958	1176

# TRENCH HEATERS WITH COOLING OPTION FOR WET ENVIRONMENT

# HC



wet environment

- designed for **dry** (EC motor) and also for **wet** (AC motor) environment

## DIMENSIONS

width	243 mm
height	125 mm
length	900 - 3000 mm
connection	G3/8"

## HEATING AND COOLING OUTPUT

*i* Higher outputs!

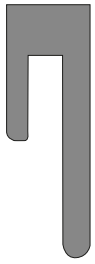
length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1101	1285	1743	2202	2661	3120	4037	4955
cooling output with mean temp. 7 / 12 / 27 ° C [W]-speed 2 (sensitive)	328	383	519	656	792	929	1202	1476

*i* Grilles you can find on page 19.

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.

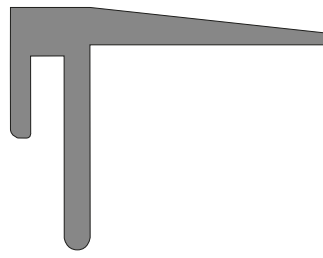
# FRAMES

## Standard frame (aluminium - AL)



example with wooden grille

## Covering frame (aluminium - AL)



example with AL grille

(the shades on the photos are only illustrative)

# GRILLES - materials

### wood



oak



maple



beech

### aluminium



dark bronze



light bronze



silver

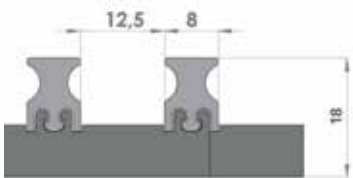


stainless steel

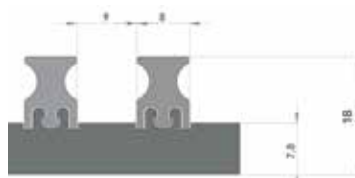
(the shades on the photos are only illustrative)

# GRILLES - profiles

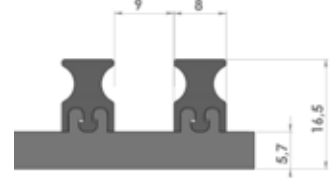
### AL - SEGMENTED - SPARSE - HIGH



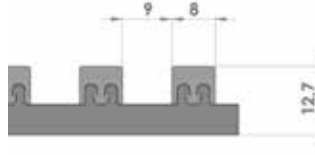
### AL - SEGMENTED - DENSE - HIGH



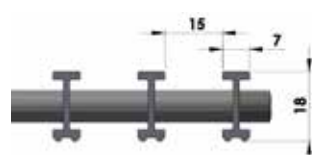
### AL - SEGMENTED - DENSE - T60



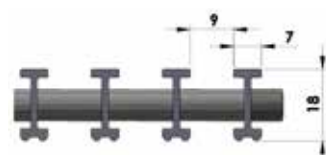
### AL - SEGMENTED - DENSE - LOW



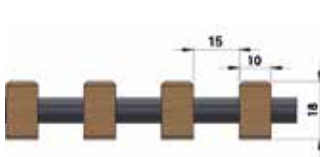
### AL - ROLLING - SPARSE



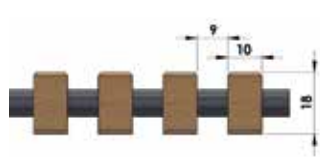
### AL - ROLLING - DENSE



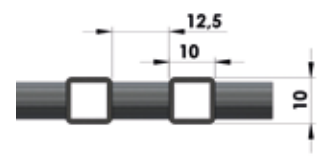
### WOOD - ROLLING - SPARSE



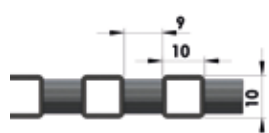
### WOOD - ROLLING - DENSE



### ST.STEEL - ROLLING - SPARSE\*



### ST.STEEL - ROLLING - DENSE\*



\* the grille must be ordered with the convector due to the modification of the convector construction

In case of wet environments please let us know when you order.

Standard grilles are transverse, if you are interested in **LONGITUDINAL GRILLES**, please contact your sales representative.

# GRILLES

	AL ROLLING DENSE	AL ROLLING SPARSE	AL SEGMENTED DENSE-LOW	AL SEGMENTED DENSE-T60	AL SEGMENTED DENSE-HIGH	AL SEGMENTED SPARSE-HIGH	WOOD ROLLING DENSE	WOOD ROLLING SPARSE	ST.STEEL ROLLING DENSE1)	ST.STEEL ROLLING SPARSE1)
Height [mm]	18	18	12,7	16,5	18	18	18	18	10	10
Distance between lamellas [mm]	9	15	9	9	9	12,5	9	15	9	12,5
TRENCH HEATERS WITHOUT A FAN										
P		✓				✓		✓		✓
P80		✓				✓		✓		✓
PT		✓				✓		✓		✓
PT4		✓				✓		✓		✓
PT80		✓				✓		✓		✓
PT105		✓				✓		✓		✓
PT180		✓				✓		✓		✓
P04		✓				✓				✓
PB 90 / PB 90 E		✓				✓		✓		✓
PB 110 / PB 110 E		✓				✓		✓		✓
PB 140 / PB 140 E		✓				✓		✓		✓
PM 90 / PM 90 E		✓				✓		✓		✓
PM 110 / PM 110 E		✓				✓		✓		✓
PM 140 / PM 140 E		✓				✓		✓		✓
PW 90 / PW 90 E		✓						✓		✓
PW 110 / PW 110 E		✓						✓		✓
PW 140 / PW 140 E		✓						✓		✓
PMW 90 / PMW 90 E		✓						✓		✓
PMW 110 / PMW 110 E		✓						✓		✓
PMW125		✓						✓		✓
PMW 140 / PMW 140 E		✓						✓		✓
PMW205		✓						✓		✓
TRENCH HEATERS WITH A FAN										
TE		✓				✓				✓
T50			✓							
T60				✓						
T80	✓				✓		✓		✓	
KT0			✓						✓	✓
KT1		✓				✓		✓		✓
KT3	✓				✓		✓		✓	
KT3 105	✓				✓		✓		✓	
KT		✓				✓		✓		✓
KT110		✓				✓		✓		✓
MT		✓				✓		✓		✓
T085	✓				✓				✓	
M0		✓				✓				✓
HCA		✓				✓		✓		✓
HCM		✓						✓		✓
HCM4pipe		✓						✓		✓
HCM AIR		✓						✓		✓
HCM 4pipe AIR		✓						✓		✓
HCX		✓						✓		✓
HCX4P		✓						✓		✓
HC4p		✓				✓		✓		✓
HC WET	✓				✓				✓	
HC DRY	✓				✓		✓		✓	

1) The grille must be ordered at the same time as the convector because the convector requires modification to ensure the correct fitment

TRENCH HEATERS



FREE-STANDING CONNECTORS



WALL-MOUNTED CONNECTORS



SPECIAL CONNECTORS



CHILLED BEAM



ACCESSORIES / PHYS. PROPERTIES



# FREE-STANDING CONVECTORS WITHOUT A FAN



heating



without a fan



dry environment



wet environment

## CHARACTERISTICS

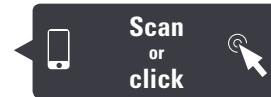
- extruded body of high strength alloy of aluminium
- high heating output of natural convection
- short response time
- possibility of different colour variations
- can also be supplied for a wet environment

## COLOUR OPTIONS

painted body / anodised grille

- silver RAL 9006 / silver
- light bronze RAL 7034 / light bronze
- dark bronze RAL 7013 / dark bronze
- white RAL 9016 / silver
- RAL - after consultation

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



## ▶ SUF 1



### DIMENSIONS

width	115 mm
height	248 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	447	516	688	860	1032	1205

## ▶ SUF 2



### DIMENSIONS

width	115 mm
height	418 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	568	655	874	1092	1311	1529

## ▶ SPF 0



### DIMENSIONS

width	150 mm
height	148 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	324	373	495	616	738	860

## ▶ SPF 1



### DIMENSIONS

width	150 mm
height	248 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	583	665	872	1079	1285	1492



The decorative grille must not be exposed to weight load or covered

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.

▶ **SPF 2****DIMENSIONS**

width	150 mm
height	418 mm
length	900 - 2000 mm
connection	G1/2"

**HEATING OUTPUT**

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	920	1047	1364	1682	1999	2316

▶ **SMF 1****DIMENSIONS**

width	195 mm
height	248 mm
length	900 - 2000 mm
connection	G1/2"

**HEATING OUTPUT**

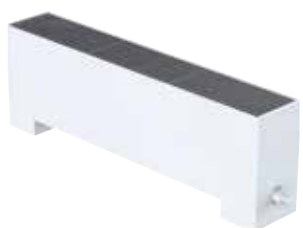
length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	904	1031	1349	1668	1986	2304

▶ **SWF 1****DIMENSIONS**

width	220 mm
height	248 mm
length	900 - 2000 mm
connection	G1/2"

**HEATING OUTPUT**

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	1101	1248	1615	1982	2349	2716

▶ **SWF 2****DIMENSIONS**

width	220 mm
height	418 mm
length	900 - 2000 mm
connection	G1/2"

**HEATING OUTPUT**

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	1358	1539	1991	2444	2896	3349

▶ **SWF 3****DIMENSIONS**

width	220 mm
height	588 mm
length	900 - 2000 mm
connection	G1/2"

**HEATING OUTPUT**

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	1567	1776	2298	2821	3343	3865



The decorative grille must not be exposed to weight load or covered

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.

# FREE-STANDING CONVECTORS WITH A FAN



## CHARACTERISTICS

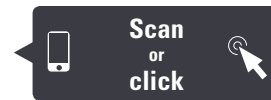
- extruded body of high strength alloy of aluminium
- electronically commutated (EC) motor
- high forced convection output
- heating unit with short response time
- rapid room heating heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage
- contains own microprocessor-controlled unit
- also suitable for heat pump

## COLOUR OPTIONS

Painted body / anodised grille

- silver RAL 9006 / silver
- light bronze RAL 7034 / light bronze
- dark bronze RAL 7013 / dark bronze
- white RAL 9016 / silver
- RAL - after consultation

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



## ▶ SKF 1



### DIMENSIONS

width	150 mm
height	248 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1800	2095	2833	3570	4308	5046

## ▶ SKF 2



### DIMENSIONS

width	150 mm
height	418 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1912	2223	3000	3778	4555	5332

## ▶ SKF PTG



### DIMENSIONS

width	150 mm
height	318 mm
length	1000 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1289	1730	2172	2613	3054



The decorative grille must not be exposed to weight load or covered

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.

# WALL MOUNTED CONVECTORS WITHOUT A FAN

TRENCH HEATERS

FREE-STANDING CONVECTORS

WALL-MOUNTED CONVECTORS

SPECIAL CONVECTORS

CHILLED BEAM

ACCESSORIES / PHYS. PROPERTIES



heating



without a fan



dry environment



wet environment

## CHARACTERISTICS

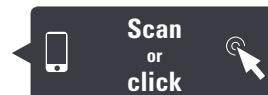
- extruded body of high strength alloy of aluminium
- high heating output of natural convection
- short response time
- possibility of different colour variations
- can also be supplied for a wet environment

## COLOUR OPTIONS

Painted body / anodised grille

- silver RAL 9006 / silver
- light bronze RAL 7034 / light bronze
- dark bronze RAL 7013 / dark bronze
- white RAL 9016 / silver
- RAL - after consultation

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



## ▶ NUF 1



### DIMENSIONS

width	115 mm
height	178 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	447	516	688	860	1032	1205

## ▶ NUF 2



### DIMENSIONS

width	115 mm
height	348 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	568	655	874	1092	1311	1529

## ▶ NPF 1



### DIMENSIONS

width	150 mm
height	178 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	583	665	872	1079	1285	1492



The decorative grille must not be exposed to weight load or covered

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.



## ▶ NPF 2



### DIMENSIONS

width	150 mm
height	348 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	920	1047	1364	1682	1999	2316

## ▶ NMF 1



### DIMENSIONS

width	195 mm
height	178 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	904	1031	1349	1668	1986	2304

## ▶ NWF 1



### DIMENSIONS

width	220 mm
height	178 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	1101	1248	1615	1982	2349	2716

## ▶ NWF 2



### DIMENSIONS

width	220 mm
height	348 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	1358	1539	1991	2444	2896	3349

## ▶ NWF 3



### DIMENSIONS

width	220 mm
height	518 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	1567	1776	2298	2821	3343	3865



The decorative grille must not be exposed to weight load or covered

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

# WALL MOUNTED CONVECTORS WITH A FAN

TRENCH HEATERS

FREE-STANDING CONVECTORS

WALL-MOUNTED CONVECTORS

SPECIAL CONVECTORS

CHILLED BEAM

ACCESSORIES / PHYS. PROPERTIES



heating



with a fan



dry environment

## CHARACTERISTICS

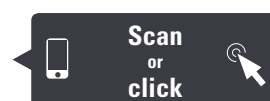
- extruded body of high strength alloy of aluminium
- electronically commutated (EC) motor
- high forced convection output
- heating unit with short response time
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage
- contains own microprocessor-controlled unit
- also suitable for heat pump

## COLOUR OPTIONS

painted body / anodised grille

- silver RAL 9006 / silver
- light bronze RAL 7034 / light bronze
- dark bronze RAL 7013 / dark bronze
- white RAL 9016 / silver
- RAL - after consultation

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



## ▶ NKF 1



### DIMENSIONS

width	150 mm
height	178 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1800	2095	2833	3570	4308	5046

## ▶ NKF 2



### DIMENSIONS

width	150 mm
height	348 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1912	2223	3000	3778	4555	5332

## ▶ NKF PTG



### DIMENSIONS

width	150 mm
height	256 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING OUTPUT

length L [mm]	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1289	1730	2172	2613	3054

### WITH A THERMOELECTRIC GENERATOR

- **WITHOUT THE NEED OF A POWER SUPPLY**
- suitable for interior applications where no power supply is available  
or with the requirement for the most efficient solution in terms of power consumption



The decorative grille must not be exposed to weight load or covered

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.

# WALL MOUNTED CONVECTORS WITH COOLING OPTION



heating



with a fan



dry environment



cooling

## CHARACTERISTICS

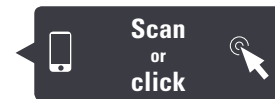
- extruded body of high strength alloy of aluminium
- electronically commutated (EC) motor
- high forced convection output
- heating unit with short response time
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage
- contains own microprocessor-controlled unit
- also suitable for heat pump

## COLOUR OPTIONS

painted body / anodised grille

- silver RAL 9006 / silver
- light bronze RAL 7034 / light bronze
- dark bronze RAL 7013 / dark bronze
- white RAL 9016 / silver
- RAL - after consultation

**INDIVIDUAL CALCULATION**  
of technical data  
you can find on our website.



## ▶ NCA



### DIMENSIONS

width	156 mm
height	469 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING AND COOLING OUTPUT

*i* Higher outputs!

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	3137	3613	4801	5990	7178	8366
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	642	740	983	1227	1470	1713

## ▶ NCA 4pipe



### DIMENSIONS

width	156 mm
height	469 mm
length	900 - 2000 mm
connection	G1/2"

### HEATING AND COOLING OUTPUT

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]-speed 2	1325	1526	2028	2530	3033	3535
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	526	606	806	1005	1204	1404



The decorative grille must not be exposed to weight load or covered

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.

TRENCH HEATERS



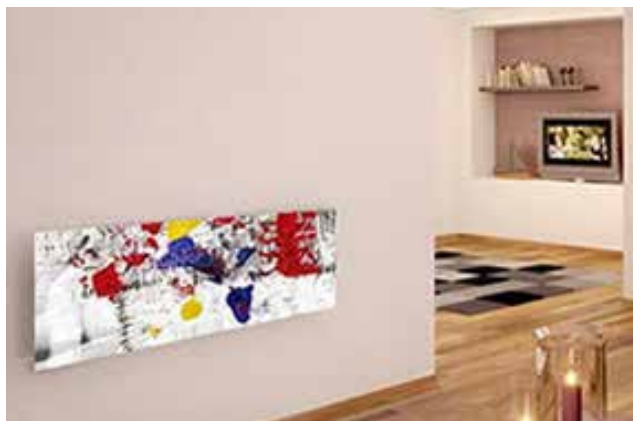
FREE-STANDING CONVECTORS



WALL-MOUNTED CONVECTORS



SPECIAL CONVECTORS



CHILLED BEAM



ACCESSORIES / PHYS. PROPERTIES



# SPECIAL CONVECTORS

ON THE BASIS OF CUSTOMER'S INDIVIDUAL WISHES WE ARE ABLE TO MANUFACTURE MISCELLANEOUS ATYPICAL PRODUCTS TO SATISFY ANY SPECIFIC NEEDS

**WHATEVER SHAPE YOU ARE LOOKING FOR...  
...WE CAN PROVIDE A SOLUTION!**

delivery time as agreed with the sales representative

## EXAMPLES OF SPECIAL REQUEST CONVECTORS

### DESIGN CONVECTORS



heating



without a fan



dry environment

#### ▶ PS

face panel of your own design



#### CHARACTERISTICS

- combining the benefits of convection and radiation
- high natural convection output
- short response time
- increased user comfort
- intended for installation on the external wall of a room
- we can offer a face panel of **GRANITE**

#### WITH A COMPOSITE FACE PANEL

width	72 mm
height	280 - 480 mm
length	1000 - 2000 mm
connection	G1/2"

height 480 mm / length L [mm]	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W]	606	823	1039	1255	1472

#### ▶ GS

face panel of your own design



#### WITH A GLASS FACE PANEL

width	78 mm
height	280 - 480 mm
length	1000 - 1250 mm
connection	G1/2"

height 480 mm / length L [mm]	1000	1250
heating output with heat gradient 75 / 65 / 20°C [W]	591	802

#### ▶ SD

custom designs are available



#### DESIGNED FREE-STANDING CONVECTOR



heating



with a fan



dry environment

width	180 mm
height	270 mm
length	1000 - 2000 mm
connection	G1/2"

- the front panel is made of brushed stainless steel or painted in high gloss, placed in a solid wood frame
- electronically commutated (EC) motor
- high forced convection output
- heating unit with short response time
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage
- contains own microprocessor controlled unit
- also suitable for heat pump

length L [mm]	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W] - speed 2	1690	2294	2898	3501	4105

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.

# ND

custom designs are available



## DESIGNED WALL-MOUNTED CONVECTOR



heating



with a fan



dry environment

### CHARACTERISTICS

- the front panel is made of brushed stainless steel or painted in high gloss, placed in a solid wood frame
- **electronically commutated (EC) motor**
- high forced convection output
- heating unit with short response time
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage
- contains own microprocessor-controlled unit
- also suitable for heat pump

### DIMENSIONS

width	115 mm
height	500 mm
length	1000 - 2000 mm
connection	G1/2"

delivery time as agreed  
with the sales representative

length L [mm]	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W] - speed 2	1366	1824	2283	2741	3200

# ST



## STEP CONVECTOR WITH ROBUST STEEL CONSTRUCTION



heating



with a fan



dry environment

### CHARACTERISTICS

- convector with easy installation and possibility to place it under the window the benefits of high output due to optimum natural airflow
- robust steel construction

### DIMENSIONS

width	330 mm
height	190 mm
length	900 - 3000 mm
connection	G1/2"

delivery time as agreed  
with the sales representative

length L [mm]	900	1000	1250	1500	1750	2000	2500	3000
heating output with heat gradient 75 / 65 / 20°C [W]	949	1084	1423	1762	2101	2440	3117	3795

# KP



## WINDOWSILL CONVECTOR WITH A FAN



heating



with a fan



dry environment

### CHARACTERISTICS

- high forced convection output
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage
- suitable for use in windowsills according to the given dimensions

### DIMENSIONS

width	272 mm
height	135 mm
length	900 - 1500 mm
connection	G1/2"

delivery time as agreed  
with the sales representative

length L [mm]	900	1000	1250	1500
heating output with heat gradient 75 / 65 / 20°C [W] - speed 2	941	1098	1490	1882

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.

# KZ



delivery time as agreed with the sales representative

## BUILT-IN CONVECTOR FOR INSTALLATION IN WALLS WITH FACE PANEL



heating



with a fan



dry environment

### CHARACTERISTICS

- high forced convection output
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage

### DIMENSIONS

width	91 mm
height	328 mm
length	900 - 2000 mm
connection	G1/2"

length L [mm]	900	1000	1250	1500	1750	2000
heating output with heat gradient 75 / 65 / 20°C [W] - speed 2	1164	1358	1843	2328	2813	3298

# SK



delivery time as agreed with the sales representative

## PLINTH CONVECTOR WITH A FAN



heating



with a fan



dry environment

### CHARACTERISTICS

- high forced convection output
- rapid room heating
- heating also when the fan is off
- low electricity consumption
- safe 12V DC voltage
- inlet/outlet are at the front of unit
- for multi-purpose use in **kitchen counters, steps, wainscoting in bathrooms, hall closets** and other similar areas

### DIMENSIONS

width	300 mm
height	115 mm
length	503 mm
connection	G1/2"

length L [mm]	503
heating output with heat gradient 75 / 65 / 20°C [W] - speed 2	371

# CHC



delivery time as agreed with the sales representative

## SPECIAL CEILING CONVECTOR WITH A FAN FOR HEATING AND COOLING



heating



cooling



with a fan



dry environment

### CHARACTERISTICS

- high forced convection output
- rapid room heating
- low electricity consumption
- safe 12V DC voltage
- designed also for cooling

### DIMENSIONS

width	592 mm
height	215 mm
length	600 - 2400 mm
connection	G1/2"

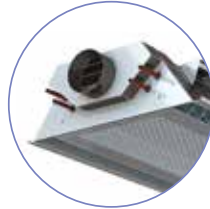
length L [mm]	600	1200	1800	2400
heating output with heat gradient 75 / 65 / 20°C [W] - speed 2	2580	5894	9209	12523
cooling output with mean temp. 7 / 12 / 27 °C [W]-speed 2 (sensitive)	455	1039	1623	2207

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.

# CHILLED BEAM

## IJ-2pipe / IJ-4pipe

### CHILLED BEAM 2-PIPE / 4-PIPE



#### CHARACTERISTICS

- Specially developed for high cooling and heating outputs
- Very high level of comfort
- Does not contain fan, silent operation
- Ideal for installation in a ceiling
- Optimisation of air flow by adjustable slats
- Great variability of the air connection
- Minimum maintenance requirements
- Low operating cost
- Minimum maintenance requirements
- Allows for non-standard design according to the customer's request

Download the catalogue of the chilled beam



heating



cooling



with a fan

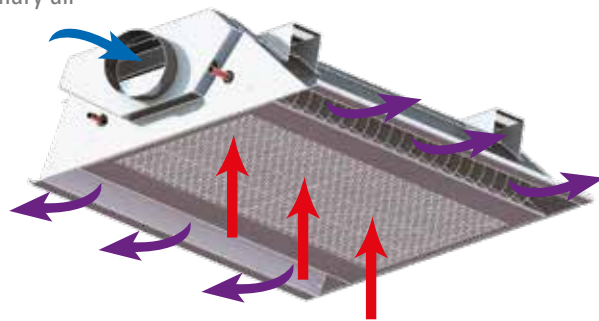


dry environment

#### DIMENSIONS

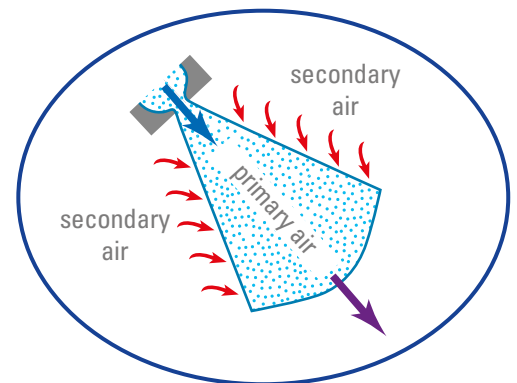
width	592 mm
height	186 mm
length	600 - 3000 mm

primary air



secondary air

Close-up view of the nozzle position



delivery time as agreed with the sales representative

Unit	Nozzle	V <sub>pri</sub> [m <sup>3</sup> /h]	Δp [Pa]	Cooling output			Heating output		
				Q <sub>ctot</sub>	Q <sub>pri</sub> [W]	Q <sub>c</sub> [W]	Q <sub>htot</sub>	Q <sub>pri</sub> [W]	Q <sub>h</sub> [W]
IJ-2pipe	2F	91	200	2002	369	1633	4620	369	4251
	3F	191	200	4120	773	3348	11673	773	10901
	4B	218	200	3773	880	2893	8659	880	7779
	4I	296	200	4456	1196	3260	9683	1196	8487
	5A	378	200	4699	1526	3173	11438	1526	9912
IJ-4pipe	2F	91	200	1692	369	1323	4218	369	3849
	3F	191	200	3485	773	2713	10613	773	9840
	4B	218	200	3238	880	2358	7750	880	6870
	4I	296	200	3823	1196	2627	8899	1196	7703
	5A	378	200	4119	1526	2593	9998	1526	8473

Q<sub>ctot</sub> / Q<sub>htot</sub> - Total output

Q<sub>pri</sub> - Output on the primary air side (cooling or heating)

Q<sub>c</sub> - Cooling output on the water side (cooling output of the secondary air)

Q<sub>h</sub> - Heating output on the water side (heating output of the secondary air)

L (length) = 3000 mm

V<sub>pri</sub> - Volume flow of the primary air

Δp - Air pressure drop

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.



# ▶ ACCESSORIES

## SCREW FITTING

Angular



1/2"



3/8"

Straight



1/2"



3/8"

## THERMOSTATIC VALVES

Angular



1/2"



3/8"

Straight



1/2"



3/8"



M-RO-02 1/2"

## BALL VALVES



1/2"



3/8"

## GASKETS



Klingsil C4400 1/2" and 3/8"

## HOSES



Flexi hose WS110 65 mm 1/2"



Flexi hose WS110 41 mm 1/2"



Flexi hose WS110 65 mm 3/8"



Flexi hose WS110 41 mm 3/8"

## THERMOSTATIC HEADS



IVAR T3000

## ELECTROTHERMIC HEAD



IVAR 12 V 2 W NO

## TRANSFORMERS

for wet environment



TT240 E2  
165x305x75 mm



TT300 E2  
165x305x75 mm

for dry environment



TT100 (100 BA)  
145x170x75 mm



TT240 (240 BA)  
165x210x75 mm



TT300 (300 BA)  
165x210x75 mm

## THERMOSTATS



Potentiometr MINIB EB-A



Thermostat ABB EB-A



Thermostat TH0482



Thermostat CH110



Thermostat CH150



Thermostat EBERLE 524

## CONVERTER



230V or 24V/12V ADA-EB

## REINFORCEMENT



Reinforcement for convectors for installation in hollow floor

## ANTI-VIBRATION SHEET



Anti-vibration sheet, thickness 2 mm

# PHYSICAL PROPERTIES

## ACOUSTIC PRESSURE

When selecting the speed of the fan, it is necessary to take into account the requirements of the spaces as the available space, the type of floor construction, the number, type, length and location of the convectors. For spaces with minimum noise requirements, we recommend to project the minimum speed when the sound pressure is almost negligible when the convector is installed correctly compared to the normal interior noise background. In case of installing convectors in hollow floors, we recommend to add the anti-vibration foil to the convector to minimise noise disturbance. The installation procedure must be strictly observed during installation. For more information about the installation, please refer to the installation instructions. Noise values for convectors - news, which are not included in the graphs, can be supplied on request.

The equivalent sound pressure level was measured at a height of 1m and at a distance of 2m from the noise source. The noise source was placed on the reflective surface during measurement.

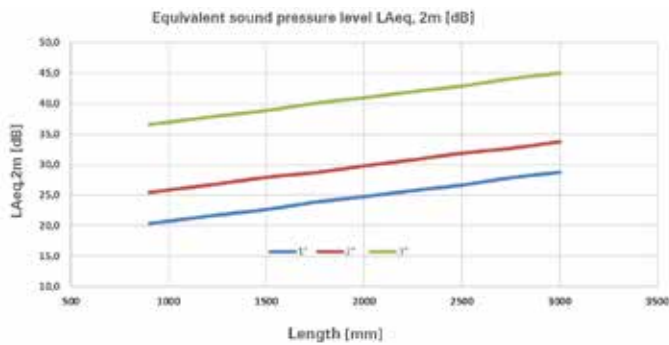
### Determination of acoustic pressure

Type	Convector	Group
Trench heaters	T 50	F
	T 60	G
	T 80	A
	KT	B
	MT	B
	KT 110	B
	KT 0	C
	KT 1	D
	KT 3	E
	KT3 105	E
TO 85	A	

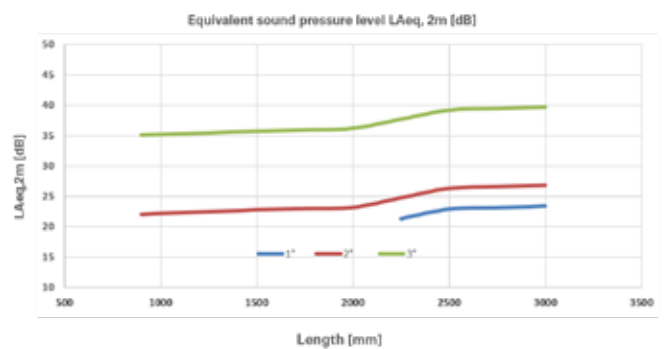
Type	Convector	Group
Trench heaters	MO	B
	HCA	H
	HCM	I
	HCM 4-pipe	I
	HCM AIR	I
	HCM 4-pipe AIR	I
	HCX	O
	HCX 4-pipe	O
	HC 4-pipe	B
	HC	E
TE	M	

Type	Convector	Group
Free-standing	SKF 1	J
	SKF 2	J
	SKF PTG	N
Wall-mounted	NKF 1	J
	NKF 2	J
	NKF PTG	N
	NCA	J
Special	NCA 4-pipe	J
	SD	L
	ND	K
	KP	E
	KZ	K
SK	E	

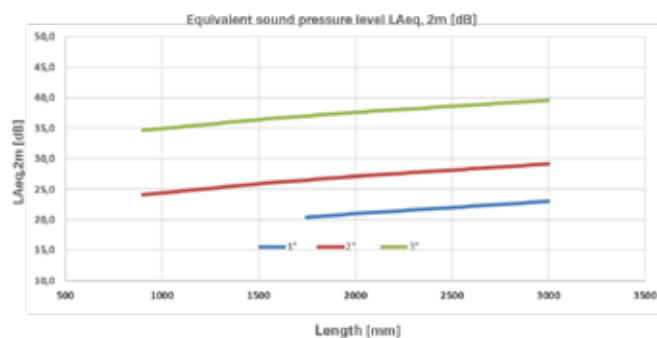
**A**



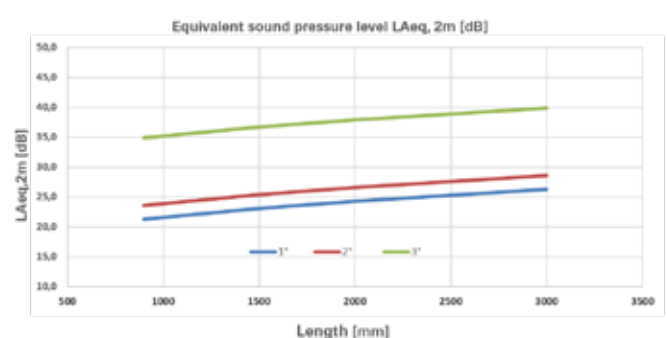
**B**



**C**



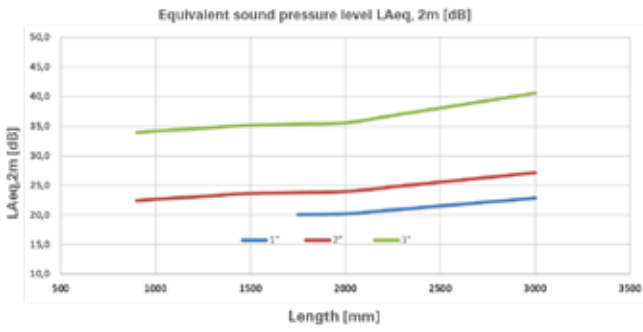
**D**



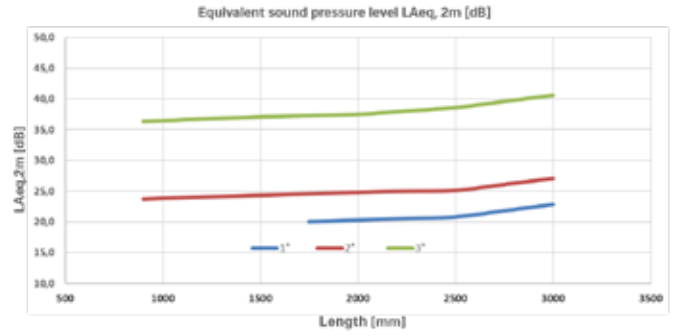
The technical parameters are set according to the relevant standards. In fact, they may vary depending on the location of the convector, the cover grille, the connection type.

# ACOUSTIC PRESSURE

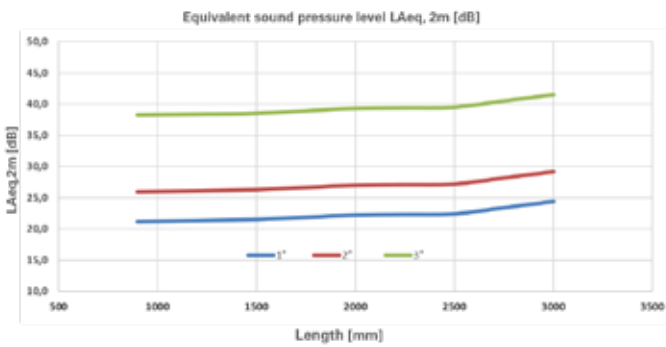
**E**



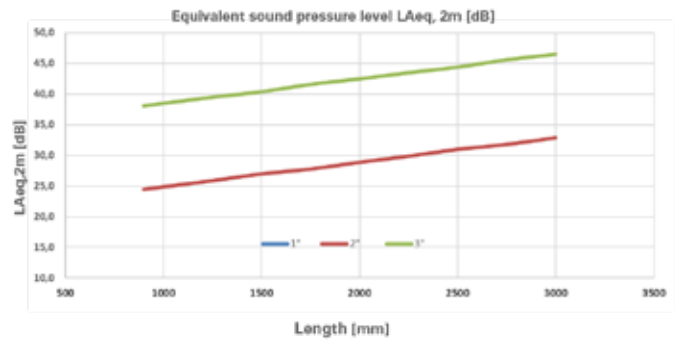
**F**



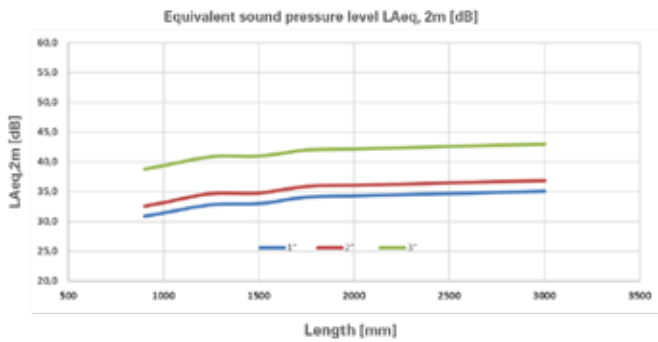
**G**



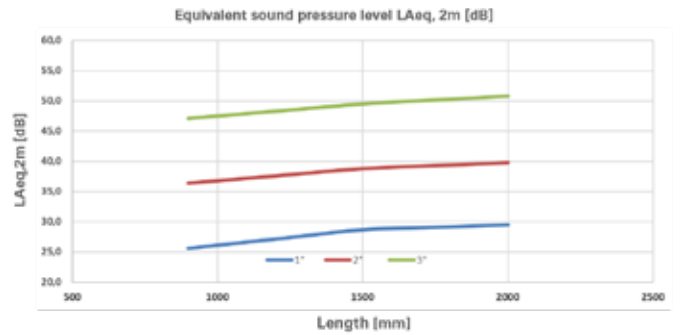
**H**



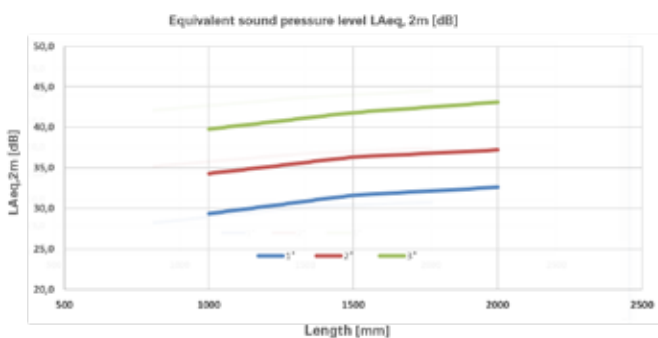
**I**



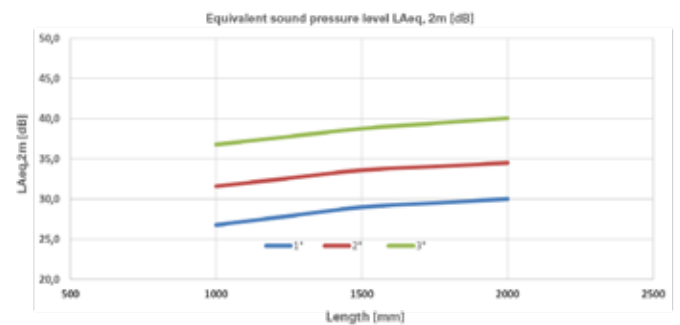
**J**



**K**

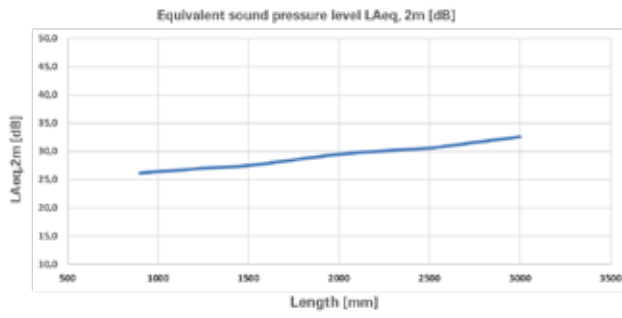


**L**

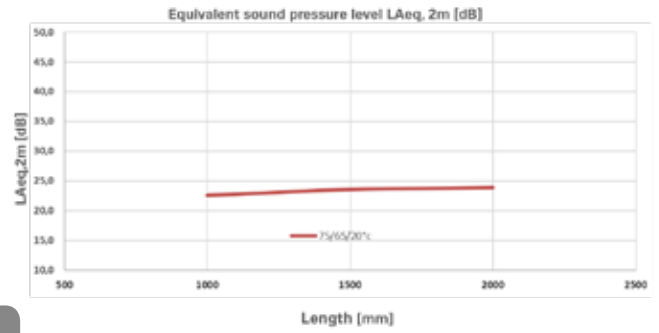


The technical parameters are set according to the relevant standards. In fact, they may vary depending on the location of the convector, the cover grille, the connection type.

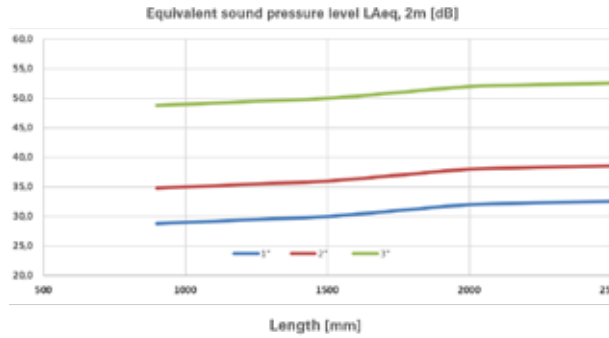
M



N



O



## PRESSURE LOSSES OF HEAT EXCHANGERS

### Determination of pressure loss

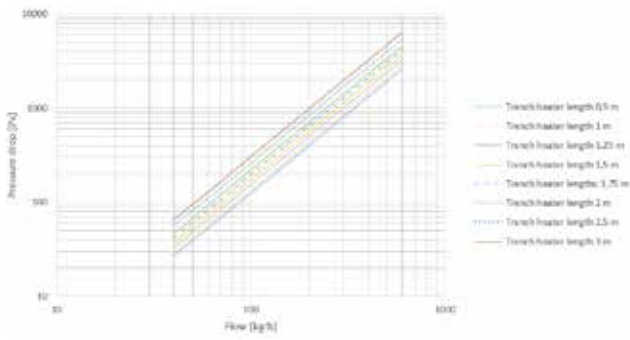
Type	Convactor	Number of pipes	Connection	Ø Cu pipe [mm]
Trench heaters	P	2	G1/2	15
	P 80	2	G1/2	15
	PT	2	G1/2	15
	PT 4	4	G1/2	15
	PT 80	2	G1/2	15
	PT 105	2	G1/2	15
	PT 180	4	G1/2	15
	PB 90 / PB 90E	2	G1/2	15
	PB 110 / PB 110E	2	G1/2	15
	PB 140 / PB 140E	4	G1/2	15
	PM 90 / PM 90E	2	G1/2	15
	PM 110 / PM 110E	2	G1/2	15
	PM 140 / PM 140E	4	G1/2	15
	PW 90 / PW 90E	4	G1/2	15
	PW 110 / PW 110E	4	G1/2	15
	PW 140 / PW 140E	8	G1/2	15
	PMW 90 / PMW 90E	4	G1/2	15
	PMW 110 / PMW 110E	4	G1/2	15
	PMW 125	4	G1/2	15
	PMW 140 / PMW 140E	8	G1/2	15
	PMW 205	6	G1/2	15
	PO4	4	G1/2	15
	T 50	2	G3/8	12
	T 60	2	G1/2	15
	T 80	2	G1/2	15
	KT	2	G1/2	15
	MT	4	G1/2	15
	KT 110	2	G1/2	15
	KT 0	2	G3/8	12
	KT 1	2	G1/2	15
	KT 3	2	G1/2	15
	KT 3-105	2	G1/2	15
TO 85	2	G1/2	15	
MO	4	G1/2	15	
HCA	4	G3/8	12	
HCM	8 - group HCM	G1/2	12	
HCM 4-pipe - heating	2 - group HCM	G1/2	12	
HCM 4-pipe - cooling	6 - group HCM	G1/2	12	
HCM air	8 - group HCM	G1/2	12	
HCM 4-pipe air - heating	2 - group HCM	G1/2	12	
HCM 4-pipe air - cooling	6 - group HCM	G1/2	12	

Type	Convactor	Number of pipes	Connection	Ø Cu pipe [mm]
Trench heaters	HCX	16	G1/2	12
	HCX 4-pipe - heating	4	G1/2	12
	HCX 4-pipe - cooling	12	G1/2	12
	HC 4-pipe - heating	2	G3/8	12
	HC 4-pipe - cooling	4	G3/8	12
	HC	4	G3/8	12
Free-standing	SUF 1	4	G1/2	15
	SUF 2	4	G1/2	15
	SMF 1	8	G1/2	15
	SPF 0	2	G1/2	15
	SPF 1	4	G1/2	15
	SPF 2	8	G1/2	15
	SWF 1	6	G1/2	15
	SWF 2	6	G1/2	15
	SWF 3	6	G1/2	15
	SKF 1	4	G1/2	15
	SKF 2	4	G1/2	15
	SKF PTG	4	G1/2	15
	Wall-mounted	NUF 1	4	G1/2
NUF 2		4	G1/2	15
NMF 1		8	G1/2	15
NPF 1		4	G1/2	15
NPF 2		8	G1/2	15
NWF 1		6	G1/2	15
NWF 2		6	G1/2	15
NWF 3		6	G1/2	15
NKF 1		4	G1/2	15
NKF 2		4	G1/2	15
NKF PTG		4	G1/2	15
NCA		8	G1/2	15
NCA 4-pipe - heating	2	G1/2	15	
NCA 4-pipe - cooling	6	G1/2	15	
Special	PS	4	G1/2	15
	GS	4	G1/2	15
	ST	8	G1/2	15
	SD	4	G1/2	15
	ND	4	G1/2	15
	KP	4	G1/2	15
	KZ	4	G1/2	15
	SK	2	G1/2	15
CHC	8	G1/2	15	

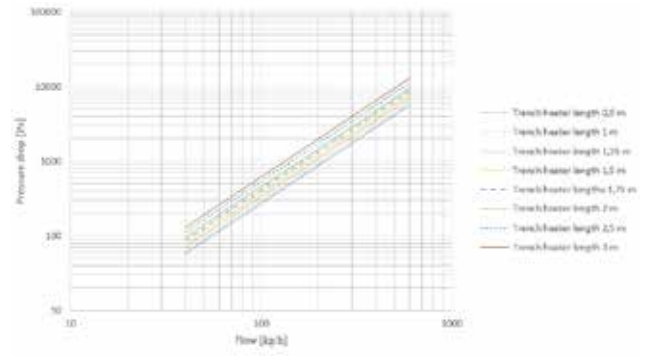
The technical parameters are set according to the relevant standards. In fact, they may vary depending on the location of the convactor, the cover grille, the connection type.

# Pressure loses of heat exchangers - Cu ø 15 mm pipe

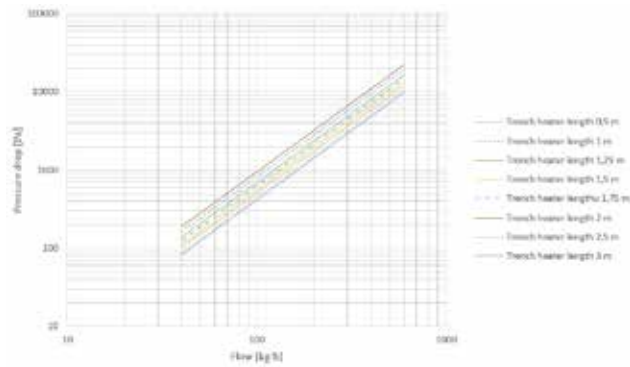
## 2- pipe exchanger



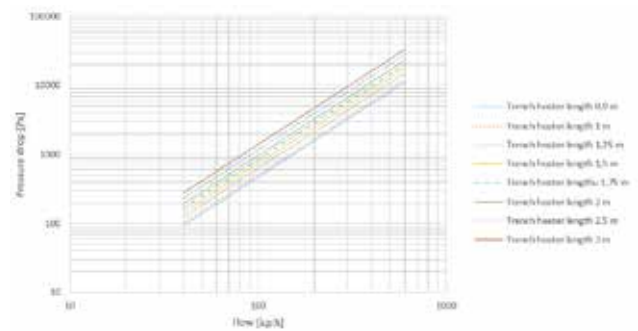
## 4- pipe exchanger



## 6- pipe exchanger

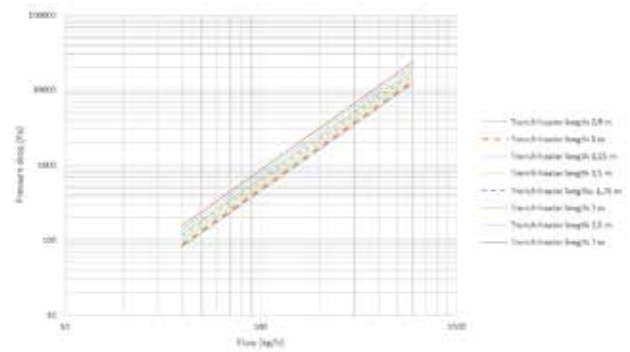


## 8- pipe exchanger

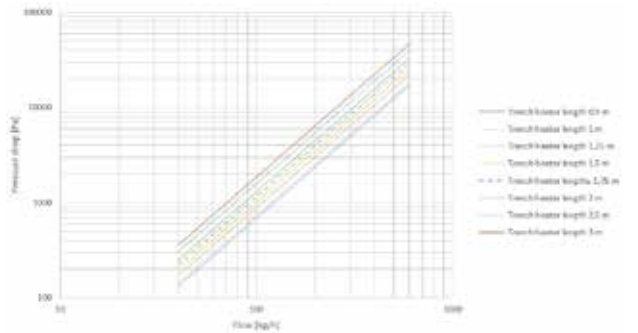


# Pressure loses of heat exchangers - Cu ø 12 mm pipe

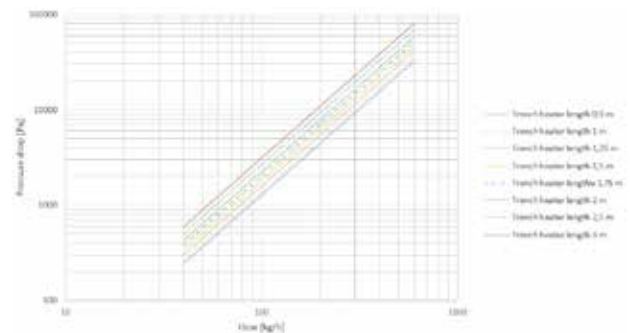
## 2- pipe exchanger



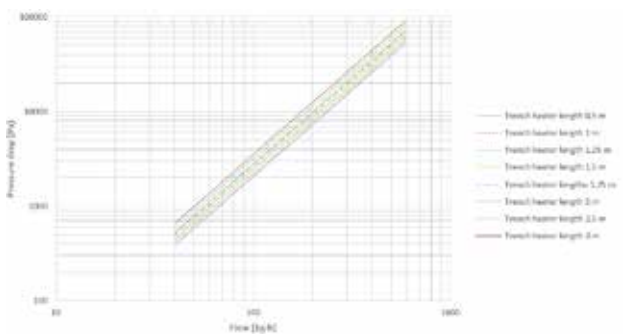
## 4- pipe exchanger



## 6- pipe exchanger



## 8- pipe exchanger

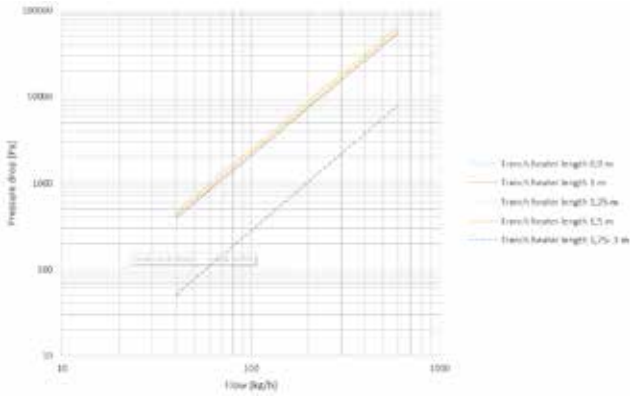


The technical parameters are set according to the relevant standards. In fact, they may vary depending on the location of the convector, the cover grille, the connection type.

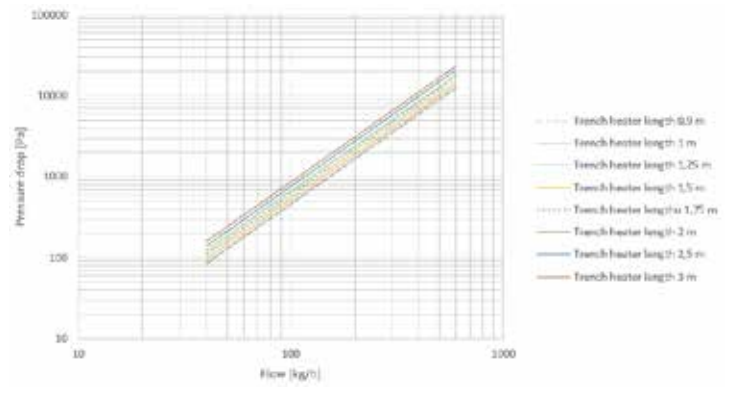
TRENCH HEATERS  
FREE-STANDING CONNECTORS  
WALL-MOUNTED CONNECTORS  
SPECIAL CONNECTORS  
CHILLED BEAM  
ACCESSORIES / PHYS. PROPERTIES

# Pressure losses of heat exchangers - group HCM - Cu ø 12 mm pipe

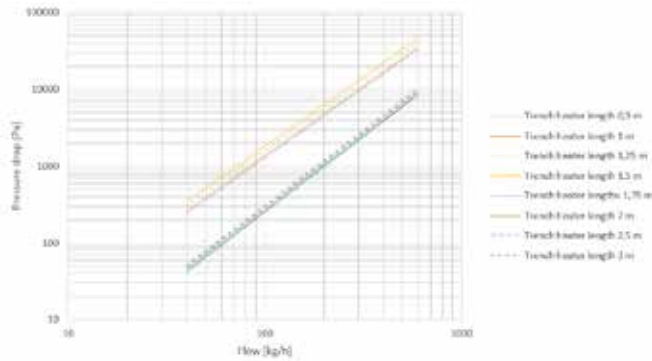
8- pipe exchanger



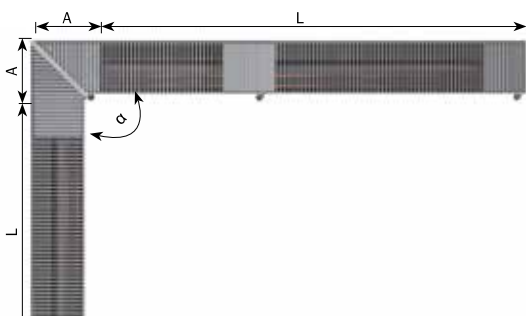
2- pipe exchanger - heating



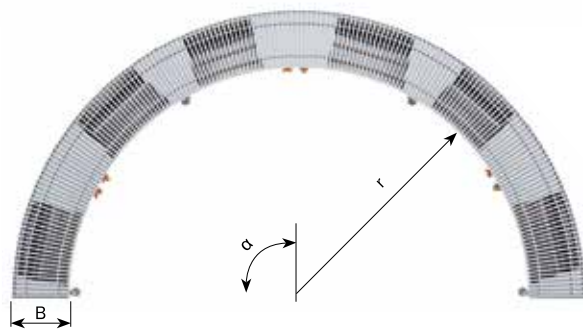
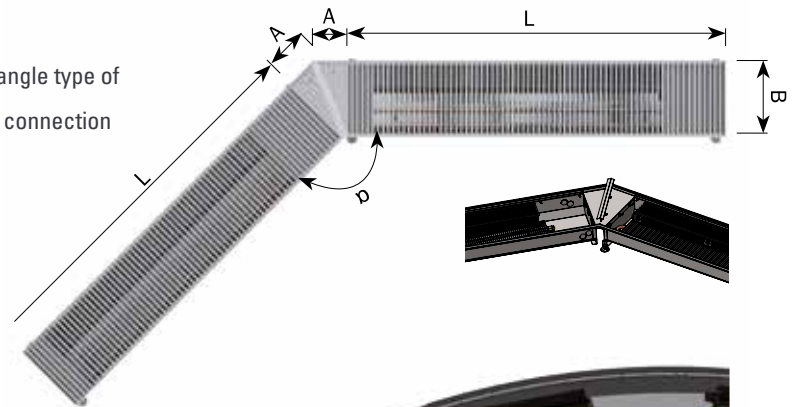
6- pipe exchanger - cooling



## POSSIBLE ANGLES AND ARCS OF CONVECTORS



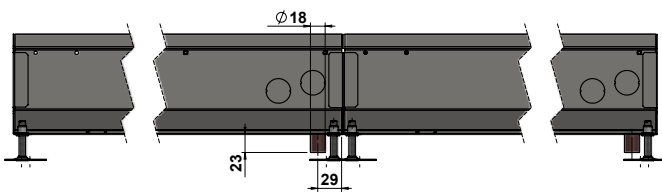
angle type of connection



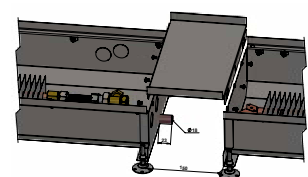
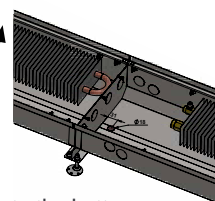
arc type of connection



## LOCATION OF OPENINGS FOR OUTFLOW FOR CONDENSATE



connection with outflow into the bottom



connection with bridge and outflow

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.

# MINIB®



●●● more than just heat

# Smith's

A Swan Group Company



MINIB, a.s.



## Smith's

A Swan Group Company

For product information, customer services or sales support contact us on **01245 324900**  
[sales@smithsep.co.uk](mailto:sales@smithsep.co.uk)

Smith's Environmental Products Ltd  
Blackall Industrial Estate,  
South Woodham Ferrers,  
Chelmsford, Essex CM3 5UW  
[www.SmithsEP.co.uk](http://www.SmithsEP.co.uk)

For the Republic of Ireland, contact  
MT Agencies on 01 864 3363