


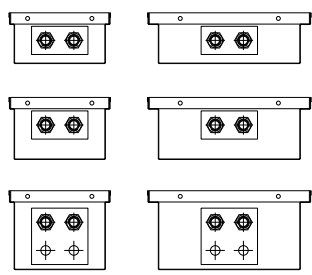

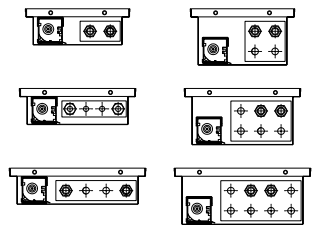

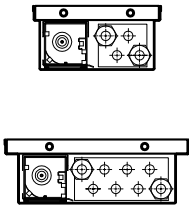

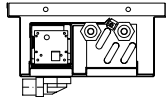

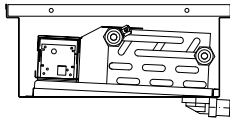


Technical catalogue  
trench convectors Aquilo

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## trench convectors

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		types
	<p><b>Aquilo FMK (no fan)</b>  <b>2 connections</b>                      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</p>	
	<p><b>Aquilo F1T (fan version)</b>  <b>2 connections</b>                      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</p>	
	<p><b>Aquilo F1P (reinforced fan version)</b>  <b>2 connections</b>                      height [mm]: 90                      width [mm]: 180, 260                      overall length [mm]: 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000</p>	
	<p><b>Aquilo F2C (heating or cooling)</b>  <b>2 connections</b>                      height [mm]: 110                      width [mm]: 240                      overall length [mm]: 600, 1000, 1400, 1800</p>	
	<p><b>Aquilo F4C (heating and cooling)</b>  <b>2 connections - heating system</b>  <b>2 connections - cooling system</b>                      height [mm]: 140                      width [mm]: 340                      overall length [mm]: 1250, 2000, 2750</p>	

## 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.

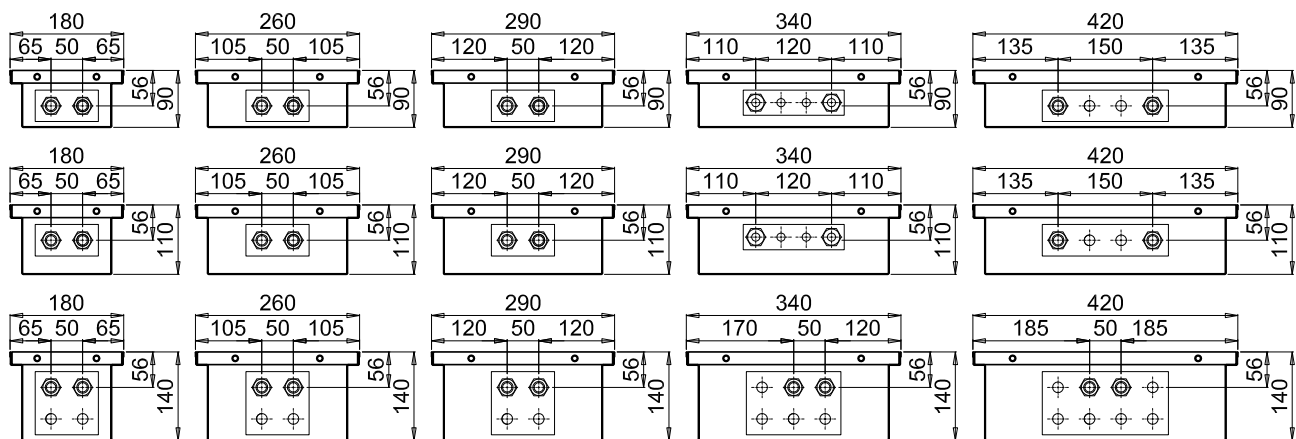
### technical specification

- 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

### side views



### Non standard dimensions

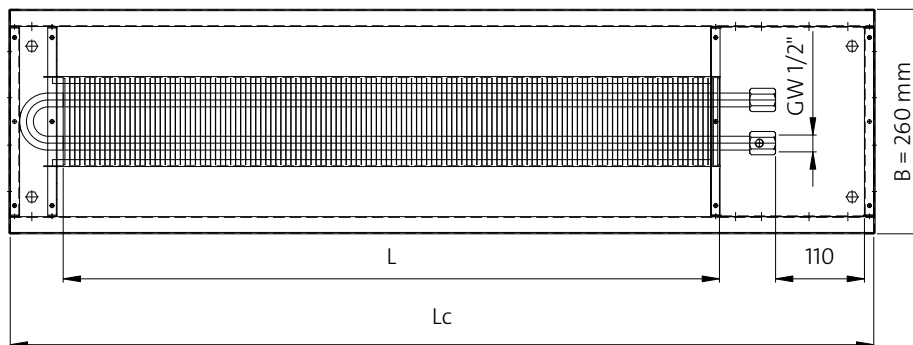
Width: min. 14 cm -max. 45 cm

Depth: min. 7,5 cm (roll out grille only)- max. 45 cm

Length: min. 50 cm - max. in one piece 370 cm (one heat exchanger)

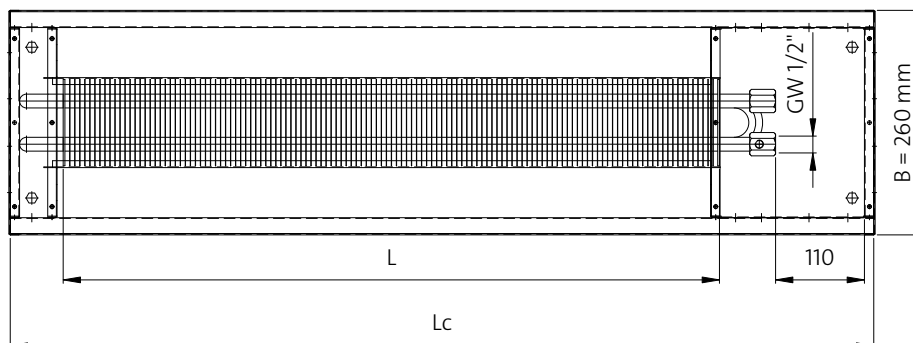
### top view - examples

For the heights 90 and 110 mm



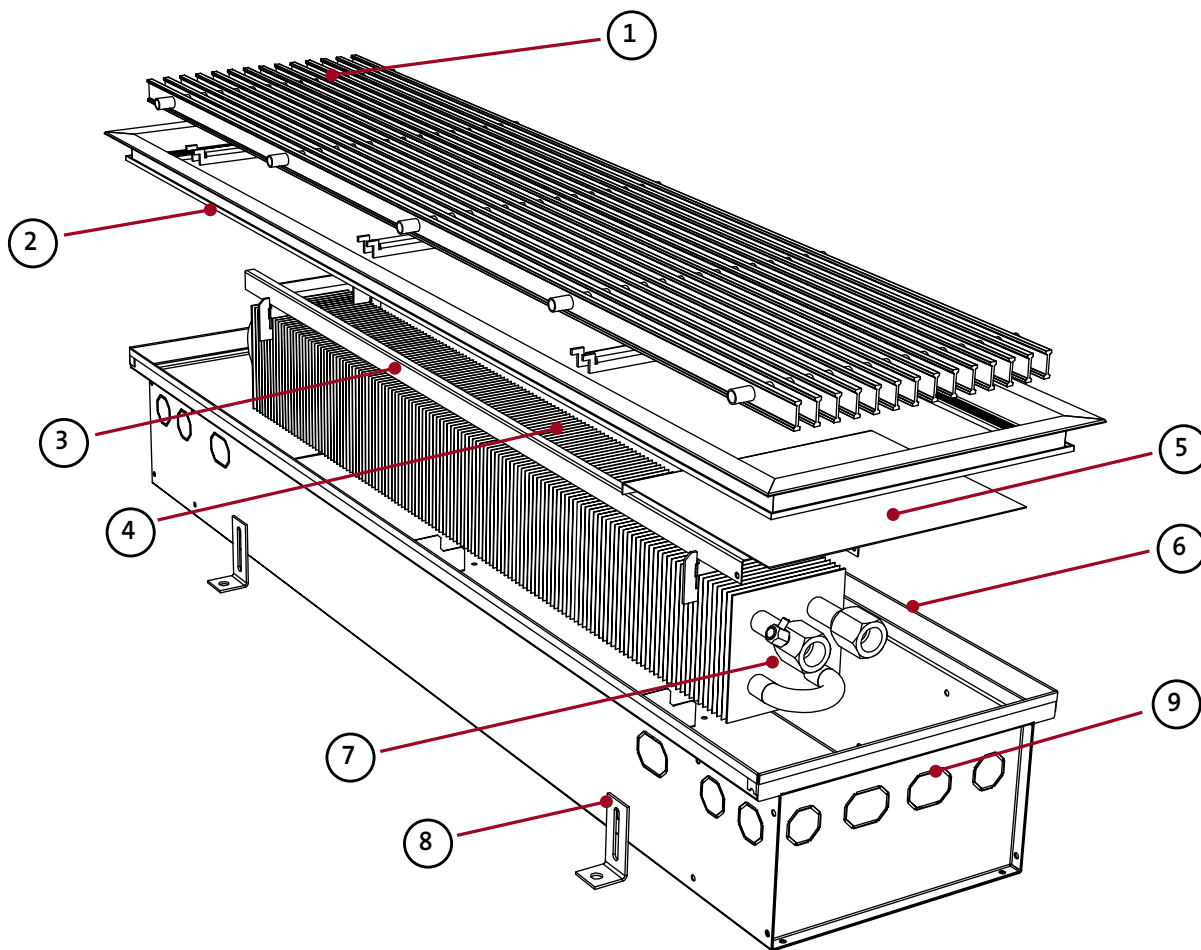
$$L = Lc - 240 \text{ mm}$$

For the height 140 mm



$$L = Lc - 240 \text{ mm}$$

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



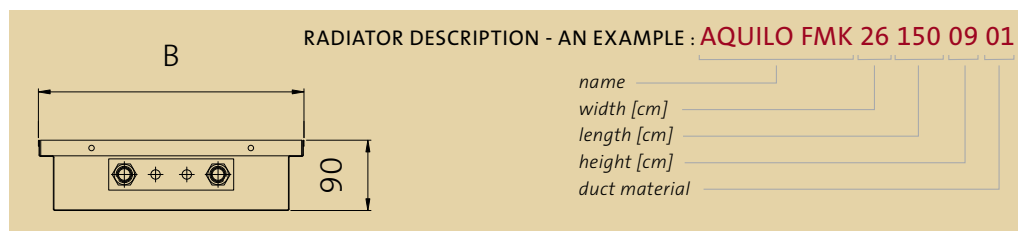
- 1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel), or lengthwise grille (duralumin, stainless steel).  
**Note:** lengthwise grilles as shown in the picture require additional reinforced crossbars
- 2 - Option: L, Z or U-type finishing frame (only for PML, 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

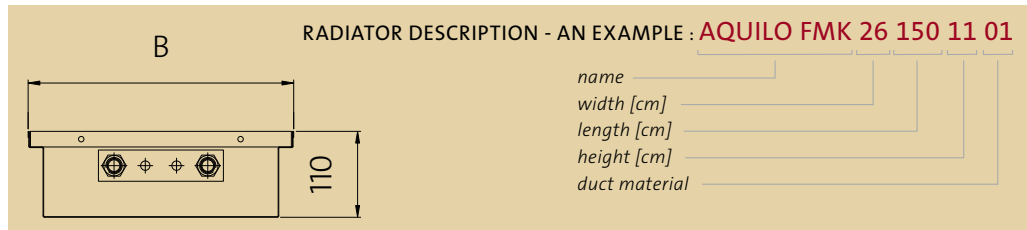
## trench convectors



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



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

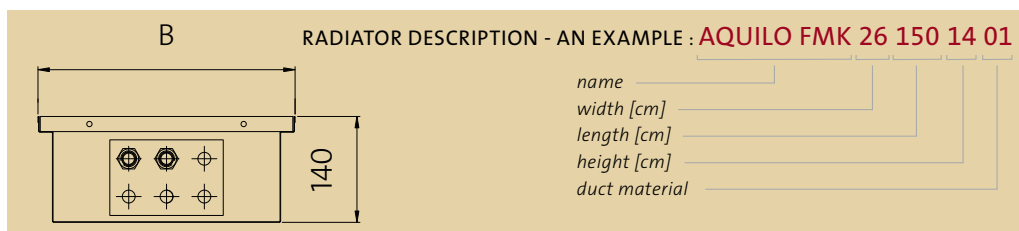
Convectors' heat output [W] in accordance with PN-EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C.

All Aquilo convectors available on request.



# Aquilo FMK (no fan) - height 140 mm

## trench convectors



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

## Aquila 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)

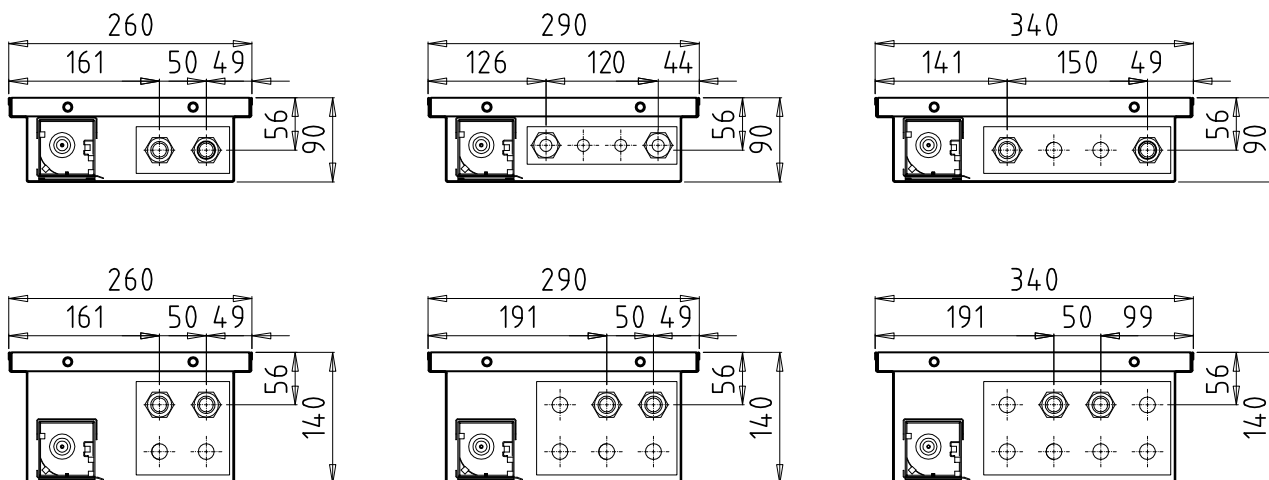
#### NOTE:

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)*

**trench** convectors

## side views



## Non standard dimensions

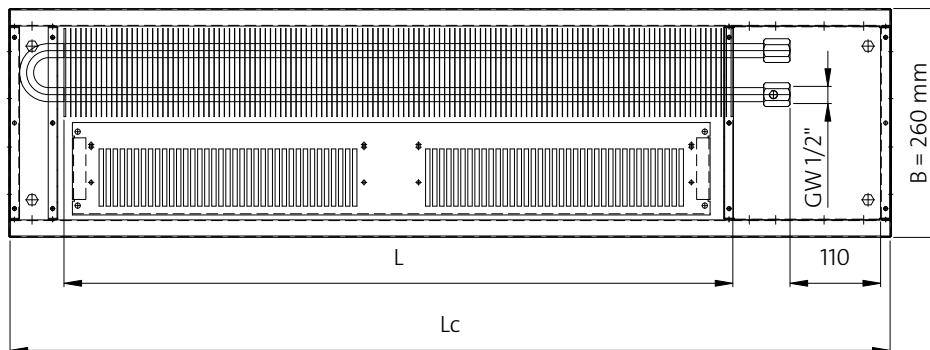
Width: min. 16 cm - max. 45 cm

Depth: min. 8,5 cm (roll out grille only)- max. 14 cm (no sense for deeper duct casing)

Length: min. 65 cm - max. in one piece 370 cm (one heat exchanger)

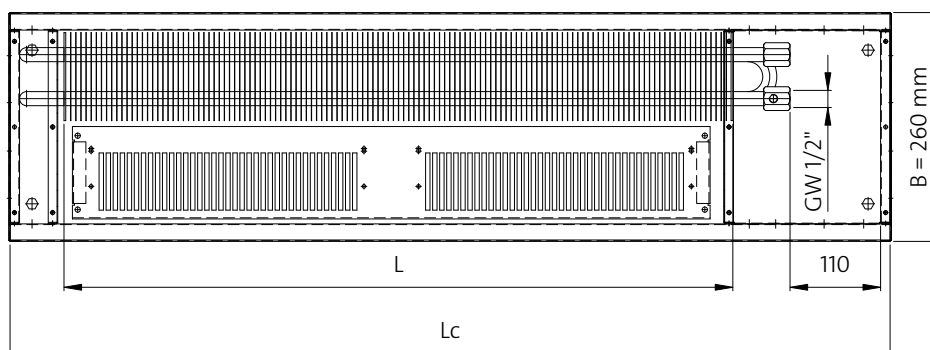
## top view - examples

For the height 90 mm



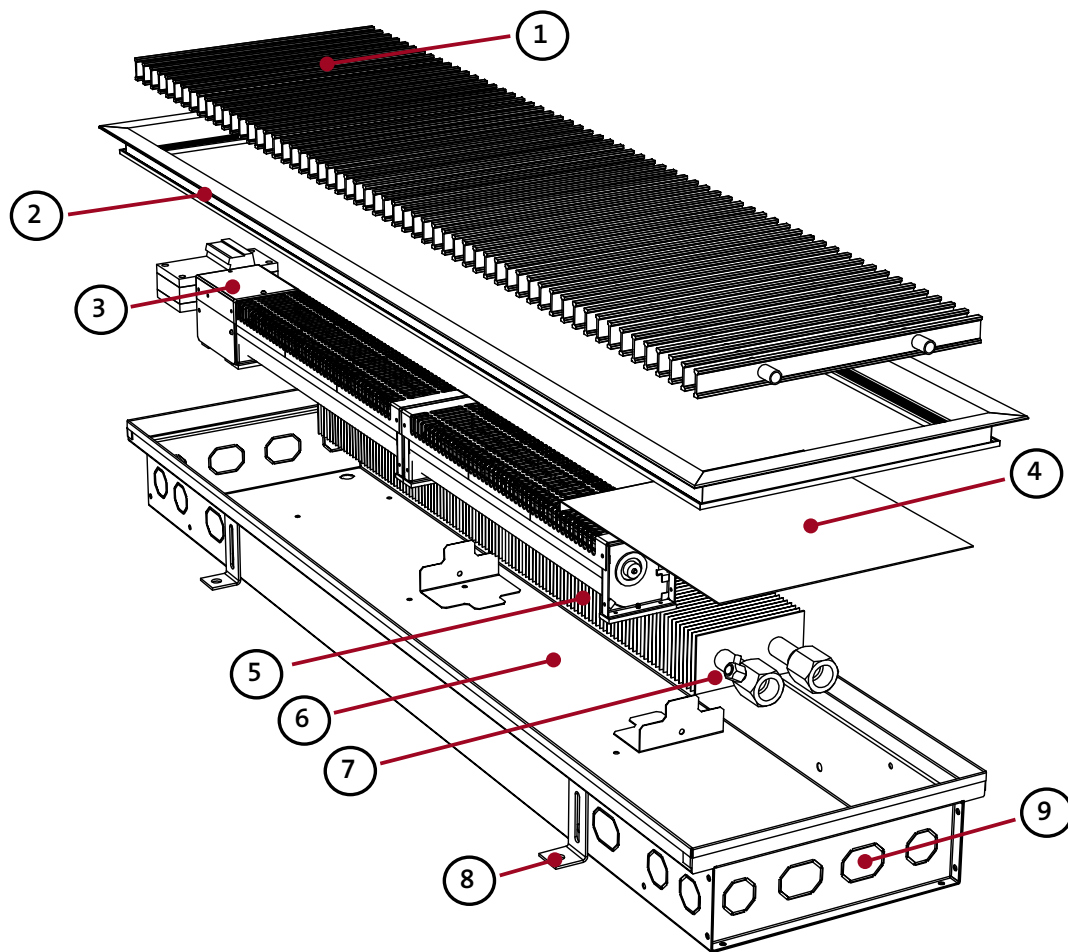
$$L = Lc - 240 \text{ mm}$$

For the height 140 mm



$$L = Lc - 240 \text{ mm}$$

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



- 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

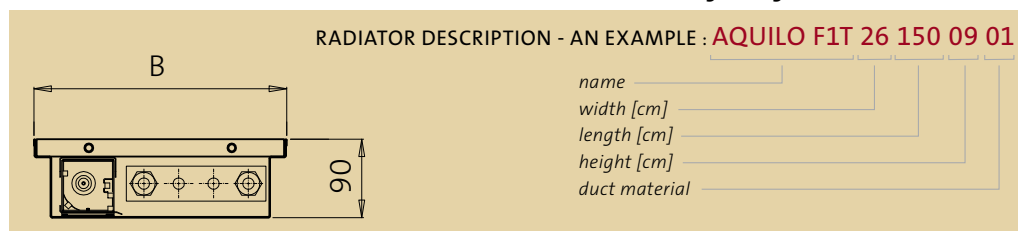
### sound intensity Lp(A), as measured in the distance 1 m from the convector

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

# Aquilo F1T (fan version) - height 90 mm

## trench convectors

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

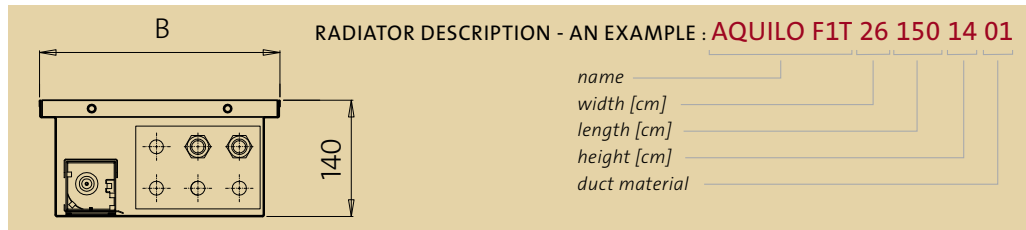


Lc overall length [mm]	parameters t <sub>z</sub> / t <sub>p</sub> / t <sub>i</sub> [°C]	B - width [mm]			number of motors	transform- er's type	electric output [W]				
		260	290	340							
1000	<b>75/65/20</b>	<b>837</b>	<b>1089</b>	<b>1275</b>	1	PAT-01	11				
	70/55/20	700	911	1067							
	55/45/20	486	633	741							
1100	<b>75/65/20</b>	<b>947</b>	<b>1233</b>	<b>1443</b>	1		PAT-01	11			
	70/55/20	793	1031	1208							
	55/45/20	550	716	839							
1200	<b>75/65/20</b>	<b>1112</b>	<b>1376</b>	<b>1695</b>	1			PAT-01	11		
	70/55/20	931	1151	1419							
	55/45/20	646	800	985							
1300	<b>75/65/20</b>	<b>1167</b>	<b>1519</b>	<b>1779</b>	1				PAT-01	11	
	70/55/20	977	1271	1489							
	55/45/20	679	883	1034							
1400	<b>75/65/20</b>	<b>1223</b>	<b>1591</b>	<b>1863</b>	1					PAT-01	11
	70/55/20	1023	1331	1559							
	55/45/20	711	925	1083							
1500	<b>75/65/20</b>	<b>1388</b>	<b>1806</b>	<b>2114</b>	1	PAT-01					11
	70/55/20	1161	1511	1769							
	55/45/20	807	1050	1229							
1700	<b>75/65/20</b>	<b>1608</b>	<b>2093</b>	<b>2450</b>	1		PAT-01				11
	70/55/20	1346	1751	2050							
	55/45/20	935	1216	1424							
1900	<b>75/65/20</b>	<b>1718</b>	<b>2236</b>	<b>2618</b>	1			PAT-01			11
	70/55/20	1438	1871	2191							
	55/45/20	999	1299	1521							
2100	<b>75/65/20</b>	<b>2049</b>	<b>2666</b>	<b>3121</b>	2				PAT-01		22
	70/55/20	1714	2231	2612							
	55/45/20	1191	1549	1814							
2300	<b>75/65/20</b>	<b>2159</b>	<b>2809</b>	<b>3289</b>	2					PAT-01	22
	70/55/20	1806	2351	2752							
	55/45/20	1255	1633	1912							
2500	<b>75/65/20</b>	<b>2489</b>	<b>3239</b>	<b>3793</b>	2	PAT-01					22
	70/55/20	2083	2710	3174							
	55/45/20	1447	1882	2204							
2700	<b>75/65/20</b>	<b>2709</b>	<b>3526</b>	<b>4128</b>	2		PAT-01				22
	70/55/20	2267	2950	3455							
	55/45/20	1575	2049	2399							
2900	<b>75/65/20</b>	<b>2820</b>	<b>3669</b>	<b>4296</b>	2			PAT-01			22
	70/55/20	2359	3070	3595							
	55/45/20	1639	2132	2497							
3100	<b>75/65/20</b>	<b>3040</b>	<b>3956</b>	<b>4632</b>	2				PAT-01		22
	70/55/20	2544	3310	3876							
	55/45/20	1767	2299	2692							
3300	<b>75/65/20</b>	<b>3260</b>	<b>4242</b>	<b>4967</b>	2					PAT-01	22
	70/55/20	2728	3550	4157							
	55/45/20	1895	2466	2887							
3500	<b>75/65/20</b>	<b>3480</b>	<b>4529</b>	<b>5303</b>	2	PAT-01					22
	70/55/20	2912	3790	4438							
	55/45/20	2023	2632	3082							

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 2<sup>nd</sup> rotation setting. For the 1<sup>st</sup> setting, the heat output [W] will be reduced with 24%, and for the 3<sup>rd</sup> setting – increased with 26% compared to the values given in the table above.

All Aquilo convectors available on request.

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



Lc overall length [mm]	parameters t <sub>z</sub> / t <sub>p</sub> / t <sub>i</sub> [°C]	B - width [mm]			number of motors	transformer's type	electric output [W]				
		260	290	340							
1000	<b>75/65/20</b>	<b>1225</b>	<b>1604</b>	<b>1815</b>	1	PAT-01	11				
	70/55/20	1025	1342	1519							
	55/45/20	712	932	1055							
1100	<b>75/65/20</b>	<b>1386</b>	<b>1815</b>	<b>2054</b>	1		PAT-01	11			
	70/55/20	1160	1519	1719							
	55/45/20	805	1055	1194							
1200	<b>75/65/20</b>	<b>1627</b>	<b>2131</b>	<b>2413</b>	1			PAT-01	11		
	70/55/20	1362	1784	2019							
	55/45/20	946	1239	1402							
1300	<b>75/65/20</b>	<b>1708</b>	<b>2237</b>	<b>2532</b>	1				PAT-01	11	
	70/55/20	1429	1872	2119							
	55/45/20	993	1300	1472							
1400	<b>75/65/20</b>	<b>1789</b>	<b>2343</b>	<b>2651</b>	1					PAT-01	11
	70/55/20	1497	1960	2219							
	55/45/20	1039	1362	1541							
1500	<b>75/65/20</b>	<b>2030</b>	<b>2659</b>	<b>3010</b>	1	PAT-01					11
	70/55/20	1699	2225	2518							
	55/45/20	1180	1546	1749							
1700	<b>75/65/20</b>	<b>2352</b>	<b>3082</b>	<b>3487</b>	1		PAT-01				11
	70/55/20	1969	2579	2918							
	55/45/20	1367	1791	2027							
1900	<b>75/65/20</b>	<b>2514</b>	<b>3293</b>	<b>3726</b>	1			PAT-01			11
	70/55/20	2103	2755	3118							
	55/45/20	1461	1914	2166							
2100	<b>75/65/20</b>	<b>2997</b>	<b>3926</b>	<b>4443</b>	2				PAT-01		22
	70/55/20	2508	3285	3718							
	55/45/20	1742	2282	2582							
2300	<b>75/65/20</b>	<b>3158</b>	<b>4137</b>	<b>4682</b>	2					PAT-01	22
	70/55/20	2643	3462	3918							
	55/45/20	1835	2404	2721							
2500	<b>75/65/20</b>	<b>3642</b>	<b>4770</b>	<b>5398</b>	2	PAT-01					22
	70/55/20	3047	3992	4517							
	55/45/20	2116	2772	3137							
2700	<b>75/65/20</b>	<b>3964</b>	<b>5192</b>	<b>5876</b>	2		PAT-01				22
	70/55/20	3317	4345	4917							
	55/45/20	2304	3018	3415							
2900	<b>75/65/20</b>	<b>4125</b>	<b>5403</b>	<b>6115</b>	2			PAT-01			22
	70/55/20	3452	4521	5117							
	55/45/20	2397	3140	3554							
3100	<b>75/65/20</b>	<b>4447</b>	<b>5825</b>	<b>6593</b>	2				PAT-01		22
	70/55/20	3721	4875	5517							
	55/45/20	2585	3386	3831							
3300	<b>75/65/20</b>	<b>4769</b>	<b>6247</b>	<b>7070</b>	2					PAT-01	22
	70/55/20	3991	5228	5916							
	55/45/20	2772	3631	4109							
3500	<b>75/65/20</b>	<b>5092</b>	<b>6670</b>	<b>7548</b>	2	PAT-01					22
	70/55/20	4261	5581	6316							
	55/45/20	2959	3876	4387							

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 2<sup>nd</sup> rotation setting. For the 1<sup>st</sup> setting, the heat output [W] will be reduced with 24%, and for the 3<sup>rd</sup> setting – increased with 26% compared to the values given in the table above.

All Aquilo convectors available on request.

Aquila F1T *(fan version)*

**trench** convectors

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



**examples of execution**



## Aquila 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:

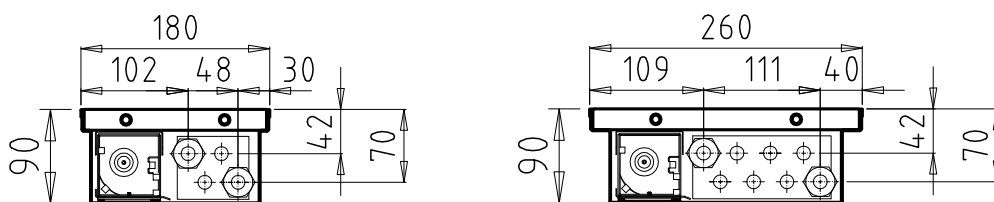
It is strictly forbidden to power the F1P convector directly from the ~230 V electric circuit. The application of an adequate PAT transformer is a must.



# Aquilo F1P *(reinforced fan version)*

## trench convectors

### side views



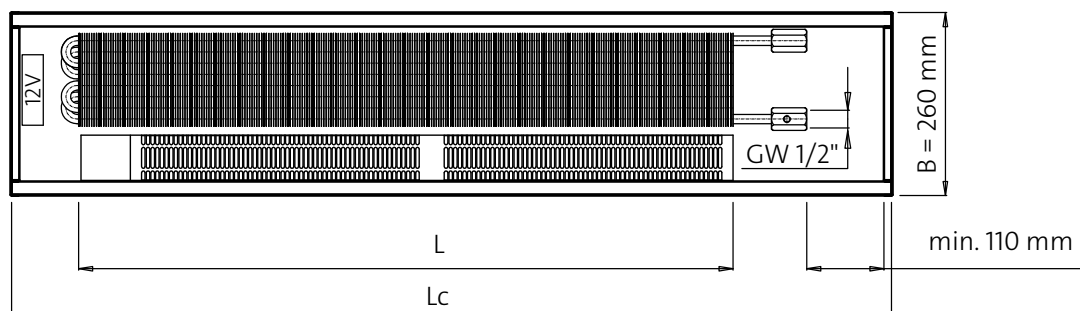
### Non standard dimensions

Width: min. 18 cm -max. 29 cm (no sense for wider casing)

Depth: min. 8,5 cm (roll out grille only)- min. 11 cm (for linear rigid grill) - max. 14 cm (no sense for deeper duct)

Length: min. 75 cm - max. in one piece 310 cm (one heat exchanger)

### top view - an example



$$L = Lc - 320 \text{ mm}$$

*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

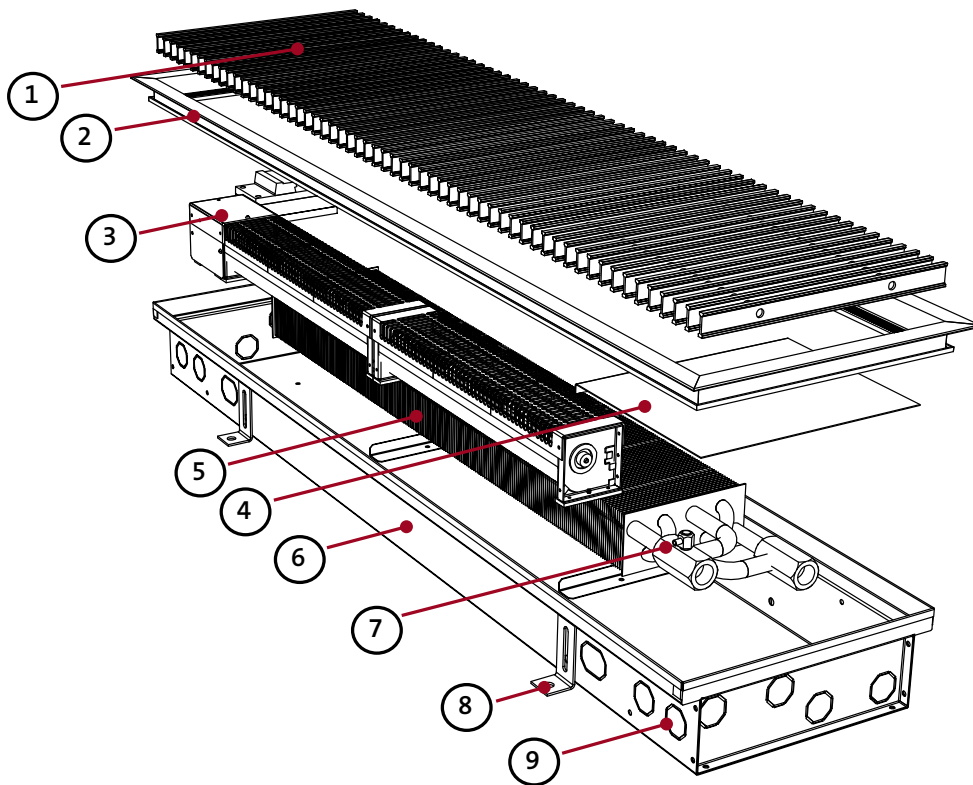
### electric power

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 3 <sup>rd</sup> rotation setting	dB(A)	28.2	29.0	29.7	30.3	30.9
fan's 2 <sup>nd</sup> rotation setting	dB(A)	26.6	27.4	28.1	28.7	29.3
fan's 1 <sup>st</sup> rotation setting	dB(A)	18.1	18.9	19.6	20.2	20.8

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.

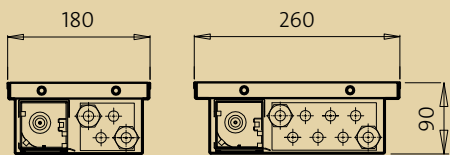
- 5 - Heat exchanger (copper pipes, aluminum fins, overall coated with black varnish).
- 6 - Convector's duct (double-side galvanized, varnished metal sheet).
- 7 - Air vent.
- 8 - Surface mounting elements.
- 9 - Passes for the hydronic heating system connection (breakable).

# Aquilo F1P (reinforced fan version) height 90 mm

## trench convectors

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 <sub>z</sub> / t <sub>p</sub> / t <sub>i</sub> [°C]	B - width [mm]		number of motors	transform- er's type	electric power [W]
		180	260			
<b>1000</b>	<b>75/65/20</b>	<b>823</b>	<b>1205</b>	1	PAT-01	11
	70/55/20	688	1008			
	55/45/20	478	700			
<b>1250</b>	<b>75/65/20</b>	<b>1125</b>	<b>1648</b>	1		11
	70/55/20	942	1379			
	55/45/20	654	958			
<b>1500</b>	<b>75/65/20</b>	<b>1428</b>	<b>2091</b>	1		11
	70/55/20	1195	1750			
	55/45/20	830	1215			
<b>1750</b>	<b>75/65/20</b>	<b>1730</b>	<b>2534</b>	1		11
	70/55/20	1448	2121			
	55/45/20	1006	1473			
<b>2000</b>	<b>75/65/20</b>	<b>2033</b>	<b>2977</b>	2	22	
	70/55/20	1701	2491			
	55/45/20	1181	1730			
<b>2250</b>	<b>75/65/20</b>	<b>2335</b>	<b>3420</b>	2	22	
	70/55/20	1954	2862			
	55/45/20	1357	1988			
<b>2500</b>	<b>75/65/20</b>	<b>2638</b>	<b>3863</b>	2	22	
	70/55/20	2207	3233			
	55/45/20	1533	2245			
<b>2750</b>	<b>75/65/20</b>	<b>2940</b>	<b>4306</b>	2	22	
	70/55/20	2460	3603			
	55/45/20	1709	2503			
<b>3000</b>	<b>75/65/20</b>	<b>3243</b>	<b>4749</b>	2	22	
	70/55/20	2713	3974			
	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 2<sup>nd</sup> rotation setting. For the 1<sup>st</sup> setting, the heat output [W] will be reduced with 24%, and for the 3<sup>rd</sup> setting – increased with 26% compared to the values given in the table above.

All Aquilo convectors available on request.

## Aquila F2C *(heating or cooling)*

Trench convectors Aquila 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. Aquila 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).

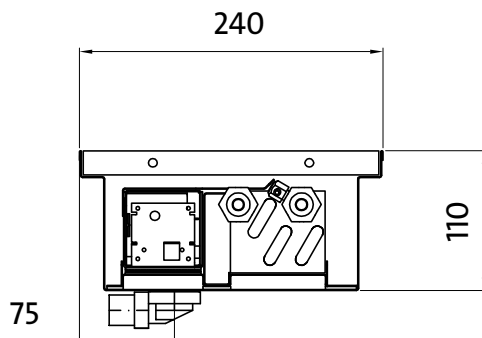
#### NOTE:

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.

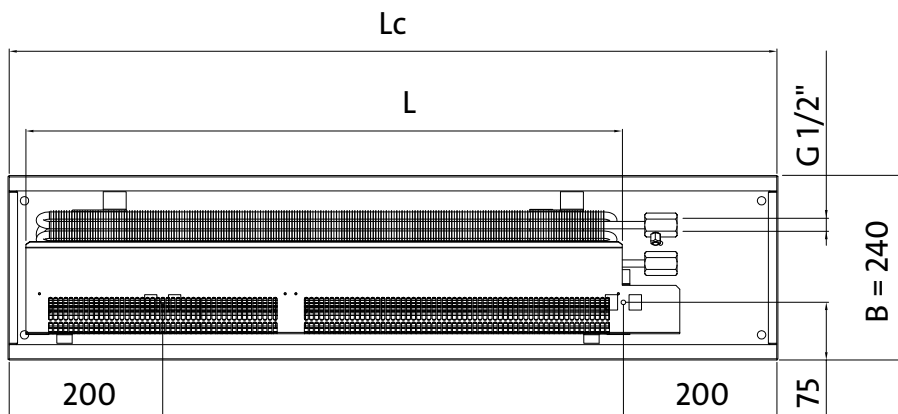
# Aquila F2C *(heating or cooling)*

## trench convectors

### side view



### top view



*L<sub>c</sub>* - convector's overall length  
*L* - exchanger's length  
*B* - width

$$L = L_c - 280 \text{ mm}$$

### weight and water capacity

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

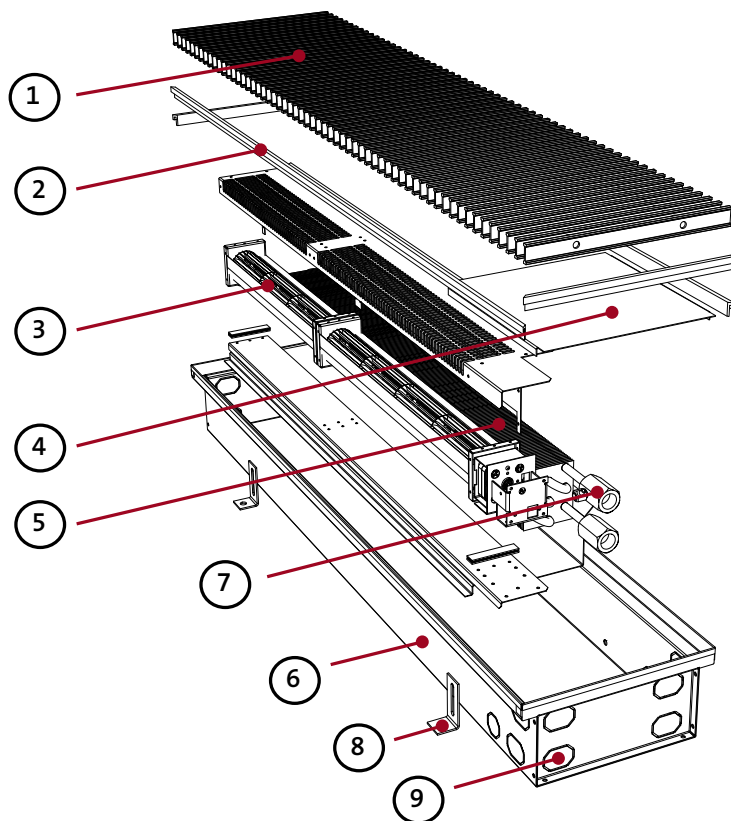
### electric power

overall length L <sub>c</sub>	[mm]	600 - 1800
number of motors	[-]	1
electric power	[W]	11

### sound intensity L<sub>p</sub>(A), as measured in the distance 1 m from the convector

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

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



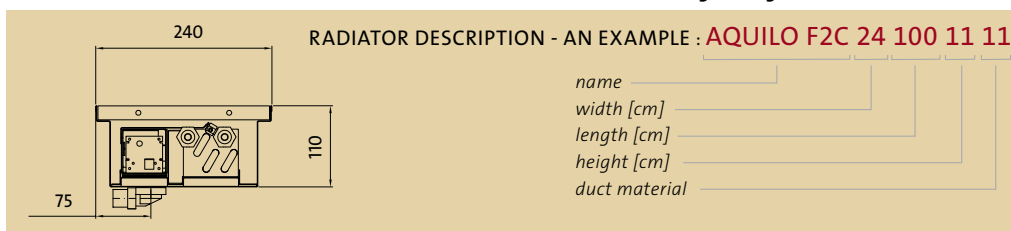
- 1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel).
- 2 - Option: L, Z or U-type finishing frame (only for PML, PMZ and PMU grilles). Not applicable for PMO grilles.  
**Note:** U-type frame is shown in the picture.
- 3 - Centrifugal fans' module, driven 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).

# Aquila F2C *(heating or cooling)*

## trench convectors

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



Lc overall length [mm]	parameters t <sub>z</sub> / t <sub>p</sub> / t <sub>i</sub> [°C]	width 240 mm, height 110mm				
		cooling output [W]	heat output [W]	number of motors	transformer's type	electric power [W]
<b>600</b>	<b>75/65/20</b> 70/55/20 55/45/20 6/12/26	242	<b>878</b> 741 524	1	PAT-01	11
<b>1000</b>	<b>75/65/20</b> 70/55/20 55/45/20 6/12/26		<b>1975</b> 1667 1178			
<b>1400</b>	<b>75/65/20</b> 70/55/20 55/45/20 6/12/26		<b>3072</b> 2593 1832			
<b>1800</b>	<b>75/65/20</b> 70/55/20 55/45/20 6/12/26		<b>4169</b> 3518 2486			
		1148		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 2<sup>nd</sup> rotation setting. For the 1<sup>st</sup> setting, the heat output [W] will be reduced with 17%, and for the 3<sup>rd</sup> 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 2<sup>nd</sup> rotation setting. For the 1<sup>st</sup> setting, the heat output [W] will be reduced with 10%, and for the 3<sup>rd</sup> setting – increased with 4% compared to the values given in the table above.

All Aquilo convectors available on request.

## Aquila F4C *(heating and cooling)*

Trench convectors Aquila 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. Aquila 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, chip-board 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:

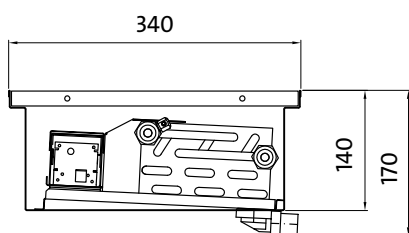
It is strictly forbidden to power the F4C convector directly from the ~230 V electric circuit. The application of an adequate PAT transformer is a must.



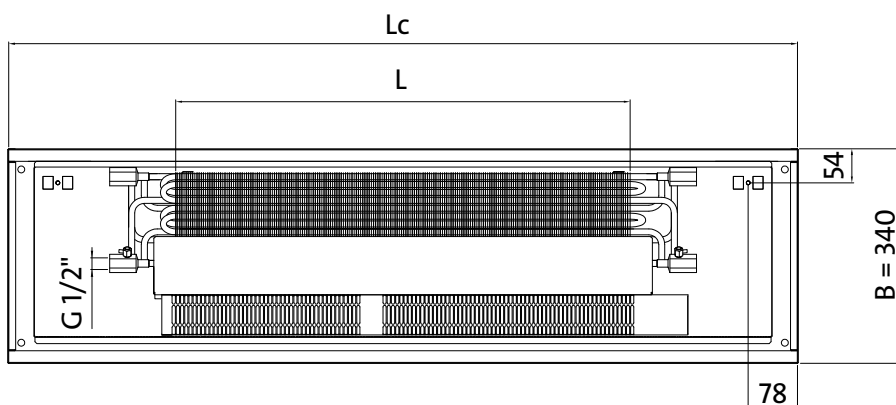
# Aquilo F4C *(heating and cooling)*

## trench convectors

### side view



### top view



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

$$L = Lc - 520 \text{ mm}$$

### weight and water capacity

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

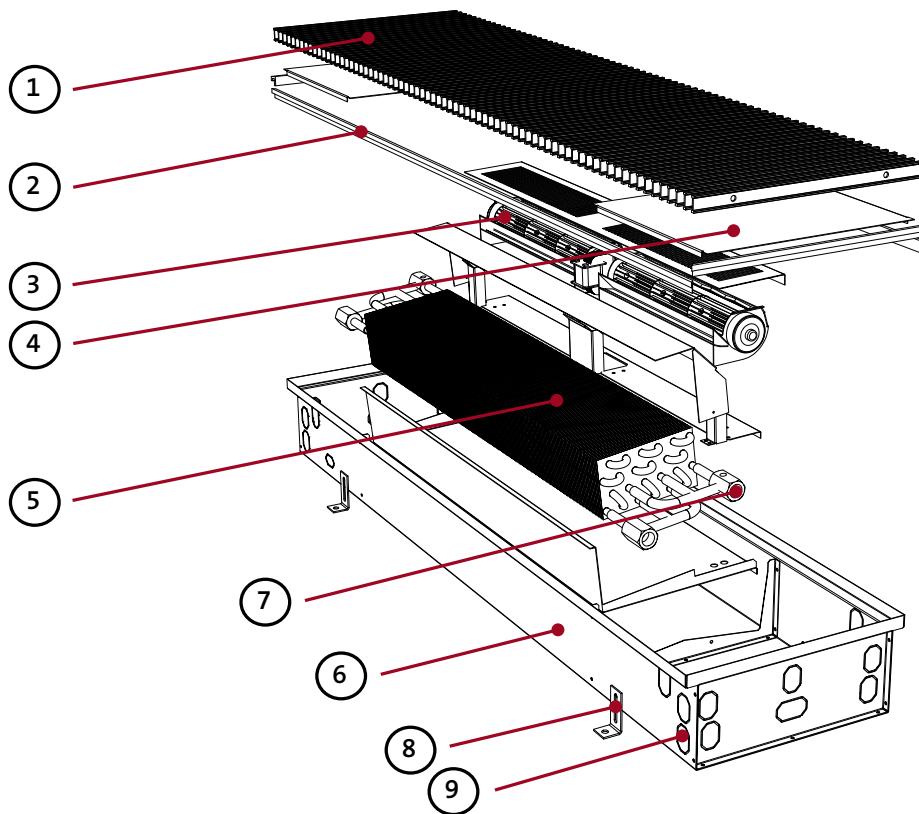
### electric power

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

### sound intensity $L_p(A)$ , 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 3 <sup>rd</sup> rotation setting	dB(A)	28.2	29.7	30.9
fan's 2 <sup>nd</sup> rotation setting	dB(A)	26.6	28.1	29.3
fan's 1 <sup>st</sup> rotation setting	dB(A)	18.1	19.6	20.8

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



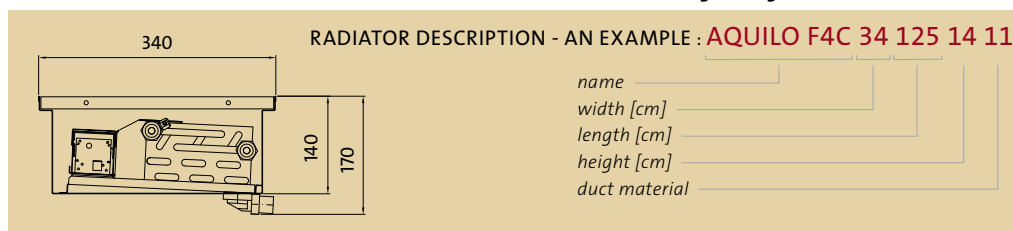
- 1 - Roll-up crosswise grille (beech or oiled oak, raw or varnished, duralumin, stainless steel).
- 2 - Option: L, Z or U-type finishing frame (only for PML, PMZ and PMU grilles). Not applicable for PMO grilles.  
**Note:** U-type frame is shown in the picture.
- 3 - Centrifugal fans' module, driven 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)*

## trench convectors

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



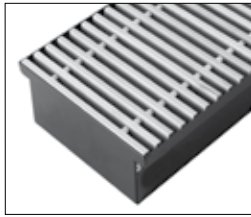
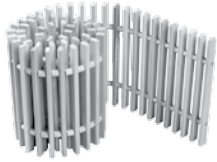
Lc overall length [mm]	parameters t <sub>z</sub> / t <sub>p</sub> / t <sub>i</sub> [°C]	width 340 mm, height 140mm				
		cooling output [W]	heat output [W]	number of motors	transformer's type	electric power [W]
<b>1250</b>	<b>75/65/20</b>	442	<b>1606</b>	1	PAT-01	11
	70/55/20		1355			
	55/45/20		958			
<b>2000</b>	<b>75/65/20</b>	887	<b>3221</b>	2	PAT-01	22
	70/55/20		2718			
	55/45/20		1921			
<b>2750</b>	<b>75/65/20</b>	1332	<b>4837</b>	2	PAT-01	22
	70/55/20		4082			
	55/45/20		2885			
	6/12/26					

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 2<sup>nd</sup> rotation setting. For the 1<sup>st</sup> setting, the heat output [W] will be reduced with 26%, and for the 3<sup>rd</sup> 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 2<sup>nd</sup> rotation setting. For the 1<sup>st</sup> setting, the heat output [W] will be reduced with 20%, and for the 3<sup>rd</sup> setting – increased with 24% compared to the values given in the table above.

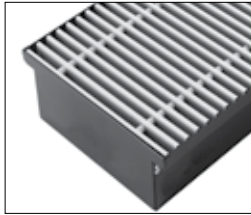
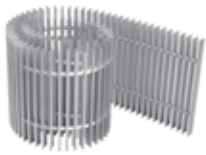
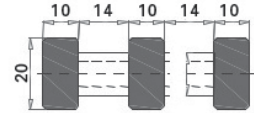
All Aquilo convectors available on request.

**description**



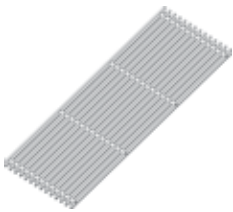
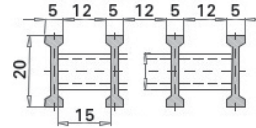
**wooden, crosswise**

- 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%



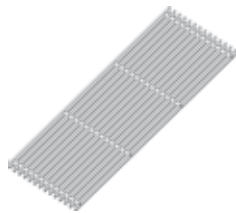
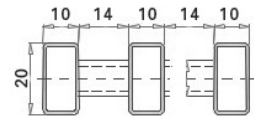
**duralumin, lengthwise**

- 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**



beech raw

beech varnished

oak raw

oak varnished

**duralumin grille**



natural

black

dark brown

light brown

**steel grille**



stainless steel

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

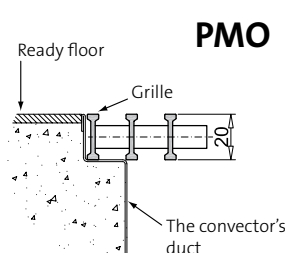
### finishing frames

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

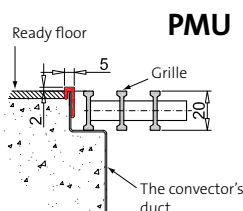
The application of masking grilles without a decorative frame is possible only when the trench convector has been carefully mounted, and especially carefully positioned vertically in reference to the level of the finished floor.

This execution assumes, at the same time, the perfect floor finish around the trench convector, with the slot of the same width.



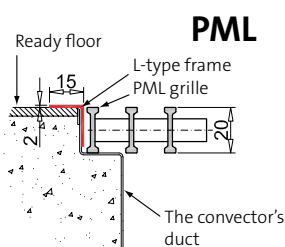
#### Execution with the U-type decorative frame

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.



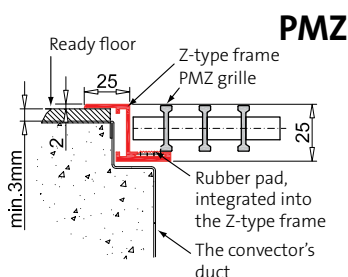
#### Execution with the L-type decorative frame

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 is 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

- 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]

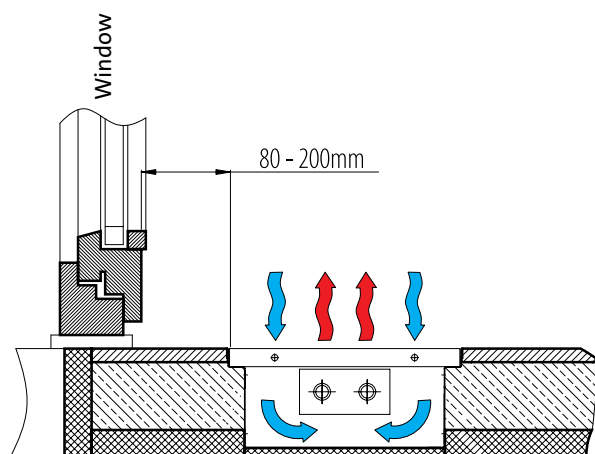
Width [mm]	180				240				260				290				340				420			
Type	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ	PMO	PMU	PML	PMZ
Duralumin	1,6	1,8	1,9	2,5	2,0	2,3	2,3	2,9	2,1	2,4	2,4	3,1	3,0	3,2	3,3	3,9	3,4	3,7	3,7	4,4	4,1	4,4	4,5	5,1
Beech, oak	1,4	1,7	1,8	2,4	1,8	2,1	2,2	2,8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

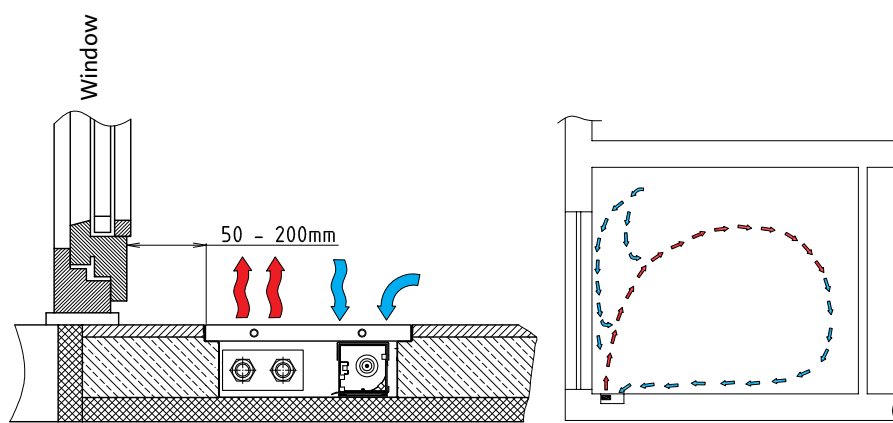
## trench convectors

### recommended mounting procedure for trench convectors

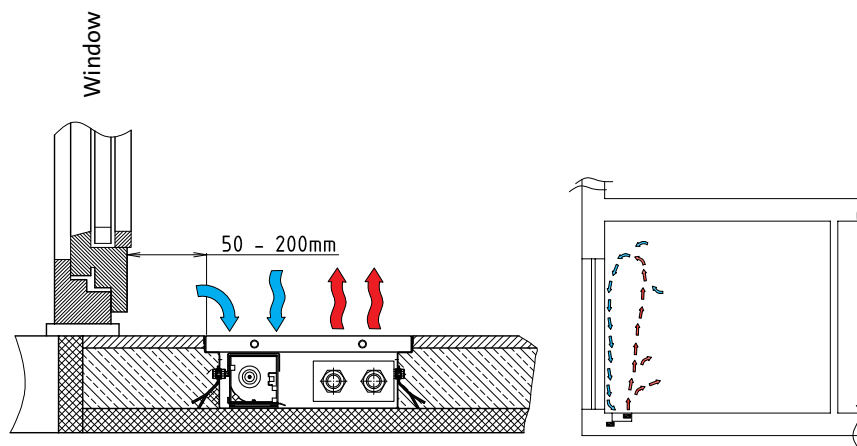
Aquilo FMK



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

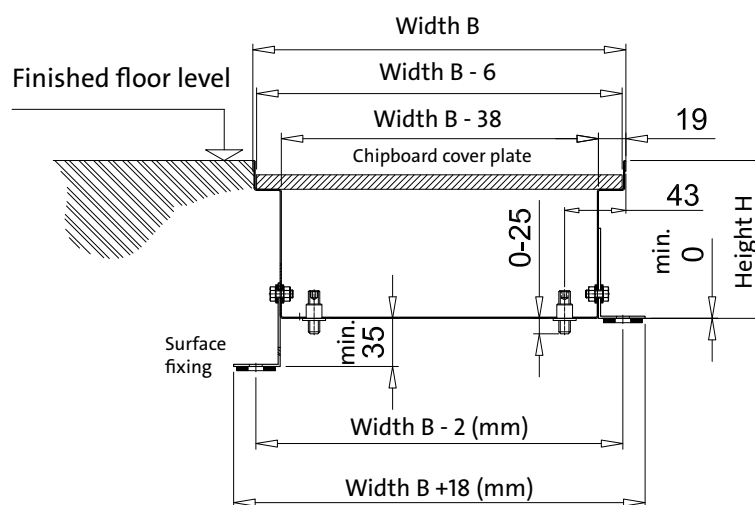


Aquilo F1T, F1P, F2C i F4C – fan on the window side (option)



## 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 +  $2 \div 25$  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 (FIT, FIP, ...), 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:

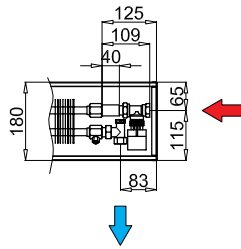
1. Remove the grill.
2. Clean the heat exchanger (coil) elements with a soft brush.
3. Use a vacuum cleaner to remove dust from the bottom of the casing.
4. Clean the remaining dirt with a wet cloth.
5. Put the cover grill back.



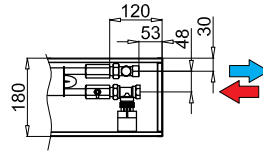
# How to mount our convectors

**trench** convectors

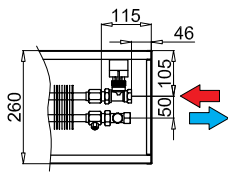
FMK-18  
height: 9, 11, 14



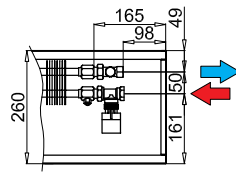
F1P-18  
height: 9



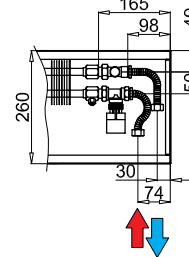
FMK-26  
height: 9, 11, 14



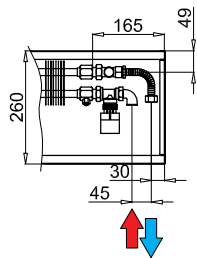
F1T-26  
height: 9, 14



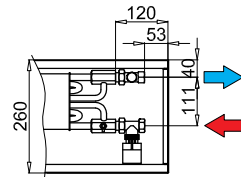
F1T-26  
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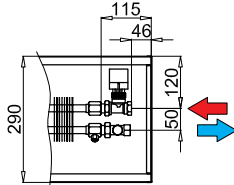
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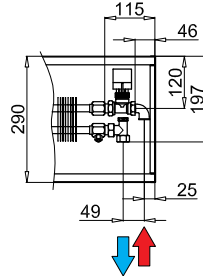
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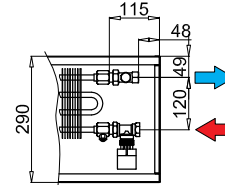
FMK-29  
height: 9, 11, 14



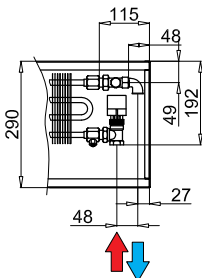
FMK-29  
height: 9, 11, 14



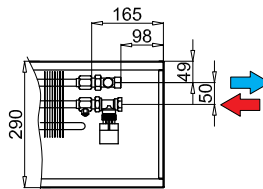
F1T-29  
height: 9



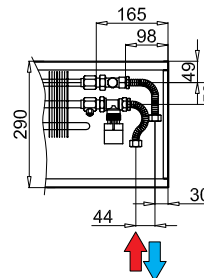
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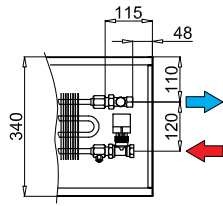
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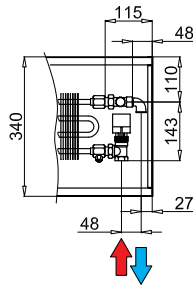
F1T-29  
height: 14



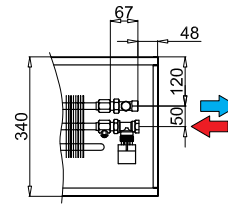
F1/K-34  
height: 9, 11



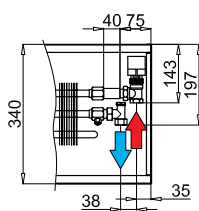
FMK-34  
height: 9, 11



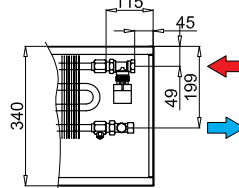
FMK-34  
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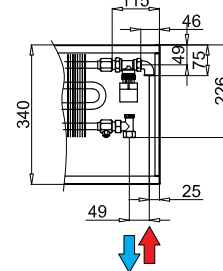
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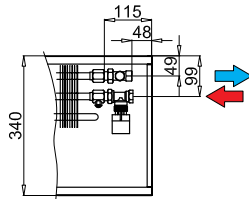
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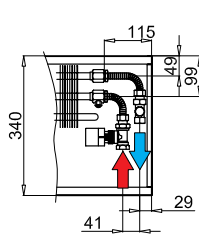
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height: 9



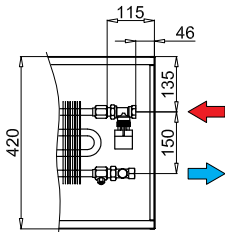
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height: 14



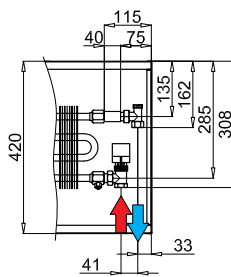
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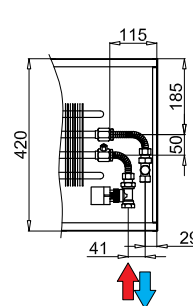
FMK-42  
height: 9, 11



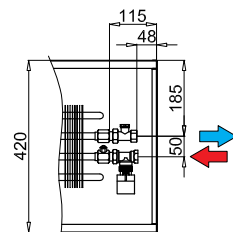
FMK-42  
height: 9, 11



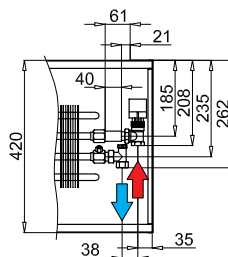
FMK-42  
height: 9, 11



FMK-42  
height: 14



FMK-42  
height: 14

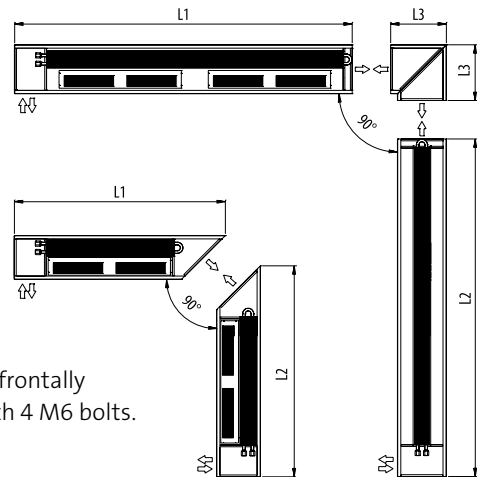
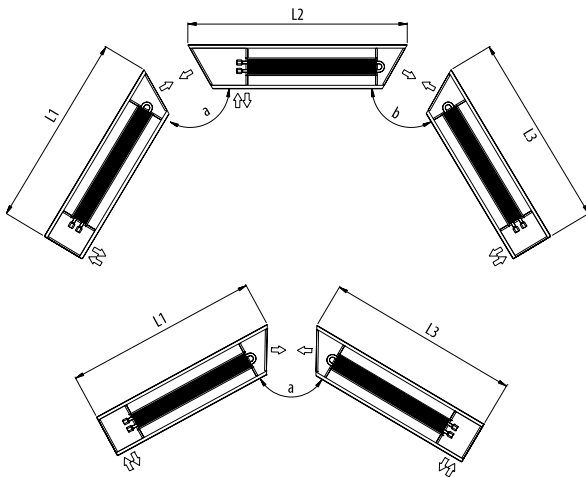


# Non-standard versions

## trench convectors

### non-standard versions

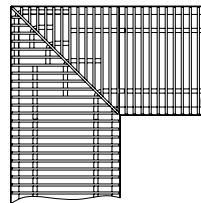
The corner type of trench radiators is available at request. The duct is then manufactured, after the graphic design has been accepted by the Client.



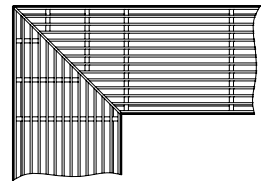
The ducts are frontally connected with 4 M6 bolts.

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

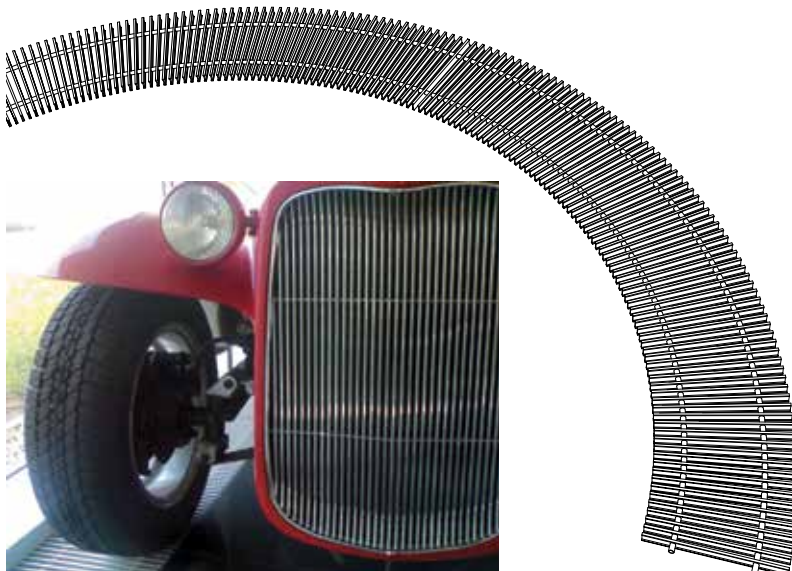
### crosswise grille



### lengthwise grille



### examples of non-standard grilles



## note

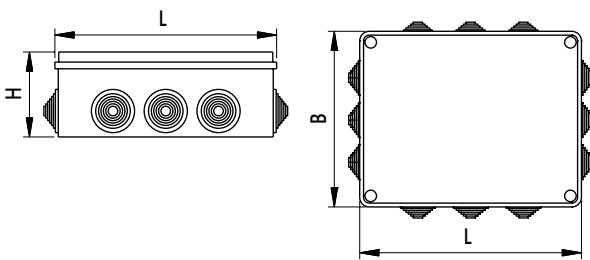
The electrical installation of Aquilo trench convectors should be carried out by a qualified electrician in accordance with current, relevant standards and regulations. The main connection to supply net can only be executed if all connections between proper electrical accessories have been successfully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

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

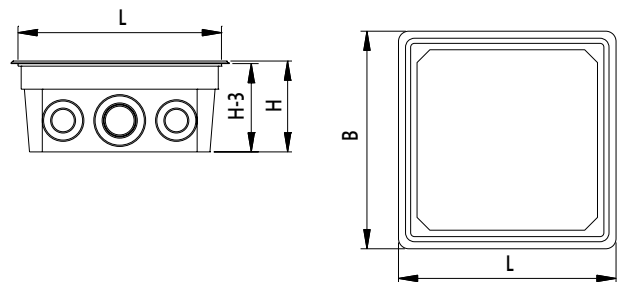
The maximal length of cables between the Aquilo F1T, F1P, F2C or F4C convectors and the PAT transformer is 10 m. In case it becomes necessary to use longer cable segments, a bigger cable diameter is required to keep the voltage drop at max. 1.0 V (recommended value is approx. 0.5 V). The transformer 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 mm<sup>2</sup> cable, while the flush-mounted version (PAT-xx-M-02) – 3x1.5 mm<sup>2</sup> (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 mm<sup>2</sup> 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



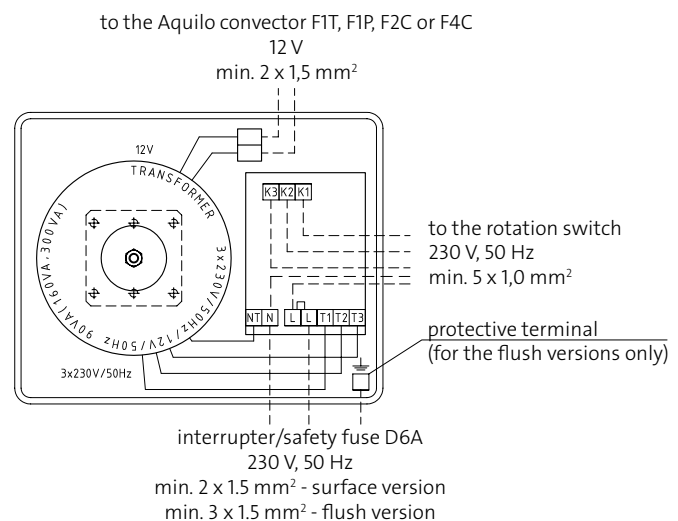
### version for flush mounting



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 :



## 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 mm <sup>2</sup>	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 mm <sup>2</sup>	
PAT-04-M-01	160 W	15	15	15	15	2 x 1.5 mm <sup>2</sup>	
PAT-06-M-01	300 W	24	24	24	24	2 x 2.5 mm <sup>2</sup>	

### 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 mm <sup>2</sup>	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 mm <sup>2</sup>	
PAT-04-M-02	160 W	15	15	15	15	2 x 1.5 mm <sup>2</sup>	
PAT-06-M-02	300 W	24	24	24	24	2 x 2.5 mm <sup>2</sup>	

## 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.

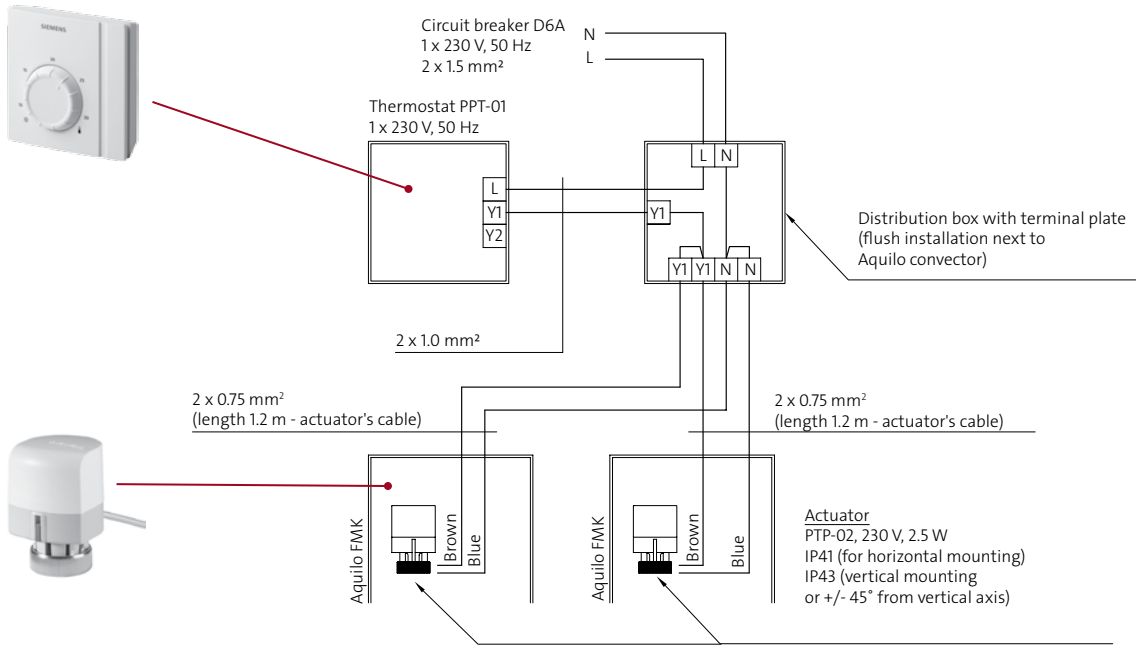
Heat output control for air (in case of Aquilo F1T, F1P, F2C and F4C convectors) will be performed by the fans' rotations setting. Fan operation can be controlled manually by the User, or automatically via a thermostatic controller.

## trench convectors' heat output regulation – optional accessories

	catalogue number	description
<b>1. Trench convectors' heat output regulation for water (Aquilo FMK)</b>		
1.1	PTH-01	Thermostatic head with a capillary pipe
1.2	PPT-01	Room thermostat
1.3	PTP-02	Thermoelectric head (actuator)
<b>2. Trench convectors' heat output regulation for air (Aquilo F1T, F1P, F2C and F4C)</b>		
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

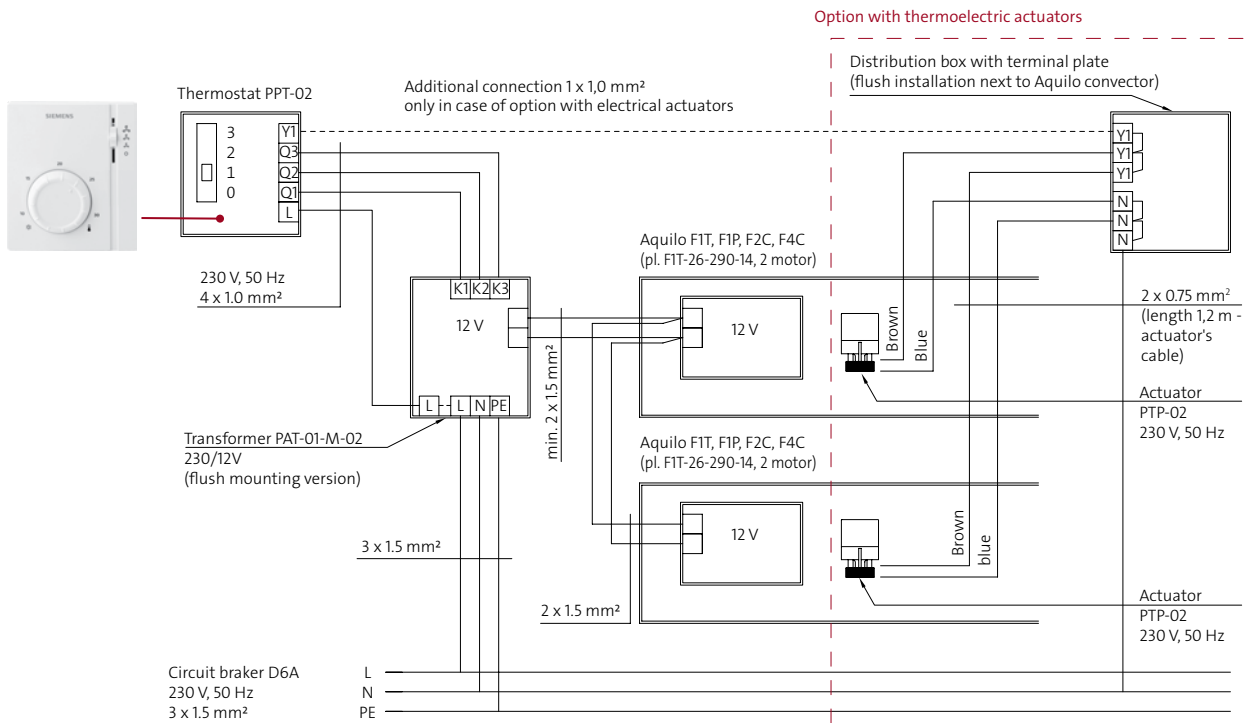
PAT transformer is necessary for the 3-level rotation regulation. The transformer's type depends on the overall number of fan motors controlled with a single control device (PSP-01, PPT-02, PER-05, PER-06, PER-07, PER-08).

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



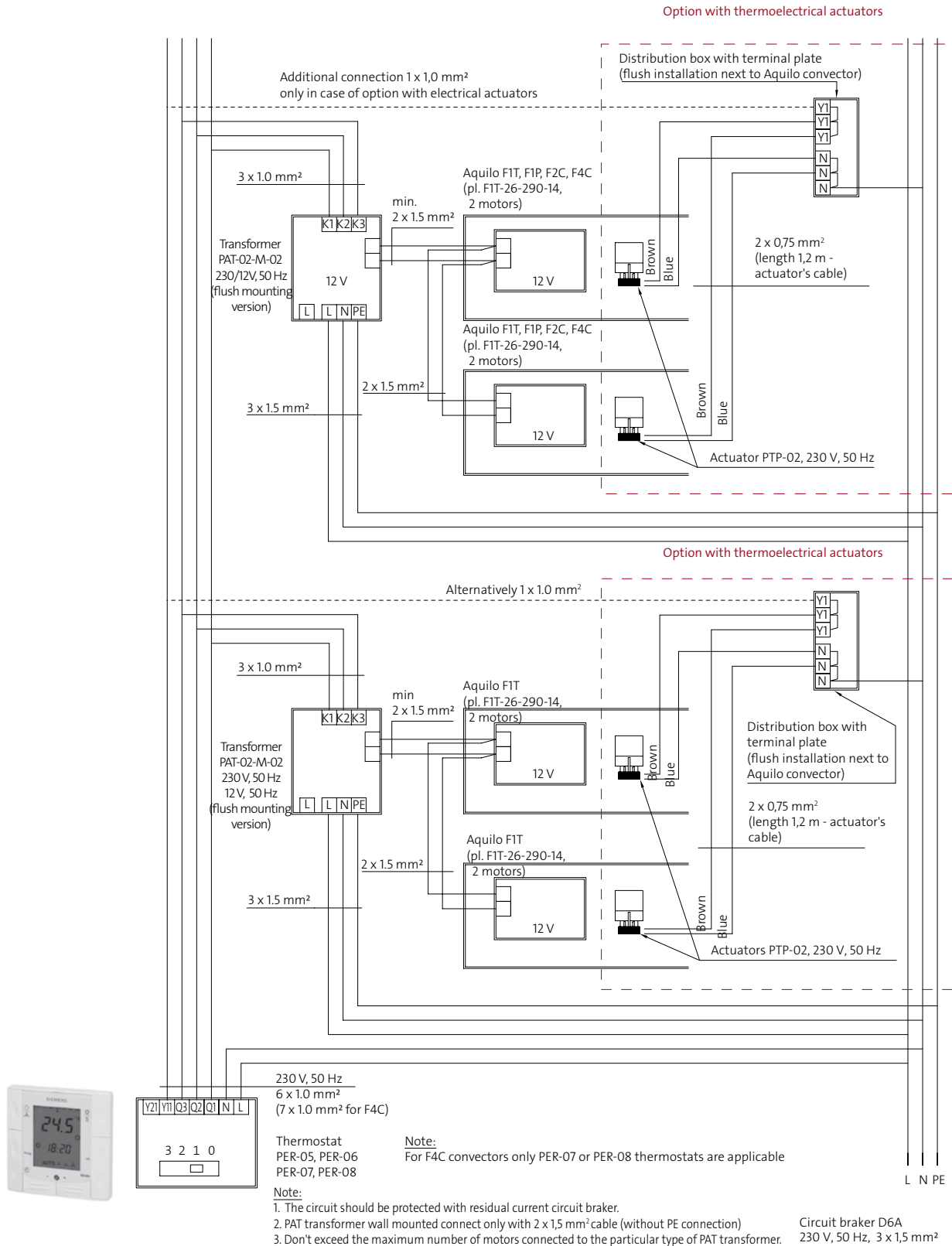
**Note:**  
When mounting the actuator directly at the convector's duct, the residual current circuit breaker is necessary.  
One PPT-01 thermostat can support max. 24 electric actuators.

**Aquilo FIT, FIP 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)**



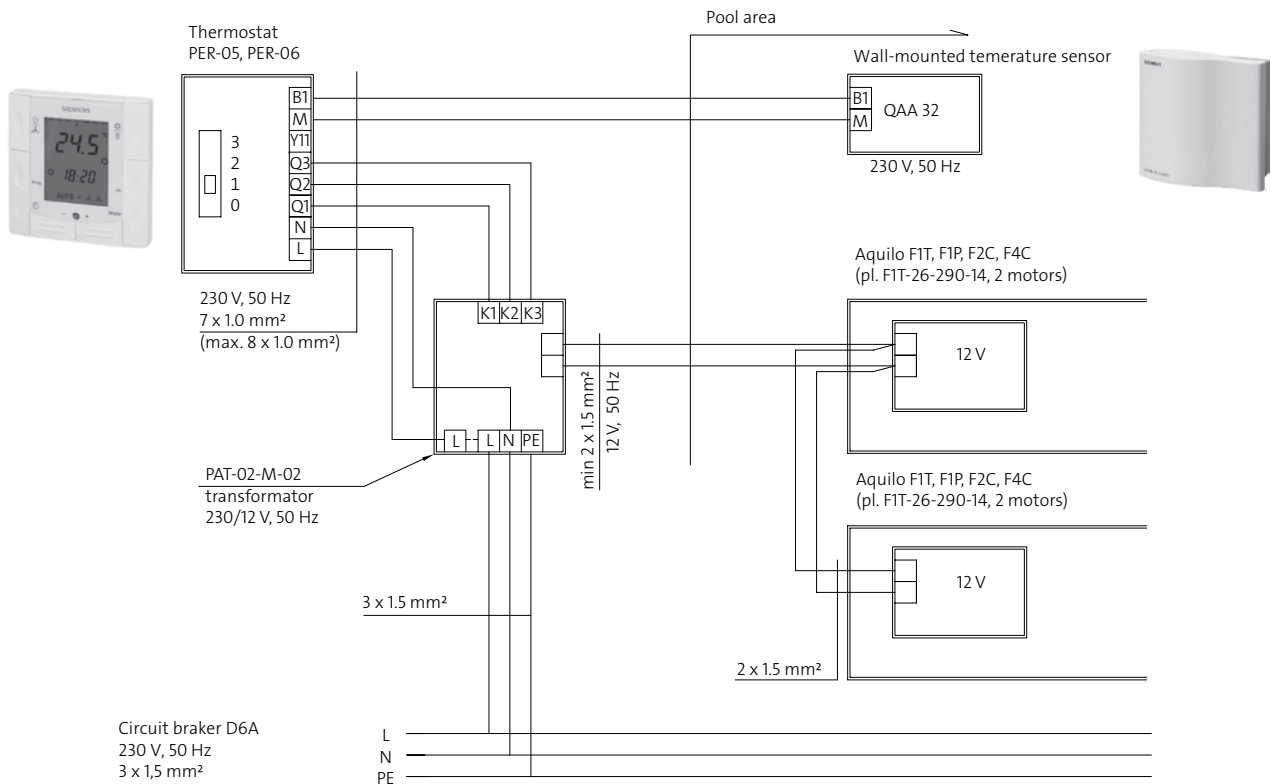
**Note:**  
1. The circuit should be protected by residual current circuit breaker.  
2. PAT transformer wall mounted connect only with 2 x 1,5mm<sup>2</sup> cable (without PE connection)  
3. Don't exceed the maximum number of motors connected to the particular type of PAT transformer.

**Aquilo FIT, 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)**



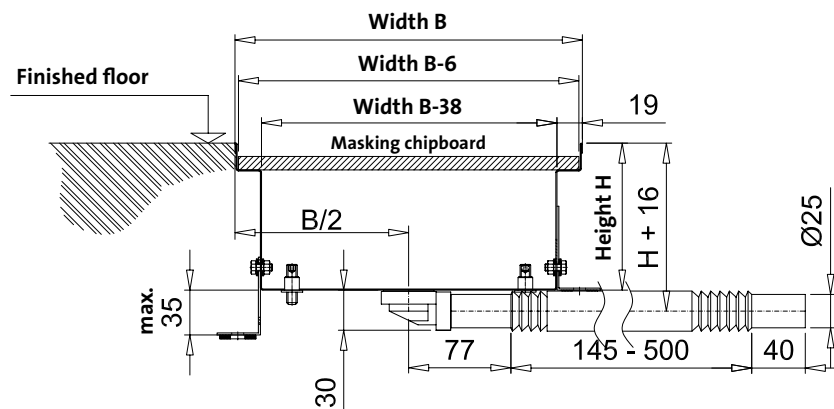
The duct of the convector in the swimming pool version is made of corrosion-resistant material (stainless steel plate). All connections in the duct are sealed with sanitary silicone sealant. There are drainage connections in the duct bottom. Other components are made of corrosion-resistant material (levelling bolts, rivets, etc.).  
**Note:** For safety reasons, fan motors are supplied with 12 V.  
 Only special pool version 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 mm<sup>2</sup> cable (no PE wire)
  3. Do not exceed the maximum permissible number of motors connected to a single PAT transformer.

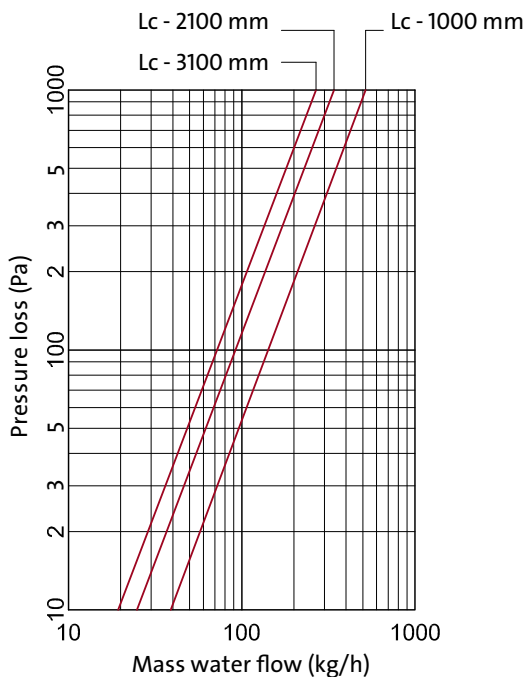
## duct's drainage



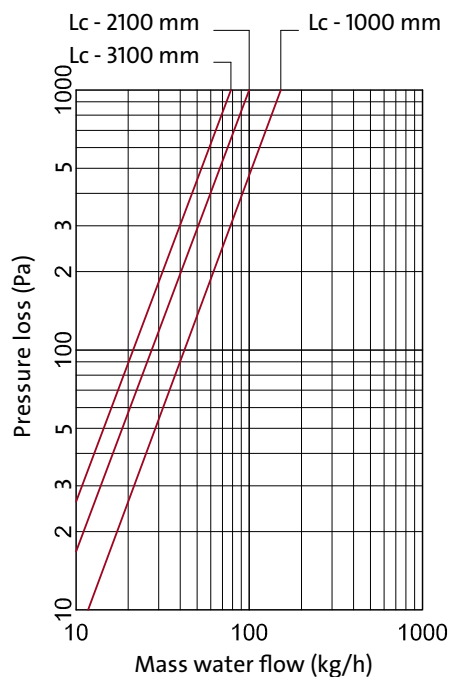


# Hydraulic characteristics

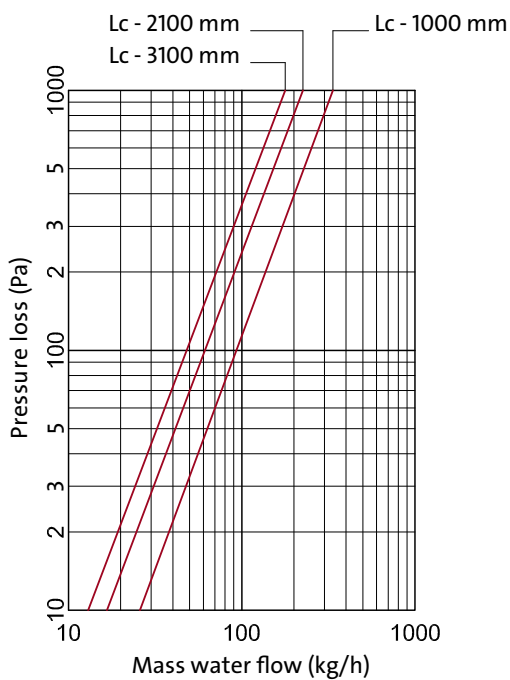
## trench convectors



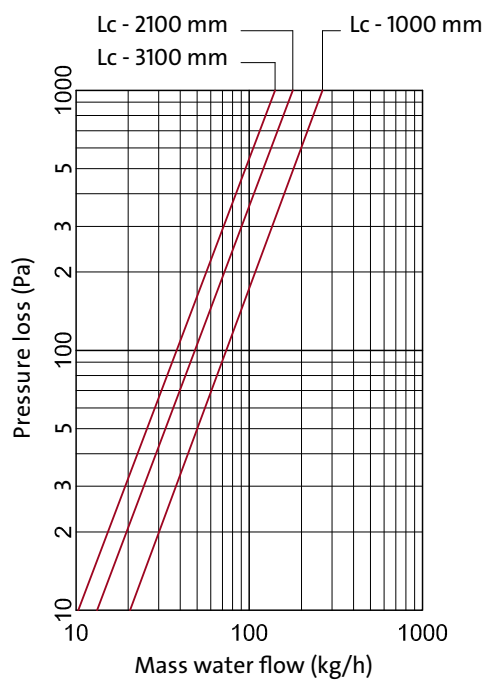
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2	FMK-26-LLL-09, FMK-26-LLL-11
3	FMK-29-LLL-09, FMK-29-LLL-11
4	F1T-26-LLL-09



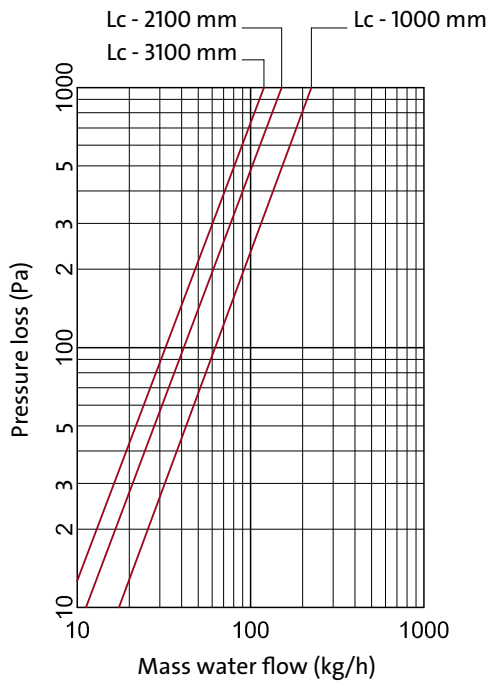
1	FMK-34-LLL-09, FMK-34-LLL-11
2	F1T-29-LLL-09



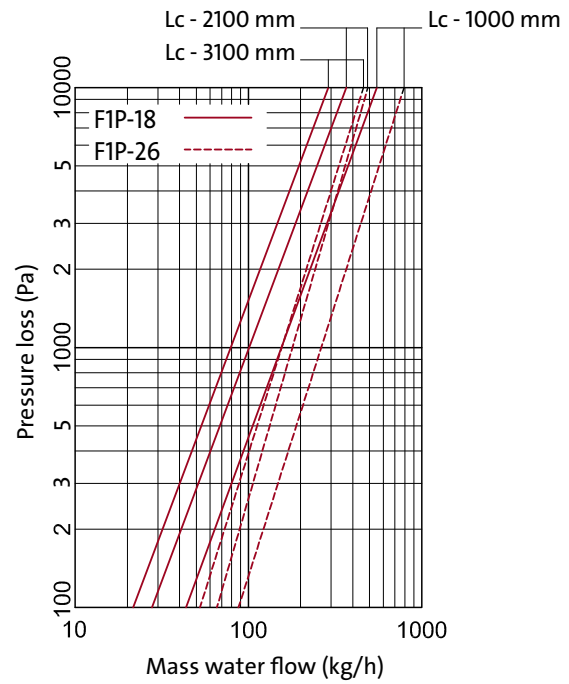
1	FMK-42-LLL-09, FMK-42-LLL-11
2	F1T-34-LLL-09
3	FMK-18-LLL-14, FMK-29-LLL-14
4	FMK-26-LLL-14, F1T-26-LLL-14



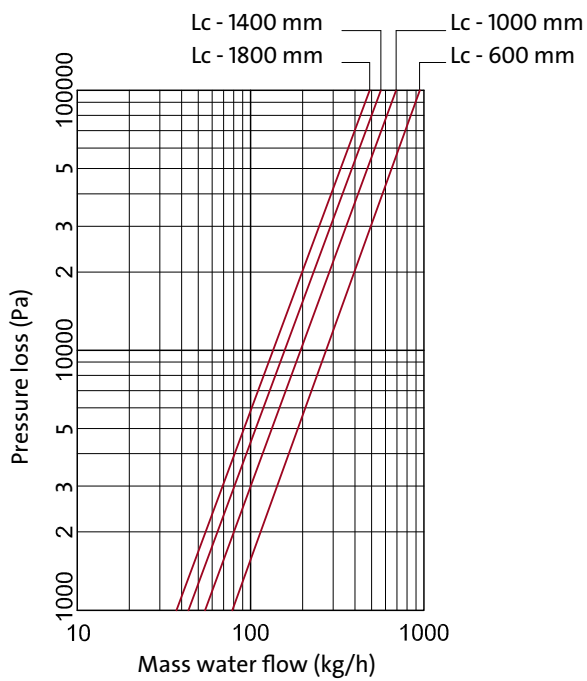
1	FMK-34-LLL-14
2	F1T-29-LLL-14



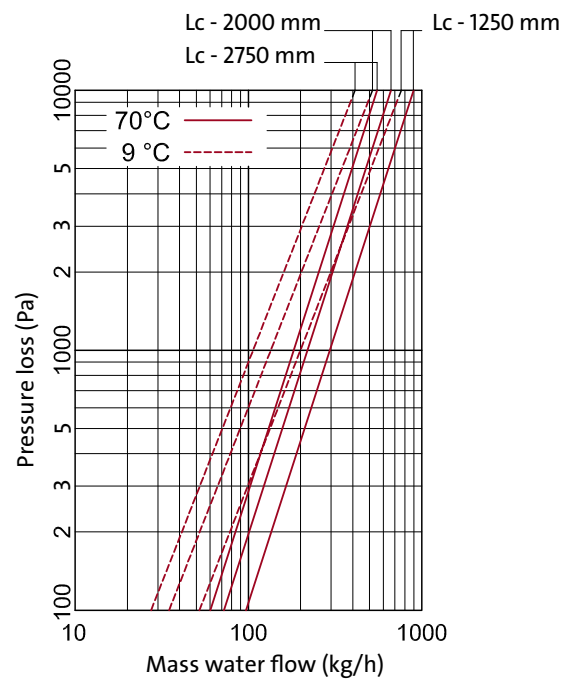
- 1 FMK-42-LLL-14
- 2 FIT-34-LLL-14



- 1 FIP-18-LLL-09
- 2 FIP-26-LLL-09



- 1 F2C-24-LLL-11










- 1 F4C-34-LLL-14




# Conversion table







## trench convectors

supply water temperature [°C]		air temperature [°C]		Aquila FMK trench convector n = 1.4													return water temperature [°C]	
				35	40	45	50	55	60	65	70	75	80	85				
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	45	
	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		
	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	50	
	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		
	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	55	
	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		
	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	60	
	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		
	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	65	
	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		
	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	70	
	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		
	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	75	
	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		
	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	80	
	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		
	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	85	
	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		
	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	90	
	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		
	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]		
Aquila 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:  $Q = Q_N \times K1 = 266$  W  $\times$   $0.49 = 130$  W

description		order code																								
 <p><b>DN15 thermostatic valve – NF shortened version:</b>                      PN10 / 110 °C                      Straight version DN15 <b>PTV-01</b>                      Angle version DN15 <b>PTV-02</b></p> <table border="1"> <thead> <tr> <th>Valve setting</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>N</th> </tr> </thead> <tbody> <tr> <td><math>k_v</math> [m³/h]</td> <td>0.10</td> <td>0.20</td> <td>0.31</td> <td>0.45</td> <td>0.69</td> <td>0.89</td> </tr> </tbody> </table>	Valve setting	1	2	3	4	5	N	$k_v$ [m³/h]	0.10	0.20	0.31	0.45	0.69	0.89		<p><b>AZA3PTV01</b> <b>AZA3PTV02</b></p>										
Valve setting	1	2	3	4	5	N																				
$k_v$ [m³/h]	0.10	0.20	0.31	0.45	0.69	0.89																				
 <p><b>DN15 thermostatic cut-off valve:</b>                      PN10 / 110 °C                      Straight version DN15 <b>PRS-01</b>                      Angle version DN15 <b>PRS-02</b></p> <table border="1"> <thead> <tr> <th>Rotation no. until total cut-off</th> <th>0,25</th> <th>0,5</th> <th>0,75</th> <th>1</th> <th>1,5</th> <th>2</th> <th>2,5</th> <th>3</th> <th>3,5</th> <th>4</th> <th><math>k_{vs}</math></th> </tr> </thead> <tbody> <tr> <td><math>k_v</math> [m³/h]</td> <td>0.2</td> <td>0.4</td> <td>0.5</td> <td>0.65</td> <td>1.0</td> <td>1.3</td> <td>1.7</td> <td>1.9</td> <td>2.1</td> <td>2.3</td> <td>2.5</td> </tr> </tbody> </table>	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		<p><b>AZA3PRS01</b> <b>AZA3PRS02</b></p>
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															
 <p><b>PTH-01 thermostatic valve with a capillary pipe:</b></p> <p>Temperature regulation control 8-28 °C                      Capillary pipe's length 2 m                      Anti-freezing protection 8 °C</p>		<p><b>AZA3PTH01</b></p>																								
 <p><b>PPT-01 room thermostat:</b></p> <p>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</p> <p><b>Note:</b> 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.</p>		<p><b>AZA3PPT01</b></p>																								
 <p><b>PTP-02 actuator for thermostatic valve:</b></p> <p>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</p>		<p><b>FAW3ANCSCNN54P00</b></p>																								
 <p><b>PSP-01 manual 3-level rotation switch:</b></p> <p>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</p>		<p><b>AZA3PSP01</b></p>																								
 <p><b>PPT-02 room thermostat with a 3-level rotation switch:</b></p> <p>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</p> <p><b>Note:</b> 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.</p>		<p><b>AZA3PPT02</b></p>																								

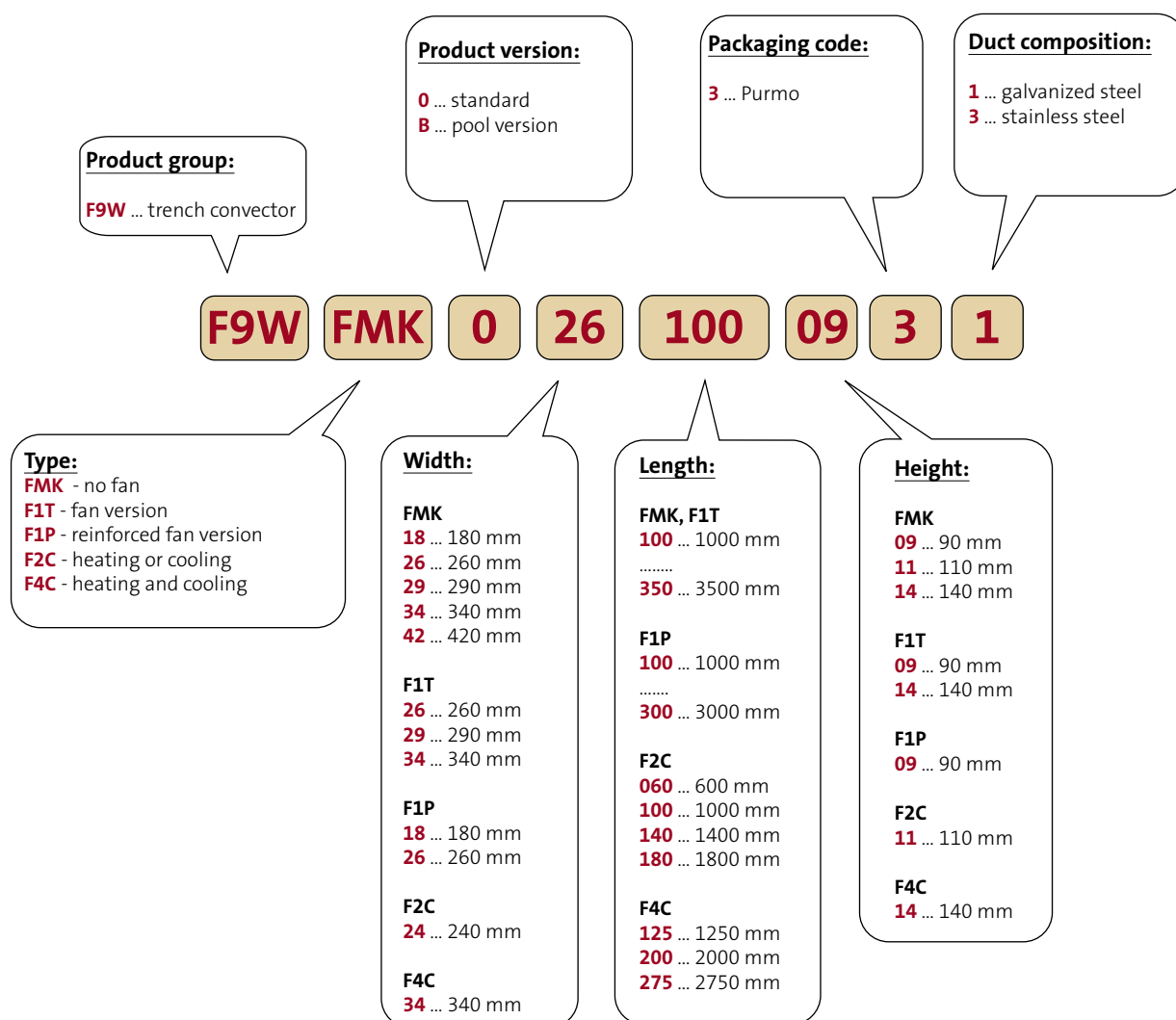
description		order code
	<p><b>PER-05 (RDF600) room thermostat with automatic rotation switch</b></p> <p>- control of heating or cooling - available option: remote control</p> <p>Operating voltage 230 V / 50 Hz Power load max 8 W Control output load 230 V / 50 Hz, max 4 (2) A IP protection rating IP 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</p> <p><b>Note:</b> 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. <b>Note:</b> mounting in the flush box PER-06-IK only</p>	<p><b>AZA3PER05</b></p>
	<p><b>PER-06 (RDF600T) room thermostat with automatic rotation switch and weekly programming:</b></p> <p>- control of heating or cooling - available option: remote control</p> <p>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</p> <p><b>Note:</b> 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. <b>Note:</b> mounting in the flush box PER-06-IK only</p>	<p><b>AZA3PER06</b></p>
	<p><b>PER-07 (RDG100) room thermostat with automatic rotation switch</b></p> <p>- control of heating and cooling - available option: connecting external sensors</p> <p>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</p> <p><b>Note:</b> 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. <b>Note:</b> mounting in the flush box PER-06-IK or a round flush box (for CEE connectors).</p>	<p><b>AZA3PER07</b></p>

	description	order code																														
	<p><b>PER-08 (RDG100T) room thermostat with automatic rotation switch and weekly programming</b></p> <ul style="list-style-type: none"> <li>- control of heating and cooling</li> <li>- available option: connecting external sensors</li> <li>- available option: remote control</li> </ul> <p>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</p> <p><b>Note:</b> 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.  <b>Note:</b> mounting in the flush box PER-06-IK or a round flush box (for CEE connectors)</p>	<b>AZA3PER08</b>																														
	<p><b>PER-06-IK flush box</b> for PER-05 and PER-06.</p>	<b>AZA3PER06IK</b>																														
	<p><b>PER-05-DO remote control</b> for PER-05, PER-06 and PER-08.</p>	<b>AZA3PER05DO</b>																														
	<p><b>QAA-32 wall-mounted temperature sensor</b></p> <p>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</p> <p>See p. 40 for a sample wiring diagram</p>	<b>AZA3QAA32</b>																														
	<p><b>QAH-11 clip-on temperature sensor with NTC resistance measuring element for the equipment with heating and/or cooling function</b></p> <p>Temperature measuring range - 20...+ 70 °C            Measuring accuracy at 25 °C ±0.3K            Time constant 1.5 min</p>	<b>AZA3QAH11</b>																														
	<p><b>PAT transformer ~230/12 V 50 Hz</b></p> <table border="0"> <tr> <td><b>version for surface mounting</b></td> <td><b>power [W]</b></td> <td></td> </tr> <tr> <td>PAT-01-M-01</td> <td>45</td> <td><b>AZA3PAT01M01</b></td> </tr> <tr> <td>PAT-02-M-01</td> <td>90</td> <td><b>AZA3PAT02M01</b></td> </tr> <tr> <td>PAT-04-M-01</td> <td>160</td> <td><b>AZA3PAT04M01</b></td> </tr> <tr> <td>PAT-06-M-01</td> <td>300</td> <td><b>AZA3PAT06M01</b></td> </tr> <tr> <td><b>version for flush mounting</b></td> <td><b>power [W]</b></td> <td></td> </tr> <tr> <td>PAT-01-M-02</td> <td>45</td> <td><b>AZA3PAT01M02</b></td> </tr> <tr> <td>PAT-02-M-02</td> <td>90</td> <td><b>AZA3PAT02M02</b></td> </tr> <tr> <td>PAT-04-M-02</td> <td>160</td> <td><b>AZA3PAT04M02</b></td> </tr> <tr> <td>PAT-06-M-02</td> <td>300</td> <td><b>AZA3PAT06M02</b></td> </tr> </table>	<b>version for surface mounting</b>	<b>power [W]</b>		PAT-01-M-01	45	<b>AZA3PAT01M01</b>	PAT-02-M-01	90	<b>AZA3PAT02M01</b>	PAT-04-M-01	160	<b>AZA3PAT04M01</b>	PAT-06-M-01	300	<b>AZA3PAT06M01</b>	<b>version for flush mounting</b>	<b>power [W]</b>		PAT-01-M-02	45	<b>AZA3PAT01M02</b>	PAT-02-M-02	90	<b>AZA3PAT02M02</b>	PAT-04-M-02	160	<b>AZA3PAT04M02</b>	PAT-06-M-02	300	<b>AZA3PAT06M02</b>	
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# Order codes

## trench convectors

### 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:

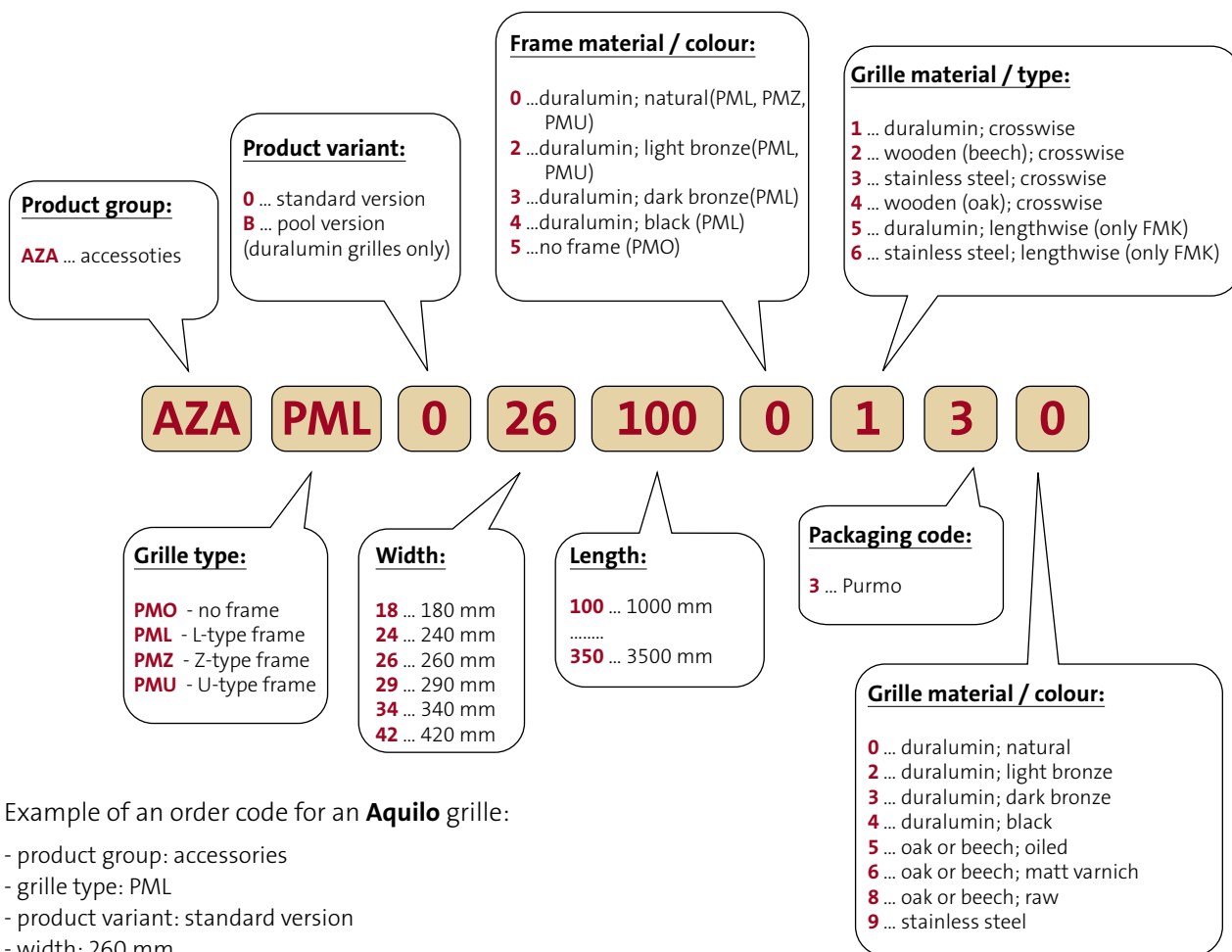
**F9WFMKB261000931**

#### 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, FITB, FIPB or PMOB, PMLB, PMUB, PMZB. All trench convectors can be ordered with built in RAU transformer. Please add the letter "T" after the type symbol. Eg. FMKT, FITT, F1PT.

Non-standard versions are available on request only, for execution on the basis of design documentation (drawings) approved by the Client.

## 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 or stainless steel. In the case of duralumin pool grille version should be added to the type of letter B. Eg: PMOB.



## AQUILO Trench Convectors - 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.**
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.



### Note! Controller programming is not covered by the 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.

## additional information

8. **The warranty shall not cover electrical equipment damage** due to faulty wiring.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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 which 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.
14. The Guarantor reserves the right to process the complaint at its discretion.
15. 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.
16. The Guarantor reserves the right to modify its products without prior notice, provided that the modifications not affect the criteria for selection of convectors.
17. These Terms of Warranty shall neither exclude, limit or suspend Buyer's rights resulting from non-compliance of the product with the contract, according to the Law of July 27, 2002 on special conditions of sale to customers and amending the Civil Code (Journal of Laws 2002, no. 141 item 1176).
18. These Terms of Warranty are valid since 01.07.2013.



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Rettig Heating Sp. z o.o.  
02-777 Warszawa, ul. Ciszewskiego 15  
budynek KEN Center  
tel. (+48 22) 544 10 00, fax (+48 22) 544 10 01, e-mail: purmow@purmo.pl

**PURMO**   
clever heating solutions