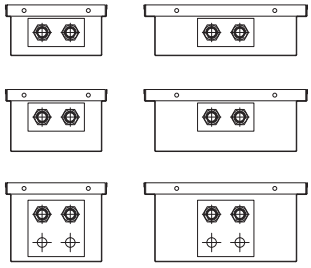
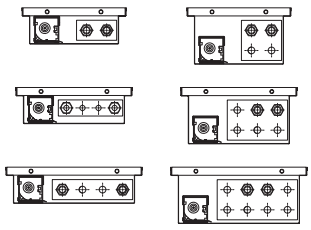
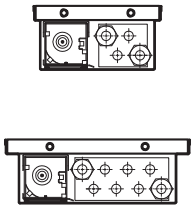
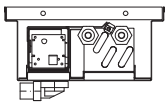
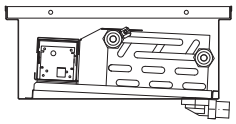
TECHNICAL **CATALOGUE**
TRENCH CONVECTORS AQUILO
PURMO 08/2015

°CLEVER
LOW TEMPERATURE RADIATORS

PURMO
clever heating solutions

trench convectors

Type review

		types
	**Aquilo FMK (no fan)** **2 connections** height [mm]: 90, 110, 140 width [mm]: 180, 260, 290, 340, 420 overall length [mm]: 1000, 1100, 1200, 1300, 1400, 1500, 1700, 1900, 2100, 2300, 2500, 2700, 2900, 3100, 3300, 3500	
	**Aquilo F1T (fan version)** **2 connections** height [mm]: 90, 140 width [mm]: 260, 290, 340 overall length [mm]: 1000, 1100, 1200, 1300, 1400, 1500, 1700, 1900, 2100, 2300, 2500, 2700, 2900, 3100, 3300, 3500	
	**Aquilo F1P (reinforced fan version)** **2 connections** height [mm]: 90 width [mm]: 180, 260 overall length [mm]: 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000	
	**Aquilo F2C (heating or cooling)** **2 connections** height [mm]: 110 width [mm]: 240 overall length [mm]: 600, 1000, 1400, 1800	
	**Aquilo F4C (heating and cooling)** **2 connections - heating system** **2 connections - cooling system** height [mm]: 140 width [mm]: 340 overall length [mm]: 1250, 2000, 2750	

AQUILO FMK (NO FAN)

Trench convectors Aquilo FMK are especially designed for the in-floor mounting. The heating element is a copper-aluminum heat exchanger, painted black, mounted inside a double-side galvanized steel duct, also painted black from the inside. From the top the convector is protected with a crosswise or lengthwise masking grille made of any material available in the Manufacturer's offer, to be ordered separately. The exchanger's connection to the heating system is executed with two stub pipes with a G ½" internal thread.

technical specification

• Width :	180, 260, 290, 340, 420 mm
• Length :	from 1000 up to 3500 mm
• Height :	90, 110, 140 mm
• Exchanger structure :	aluminum finned copper pipes
• Duct structure :	as standard double-side galvanized steel sheet, black RAL 9005 dry powder-coated from the inside option: stainless steel
• Grille material :	wood (oak, beech) duralumin in colours of choice: natural, light brown, dark brown or black stainless steel
• Connections :	2 x G ½" – internal thread
• Operating pressure :	10 bar
• Max. temperature :	110 °C
• Test pressure :	13 bar

• Exchanger accessories :

manual air vent, 2 exchanger side covers, a 10 cm long stainless steel flexible connectors kit with a G ½" thread

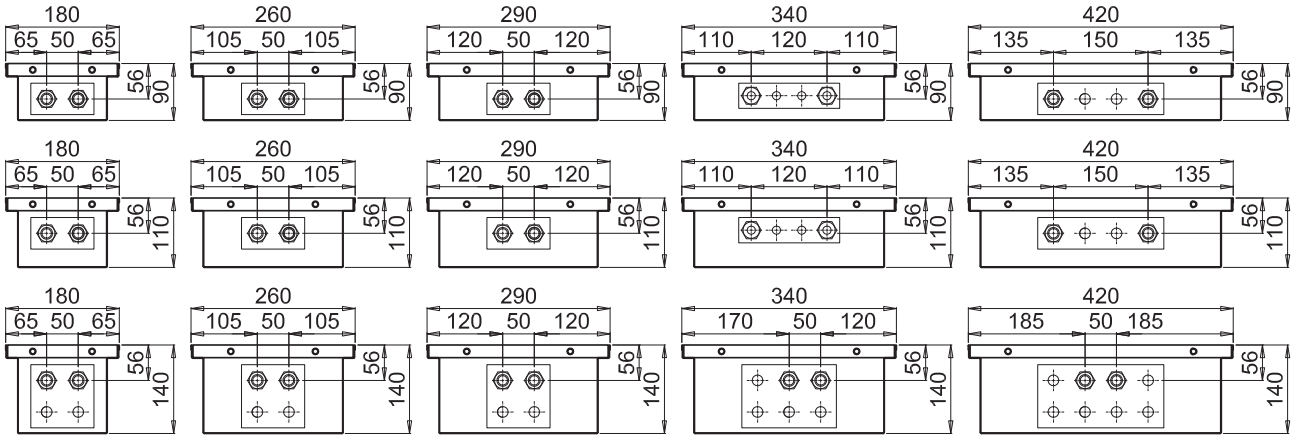
• Duct accessories :

leveling bolts M8x30 mm with internal hexagon (for the duct length up to 2.5 m – 4 pcs., over 2.5 m – 6 pcs.), 4 surface mounting elements with duct fixing screws, breakable pass for the hydronic heating system connection + 2 rubber passes for domestic electric circuit connection, steel metal sheet cover masking the exchanger connectors, protecting the exchanger and duct against damage or smudging during mounting, as well as protecting the duct against distortion during covering with concrete

AQUILO FMK

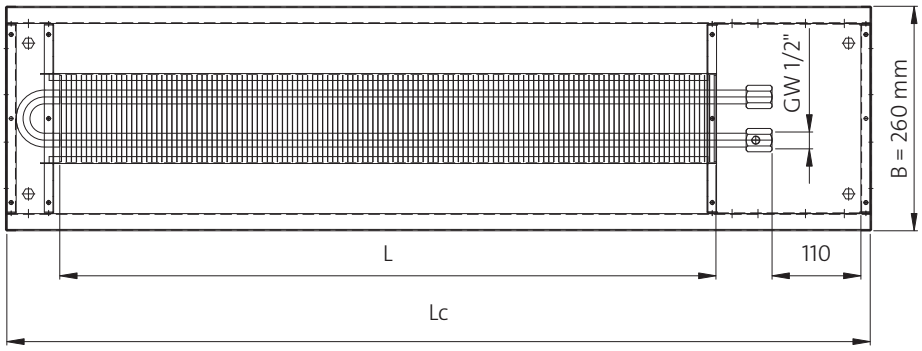
(no fan)

side views



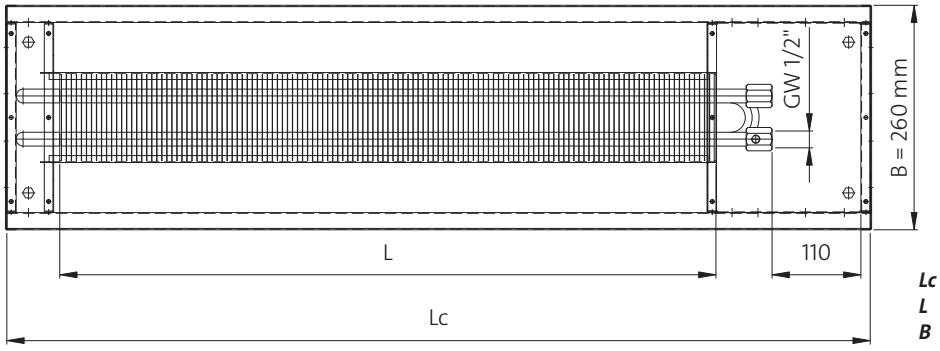
top view - examples

For the heights 90 and 110 mm



L = Lc – 240 mm

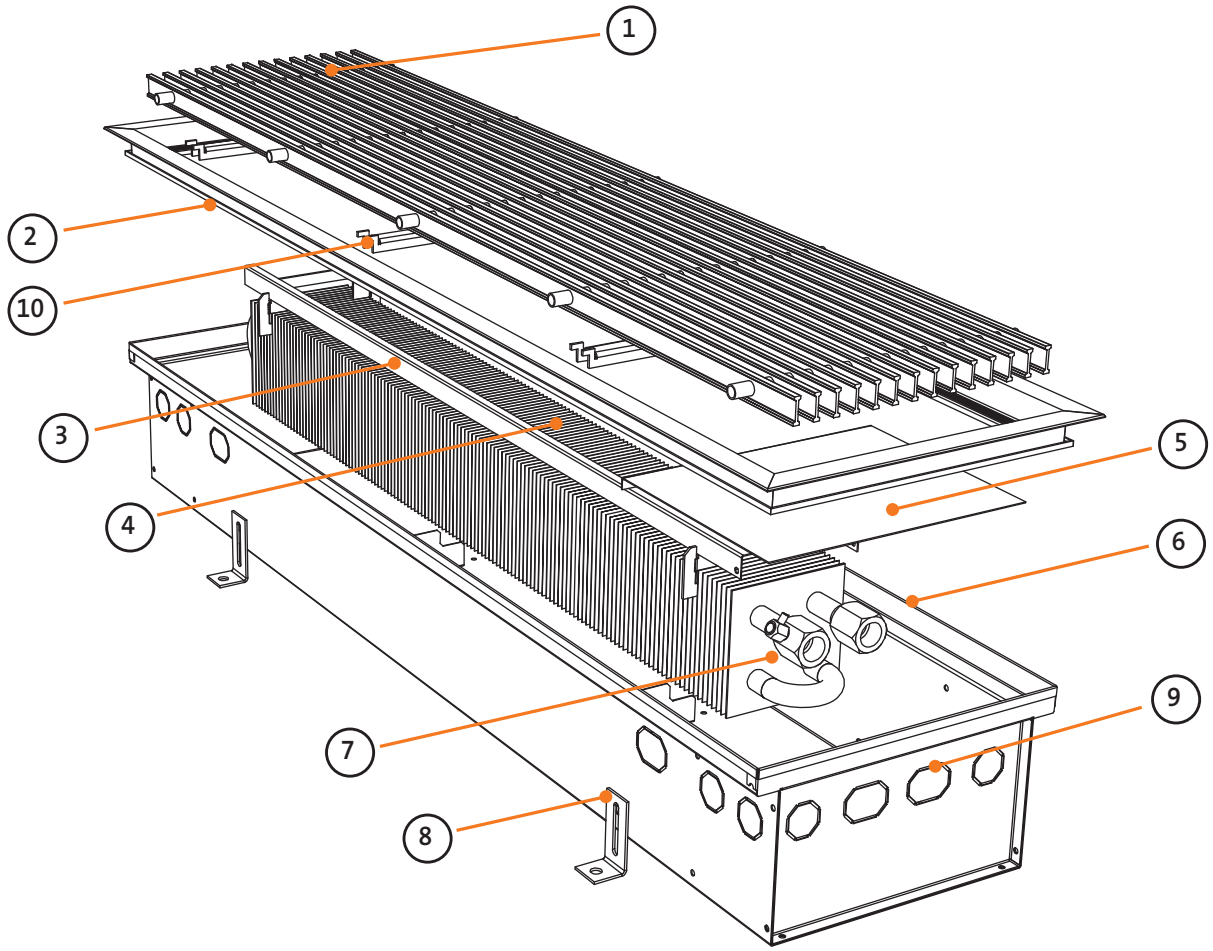
For the height 140 mm



L = Lc – 240 mm

Lc *- convector's overall length*
L *- exchanger's length*
B *- width*

AQUILO FMK
(no fan)



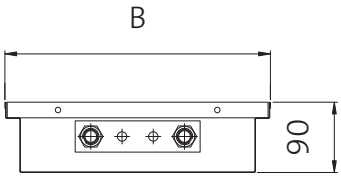
1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel), or lengthwise grille (duralumin, stainless steel).
Note: lengthwise grilles as shown in the picture require additional reinforced crossbars
2 - Option: L, Z or U-type finishing frame (only for PML, PMZ and PMU grilles). Not applicable for PMO grilles.
Note: Z-type frame is shown in the picture.
3 - Convection metal sheet (for the increased heat efficiency and the safety of use).
4 - Heat exchanger (copper pipes, aluminum fins, overall coated with black varnish).
5 - Metal sheet cover masking the connection to the domestic hydronic heating system.
6 - Convector's duct (double-side galvanized, varnished metal sheet).
7 - Air vent.
8 - Surface mounting elements.
9 - Passes for the hydronic heating system connection (breakable).
10 - Mounting reinforced crossbars (only for lengthwise grilles)

weight and water capacity

width - B	[mm]	180			260			290			340			420		
height	[mm]	90	110	140	90	110	140	90	110	140	90	110	140	90	110	140
weight	[kg/m]	5.9	6.1	7.8	6.4	6.7	8.4	6.9	7.1	8.8	8.0	8.3	10.8	9.9	10.2	14.1
water capacity	[l/m]	0.3	0.3	0.7	0.3	0.3	0.7	0.3	0.3	0.7	0.4	0.4	1.0	0.7	0.7	1.4

AQUILO FMK

(no fan) - height 90 mm



RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO FMK 26 150 09 01**

name
width [cm]
length [cm]
height [cm]
duct material

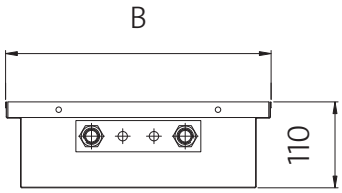
Lc overall length [mm]	parameters t_z / t_p / t_i [°C]	B - width [mm]				
		180	260	290	340	420
1000	**75/65/20**	**173**	**226**	**232**	**299**	**376**
	70/55/20	137	178	183	236	297
	55/45/20	84	110	113	145	183
1100	**75/65/20**	**196**	**256**	**263**	**338**	**426**
	70/55/20	155	202	207	267	336
	55/45/20	95	124	127	164	207
1200	**75/65/20**	**219**	**285**	**293**	**378**	**476**
	70/55/20	173	225	231	298	375
	55/45/20	106	138	142	183	231
1300	**75/65/20**	**242**	**315**	**324**	**417**	**525**
	70/55/20	191	248	255	329	414
	55/45/20	117	153	157	202	255
1400	**75/65/20**	**264**	**345**	**354**	**456**	**575**
	70/55/20	209	272	279	360	453
	55/45/20	128	167	172	221	279
1500	**75/65/20**	**287**	**374**	**385**	**496**	**624**
	70/55/20	227	295	303	391	492
	55/45/20	139	182	187	240	303
1700	**75/65/20**	**333**	**434**	**446**	**574**	**723**
	70/55/20	262	342	351	453	570
	55/45/20	161	210	216	279	351
1900	**75/65/20**	**378**	**493**	**507**	**653**	**822**
	70/55/20	298	389	400	515	648
	55/45/20	184	239	246	317	399
2100	**75/65/20**	**424**	**553**	**568**	**732**	**921**
	70/55/20	334	436	448	577	727
	55/45/20	206	268	275	355	447
2300	**75/65/20**	**470**	**612**	**629**	**810**	**1020**
	70/55/20	370	483	496	639	805
	55/45/20	228	297	305	393	495
2500	**75/65/20**	**515**	**672**	**690**	**889**	**1120**
	70/55/20	406	530	544	701	883
	55/45/20	250	326	335	431	543
2700	**75/65/20**	**561**	**731**	**751**	**968**	**1219**
	70/55/20	442	576	592	763	961
	55/45/20	272	355	364	469	591
2900	**75/65/20**	**606**	**790**	**812**	**1046**	**1318**
	70/55/20	478	623	640	825	1039
	55/45/20	294	383	394	508	639
3100	**75/65/20**	**652**	**850**	**873**	**1125**	**1417**
	70/55/20	514	670	688	887	1117
	55/45/20	316	412	423	546	687
3300	**75/65/20**	**698**	**909**	**934**	**1204**	**1516**
	70/55/20	550	717	737	949	1195
	55/45/20	338	441	453	584	735
3500	**75/65/20**	**743**	**969**	**995**	**1282**	**1615**
	70/55/20	586	764	785	1011	1273
	55/45/20	360	470	483	622	783

Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C.

All Aquilo convectors available on request.

AQUILO FMK

(no fan) - height 110 mm



RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO FMK 26 150 11 01**

name
width [cm]
length [cm]
height [cm]
duct material

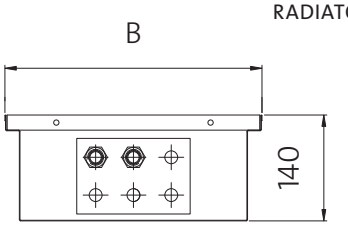
Lc overall length [mm]	parameters $t_z / t_p / t_i$ [°C]	B - width [mm]				
		180	260	290	340	420
1000	**75/65/20**	**199**	**266**	**296**	**353**	**432**
	70/55/20	157	210	233	278	341
	55/45/20	97	129	144	171	210
1100	**75/65/20**	**225**	**301**	**335**	**399**	**489**
	70/55/20	178	238	264	315	386
	55/45/20	109	146	162	194	237
1200	**75/65/20**	**251**	**336**	**374**	**446**	**546**
	70/55/20	198	265	295	352	431
	55/45/20	122	163	181	216	265
1300	**75/65/20**	**278**	**371**	**413**	**492**	**603**
	70/55/20	219	293	326	388	476
	55/45/20	135	180	200	239	293
1400	**75/65/20**	**304**	**406**	**452**	**539**	**660**
	70/55/20	240	320	356	425	521
	55/45/20	147	197	219	261	320
1500	**75/65/20**	**330**	**441**	**491**	**585**	**717**
	70/55/20	260	348	387	461	565
	55/45/20	160	214	238	284	348
1700	**75/65/20**	**382**	**512**	**569**	**678**	**831**
	70/55/20	301	403	448	535	655
	55/45/20	185	248	276	329	403
1900	**75/65/20**	**435**	**582**	**647**	**771**	**945**
	70/55/20	343	459	510	608	745
	55/45/20	211	282	314	374	458
2100	**75/65/20**	**487**	**652**	**724**	**864**	**1058**
	70/55/20	384	514	571	681	835
	55/45/20	236	316	351	419	513
2300	**75/65/20**	**539**	**722**	**802**	**957**	**1172**
	70/55/20	425	569	633	754	924
	55/45/20	262	350	389	464	569
2500	**75/65/20**	**592**	**792**	**880**	**1049**	**1286**
	70/55/20	467	624	694	828	1014
	55/45/20	287	384	427	509	624
2700	**75/65/20**	**644**	**862**	**958**	**1142**	**1400**
	70/55/20	508	680	756	901	1104
	55/45/20	312	418	465	554	679
2900	**75/65/20**	**697**	**932**	**1036**	**1235**	**1514**
	70/55/20	549	735	817	974	1194
	55/45/20	338	452	502	599	734
3100	**75/65/20**	**749**	**1002**	**1114**	**1328**	**1628**
	70/55/20	591	790	878	1047	1283
	55/45/20	363	486	540	644	789
3300	**75/65/20**	**801**	**1072**	**1192**	**1421**	**1741**
	70/55/20	632	845	940	1120	1373
	55/45/20	389	520	578	689	845
3500	**75/65/20**	**854**	**1142**	**1270**	**1514**	**1855**
	70/55/20	673	901	1001	1194	1463
	55/45/20	414	554	616	734	900

Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C.

All Aquilo convectors available on request.

AQUILO FMK

(no fan) - height 140 mm



RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO FMK 26 150 14 01**

name
width [cm]
length [cm]
height [cm]
duct material

Lc overall length [mm]	parameters t_z / t_p / t_i [°C]	B - width [mm]				
		180	260	290	340	420
1000	**75/65/20**	**219**	**328**	**361**	**457**	**537**
	70/55/20	173	259	285	360	423
	55/45/20	106	159	175	221	260
1100	**75/65/20**	**248**	**371**	**408**	**517**	**607**
	70/55/20	195	293	322	407	479
	55/45/20	120	180	198	251	295
1200	**75/65/20**	**277**	**414**	**456**	**577**	**678**
	70/55/20	218	327	360	455	535
	55/45/20	134	201	221	280	329
1300	**75/65/20**	**305**	**458**	**503**	**637**	**749**
	70/55/20	241	361	397	502	590
	55/45/20	148	222	244	309	363
1400	**75/65/20**	**334**	**501**	**551**	**697**	**819**
	70/55/20	264	395	434	550	646
	55/45/20	162	243	267	338	397
1500	**75/65/20**	**363**	**544**	**598**	**757**	**890**
	70/55/20	286	429	472	597	702
	55/45/20	176	264	290	367	432
1700	**75/65/20**	**421**	**630**	**693**	**877**	**1031**
	70/55/20	332	497	547	692	813
	55/45/20	204	306	336	425	500
1900	**75/65/20**	**478**	**717**	**788**	**997**	**1172**
	70/55/20	377	565	622	787	924
	55/45/20	232	348	382	484	569
2100	**75/65/20**	**536**	**803**	**883**	**1118**	**1313**
	70/55/20	423	633	697	881	1036
	55/45/20	260	389	428	542	637
2300	**75/65/20**	**594**	**889**	**978**	**1238**	**1455**
	70/55/20	468	701	771	976	1147
	55/45/20	288	431	474	600	706
2500	**75/65/20**	**651**	**976**	**1073**	**1358**	**1596**
	70/55/20	514	769	846	1071	1258
	55/45/20	316	473	521	659	774
2700	**75/65/20**	**709**	**1062**	**1168**	**1478**	**1737**
	70/55/20	559	837	921	1166	1370
	55/45/20	344	515	567	717	843
2900	**75/65/20**	**767**	**1148**	**1263**	**1598**	**1878**
	70/55/20	604	906	996	1260	1481
	55/45/20	372	557	613	775	911
3100	**75/65/20**	**824**	**1235**	**1358**	**1719**	**2020**
	70/55/20	650	974	1071	1355	1593
	55/45/20	400	599	659	833	980
3300	**75/65/20**	**882**	**1321**	**1453**	**1839**	**2161**
	70/55/20	695	1042	1146	1450	1704
	55/45/20	428	641	705	892	1048
3500	**75/65/20**	**939**	**1407**	**1548**	**1959**	**2302**
	70/55/20	741	1110	1221	1545	1815
	55/45/20	456	683	751	950	1116

Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C.

All Aquilo convectors available on request.

AQUILO F1T (FAN VERSION)

Trench convectors Aquilo F1T are especially designed for the in-floor mounting. The heating element is a copper-aluminum heat exchanger, painted black, mounted inside a double-side galvanized steel duct, also painted black from the inside. Aquilo F1T convectors are additionally equipped with noiseless centrifugal fans mounted inside the duct, by the exchanger, whose number depends on the exchanger's length, providing the enforced air circulation and – with it – adequately higher heat output of the convector. The fans are driven with 12 V motors. From the top the convector is protected with a crosswise masking grille made of any material available in the Manufacturer's offer, to be ordered separately. The exchanger's connection to the heating system is executed with two stub pipes with a G ½" internal thread. Obligatory electrical accessories, to be ordered separately, constitute a properly selected transformer (for surface or flush mounting), as well as a surface-mounted thermostat for the fan's rotation regulation.

technical specification

• Width :	260, 290, 340 mm
• Length :	from 1000 up to 3500 mm
• Height :	90, 140 mm
• Exchanger structure :	aluminum finned copper pipes
• Duct structure :	as standard double-side galvanized steel sheet, black RAL 9005 dry powder-coated from the inside option: stainless steel
• Grille material :	wood (oak, beech) duralumin in colours of choice: natural, light brown, dark brown or black stainless steel
• Connections :	2 x G ½" – internal thread
• Operating pressure :	10 bar
• Max. temperature :	110 °C
• Test pressure :	13 bar

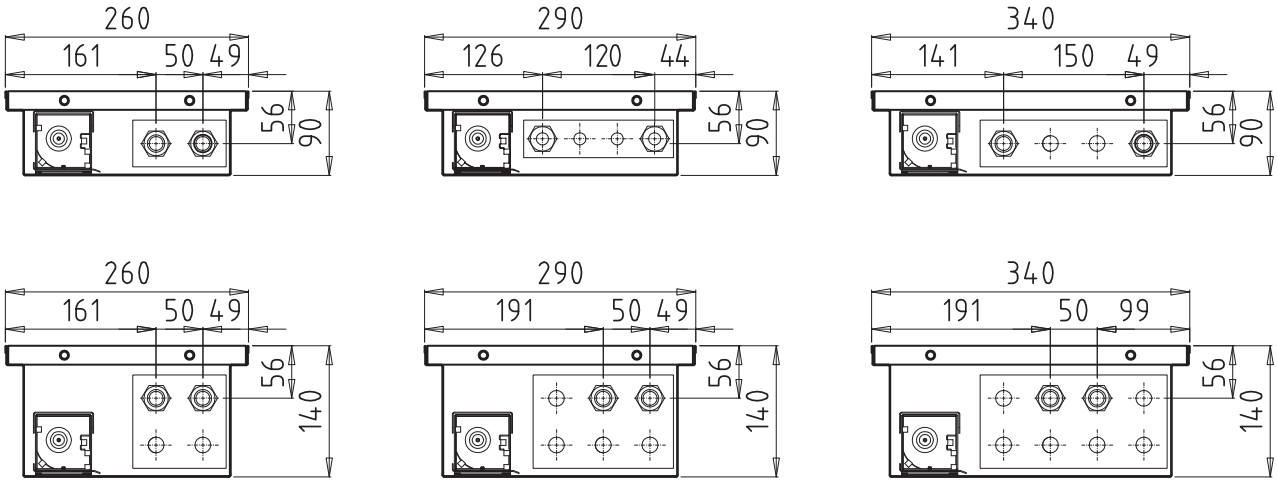
- Exchanger accessories :
  manual air vent, a 10 cm long stainless steel flexible connectors kit with a G ½" thread
- Duct accessories :
  leveling bolts M8x30 mm with internal hexagon (for the duct length up to 2.5 m – 4 pcs., over 2.5 m – 6 pcs.), 4 surface mounting elements with duct fixing screws, breakable pass for the hydronic heating system connection + 2 rubber passes for domestic electric circuit connection, steel metal sheet cover masking the exchanger connectors, chipboard protecting the exchanger and duct against damage or smudging during mounting, as well as protecting the duct against distortion during covering with concrete
- Standard electrical accessories :
  1 or 2 modules with centrifugal fans driven with 12 V/50 Hz motors (the number of the fans in a single module depends on the convector's length). Every single module incorporates one motor
- Obligatory additional electrical accessories :
  PAT transformer (~230/12 V) appropriate to the convector's - or the group of convectors – size, depending on the number of connected motors, together with a manual switch, or a room thermostat with a manual or automatic rotation switch, to regulate the convector's heat output via a three-level setting of the fan's rotation (the remote-controlled thermostat available)

NOTE:
It is strictly forbidden to power the F1T convector directly from the ~230 V electric circuit. The application of an adequate PAT transformer is a must.

AQUILO F1T

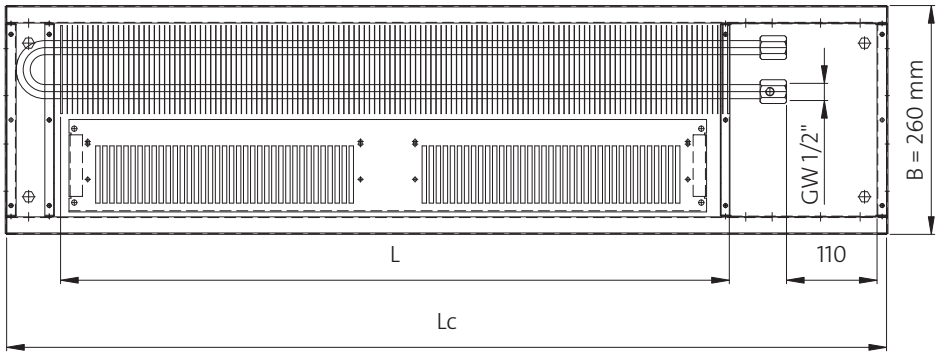
(fan version)

side views



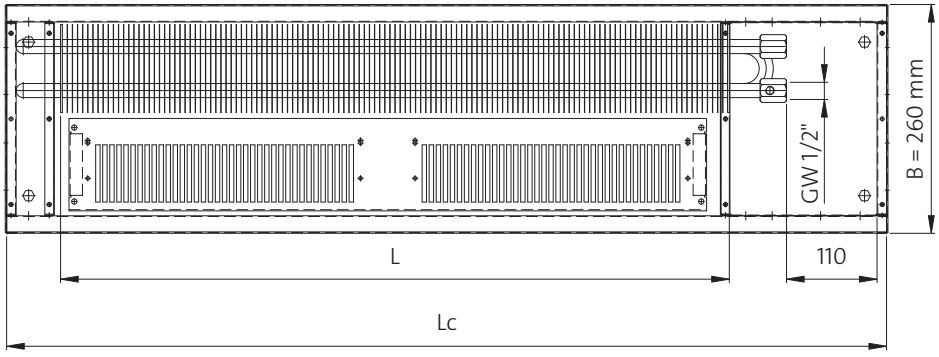
top view - examples

For the height 90 mm



L = Lc – 240 mm

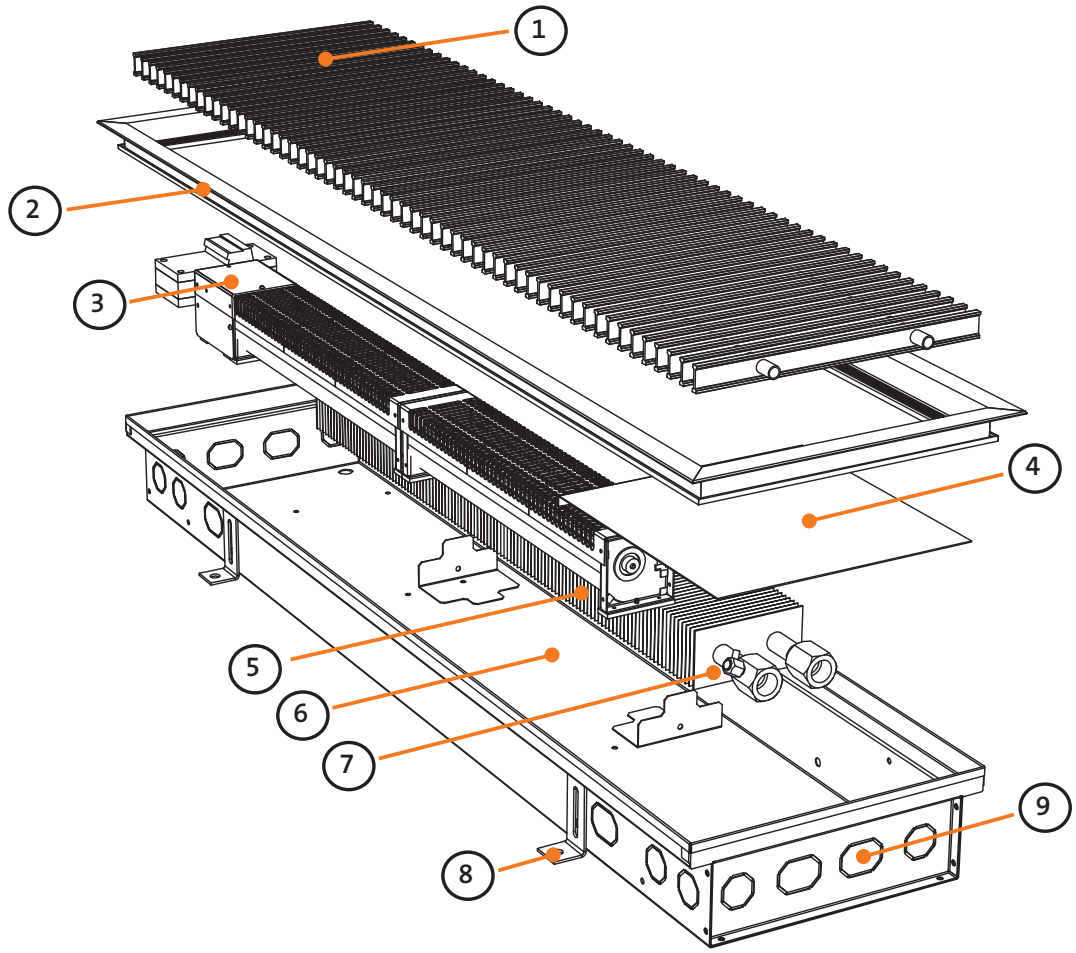
For the height 140 mm



L = Lc – 240 mm

Lc *- convector's overall length*
L *- exchanger's length*
B *- width*

AQUILO F1T
(fan version)



1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel).
2 - Option: L, Z or U-type finishing frame (only for PML, PMZ and PMU grilles). Not applicable for PMO grilles.
Note: Z-type frame is shown in the picture.
3 - Centrifugal fans' module, driven with a 12 V motor.
4 - Metal sheet cover masking the connection to the domestic hydronic heating system.
5 - Heat exchanger (copper pipes, aluminum fins, overall coated with black varnish).
6 - Convector's duct (double-side galvanized, varnished metal sheet).
7 - Air vent.
8 - Surface mounting elements.
9 - Passes for the hydronic heating system connection (breakable).

weight and water capacity

width - B	[mm]	260		290		340	
height	[mm]	90	140	90	140	90	140
weight	[kg/m]	7.8	9.7	8.7	11.2	10.1	13.9
water capacity	[l/m]	0.3	0.7	0.4	1.0	0.7	1.4

electric power

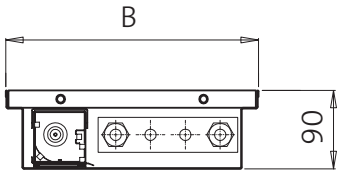
overall length Lc	[mm]	1000 - 1900	2000 - 3500
number of motors	[-]	1	2
electric power	[W]	11	22

sound intensity Lp(A), as measured in the distance 1 m from the convector

overall length Lc	[mm]	1000 - 1400	1500 - 1900	2000 - 2250	2300 - 2700	2750 - 3500
number of fans	[-]	2	3	4	5	6
fan's 3rd rotation setting	dB(A)	28.2	29.0	29.7	30.3	30.9
fan's 2nd rotation setting	dB(A)	26.6	27.4	28.1	28.7	29.3
fan's 1st rotation setting	dB(A)	18.1	18.9	19.6	20.2	20.8

AQUILO F1T

(fan version) - height 90 mm



Note: do not use the lengthwise grilles with the F1T convectors!

RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO F1T 26 150 09 01**

name
width [cm]
length [cm]
height [cm]
duct material

Lc overall length [mm]	parameters t_z / t_p / t_i [°C]	B - width [mm]			number of motors	trans-former's type	electric output [W]
		260	290	340			
1000	**75/65/20** 70/55/20 55/45/20	**837** 700 486	**1089** 911 633	**1275** 1067 741	1	PAT-01	11
1100	**75/65/20** 70/55/20 55/45/20	**947** 793 550	**1233** 1031 716	**1443** 1208 839	1		11
1200	**75/65/20** 70/55/20 55/45/20	**1112** 931 646	**1376** 1151 800	**1695** 1419 985	1		11
1300	**75/65/20** 70/55/20 55/45/20	**1167** 977 679	**1519** 1271 883	**1779** 1489 1034	1		11
1400	**75/65/20** 70/55/20 55/45/20	**1223** 1023 711	**1591** 1331 925	**1863** 1559 1083	1		11
1500	**75/65/20** 70/55/20 55/45/20	**1388** 1161 807	**1806** 1511 1050	**2114** 1769 1229	1		11
1700	**75/65/20** 70/55/20 55/45/20	**1608** 1346 935	**2093** 1751 1216	**2450** 2050 1424	1		11
1900	**75/65/20** 70/55/20 55/45/20	**1718** 1438 999	**2236** 1871 1299	**2618** 2191 1521	1		11
2100	**75/65/20** 70/55/20 55/45/20	**2049** 1714 1191	**2666** 2231 1549	**3121** 2612 1814	2		22
2300	**75/65/20** 70/55/20 55/45/20	**2159** 1806 1255	**2809** 2351 1633	**3289** 2752 1912	2		22
2500	**75/65/20** 70/55/20 55/45/20	**2489** 2083 1447	**3239** 2710 1882	**3793** 3174 2204	2		22
2700	**75/65/20** 70/55/20 55/45/20	**2709** 2267 1575	**3526** 2950 2049	**4128** 3455 2399	2		22
2900	**75/65/20** 70/55/20 55/45/20	**2820** 2359 1639	**3669** 3070 2132	**4296** 3595 2497	2		22
3100	**75/65/20** 70/55/20 55/45/20	**3040** 2544 1767	**3956** 3310 2299	**4632** 3876 2692	2		22
3300	**75/65/20** 70/55/20 55/45/20	**3260** 2728 1895	**4242** 3550 2466	**4967** 4157 2887	2		22
3500	**75/65/20** 70/55/20 55/45/20	**3480** 2912 2023	**4529** 3790 2632	**5303** 4438 3082	2		22

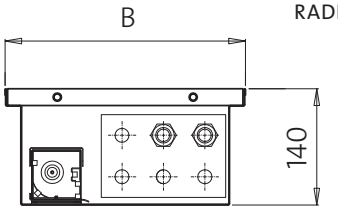
Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C, listed for the fan's 2nd rotation setting. For the 1st setting, the heat output [W] will be reduced with 24%, and for the 3rd setting – increased with 26% compared to the values given in the table above.

All Aquilo convectors available on request.

AQUILO F1T

(fan version) - height 140 mm

Note: do not use the lengthwise grilles with the F1T convectors!



RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO F1T 26 150 14 01**

name
width [cm]
length [cm]
height [cm]
duct material

Lc overall length [mm]	parameters t_z / t_p / t_i [°C]	B - width [mm]			number of motors	trans-former's type	electric output [W]
		260	290	340			
1000	**75/65/20** 70/55/20 55/45/20	**1225** 1025 712	**1604** 1342 932	**1815** 1519 1055	1	PAT-01	11
1100	**75/65/20** 70/55/20 55/45/20	**1386** 1160 805	**1815** 1519 1055	**2054** 1719 1194	1		11
1200	**75/65/20** 70/55/20 55/45/20	**1627** 1362 946	**2131** 1784 1239	**2413** 2019 1402	1		11
1300	**75/65/20** 70/55/20 55/45/20	**1708** 1429 993	**2237** 1872 1300	**2532** 2119 1472	1		11
1400	**75/65/20** 70/55/20 55/45/20	**1789** 1497 1039	**2343** 1960 1362	**2651** 2219 1541	1		11
1500	**75/65/20** 70/55/20 55/45/20	**2030** 1699 1180	**2659** 2225 1546	**3010** 2518 1749	1		11
1700	**75/65/20** 70/55/20 55/45/20	**2352** 1969 1367	**3082** 2579 1791	**3487** 2918 2027	1		11
1900	**75/65/20** 70/55/20 55/45/20	**2514** 2103 1461	**3293** 2755 1914	**3726** 3118 2166	1		11
2100	**75/65/20** 70/55/20 55/45/20	**2997** 2508 1742	**3926** 3285 2282	**4443** 3718 2582	2		22
2300	**75/65/20** 70/55/20 55/45/20	**3158** 2643 1835	**4137** 3462 2404	**4682** 3918 2721	2		22
2500	**75/65/20** 70/55/20 55/45/20	**3642** 3047 2116	**4770** 3992 2772	**5398** 4517 3137	2		22
2700	**75/65/20** 70/55/20 55/45/20	**3964** 3317 2304	**5192** 4345 3018	**5876** 4917 3415	2		22
2900	**75/65/20** 70/55/20 55/45/20	**4125** 3452 2397	**5403** 4521 3140	**6115** 5117 3554	2		22
3100	**75/65/20** 70/55/20 55/45/20	**4447** 3721 2585	**5825** 4875 3386	**6593** 5517 3831	2		22
3300	**75/65/20** 70/55/20 55/45/20	**4769** 3991 2772	**6247** 5228 3631	**7070** 5916 4109	2		22
3500	**75/65/20** 70/55/20 55/45/20	**5092** 4261 2959	**6670** 5581 3876	**7548** 6316 4387	2		22

Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C, listed for the fan's 2nd rotation setting. For the 1st setting, the heat output [W] will be reduced with 24%, and for the 3rd setting – increased with 26% compared to the values given in the table above.

All Aquilo convectors available on request.

AQUILO F1T

(fan version)

example of the built-in convector with the aluminum PMO grille

examples of execution

AQUILO F1P (REINFORCED FAN VERSION)

Trench convectors Aquilo F1P are especially designed for the in-floor mounting. The heating element is a copper-aluminum heat exchanger, painted black, mounted inside a double-side galvanized steel duct, also painted black from the inside. Aquilo F1P convectors are additionally equipped with noiseless centrifugal fans mounted inside the duct, by the exchanger, whose number depends on the exchanger's length, providing the enforced air circulation and – with it – adequately higher heat output of the convector. The fans are driven with 12 V motors. From the top the convector is protected with a crosswise masking grille made of any material available in the Manufacturer's offer, to be ordered separately. The exchanger's connection to the heating system is executed with two stub pipes with a G ½" internal thread. Obligatory electrical accessories, to be ordered separately, constitute a properly selected transformer (for surface or flush mounting), as well as a surface-mounted thermostat for the fan's rotation regulation.

technical specification

• Width :	180, 260 mm
• Length :	from 1000 up to 3000 mm
• Height :	90 mm
• Exchanger structure :	aluminum finned copper pipes
• Duct structure :	as standard double-side galvanized steel sheet, black RAL 9005 dry powder-coated from the inside option: stainless steel
• Grille material :	wood (oak, beech) duralumin in colours of choice: natural, light brown, dark brown or black stainless steel
• Connections :	2 x G ½" – internal thread
• Operating pressure :	10 bar
• Max. temperature :	110 °C
• Test pressure :	13 bar

- Exchanger accessories :

  manual air vent, a 10 cm long stainless steel flexible connectors kit with a G ½" thread

- Duct accessories :

  leveling bolts M8x30 mm with internal hexagon (for the duct length up to 2.5 m – 4 pcs., over 2.5 m – 6 pcs.), 4 surface mounting elements with duct fixing screws, breakable pass for the hydronic heating system connection + 2 rubber passes for domestic electric circuit connection, steel metal sheet cover masking the exchanger connectors, chipboard protecting the exchanger and duct against damage or smudging during mounting, as well as protecting the duct against distortion during covering with concrete

- Standard electrical accessories :

  1 or 2 modules with centrifugal fans driven with 12 V/50 Hz motors (the number of the fans in a single module depends on the convector's length). Every single module incorporates one motor

- Obligatory additional electrical accessories :

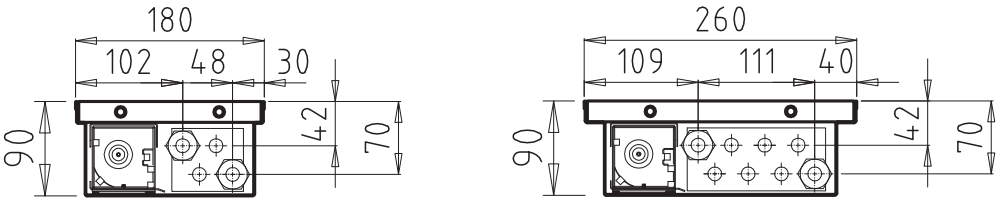
  PAT transformer (~230/12 V) appropriate to the convector's - or the group of convectors – size, depending on the number of connected motors, together with a manual switch, or a room thermostat with a manual or automatic rotation switch, to regulate the convector's heat output via a three-level setting of the fan's rotation (the remote-controlled thermostat available)

NOTE:
It is strictly forbidden to power the F1P convector directly from the ~230 V electric circuit. The application of an adequate PAT transformer is a must.

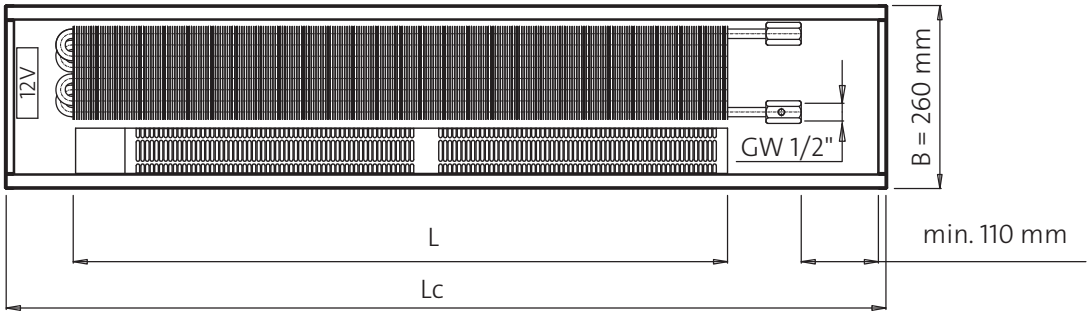
AQUILO F1P

(reinforced fan version)

side views



top view - an example



L = Lc – 320 mm

Lc *- convector's overall length*
L *- exchanger's length*
B *- width*

weight and water capacity

width - B	[mm]	180	260
height	[mm]	90	
weight	[kg/m]	7.2	9.0
water capacity	[l/m]	0.4	0.7

electric power

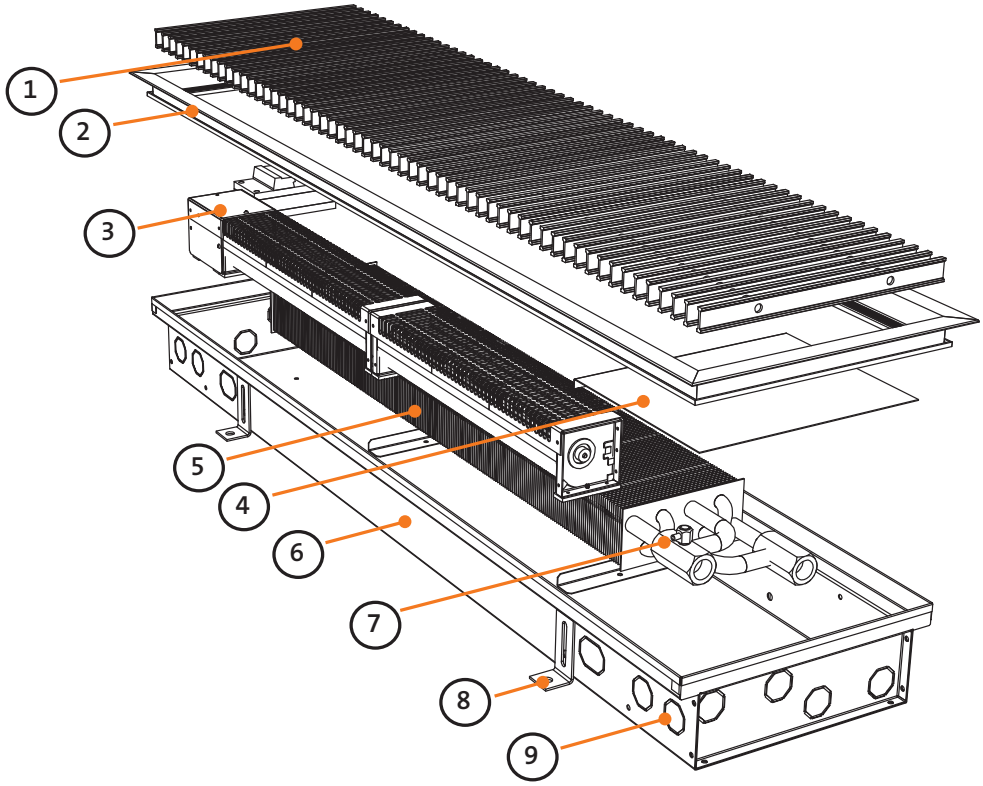
overall length Lc	[mm]	1000 - 1900	2000 - 3500
number of motors	[-]	1	2
electric power	[W]	11	22

sound intensity Lp(A), as measured in the distance 1 m from the convector

overall length Lc	[mm]	1000 - 1400	1500 - 1900	2000 - 2250	2300 - 2700	2750 - 3500
number of fans	[-]	2	3	4	5	6
fan's 3rd rotation setting	dB(A)	28.2	29.0	29.7	30.3	30.9
fan's 2nd rotation setting	dB(A)	26.6	27.4	28.1	28.7	29.3
fan's 1st rotation setting	dB(A)	18.1	18.9	19.6	20.2	20.8

AQUILO F1P
(reinforced fan version)

example of the built-in convector with the aluminum PMO grille



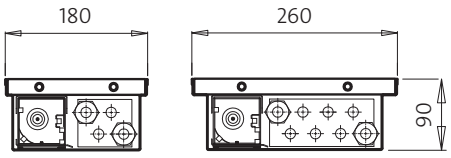
1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel).
2 - Option: L, Z or U-type finishing frame (only for PML, PMZ and PMU grilles). Not applicable for PMO grilles.
Note: Z-type frame is shown in the picture.
3 - Centrifugal fans' module, driven with a 12 V motor.
4 - Metal sheet cover masking the connection to the domestic hydronic heating system.
5 - Heat exchanger (copper pipes, aluminum fins, overall coated with black varnish).
6 - Convector's duct (double-side galvanized, varnished metal sheet).
7 - Air vent.
8 - Surface mounting elements.
9 - Passes for the hydronic heating system connection (breakable).

AQUILO F1P

(reinforced fan version) height 90 mm

Note: do not use the lengthwise grilles with the F1P convectors!

RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO F1P 26 150 09 01**



name
width [cm]
length [cm]
height [cm]
duct material

Lc overall length [mm]	parameters t_z / t_p / t_i [°C]	B - width [mm]		number of motors	transform-er's type	electric power [W]
		180	260			
1000	**75/65/20**	**823**	**1205**			
	70/55/20	688	1008	1		11
	55/45/20	478	700			
1250	**75/65/20**	**1125**	**1648**			
	70/55/20	942	1379	1		11
	55/45/20	654	958			
1500	**75/65/20**	**1428**	**2091**			
	70/55/20	1195	1750	1		11
	55/45/20	830	1215			
1750	**75/65/20**	**1730**	**2534**			
	70/55/20	1448	2121	1		11
	55/45/20	1006	1473			
2000	**75/65/20**	**2033**	**2977**			
	70/55/20	1701	2491	2	PAT-01	22
	55/45/20	1181	1730			
2250	**75/65/20**	**2335**	**3420**			
	70/55/20	1954	2862	2		22
	55/45/20	1357	1988			
2500	**75/65/20**	**2638**	**3863**			
	70/55/20	2207	3233	2		22
	55/45/20	1533	2245			
2750	**75/65/20**	**2940**	**4306**			
	70/55/20	2460	3603	2		22
	55/45/20	1709	2503			
3000	**75/65/20**	**3243**	**4749**			
	70/55/20	2713	3974	2		22
	55/45/20	1885	2760			

Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C, listed for the fan's 2nd rotation setting. For the 1st setting, the heat output [W] will be reduced with 24%, and for the 3rd setting – increased with 26% compared to the values given in the table above.

All Aquilo convectors available on request.

AQUILO F2C (HEATING OR COOLING)

Trench convectors Aquilo F2C are especially designed for the in-floor mounting, and can be used for either heating or cooling. The heating or cooling element is a copper-aluminum heat exchanger, painted black, mounted inside a duct made of stainless steel in natural colour. Aquilo F2C convectors are equipped with noiseless centrifugal fans mounted inside the duct, by the exchanger, whose number depends on the exchanger's length, providing the enforced air circulation and – with it – adequately higher heating or cooling efficiency of the convector. The fans are driven with 12 V motors. From the top the convector is protected with a crosswise masking grille made of any material available in the Manufacturer's offer, to be ordered separately. The exchanger's connection to the double-pipe heating system is executed with two stub pipes with a G ½" internal thread. Obligatory electrical accessories, to be ordered separately, constitute a properly selected transformer (for surface or flush mounting), as well as a surface-mounted thermostat for the fan's rotation regulation.

technical specification

• Width :	240 mm
• Length :	600, 1000, 1400, 1800 mm
• Height :	110 mm
• Exchanger structure :	aluminum finned copper pipes
• Duct material :	standard version: stainless steel in natural colour **Note**: for swimming pool applications special version have to be ordered!!!
• Grille material :	wood (oak, beech), stainless steel duralumin in colours of choice: natural, light brown, dark brown or black **Note**: only duralumin grilles can be used in case of cooling mode selection
• Connections :	2 x G ½" – internal thread
• Operating pressure :	10 bar
• Max. temperature :	110 °C
• Test pressure :	13 bar

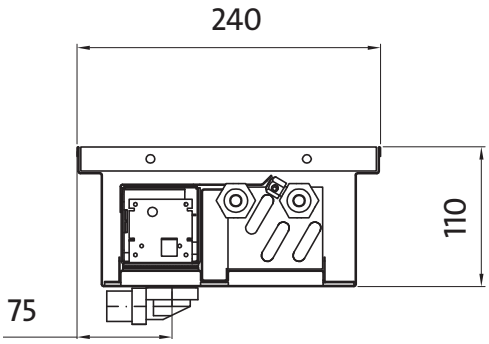
- Exchanger accessories :
  manual air vent, a 10 cm long stainless steel flexible connectors kit with a G ½" thread
- Duct accessories :
  leveling bolts M8x30 mm with internal hexagon (for the duct length up to 2.5 m – 4 pcs., over 2.5 m – 6 pcs.), 4 surface mounting elements with duct fixing screws, breakable pass for the hydronic heating or cooling system connection + 2 rubber passes for domestic electric circuit connection, steel metal sheet cover masking the exchanger connectors, chipboard protecting the exchanger and duct against damage or smudging during mounting, as well as protecting the duct against distortion during covering with concrete, duct drainage
- Standard electrical accessories :
  1 module with centrifugal fans driven with 12 V/50 Hz motors (the number of the fans in a single module depends on the convector's length). Every single module incorporates one motor
- Obligatory additional electrical accessories:
  PAT transformer (~230/12 V) appropriate to the convector's - or the group of convectors – size, depending on the number of connected motors, together with a manual switch, or a room thermostat with a manual or automatic rotation switch, to regulate the convector's heating or cooling efficiency via a three-level setting of the fan's rotation (the remote-controlled thermostat available).

NOTE:
It is strictly forbidden to power the F2C convector directly from the ~230 V electric circuit. The application of an adequate PAT transformer is a must.

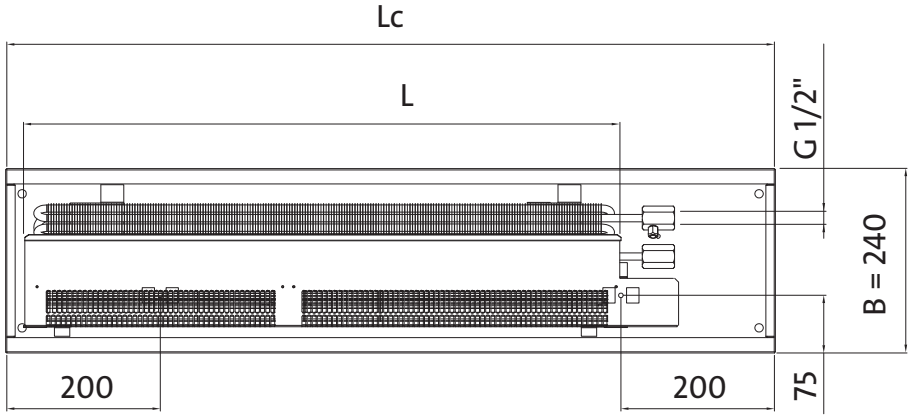
AQUILO F2C

(heating or cooling)

side view



top view



Lc - convector's overall length
L - exchanger's length
B - width

L = Lc - 280 mm

weight and water capacity

width - B	**[mm]**	**240**
height	**[mm]**	**110**
weight	**[kg/m]**	10.5
water capacity	**[l/m]**	0.3

electric power

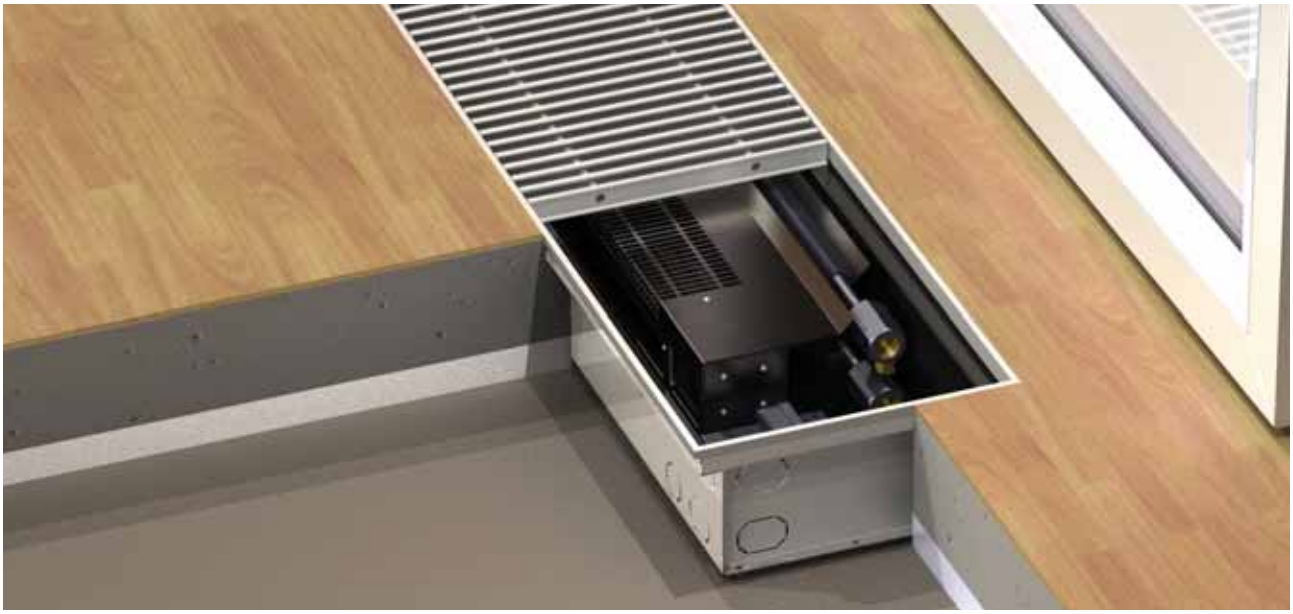
overall length Lc	**[mm]**	**600 - 1800**
number of motors	**[-]**	1
electric power	**[W]**	11

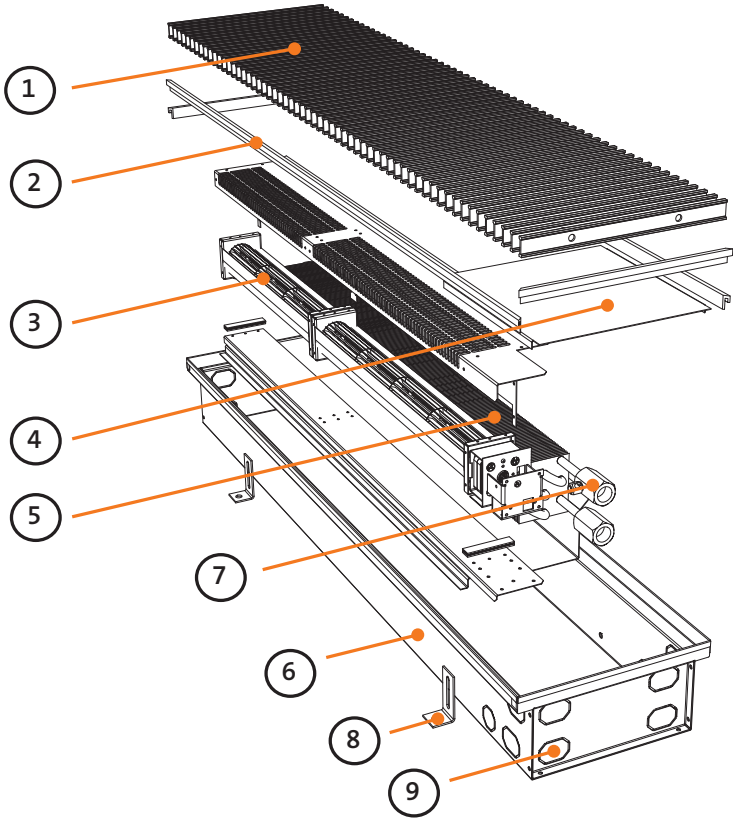
sound intensity Lp(A), as measured in the distance 1 m from the convector

overall length Lc	**[mm]**	**600**	**1000**	**1400**	**1800**
number of fans	**[-]**	1	2	3	4
fan's 3rd rotation setting	**dB(A)**	27.1	28.2	29.0	29.7
fan's 2nd rotation setting	**dB(A)**	25.5	26.6	27.4	28.1
fan's 1st rotation setting	**dB(A)**	17.0	18.1	18.9	19.6

AQUILO F2C
(heating or cooling)

example of the built-in convector with the aluminum PMU grille

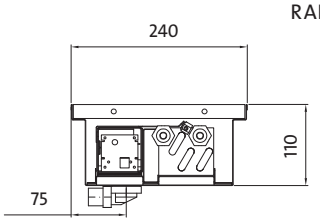




1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel).
2 - Option: L, Z or U-type finishing frame (only for PML, PMZ and PMU grilles). Not applicable for PMO grilles.
Note: U-type frame is shown in the picture.
3 - Centrifugal fans' module, driven with a 12 V motor.
4 - Metal sheet cover masking the connection to the domestic hydronic heating system.
5 - Heat exchanger (copper pipes, aluminum fins, overall coated with black varnish).
6 - Convector's duct (double-side galvanized, varnished metal sheet).
7 - Air vent.
8 - Surface mounting elements.
9 - Passes for the hydronic heating system connection (breakable).

AQUILO F2C

(heating or cooling)



Note: do not use the lengthwise grilles with the F2C convectors!

RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO F2C 24 100 11 11**

name
width [cm]
length [cm]
height [cm]
duct material

Lc overall length [mm]	parameters t_z / t_p / t_i [°C]	width 240 mm, height 110mm				
		cooling output [W]	heat output [W]	number of motors	transformer's type	electric power [W]
600	**75/65/20** 70/55/20 55/45/20 6/12/26	242	**878** 741 524	1	PAT-01	11
1000	**75/65/20** 70/55/20 55/45/20 6/12/26	544	**1975** 1667 1178	1		11
1400	**75/65/20** 70/55/20 55/45/20 6/12/26	846	**3072** 2593 1832	1		11
1800	**75/65/20** 70/55/20 55/45/20 6/12/26	1148	**4169** 3518 2486	1		11

Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C, listed for the fan's 2nd rotation setting. For the 1st setting, the heat output [W] will be reduced with 17%, and for the 3rd setting – increased with 8% compared to the values given in the table above.

Convectors' cooling heat output [W] for parameters 6/12/26°C is listed for the fan's 2nd rotation setting. For the 1st setting, the heat output [W] will be reduced with 10%, and for the 3rd setting – increased with 4% compared to the values given in the table above.

All Aquilo convectors available on request.

AQUILO F4C (HEATING AND COOLING)

Trench convectors Aquilo F4C are especially designed for the in-floor mounting, and can be used for either heating or cooling. The heating or cooling element is a double-loop copper-aluminum heat exchanger, painted black, mounted inside a duct made of stainless steel in natural colour. Aquilo F4C convectors are equipped with noiseless centrifugal fans mounted inside the duct, by the exchanger, whose number depends on the exchanger's length, providing the enforced air circulation and – with it – adequately higher heating or cooling efficiency of the convector. The fans are driven with 12 V motors. From the top the convector is protected with a crosswise masking grille made of any material available in the Manufacturer's offer, to be ordered separately. The exchanger's connection to the quadruple-pipe heating system is executed with four stub pipes with a G ½" internal thread. Obligatory electrical accessories, to be ordered separately, constitute a properly selected transformer (for surface or flush mounting), as well as a surface-mounted thermostat for the fan's rotation regulation.

technical specification

• Width :	340 mm
• Length :	1250, 2000, 2750 mm
• Height :	140 mm
• Exchanger structure :	aluminum finned copper pipes
• Duct material :	standard version: stainless steel in natural colour **Note**: for swimming pool applications special version have to be ordered!!!
• Grille material :	only duralumin grilles can be used in the following choice of colours: natural, light brown, dark brown or black
• Connections :	4 x G ½ " – internal thread
• Operating pressure :	10 bar
• Max. temperature :	110 °C
• Test pressure :	13 bar

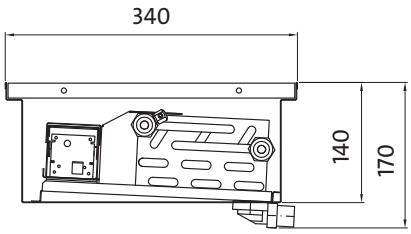
- Exchanger accessories :
  manual air vent, a 10 cm long stainless steel flexible connectors kit with a G ½" thread
- Duct accessories :
  leveling bolts M8x30 mm with internal hexagon (for the duct length up to 2.5 m – 4 pcs., over 2.5 m – 6 pcs.), 4 surface mounting elements with duct fixing screws, breakable pass for the hydronic heating or cooling system connection + 2 rubber passes for domestic electric circuit connection, steel metal sheet cover masking the exchanger connectors, chipboard protecting the exchanger and duct against damage or smudging during mounting, as well as protecting the duct against distortion during covering with concrete,
  duct drainage
- Standard electrical accessories :
  1 or 2 modules with centrifugal fans driven with 12 V/50 Hz motors (the number of the fans in a single module depends on the convector's length). Every single module incorporates one motor
- Obligatory additional electrical accessories :
  PAT transformer (~230/12 V) appropriate to the convector's - or the group of convectors – size, depending on the number of connected motors, together with a manual switch, or a room thermostat with a manual or automatic rotation switch, to regulate the convector's heating or cooling efficiency via a three-level setting of the fan's rotation (the remote-controlled thermostat available).

NOTE:
It is strictly forbidden to power the F4C convector directly from the ~230 V electric circuit. The application of an adequate PAT transformer is a must.

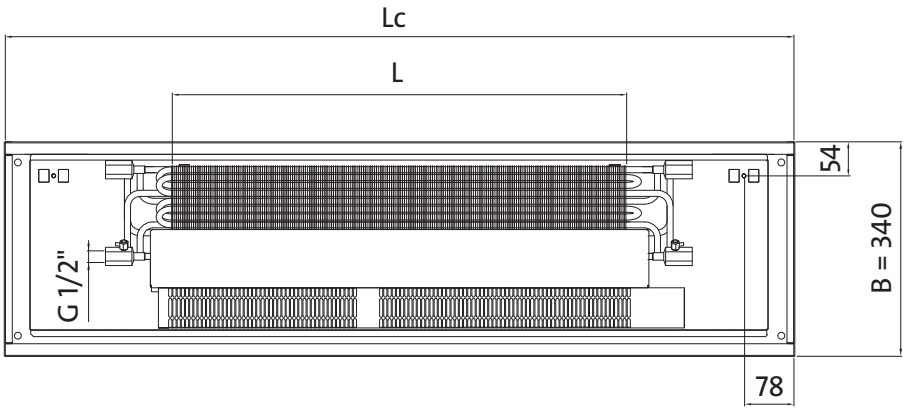
AQUILO F4C

(heating and cooling)

side view



top view



Lc *- convector's overall length*
L *- exchanger's length*
B *- width*

L = Lc - 520 mm

weight and water capacity

width - B	**[mm]**	**340**
height	**[mm]**	**140**
weight	**[kg/m]**	16.3
water capacity	**[l/m]**	0.4

electric power

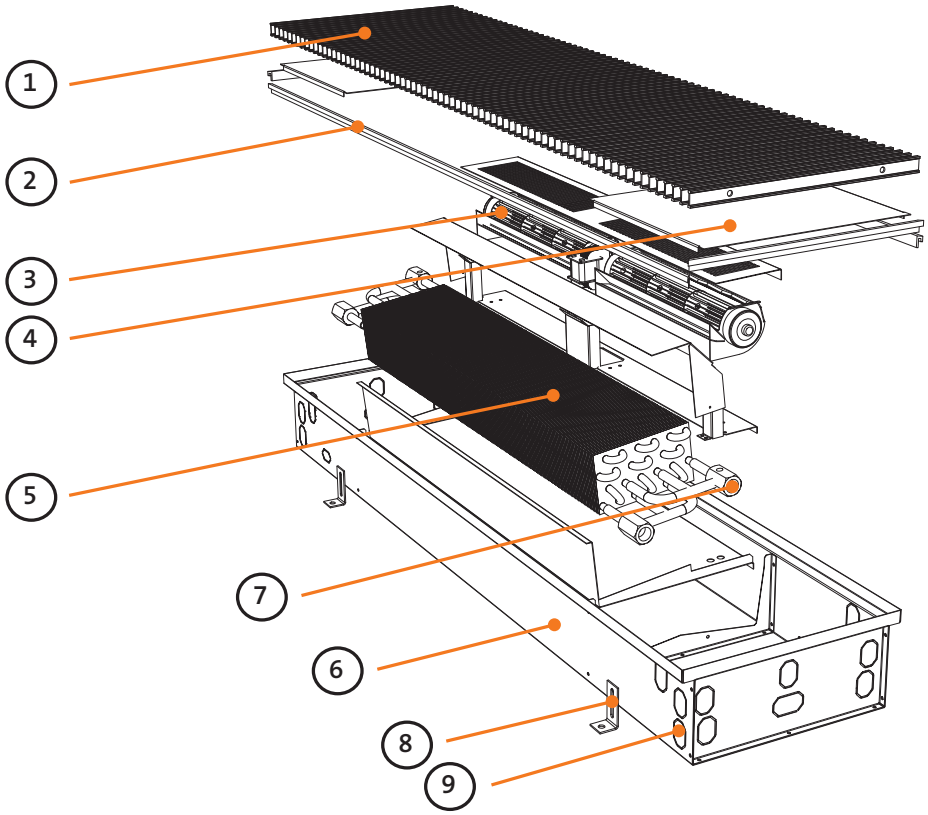
overall length Lc	**[mm]**	**1250**	**2000 - 2750**
number of motors	**[-]**	1	2
electric power	**[W]**	11	22

sound intensity Lp(A), as measured in the distance 1 m from the convector

overall length Lc	**[mm]**	**1250**	**2000**	**2750**
number of fans	**[-]**	2	4	6
fan's 3rd rotation setting	**dB(A)**	28.2	29.7	30.9
fan's 2nd rotation setting	**dB(A)**	26.6	28.1	29.3
fan's 1st rotation setting	**dB(A)**	18.1	19.6	20.8

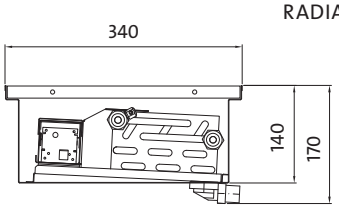
AQUILO F4C
(heating and cooling)

example of the built-in convector with the aluminum PMU grille



1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel).
2 - Option: L, Z or U-type finishing frame (only for PML, PMZ and PMU grilles). Not applicable for PMO grilles.
Note: U-type frame is shown in the picture.
3 - Centrifugal fans' module, driven with a 12 V motor.
4 - Metal sheet cover masking the connection to the domestic hydronic heating system.
5 - Heat exchanger (copper pipes, aluminum fins, overall coated with black varnish).
6 - Convector's duct (double-side galvanized, varnished metal sheet).
7 - Air vent.
8 - Surface mounting elements.
9 - Passes for the hydronic heating system connection (breakable).

AQUILO F4C
(heating and cooling)



Note: do not use the lengthwise grilles with the F4C convectors!

RADIATOR DESCRIPTION - AN EXAMPLE : **AQUILO F4C 34 125 14 11**

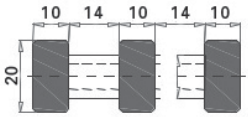
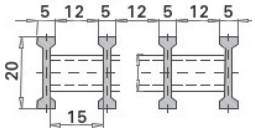
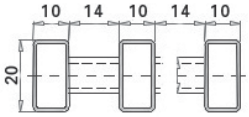
name
width [cm]
length [cm]
height [cm]
duct material

Lc overall length [mm]	parameters t_z / t_p / t_i [°C]	width 340 mm, height 140mm				
		cooling output [W]	heat output [W]	number of motors	transformer's type	electric power [W]
1250	**75/65/20** 70/55/20 55/45/20 6/12/26	442	**1606** 1355 958	1	PAT-01	11
2000	**75/65/20** 70/55/20 55/45/20 6/12/26	887	**3221** 2718 1921	2		22
2750	**75/65/20** 70/55/20 55/45/20 6/12/26	1332	**4837** 4082 2885	2		22

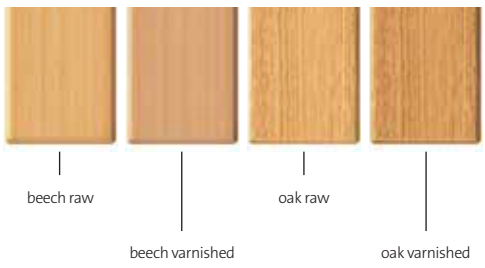
Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C, listed for the fan's 2nd rotation setting. For the 1st setting, the heat output [W] will be reduced with 26%, and for the 3rd setting – increased with 28% compared to the values given in the table above.
Convectors' cooling heat output [W] for parameters 6/12/26°C is listed for the fan's 2nd rotation setting. For the 1st setting, the heat output [W] will be reduced with 20%, and for the 3rd setting – increased with 24% compared to the values given in the table above.

All Aquilo convectors available on request.

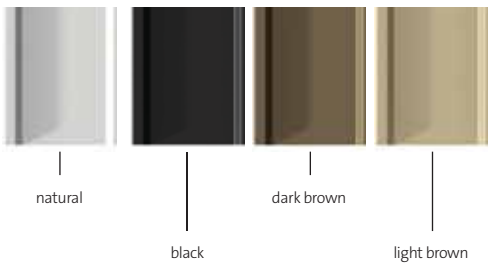
Masking grilles

description		
		**wooden, crosswise** - Beech or oak. - Raw, oiled or varnished - Roll-up crosswise grille with oak or beech crosspieces - The wooden grille is supplied, as standard, in the PMO raw version, i.e. with no finishing frame - Free flow: 58% 
		**duralumin, crosswise** - Roll-up crosswise grille with eloxed duralumin crosspieces - Available colours: natural, light brown, dark brown or black - The grille is supplied, as standard, in the PMO raw version, i.e. with no finishing frame - Free flow: 71% 
		**duralumin, lengthwise** - Lengthwise grille with eloxed duralumin crosspieces - Available colours: natural, light brown, dark brown or black - The grille is supplied, as standard, in the PMO raw version, i.e. with no finishing frame - Free flow: 71%
		**stainless steel, crosswise** - Roll-up crosswise grille with stainless steel crosspieces - Steel variety: 1.4301 - The grille is supplied, as standard, in the PMO raw version, i.e. with no finishing frame - Free flow: 58% 
		**stainless steel, lengthwise** - Lengthwise grille with stainless steel crosspieces - Steel variety: 1.4301 - The grille is supplied, as standard, in the PMO raw version, i.e. with no finishing frame - Free flow: 58%

wooden grille



duralumin grille



steel grille

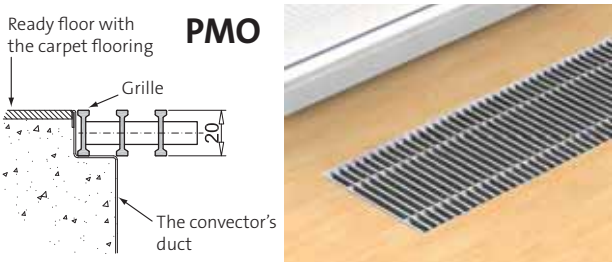
NOTE: Lengthwise grilles to be used only with the FMK convectors

Finishing frames

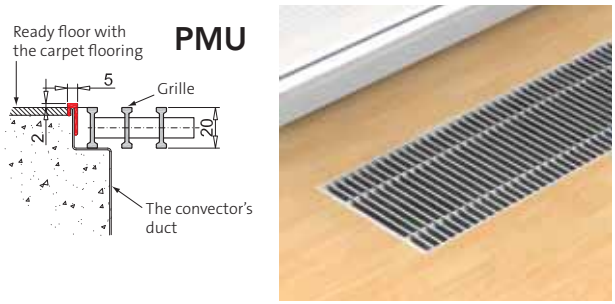
finishing frames

Masking grilles for the Aquilo trench convectors are available in versions without decorative finishing frames or with L, Z or U-type decorative finishing frames. Due to different lengths of the grille fins in the decorative finishing frame or no frame version (for the convectors of the same width), all decorative frames must be ordered with the grilles. The L, U and Z-type frames are available in the duralumin only, however the L-type frames are available in all colour variants – the same as for duralumin grilles, while the Z-type frames are only available in natural colour or light brown.

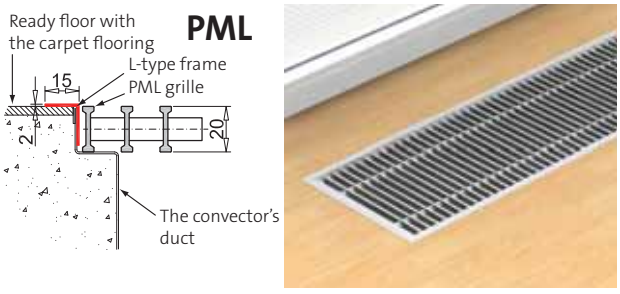
Execution with no decorative frame
The application of masking grilles without a decorative frame is possible only when the trench convector has been carefully mounted, and especially carefully positioned vertically in reference to the level of the finished floor.
This execution assumes, at the same time, the perfect floor finish around the trench convector, with the slot of the same width.



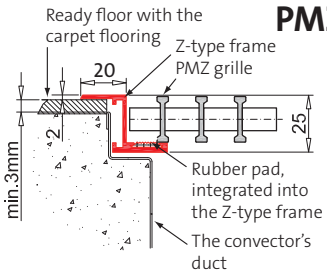
Execution with the U-type decorative frame
The masking grille with the U-type decorative frame optically frames the trench convector within the surrounding floor. The U-type frame covers the edge of the convector's duct, that is why it is especially recommended for situations when masking the duct's edge is preferable. The U-type frame is delivered with the masking grille in adequately trimmed segments to mount on the convector duct's edges during the installation of the grille. To mount the U-type frame, application of silicone is recommended. U-type frames are delivered only in natural colour and light brown.



Execution with the L-type decorative frame
The masking grille with the L-type decorative frame optically frames the trench convector within the surrounding floor. The L-type frame covers the contact area between the duct and the floor, that it why it is primarily used for places where the slot between the trench convector's duct and the surrounding floor is uneven. The L-type frame is supplied along with the masking grille, in adequately trimmed segments to be mounted onto the convector's duct while the grille is being positioned. To the L-type frame can be easily fixed to the floor with the double-sided self-adhesive tape placed on its bottom.



Execution with the Z-type decorative frame
The masking grille with the Z-type decorative frame optically frames the trench convector within the surrounding floor. The Z-type frame covers the contact area between the duct and the floor, as well as creates the base for positioning the masking grilles. It is mainly used for places where the convector's duct is set deeper ("sunk") in reference to the floor surface level, as well as in cases where the convector has not been evenly positioned horizontally in reference to the surrounding floor, and finally in places where the slot between the trench convector's duct and the surrounding floor is uneven. The Z-type frame is supplied as a set along with the masking grille. Floor fixing with the silicone adhesive is recommended.



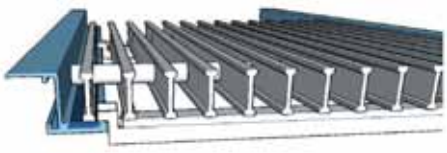
Finishing frames

finishing frames

- The L-type decorative frames are available in the same colouring as the grilles.
- U-type frames are delivered only as duralumin in natural colour and light brown.
- The Z-type decorative frames are available in the natural aluminum colouring only.
- The L, U and Z-type frames must be ordered along with the grille!
- The width of the grille without a frame (PMO) differs from the one with an L-type frame (PML), U-type frame (PMU) or Z-type frame (PMZ), for the same width of the convector! Therefore, the PMO grille will not be suitable for the PML, PMU or PMZ set, and –consequently ¬– the PML or PMU grille will not be suitable for the PMZ set!
- The width of the grilles are as follows:
  PMO = B - 6 mm;
  PMU = B - 8 mm;
  PML = B - 12 mm;
  PMZ = B - 20 mm;
  where: B – the total width of the convector.
- Mounting with the Z-type frame version requires positioning the convector's duct 3-5 mm below the surface of the finished floor.
- If, due to the improper mounting or the mechanical damage, the convector's duct becomes deformed, the Manufacturer shall not be held responsible for occurrence of the prospective difficulties with positioning the decorative frames or grilles.

The Z-type frame is delivered already assembled. It is recommended to fix it with silicone to the finished floor. The L-type frame is delivered disassembled, with double-side self-adhesive tape stuck on the inside. The U-type frame is delivered disassembled. If any change in the shape of the convector's duct occurs, due to incorrect mounting or mechanical damage, the Manufacturer will not bear responsibility for any potential problems with mounting of the frames.

Support for lengthwise grilles
To preserve proper functionality of the lengthwise grilles (stability and rigidity), supports are applied. They are delivered in adequate quantities, constituting an integral part of the grille. For transport and mounting, the supports are secured with plastic strips – to be cut off after the grille has been successfully mounted.



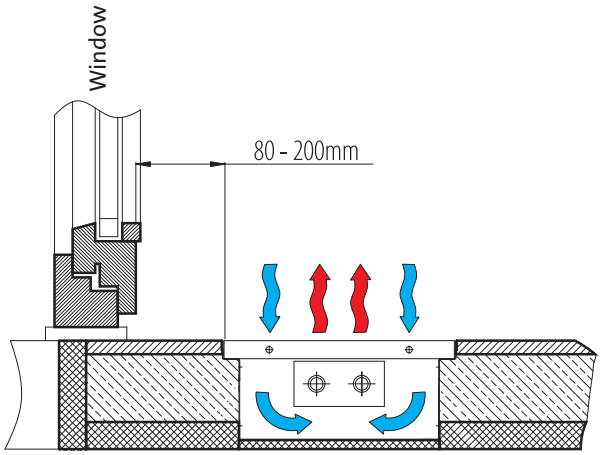
Grilles – weight [kg/m]

Width [mm]	180				240				260				290				340				420			
Type	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ
Duralumin	1,6	1,8	1,9	2,5	2,0	2,3	2,3	2,9	2,1	2,4	2,4	3,1	3,0	3,2	3,3	3,9	3,4	3,7	3,7	4,4	4,1	4,4	4,5	5,1
Beech, oak	1,4	1,7	1,8	2,4	1,8	2,1	2,2	2,8	2,0	2,3	2,3	2,9	2,1	2,5	2,5	3,1	2,5	2,8	2,8	3,5	3,0	3,3	3,4	4,1
Stainless steel	3,7	3,9	3,9	4,4	4,8	5,0	5,0	5,5	5,1	5,3	5,4	5,9	5,7	5,9	5,9	6,6	6,6	6,8	6,9	7,5	8,0	8,3	8,4	9,0

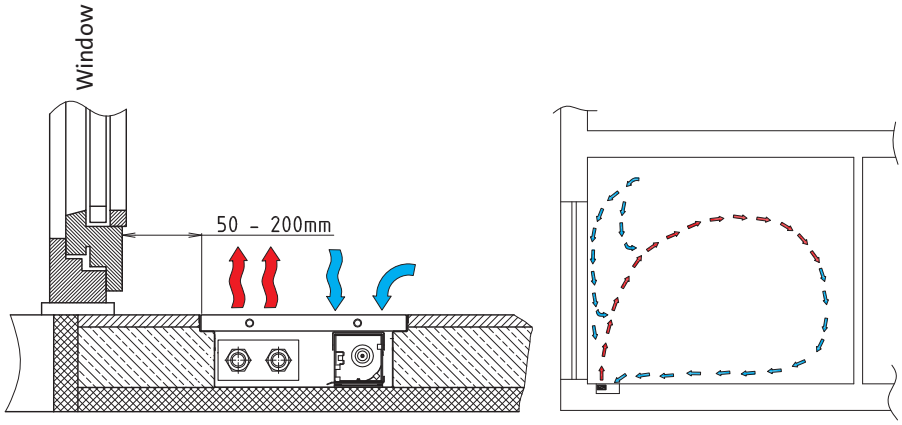
How to mount our convectors

recommended mounting procedure for trench convectors

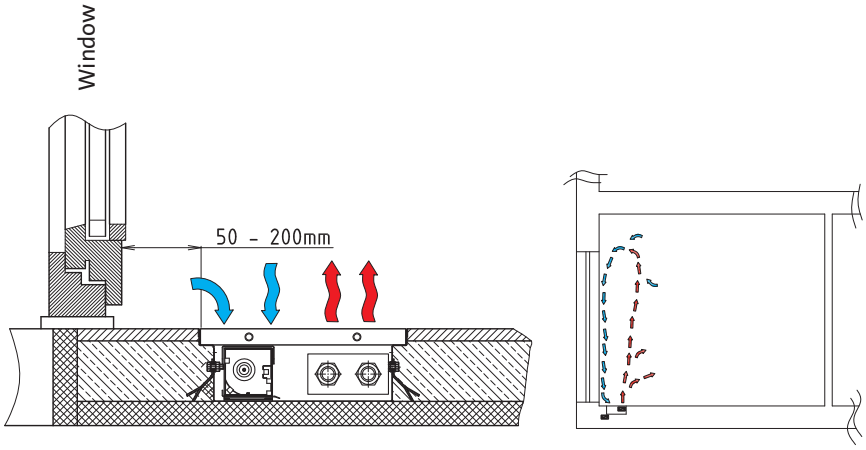
Aquilo FMK



Aquilo F1P, F2C F1T and F4C – fan on the room side (recommended)



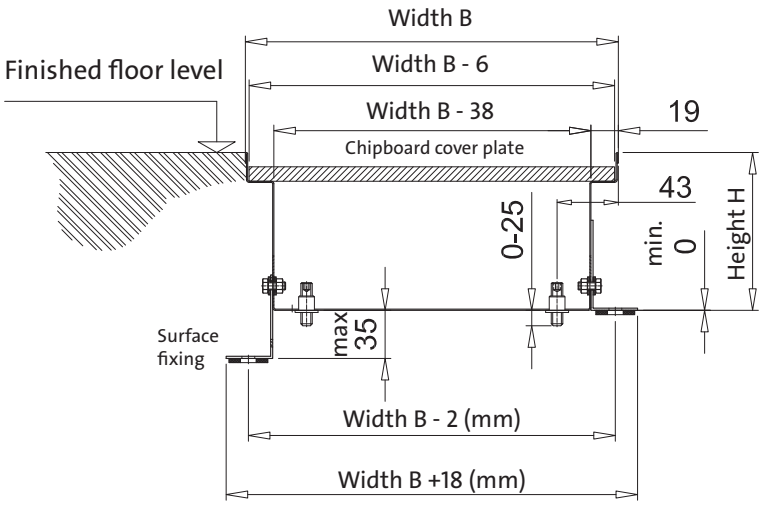
Aquilo F1T, F1P, F2C and F4C – fan on the window side (option)



How to mount our convectors

mounting procedure for the convector's duct

1. Prepare a proper place in the subfloor, of the following dimensions:
   - width of the convector's duct + min. 80 mm,
   - length of the convector's duct + min. 40 mm,
   - depth of the convector's duct + 2 ÷ 25 mm (as measured from the level of the finished floor).
2. Screw leveling bolts into duct's bottom openings, and attach the floor fixing grips to the duct's outside (as enclosed in the mounting kit).
3. Position your trench convector in the previously prepared place in the subfloor. Lay the soundproofing insulation (e.g. mineral wool, foamed polystyrene, foam) between the convector's duct and the subfloor.
4. Level and stabilize the trench convector's duct.
5. Connect the supply and return pipe of the hydronic heating system according to the technical design. For the fan version convectors (F1T, F1P, ...), perform all the necessary electric wiring. Cover the hydraulic and electric connectors with the masking plate enclosed in the mounting kit.
6. Proceed with the pressure test to check the tightness of the convector and the hydraulic connectors.
7. Cover the convector's duct with the protective chipboard, until all the construction works have been completed.
8. Fill the gaps between the trench convector's duct and the floor slab with concrete or low expansion mounting foam.
9. After the finishing works have been completed, remove the chipboard.
10. When the concrete compound or the foam cures successfully, clean the duct's inside and the convector itself.
11. Unroll the roll-up masking grille on the convector.



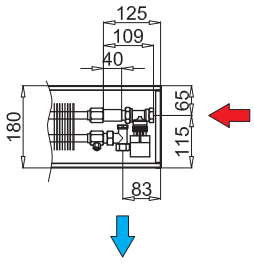
maintenance and cleaning

Before the heating season starts:

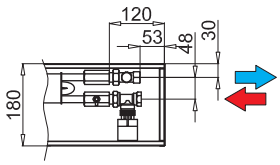
1. Remove the grill.
2. Clean the heat exchanger (coil) elements with a soft brush.
3. Use a vacuum cleaner to remove dust from the bottom of the casing.
4. Clean the remaining dirt with a wet cloth.
5. Put the cover grill back.

How to mount our convectors

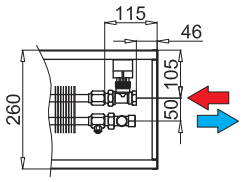
FMK-18
height: 9,11,14



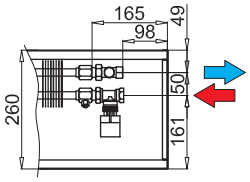
F1P-18
height: 9



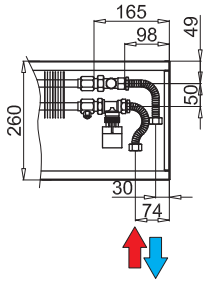
FMK-26
height: 9, 11, 14



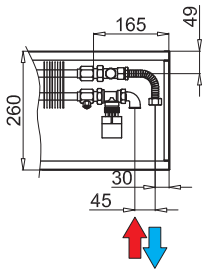
F1T-26
height: 9, 14



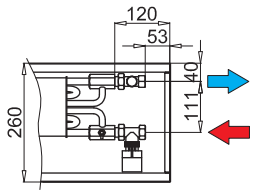
F1T-26
height: 9, 14



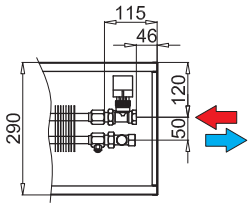
F1T-26
height: 9, 14



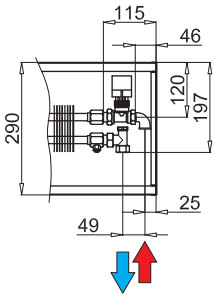
F1P-26
height: 9



FMK-29
height: 9, 11, 14



FMK-29
height: 9, 11, 14



F1T-29
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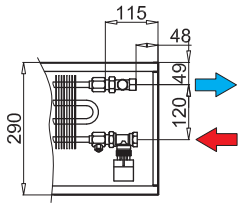

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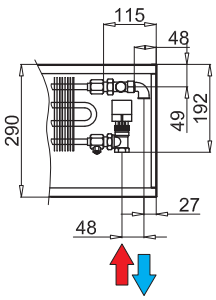

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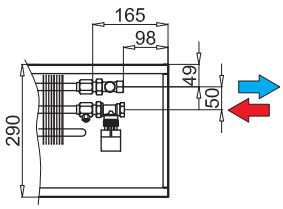

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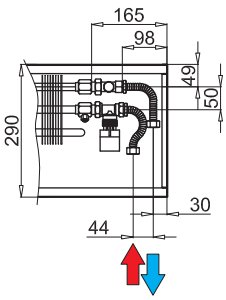

How to mount our convectors

FMK-34
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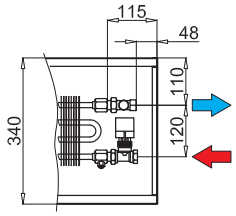

FMK-34
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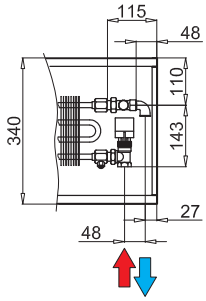

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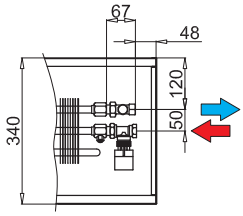

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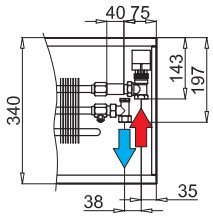

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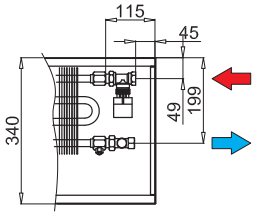

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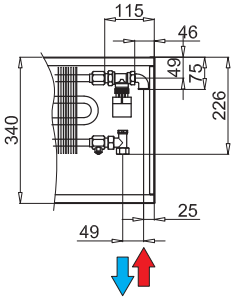

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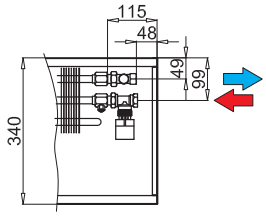

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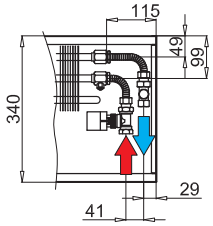
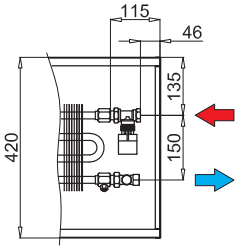


FMK-42
height: 9, 11



FMK-42
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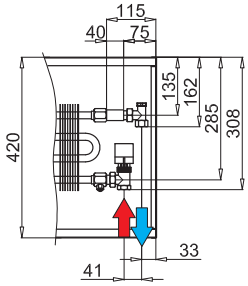

FMK-42
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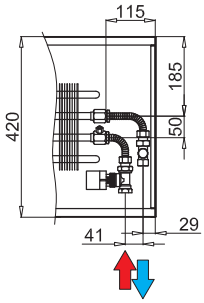

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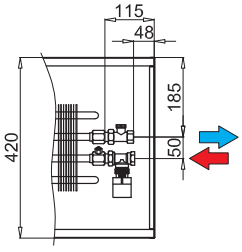
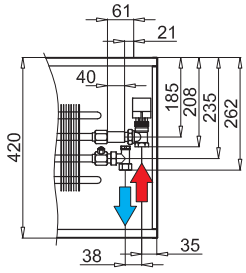


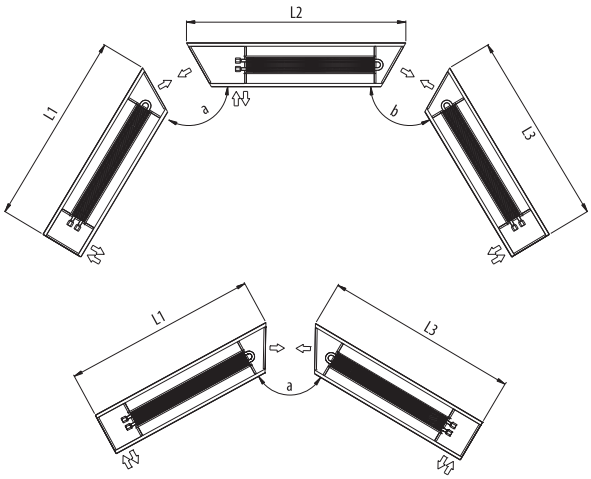
FMK-42
height: 14

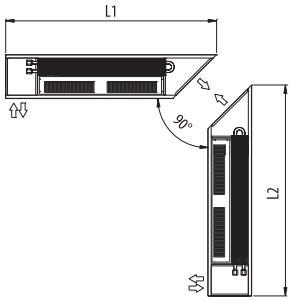


Non-standard versions

non-standard versions

The corner type of trench radiators is available at request. The duct is then manufactured, after the graphic design has been accepted by the Client.

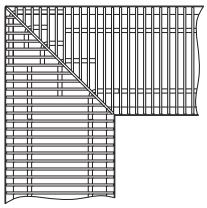




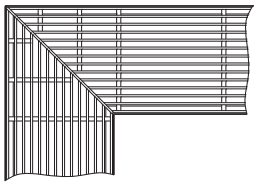
The ducts are frontally connected with 4 M6 bolts.

Note: no stainless steel grilles for the corner versions are available

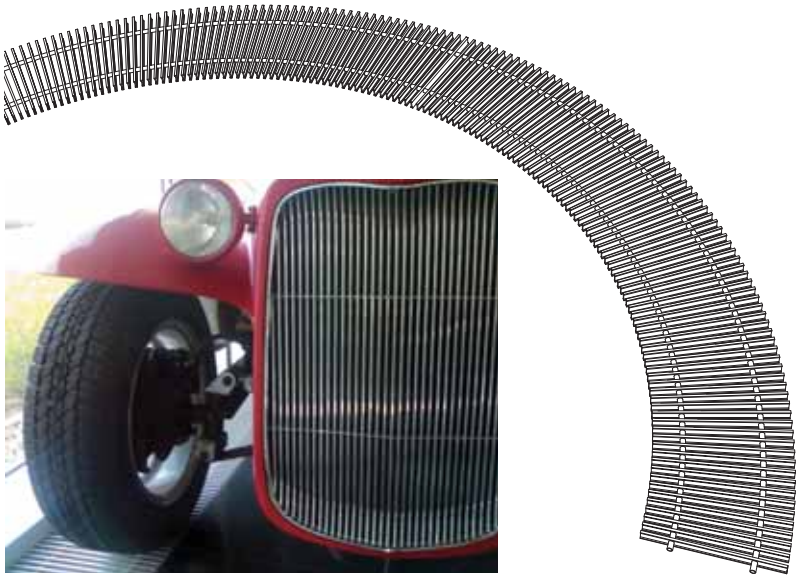
crosswise grille



lengthwise grille



examples of non-standard grilles



Electrical installation

note

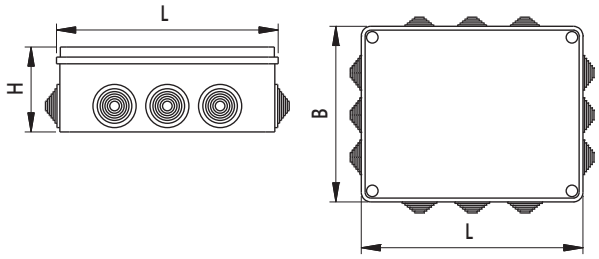
The electrical installation of Aquilo trench convectors should be carried out by a qualified electrician in accordance with current, relevant standards and regulations. The main connection to supply net can only be executed if all connections between proper electrical accessories have been successfully checked.

electrical connections for trench convectors Aquilo F1T, F1P, F2C and F4C

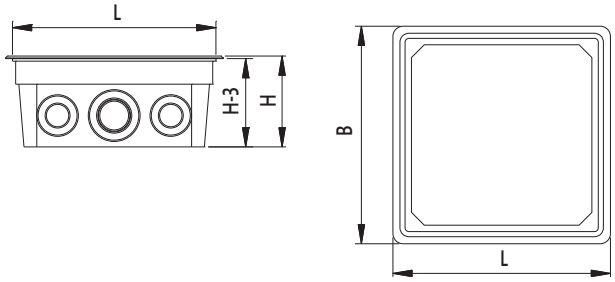
The maximal length of cables between the Aquilo F1T, F1P, F2C or F4C convectors and the PAT transformer is 10 m. In case it becomes necessary to use longer cable segments, a bigger cable diameter is required to keep the voltage drop at max. 1.0 V (recommended value is approx. 0.5 V). The transformer electrical circuit should be equipped with a D6A interrupter. The surface-mounted transformer (PAT-xx-M-01) is to be connected to the electrical circuit with a double-core 2x1.5 mm² cable, while the flush-mounted version (PAT-xx-M-02) – 3x1.5 mm² (e.g. YDY or YKY type). The safety terminal (only for the flush version) is to be found inside the transformer's case. Also inside, a pipe fuse interrupter is located, protecting the transformer's winding. The PAT transformer's connection to the thermostat equipped with a 3-level rotation switch is to be made with a 5x0.75 mm² cable. The Aquilo convector duct's cables are to be connected via the terminals in the electrical installation box (1 or 2 pcs., depending on the number of motors).

PAT transformer – dimensions

version for surface mounting



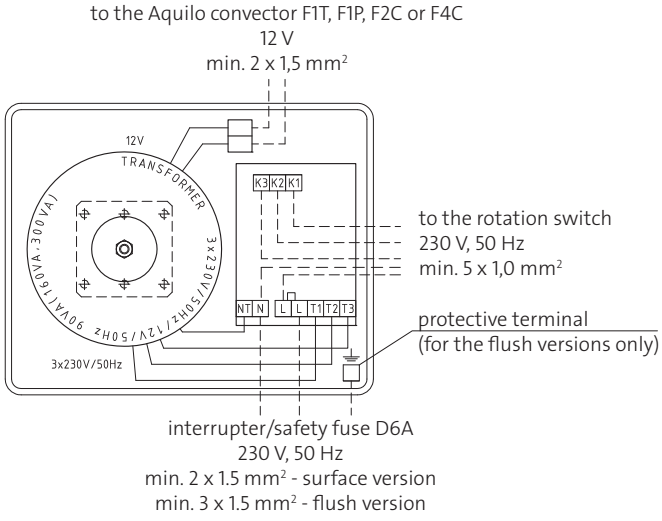
version for flush mounting



type	length L [mm]	width B [mm]	height H [mm]	weight [kg]
PAT-01-M-01	230	185	90	2.2
PAT-02-M-01	230	185	90	2.2
PAT-04-M-01	230	185	90	2.9
PAT-06-M-01	230	185	90	4.2

type	length L [mm]	width B [mm]	height H [mm]	weight [kg]
PAT-01-M-02	230	230	84	2.8
PAT-02-M-02	170	170	71	1.7
PAT-04-M-02	230	230	84	2.7
PAT-06-M-02	230	230	84	4.0

internal schematics of a PAT transformer :



PAT transformers

proper selection of PAT transformers

The Aquilo F1T, F1P, F2C and F4C convector fan motors are powered at 12 V, and that is why the additional PAT transformers are required, together with a wall-surface regulating device, enabling a 3-level fan rotation regulation.
PAT transformers (depending on the types) can control only the specified limited number of the fans' motors, and cannot control more than they are designed for. Due to the application of motors of a different type in the fan modules currently installed, it has become possible to increase a single transformers' capacity in servicing the number of motors connected to one transformer, in comparison to the earlier Aquilo FMT and FPT versions.

PAT transformer PAT-xx-M-01 in the version for surface mounting

type	power	max. number of connected motors				recommended cable for the convector's connection	control device
		F1T	F1P	F2C	F4C		
PAT-01-M-01	45 W	4	4	4	4	2 x 1.5 mm²	PSP-01 PPT-02 PER-05 PER-06 PER-07 PER-08
PAT-02-M-01	90 W	8	8	8	8	2 x 1.5 mm²	
PAT-04-M-01	160 W	15	15	15	15	2 x 1.5 mm²	
PAT-06-M-01	300 W	24	24	24	24	2 x 2.5 mm²	

PAT transformer PAT-xx-M-02 in the version for flush mounting

type	power	max. number of connected motors				recommended cable for the convector's connection	control device
		F1T	F1P	F2C	F4C		
PAT-01-M-02	45 W	4	4	4	4	2 x 1.5 mm²	PSP-01 PPT-02 PER-05 PER-06 PER-07 PER-08
PAT-02-M-02	90 W	8	8	8	8	2 x 1.5 mm²	
PAT-04-M-02	160 W	15	15	15	15	2 x 1.5 mm²	
PAT-06-M-02	300 W	24	24	24	24	2 x 2.5 mm²	

trench convectors' heat output regulation

Heat output can be controlled either on the side of the heating medium which is water, or air (in fan versions only). The water control is performed via a thermostatic valve + head set, and optionally via an actuator supported thermostatic valve.
Heat output control for air (in case of Aquilo F1T, F1P, F2C and F4C convectors) will be performed by the fans' rotations setting. Fan operation can be controlled manually by the User, or automatically via a thermostatic controller.

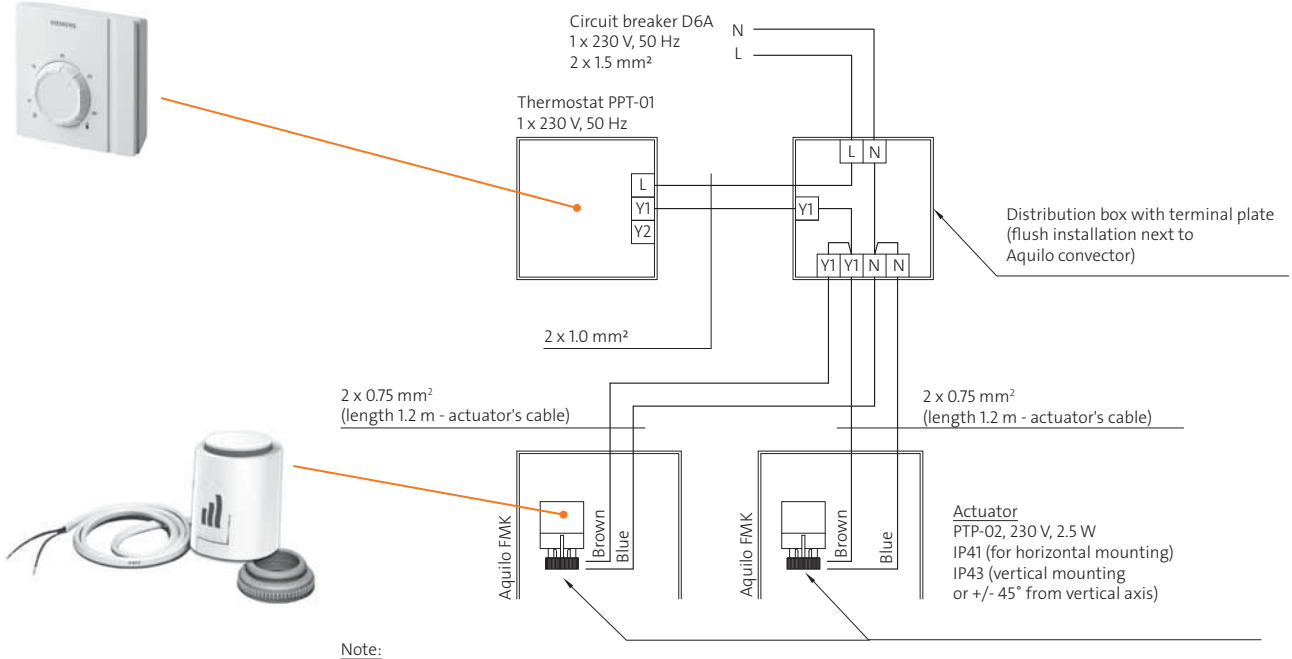
trench convectors' heat output regulation – optional accessories

	catalogue number	description
1. Trench convectors' heat output regulation for water (Aquilo FMK)		
1.1	PTH-01	Thermostatic head with a capillary pipe
1.2	PPT-01	Room thermostat
1.3	PTP-02	Thermoelectric head (actuator)
2. Trench convectors' heat output regulation for air (Aquilo F1T, F1P, F2C and F4C)		
2.1	PSP-01	Fan rotation manual switch
2.2	PPT-02	Room thermostat with a manual fan rotation switch
2.3	PER-05/PER-07	Room thermostat with an automatic fan rotation switch
2.4	PER-06/PER-08	Room thermostat with an automatic fan rotation switch and weekly programming

PAT transformer is necessary for the 3-level rotation regulation. The transformer's type depends on the overall number of fan motors controlled with a single control device (PSP-01, PPT-02, PER-05, PER-06, PER-07, PER-08).

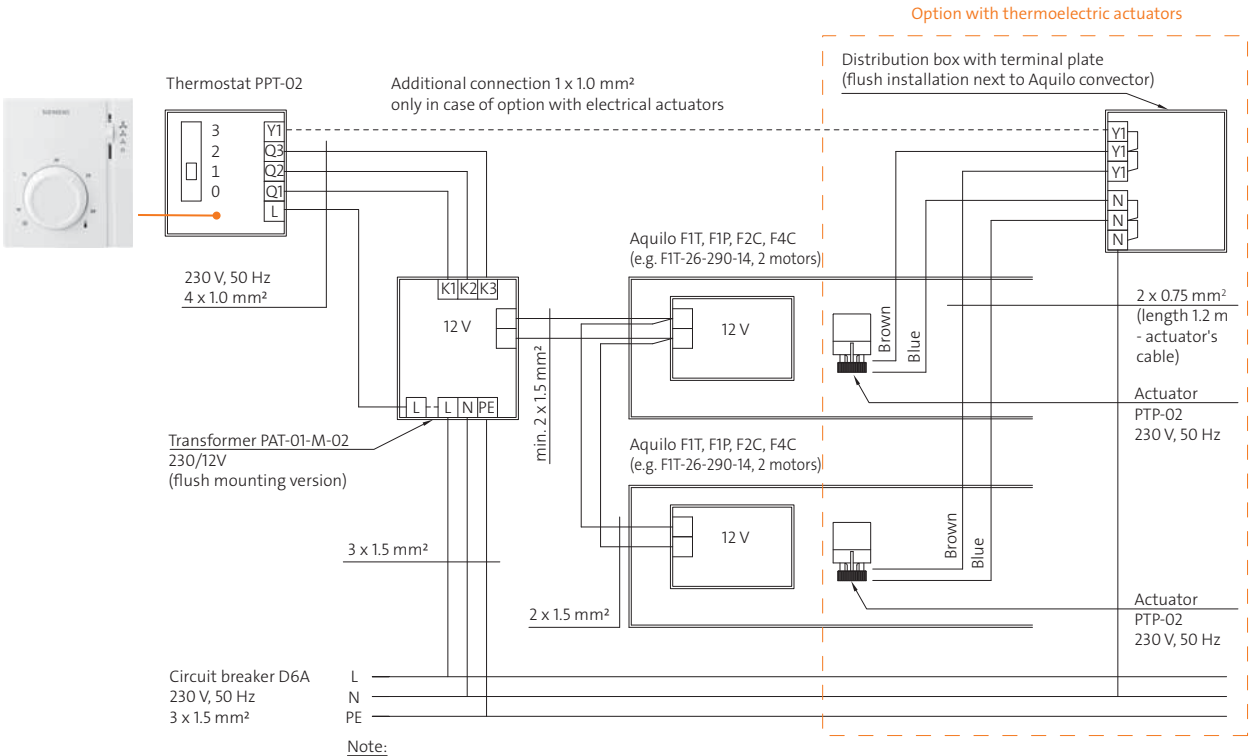
Wiring schemes (examples)

Aquilo FMK convectors, a room thermostat with thermoelectric head (actuator)



Note:
When mounting the actuator directly at the convector's duct, the residual current circuit breaker is necessary.
One PPT-01 thermostat can support max. 24 electric actuators.

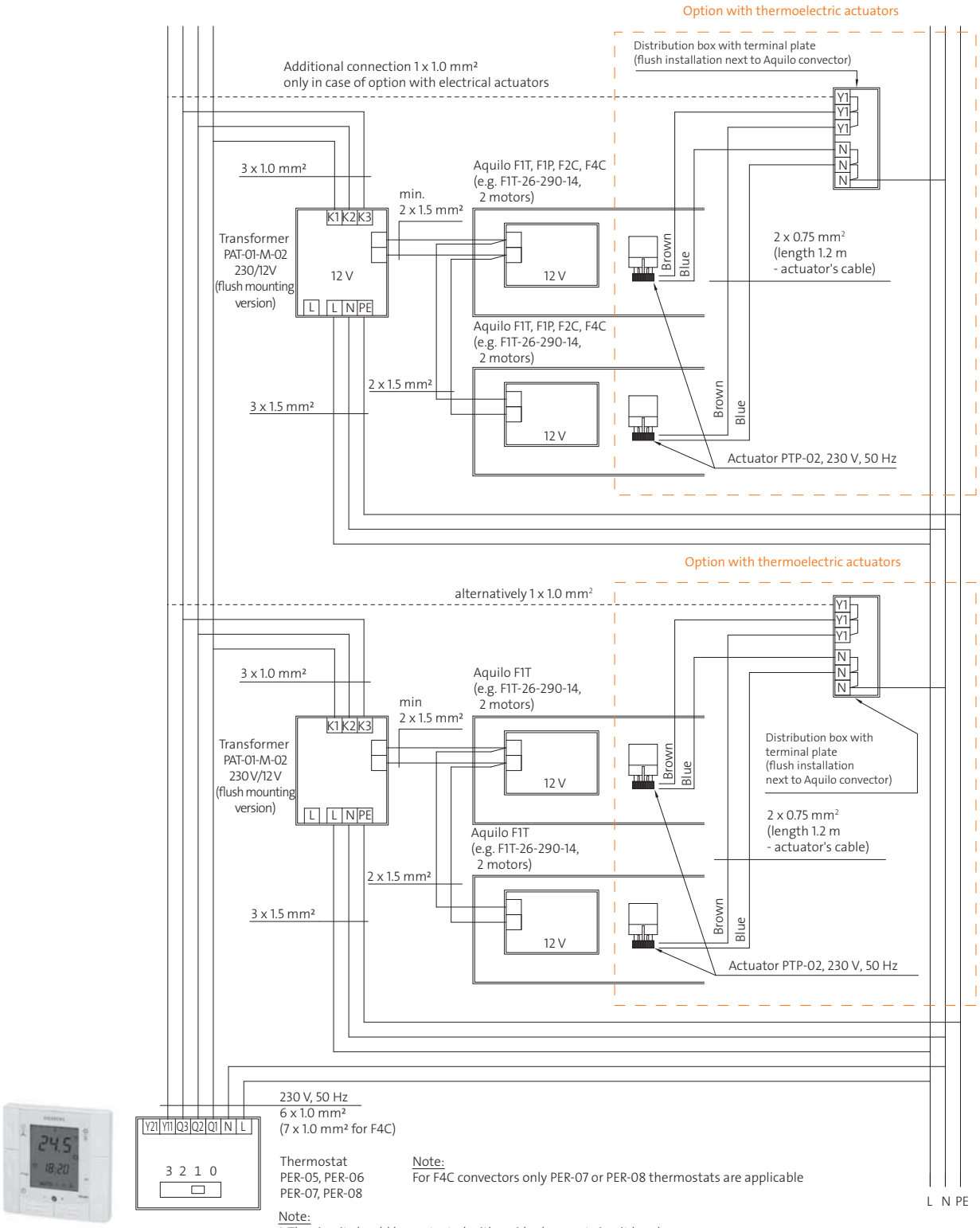
Aquilo F1T, F1P or Aquilo F2C, F4C convectors, room thermostat PPT-02 with manual 3-level fan rotation setting, PAT transformer, available option: regulation via thermoelectric heads (actuators)



Note:
1. The circuit should be protected with residual current circuit breaker.
2. PAT transformer wall mounted connect only with 2 x 1.5 mm² cable (without PE connection)
3. Don't exceed the maximum number of motors connected to the particular type of PAT transformer.

Wiring schemes (examples)

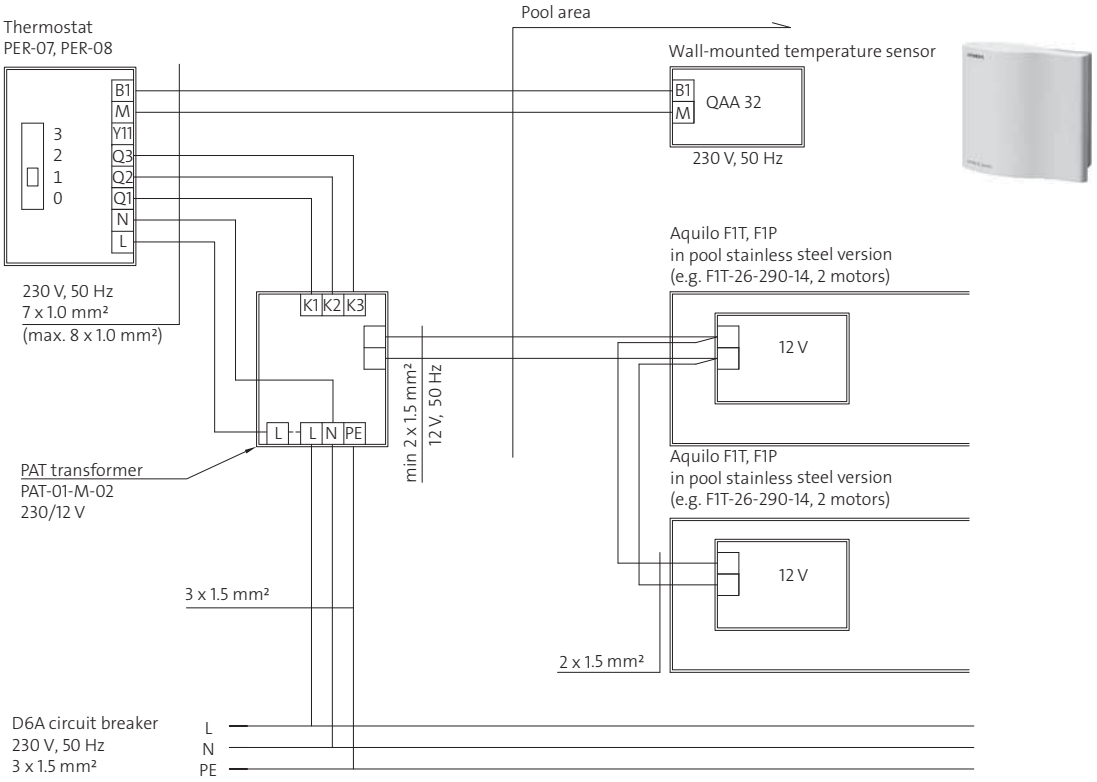
Aquilo F1T, F1P or Aquilo F2C, F4C convectors, a room thermostat with an automatic 3-level fan rotation setting, PAT transformers connected in parallel, available option: regulation via thermoelectric heads (actuators)



Wiring schemes (examples)

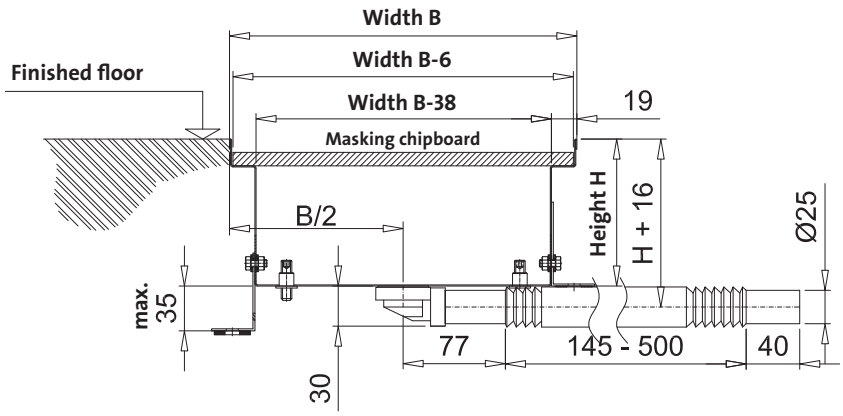
The duct of the convector in the swimming pool version is made of corrosion-resistant material (stainless steel plate).
All connections in the duct are sealed with sanitary silicone sealant. There are drainage connections in the duct bottom.
Other components are made of corrosion-resistant material (levelling bolts, rivets, etc.).
Note: For safety reasons, fan motors are supplied with 12 V.
Only duralumin grilles are recommended for the swimming pool version.

wiring in pool areas

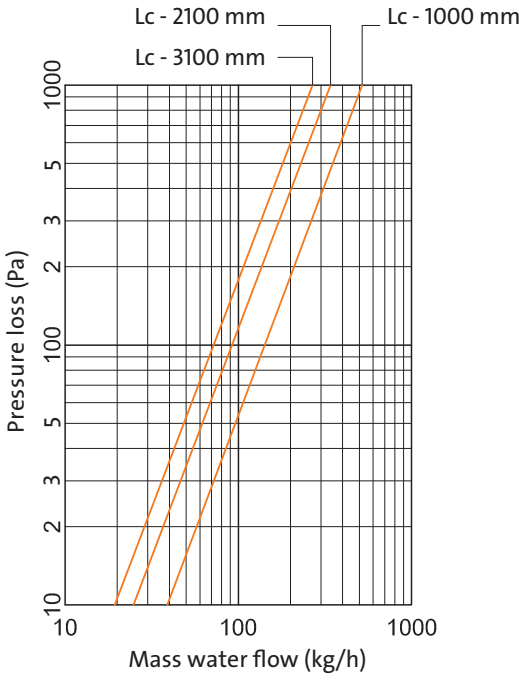


Note:
1. The circuit should be protected with residual current circuit breaker.
2. The surface-mounted version of the PAT transformer should be connected to the mains with a 2x1.5 mm2 cable (no PE wire).
3. Do not exceed the max. permissible number of motors connected to a single PAT transformer.

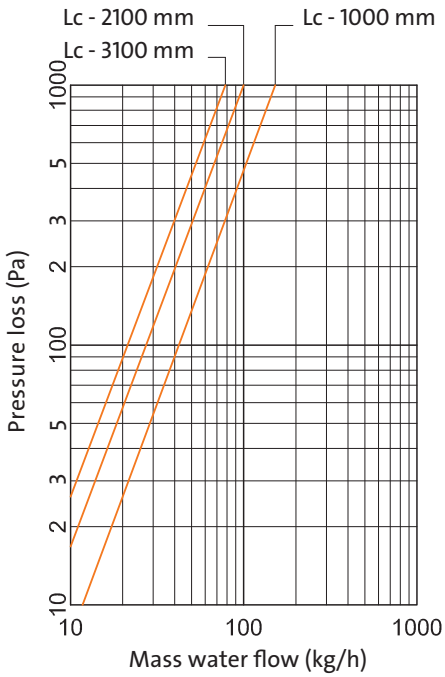
duct's drainage



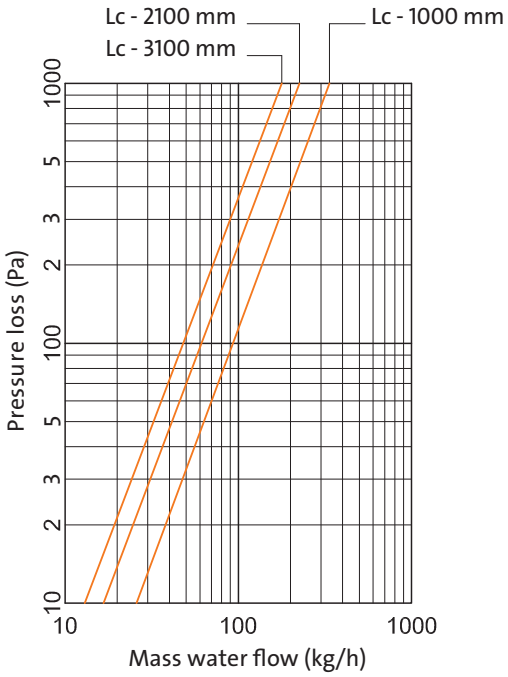
Hydraulic characteristics



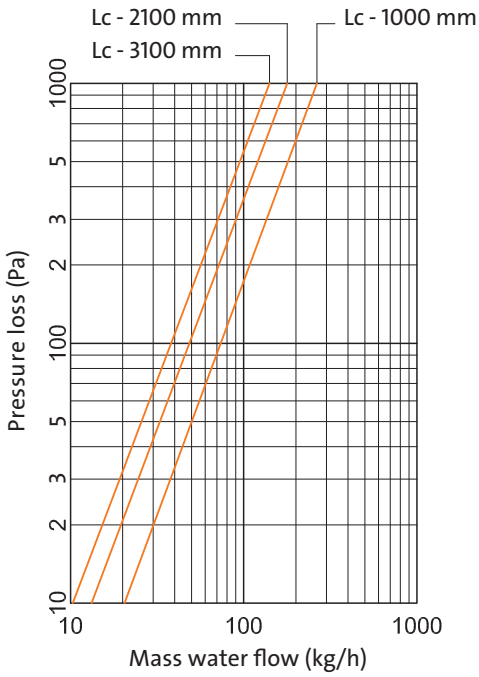
1	FMK-18-LLL-09, FMK-18-LLL-11
2	FMK-26-LLL-09, FMK-26-LLL-11
3	FMK-29-LLL-09, FMK-29-LLL-11
4	F1T-26-LLL-09



1	FMK-34-LLL-09, FMK-34-LLL-11
2	F1T-29-LLL-09

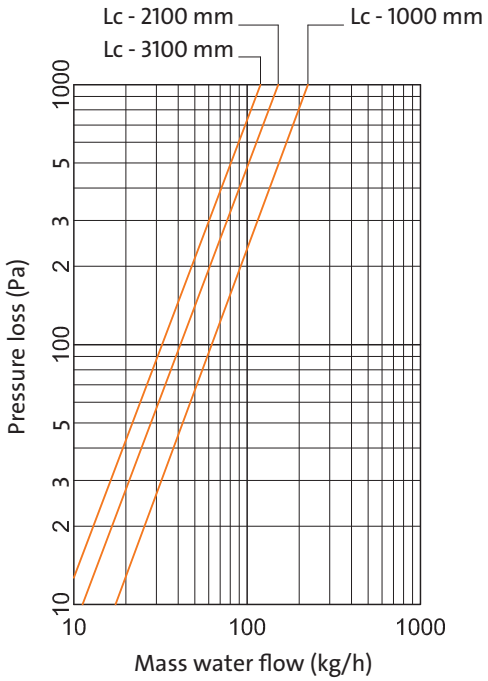


1	FMK-42-LLL-09, FMK-42-LLL-11
2	F1T-34-LLL-09
3	FMK-18-LLL-14, FMK-29-LLL-14
4	FMK-26-LLL-14, F1T-26-LLL-14

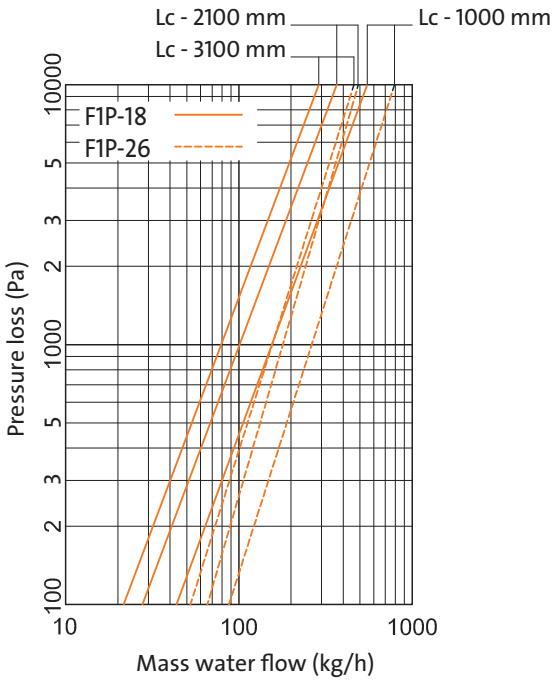


1	FMK-34-LLL-14
2	F1T-29-LLL-14

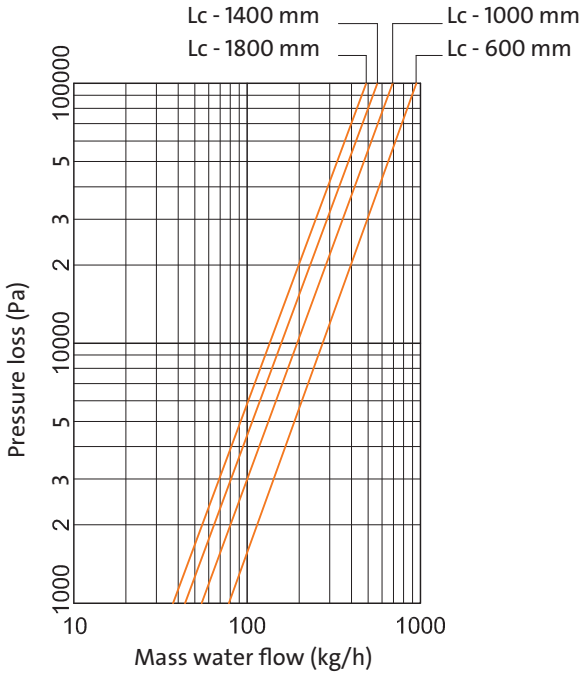
Hydraulic characteristics



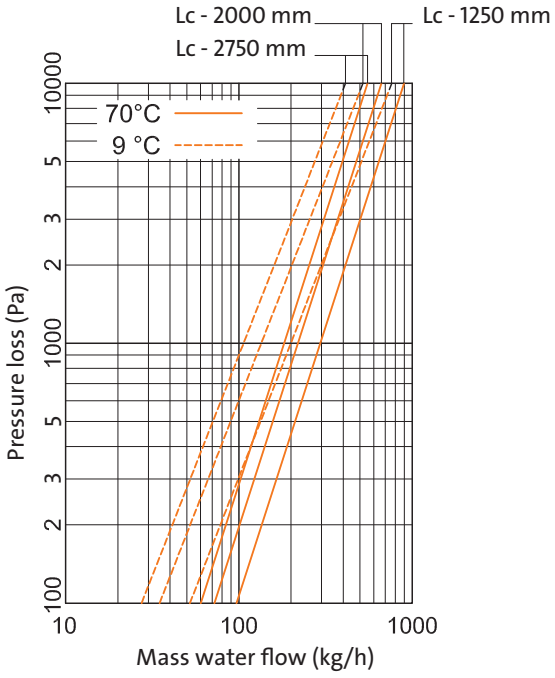
1	FMK-42-LLL-14
2	F1T-34-LLL-14



1	F1P-18-LLL-09
2	F1P-26-LLL-09



1	F2C-24-LLL-11



1	F4C-34-LLL-14

Conversion table

supply water temperature [°C]	air temperature [°C]	Aquilo FMK trench convector n = 1.4																
		35	40	45	50	55	60	65	70	75	80	85		return water temperature [°C]				
90	15	0.78	0.88	0.98	1.08	1.17	1.26	1.35	1.43	1.52	1.61	1.69		0.52	0.46	15		
	20	0.63	0.73	0.83	0.93	1.02	1.11	1.19	1.28	1.36	1.45	1.53		0.42	0.36	20		45
	24	0.51	0.62	0.72	0.81	0.90	0.99	1.08	1.16	1.24	1.32	1.40		0.33	0.28	24		
85	15	0.73	0.83	0.93	1.02	1.11	1.19	1.28	1.36	1.45	1.53		0.62	0.57	0.51	15		
	20	0.59	0.69	0.78	0.87	0.96	1.05	1.13	1.21	1.29	1.37		0.52	0.46	0.40	20		50
	24	0.47	0.58	0.67	0.76	0.85	0.93	1.01	1.09	1.17	1.25		0.44	0.38	0.32	24		
80	15	0.69	0.78	0.87	0.96	1.05	1.13	1.21	1.29	1.37		0.73	0.67	0.61	0.56	15		
	20	0.55	0.64	0.73	0.82	0.90	0.99	1.07	1.14	1.22		0.62	0.57	0.51	0.44	20		55
	24	0.44	0.54	0.63	0.71	0.79	0.87	0.95	1.03	1.10		0.54	0.48	0.42	0.35	24		
75	15	0.64	0.73	0.82	0.90	0.99	1.07	1.14	1.22		0.84	0.78	0.72	0.66	0.59	15		
	20	0.51	0.60	0.69	0.77	0.85	0.92	1.00	1.07		0.73	0.67	0.61	0.55	0.48	20		60
	24	0.40	0.50	0.58	0.66	0.74	0.82	0.89	0.96		0.64	0.59	0.53	0.46	0.39	24		
70	15	0.60	0.69	0.77	0.85	0.92	1.00	1.07		0.95	0.89	0.83	0.77	0.70	0.63	15		
	20	0.47	0.56	0.64	0.71	0.79	0.86	0.93		0.84	0.78	0.72	0.66	0.59	0.52	20		65
	24	0.37	0.46	0.54	0.61	0.68	0.76	0.83		0.75	0.69	0.63	0.57	0.50	0.42	24		
65	15	0.56	0.64	0.71	0.79	0.86	0.93		1.06	1.00	0.94	0.88	0.81	0.74	0.67	15		
	20	0.43	0.51	0.59	0.66	0.73	0.80		0.95	0.89	0.83	0.77	0.70	0.63	0.55	20		70
	24	0.33	0.41	0.49	0.56	0.63	0.70		0.86	0.80	0.74	0.68	0.61	0.54	0.46	24		
60	15	0.51	0.59	0.66	0.73	0.80		1.17	1.11	1.05	0.99	0.92	0.86	0.78	0.71	15		
	20	0.39	0.47	0.54	0.60	0.67		1.06	1.00	0.94	0.88	0.81	0.74	0.67	0.59	20		75
	24	0.30	0.37	0.44	0.51	0.57		0.97	0.91	0.85	0.79	0.72	0.65	0.58	0.49	24		
55	15	0.47	0.54	0.60	0.67		1.28	1.22	1.16	1.10	1.04	0.97	0.90	0.83	0.76	15		
	20	0.35	0.42	0.49	0.55		1.17	1.11	1.05	0.99	0.92	0.86	0.78	0.71	0.62	20		80
	24	0.27	0.33	0.40	0.46		1.08	1.02	0.96	0.90	0.83	0.77	0.69	0.61	0.52	24		
50	15	0.42	0.49	0.55		1.40	1.34	1.28	1.21	1.15	1.08	1.01	0.94	0.87	0.79	15		
	20	0.31	0.37	0.43		1.28	1.22	1.16	1.10	1.04	0.97	0.90	0.83	0.75	0.66	20		85
	24	0.23	0.29	0.35		1.19	1.13	1.07	1.01	0.95	0.88	0.81	0.73	0.66	0.56	24		
45	15	0.37	0.43		1.51	1.45	1.39	1.33	1.26	1.19	1.13	1.06	0.98	0.91	0.82	15		
	20	0.27	0.33		1.40	1.34	1.28	1.21	1.15	1.08	1.01	0.94	0.87	0.78	0.69	20		90
	24	0.19	0.25		1.30	1.25	1.19	1.12	1.06	0.99	0.92	0.85	0.77	0.68	0.59	24		
return water temperature [°C]					85	80	75	70	65	60	55	50	45	40	35	air temperature [°C]	supply water temperature [°C]	
					Aquilo F1T, F1P, F2C, F4C trench convectors, fan version n = 1.1													

Example: the FMK-26-100-11 convector, heat output at 75/65/20°C: Q_N = 266 W, supply temperature: 55°C, return temperature: 45°C, air temperature: 20°C, heat transfer coefficient K1 = 0.49
Calculated heat output: Q = Q_N x K1 = 266 W x 0.49 = 130 W

Accessories

	description	order code
	**DN15 thermostatic valve – NF shortened version:** PN10 / 110 °C Straight version DN15 **PTV-01** Angle version DN15 **PTV-02** **Valve setting** 1 | 2 | 3 | 4 | 5 | N **k_v [m³/h]** 0.10 | 0.20 | 0.31 | 0.45 | 0.69 | 0.89	**AZA3PTV01** **AZA3PTV02**
	**DN15 thermostatic cut-off valve:** PN10 / 110 °C Straight version DN15 **PRS-01** Angle version DN15 **PRS-02** **Rotation no. until total cut-off** 0,25 | 0,5 | 0,75 | 1 | 1,5 | 2 | 2,5 | 3 | 3,5 | 4 | k_{vs} **k_v [m³/h]** 0.2 | 0.4 | 0.5 | 0.65 | 1.0 | 1.3 | 1.7 | 1.9 | 2.1 | 2.3 | 2.5	**AZA3PRS01** **AZA3PRS02**
	**PTH-01 thermostatic valve with a capillary pipe:** Temperature regulation control 8-28 °C Capillary pipe's length 2 m Anti-freezing protection 8 °C	**AZA3PTH01**
	**PPT-01 room thermostat:** Operating voltage 230 V / 50 Hz Required temperature setting range 8 - 30 °C Terminal load 0.2-6 (2) A IP protection rating IP 30 Colour white RAL 9010 Width x height x depth 96.4 x 99.6 x 42.8 mm **Note**: the thermostat should be positioned approx. 1.5 m above the floor level, and not exposed to direct sun radiation or other local heat or cold source.	**AZA3PPT01**
	**PTP-02 actuator for thermostatic valve:** Operating voltage 230 V / 50 Hz no-current shut-off version Cable length 1.2 m Power load 2.5 W Starting current (transitory) 250 mA (230 V / 50 Hz) Connecting cable 2 x 0.75 mm² IP protection rating IP 41 (horizontal mounting) IP 43 (mounting: vertical and ± 45° from the vertical axis) Thread connector M30 x 1.5	**FAW3ANCSCNN54P00**
	**PSP-01 manual 3-level rotation switch:** Operating voltage 230 V / 50 Hz Number of rotation settings off + 3 Terminal load 0.2-6 (2) A IP protection rating IP 30 Colour white RAL 9010 Width x height x depth 96.4 x 113.1 x 42 mm	**AZA3PSP01**
	**PPT-02 room thermostat with a 3-level rotation switch:** Operating voltage 230 V / 50 Hz Required temperature setting range 8 - 30 °C Number of rotation settings off + 3 Terminal load 0.2-6 (2) A IP protection rating IP 30 Colour white RAL 9010 Width x height x depth 96.4 x 113.1 x 42 mm **Note**: the thermostat should be positioned approx. 1.5 m above the floor level, and not exposed to direct sun radiation or other local heat or cold source.	**AZA3PPT02**

Accessories

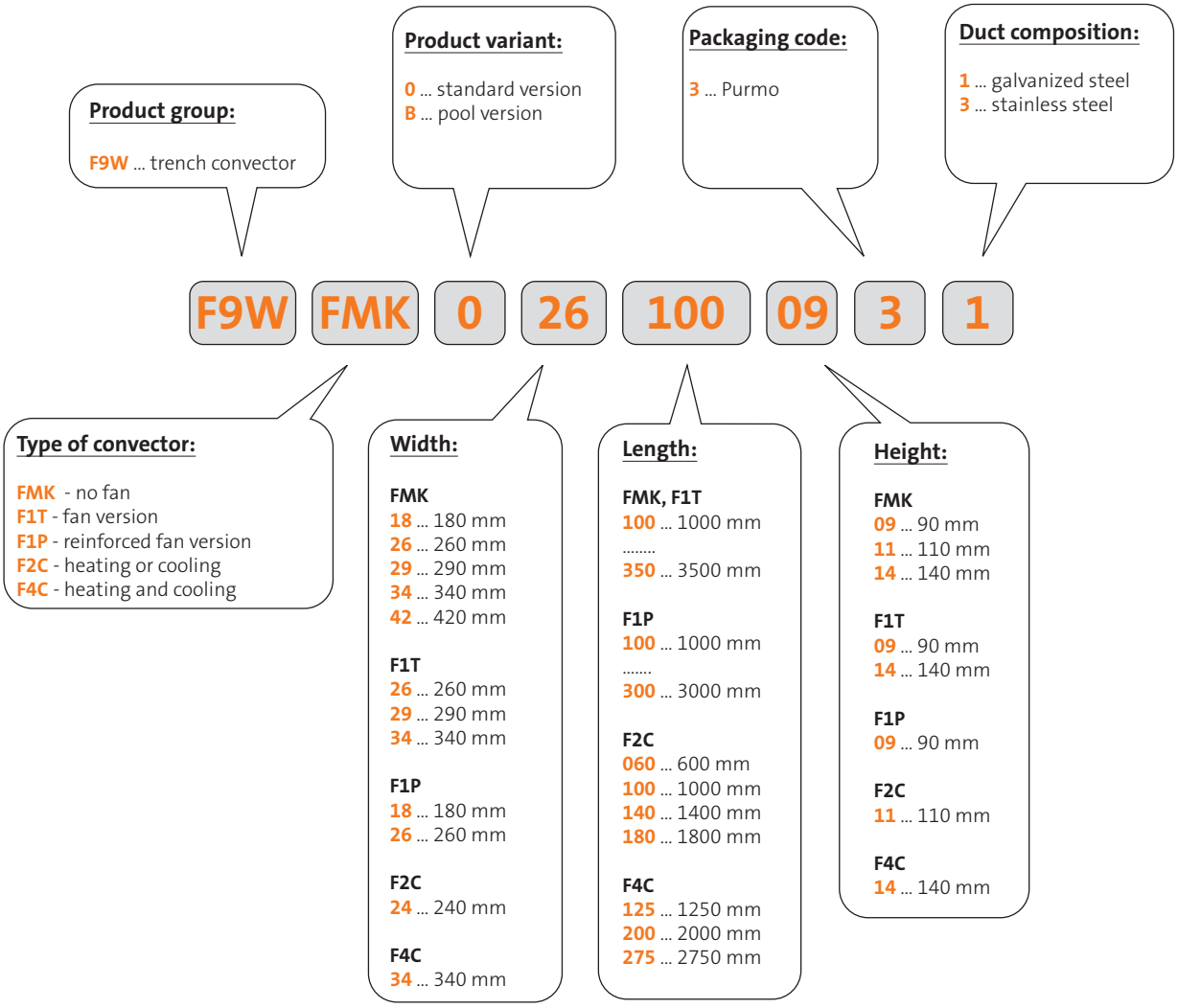
	description	order code
	**PER-05 room thermostat with automatic rotation switch** **- control of heating or cooling** **- available option: remote control** Operating voltage: 230 V / 50 Hz Power load: max 8 W Control output load: 230 V / 50 Hz, max 4 (2) A IP protection rating: IP 30 Required temperature setting range: 5 - 40 °C Fan rotation regulation: manual (0,1,2,3) / automatic Width x height x depth: 86 x 86 x 60 mm **Note**: the thermostat should be positioned approx. 1.5 m above the floor level, and not exposed to direct sun radiation or other local heat or cold source. **Note**: mounting in the flush box PER-06-IK only	**AZA3PER05**
	**PER-06 room thermostat with automatic rotation switch and weekly programming:** **- control of heating or cooling** **- available option: remote control** Operating voltage: 230 V / 50 Hz Power load: max 8 W Control output load: 230 V / 50 Hz, max 4 (2) A IP protection rating: IP 30 Required temperature setting range: 5 - 40 °C Fan rotation regulation: manual (0,1,2,3) / automatic Width x height x depth: 86 x 86 x 60 mm **Note**: the thermostat should be positioned approx. 1.5 m above the floor level, and not exposed to direct sun radiation or other local heat or cold source. **Note**: mounting in the flush box PER-06-IK only	**AZA3PER06**
	**PER-07 room thermostat with automatic rotation switch** **- control of heating and cooling** **- available option: connecting external sensors** Operating voltage: 230 V / 50 Hz Power load: max 8 W Control output load: 230 V / 50 Hz, max 4 (2) A IP protection rating: IP 30 Required temperature setting range: 5 - 40 °C Fan rotation regulation: manual (0,1,2,3) / automatic Width x height x depth: 86 x 86 x 46 mm **Note**: the thermostat should be positioned approx. 1.5 m above the floor level, and not exposed to direct sun radiation or other local heat or cold source. **Note**: mounting in the flush box PER-06-IK or a round flush box (for CEE connectors).	**AZA3PER07**
	**PER-08 room thermostat with automatic rotation switch and weekly programming** **- control of heating and cooling** **- available option: connecting external sensors** **- available option: remote control** Operating voltage: 230 V / 50 Hz Power load: max 8 W Control output load: 230 V / 50 Hz, max 4 (2) A IP protection rating: IP 30 Required temperature setting range: 5 - 40 °C Fan rotation regulation: manual (0,1,2,3) / automatic Width x height x depth: 86 x 86 x 46 mm **Note**: the thermostat should be positioned approx. 1.5 m above the floor level, and not exposed to direct sun radiation or other local heat or cold source. **Note**: mounting in the flush box PER-06-IK or a round flush box (for CEE connectors).	**AZA3PER08**

Accessories

	description	order code
	**PER-06-IK flush box** for PER-05 and PER-06.	AZA3PER06IK
	**PER-05-DO remote control** for PER-05, PER-06 and PER-08.	AZA3PER05DO
	**QAA-32 wall-mounted temperature sensor** Temperature measuring range 0 - 40 °C Measuring accuracy at 25 °C ±0.3K Time constant 6 min Electrical connections IP protection rating IP30 Width x height x depth 97 x 100x36 mm **See p. 40 for a sample wiring diagram**	AZA3QAA32
	**QAH-11 clip-on temperature sensor with NTC resistance measuring element for the equipment with heating and/or cooling function** Temperature measuring range - 20....+ 70 °C Measuring accuracy at 25 °C ±0.3K Time constant 1.5 min	AZA3QAH11
	**PAT transformer ~230/12 V 50 Hz** **version for surface mounting** — **power [W]** PAT-01-M-01 — 45 — AZA3PAT01M01 PAT-02-M-01 — 90 — AZA3PAT02M01 PAT-04-M-01 — 160 — AZA3PAT04M01 PAT-06-M-01 — 300 — AZA3PAT06M01 **version for flush mounting** — **power [W]** PAT-01-M-02 — 45 — AZA3PAT01M02 PAT-02-M-02 — 90 — AZA3PAT02M02 PAT-04-M-02 — 160 — AZA3PAT04M02 PAT-06-M-02 — 300 — AZA3PAT06M02	

Order codes

convectors



Example of an order code for an **Aquilo** convector:

standard version

- product group: trench convector
- type of convector: FMK
- product variant: **standard version**
- width: 260 mm
- length: 1000 mm
- height: 90 mm
- packaging code: Purmo
- duct structure: **galvanized steel**

example of an order code:

F9WFMK0261000931

pool version

- product group: trench convector
- type of convector: FMK
- product variant: **pool version**
- width: 260 mm
- length: 1000 mm
- height: 90 mm
- packaging code: Purmo
- duct structure: **stainless steel**

example of an order code:

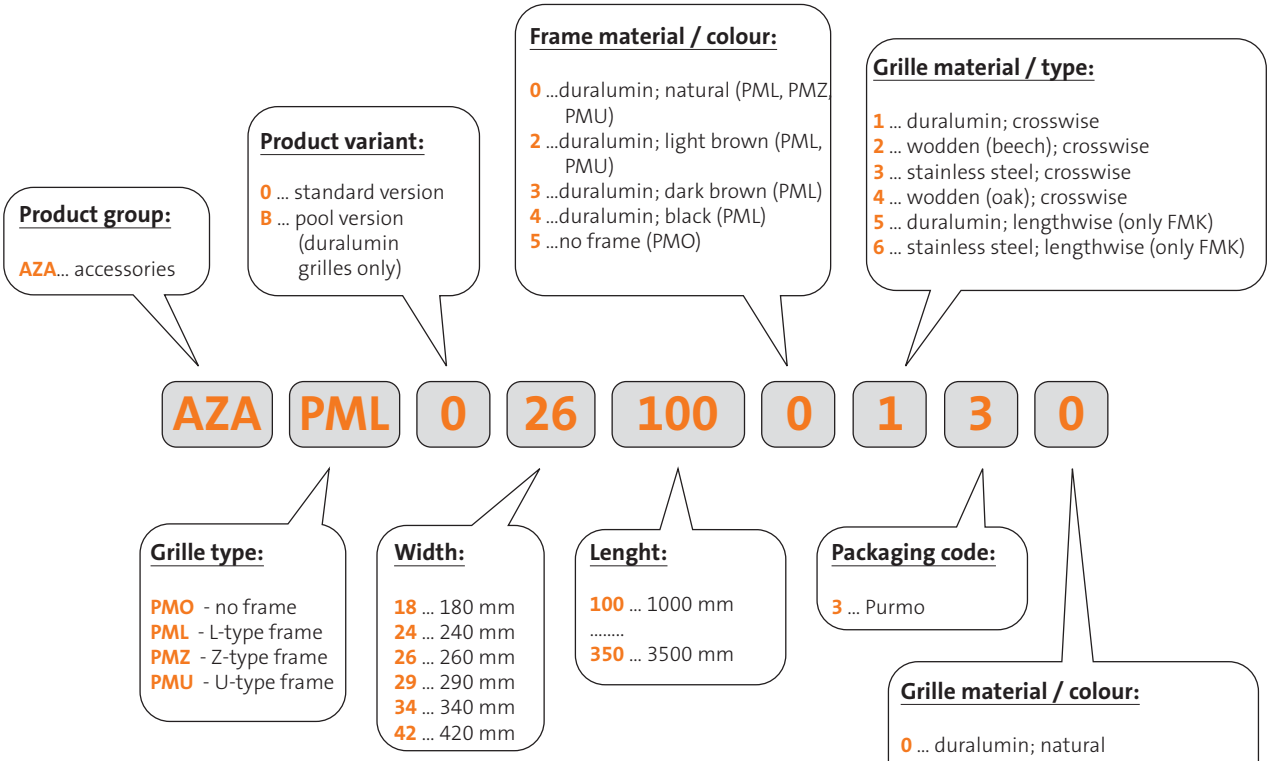
F9WFMKB261000933

Note:

All Aquilo convectors for pool applications must be ordered in special execution versions. This applies to special execution of a duct in stainless steel, as well as other accessories of trench convectors. When describing the type of convector and grille in the pool version, please add the letter "B" after the type symbol. Eg. FMKB, F1TB, F1PB or PMOB, PMLB, PMUB, PMZB. Non-standard versions are available on request only, for execution on the basis of design documentation (drawings) approved by the Client.

Order codes

grilles



Example of an order code for an **Aquilo** grille:

- product group: accessories
- grille type: PML
- product variant: standard version
- width: 260 mm
- length: 1000 mm
- frame material / colour: duralumin / natural
- grille material / type: duralumin / crosswise
- packaging code: Purmo
- grille material / colour: duralumin / natural

example of an order code - AZAPML0261000130

The moisture content for beech or raw oak Aquilo convector grilles is approx. 10%. To enable the Clients colouring of their own choice, the grilles are not sold protected by preliminary varnishing.
However, while stored or after mounting, raw wood grilles can naturally lengthen even with 2-3 mm per each meter of the grille's length, due to the natural process of moisture absorption from the ambient air. To avoid the adverse effects of this natural process, the grilles need to be protected against moisture. Painting with oil or varnishing eliminates the possibility of the negative effects of swelling or shrinking of the wooden grilles. In case grilles become moist, they should be varnished only after they become entirely dry and return to their required length, appropriate to the duct's dimensions.
Note:
In places where intense mechanical load on the grilles might occur (car dealers, gyms), the duralumin or stainless steel grilles are recommended.
Recommended grille execution for pool versions: duralumin.

Terms of warranty

1. AQUILO trench convectors are marketed and made available pursuant to the Regulation (EU) of the European Parliament and according to the Construction Products Regulation of the European Council No. 305/2011 laying down harmonized conditions for the marketing of construction products.

2. **RETTIG HEATING Sp. z o.o. located in Rybnik, Przemysłowa Street (hereinafter referred to as the Guarantor) hereby extends, in the territory of the European Union, a 10-year warranty (from the date of purchase) for AQUILO trench convectors installed in hydronic central heating systems. The warranty applies to the trench of the heater, exchanger and grille. For other components and accessories (fans, valves, heads, transformers and controllers) a 2-year warranty is given.**
Note! Controller programming is not covered by the warranty.

3. The warranty applies to convectors connected to closed-loop water central heating systems with diaphragm expansion vessels, with local vents (no central venting system is allowed), supplied by a heat exchanger transfer station, boiler or heat pump, made up of carbon steel, cooper or plastic tubes, with anti-diffusion barrier and installed in residential, office, service and other areas with no corrosive action of substances contained in air, and free from permanent or occasional moisture. The exception is trench convectors for use in swimming pool areas (fresh water only), for which the Guarantor also gives the warranty as in par. 2. Trench convectors can be installed in small open systems up to 25 kW, provided that approved corrosion inhibitors are used with such systems. During the term of the warranty, the convectors and their components, in which manufacturing defects are found and reported within max. 1 month from finding, will be replaced with new ones, free from defects or repaired.

4. The warranty to be valid requires:
   - a proof of purchase - invoice;
   - heater installation in water central heating system according to the national technical regulations and standards referred to;
   - having the trench convectors with fans installed in accordance with wiring diagrams by qualified workmen (with a relevant electrical license).

5. Operating pressure in the central heating system with AQUILO trench convectors may not exceed 10 bar and the maximum operating temperature 110°C. In high buildings, the system shall be divided into sections. The system shall be tested for tightness with test pressure which is 2 bar higher than the operating pressure, not lower, however, than 4 bar. The maximum test pressure for tightness test is 12 bar.

6. The warranty shall not apply to convectors:
   - installed in central heating systems to be connected to high temperature heat system with a hydro-elevator or pump mixing loop;
   - installed in swimming pool areas (except for swimming pool heater version for fresh water pool systems), car wash facilities, laundries, butcheries, public toilets, bathrooms and other areas with damaging action of corrosive substances contained in air and permanent or occasional moisture;
   - installed in a central heating system to be permanently connected to water supply system without protective equipment provided at the connection point to prevent from return flows, so called anti-contamination equipment;
   - installed in a central heating system to be emptied of water more frequently and for longer periods than stated in the essential operating requirements;
   - installed in steam systems;
   - installed in a central heating system in which the maximum levels of critical water quality indices will be exceeded:
   - the total content of chloride and sulphide ions may not exceed 150 mg/l (for cooper tubing max. 50 mg/l);
   - oxygen content may not exceed 0.1 mg/l;
   - water pH should be within the range 8.0 - 9.5;
   - general water hardness max. 4.0 mval/l.

Terms of warranty

7. **The warranty shall not apply to convectors damage** resulting from misuse, storage, transport and use other than intended. This applies, in particular, to convectors:
   - stored in open air before installation;
   - with mechanical damage;
   - contaminated inside with damaging solids or fluids;
   - deformed by too high test pressure or static pressure in the system;
   - deformed as a result of system freezing.

   The warranty shall not cover electrical equipment damage due to faulty wiring.

8. The convectors shall be installed with mounting boards (included in the delivery), both while pouring concrete into the space between the trench and floor and while spreading the floor finish. The mounting board shall be installed for repair works to avoid ingress of dust and damage of the convector components. To avoid excessive noise from underneath the convector, insulate the space with sound-proofing materials, such as mineral wool, low pressure fitting foam.

9. It is prohibited to drain the system of water completely and partially and to leave it in such condition. This also applies to new systems subjected to tightness tests. If it is required to empty the system, e.g. for repair, remove water only from that part of the system where it is necessary. After completion of the work, the emptied system should be refilled with water immediately. The amount of water used for filling and replenishing the central heating systems should be controlled, e.g. with a water meter.

10. The product may not be repaired or modified by the Buyer or any third parties without the Guarantor's consent, otherwise the warranty will be void.

11. In case of defects found during the warranty period, complaint procedure shall be started, by notifying the Seller with a special complaint form, giving accurate description of the defect found and all details required in the form. The Seller shall accept the complaint and send it to the Guarantor with registered mail, fax or e-mail, within 24 hours from the date of receipt. Forms with missing details, preventing the claim to be processed, will be returned by the Guarantor to complete the missing data. The form shall be appended with an invoice or its photocopy and the number of electrical license of the person responsible for electrical connection (this applies to convectors with fans). In special cases, the Guarantor may request to add photographs showing the claimed product to be added to the complaint form. The Guarantor shall reply to the complaint within 14 days from receipt, starting from the date of receiving a complete complaint form.

12. While processing the complaint, the Guarantor shall inspect the claimed product either at the installation place or in other location requested by the Guarantor. For complaints involving mechanical damage, keep the original packaging in which the heater was delivered. For accepted complaints, the Guarantor shall, within 14 days from acceptance, repair or replace free of charge the parts of the product witch are found defective due to faulty workmanship or material defects. In exceptional cases (e.g. if the product should be imported from abroad for replacement), the Guarantor reserves the right to extend the processing time of an accepted complaint above the 14-day period, against prior written notice to the Client. For defects not affecting heater function, the Guarantor may also propose a relevant discount to the price. In case of complaints for products which are no longer in production, the Guarantor will offer an alternative product with corresponding specifications or propose to refund its cost at the value as of the date of purchase.

13. The Guarantor reserves the right to process the complaint at its discretion.

14. The warranty period shall be extended by the duration of the repair, starting from the date the product is delivered to the Guarantor until the day or repair, and to a replaced heater full warranty period is applied.

15. The Guarantor reserves the right to modify its products without prior notice, provided that the modifications not affect the criteria for selection of convectors.

16. These Terms of Warranty shall neither exclude, limit or suspend Buyer's rights resulting from non-compliance of the product with the contract.

17. These Terms of Warranty are valid since 25.12.2014.

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www.purmo.pl

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LOW TEMPERATURE RADIATORS

PURMO
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