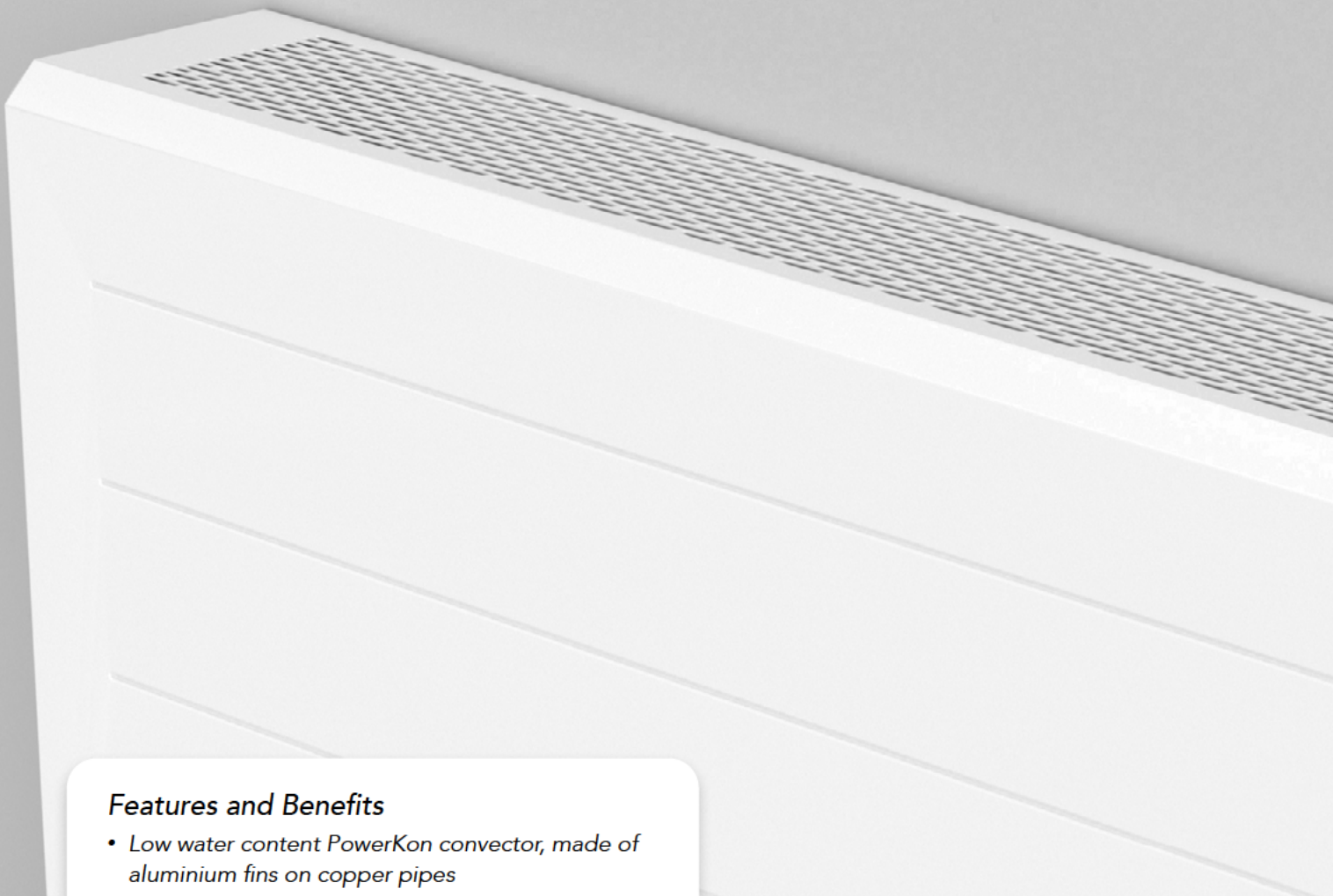




PowerKon + ST FTG Plus

"Safe Touch" low surface temperature convector



Features and Benefits

- Low water content PowerKon convector, made of aluminium fins on copper pipes
- Designed as single waterway convector to maximise water turbulence and therefore thermal performance
- Working pressure 10 bar, test pressure 16 bar
- Casing powder coated in anti-bacterial RAL 9016 Traffic White (Convector coated to RAL 7024 Graphite Grey).
- All performance data tested in accordance with BS EN442
- Bidirectional pipework knock-outs as standard



PowerKon + ST_{FTG Plus}

Ideal for the education, healthcare and the care sector

The PowerKon + ST is ideal for the education, healthcare and the care sector. The casing and bracketry are coated with an anti-bacterial and scratch resistant epoxy powder, coloured in RAL 9016, Traffic White. There are no joints in the casing to gather dirt, dust and potential bacteria.

The Powerkon + ST 'Safe Touch' low surface temperature convector delivers versatility, safety, high thermal performance and a high-quality casing which can be installed extremely quickly. All performance data is tested in accordance with BS EN 442.

Easy to install, strong single piece profiled casing, made of 1.6mm steel with 3mm rib details for extra strength and durability.

Casing

3 heights, 8 lengths, 3 depths

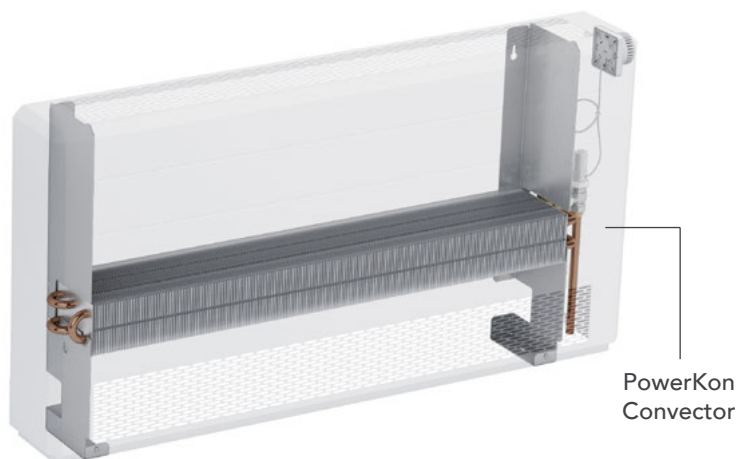
The FTG Plus model is supplied with perforated air inlet and outlet as pencil proof oval form grille, wall/floor brackets, wall spacer and a security screw locking system to fix casing onto bracketry to prevent unauthorised access. Bidirectional pipework knock-outs are supplied as standard.

Low water content PowerKon convector, made of aluminium fins on copper pipes, designed as a single waterway convector to maximise water turbulence and therefore thermal performance. Convector supplied with 1/2" female bidirectional connections, and a maximum working pressure of 10 bar (16 bar test). Convector coated to RAL 7024 Graphite Grey.

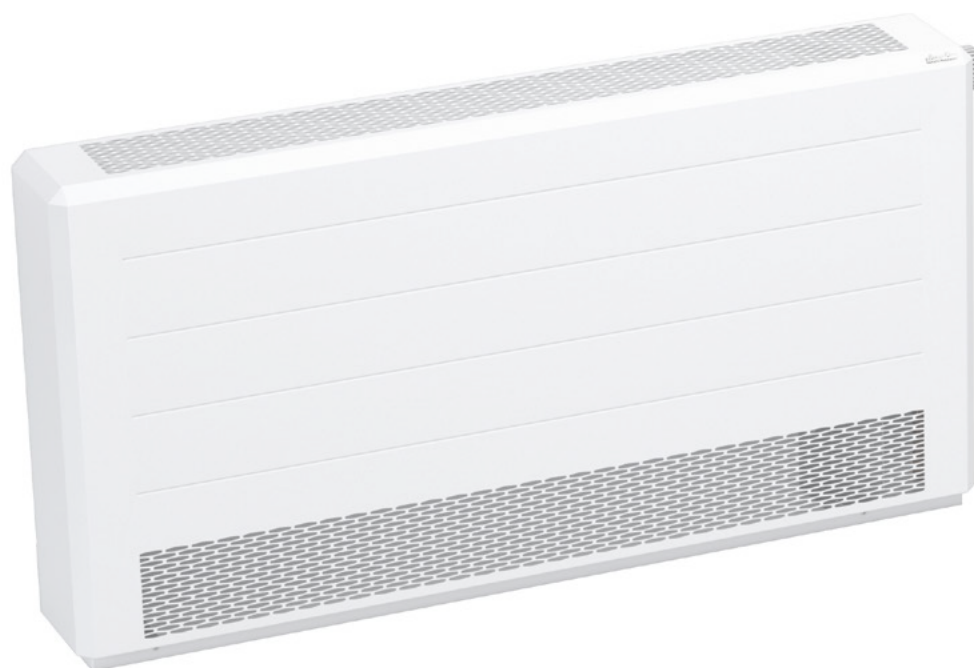
- 30 year warranty on Powerkon Convector
- 10 year warranty on casing

Convector

2 height, 8 lengths, 3 depths;
Convector type: Single or Twin



Product Details



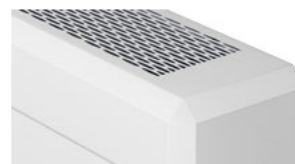
PowerKon Convactor
with bidirectional connections



Valve knock-outs
Bidirectional valve knock-outs



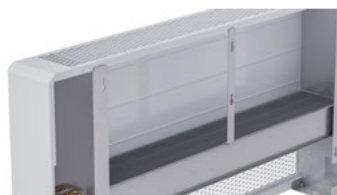
Perforated air inlet and outlet
Pencil proof oval form grille



Pipework knock-outs
for utilisation by the installer
if required

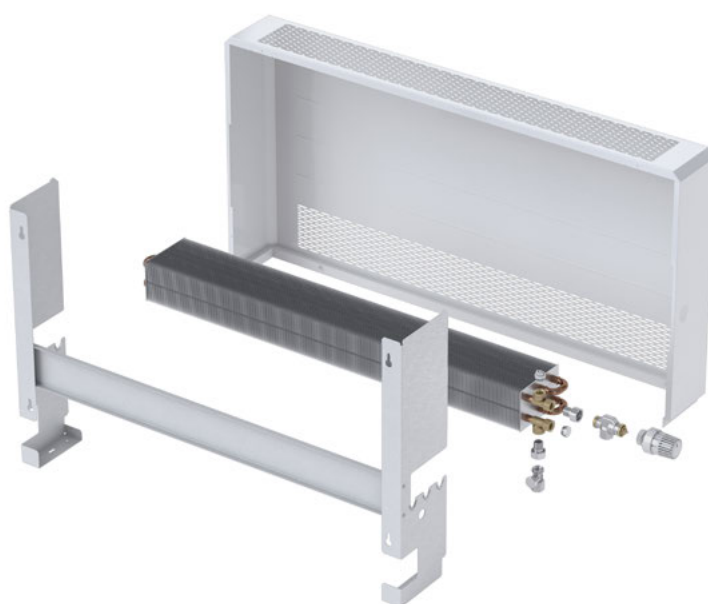


Additional third bracket
for extra rigidity for lengths
over 1450mm



Design Information

Information on planning and design



- Low surface temperature convector, compliant with NHS DN4 at ΔT 50°C and a maximum flow temperature of 80°C
- Can be installed extremely quickly, thanks to its strong one-piece profiled casing (1/2" female bidirectional connections, wall/floor brackets and wall spacer are included)
- Strong single piece profiled casing, made of 1.6 mm steel with 3mm rib details for extra strength and durability
- Compliant with NHS estates
- FTG Plus - Floor standing casing complete with air inlet at the front and air outlet at the top
- Perforated air inlet and outlet as pencil proof oval grille with max 6mm bar spacing
- Security screw locking system to fix casing onto bracketry to prevent unauthorised access
- Casing and bracketry with scratch resistant and anti bacterial epoxy powder coating, finished in RAL 9016 Traffic White
- Reversible emitter for left or right handed pipework, with knockouts for external or inbuilt TRV heads
- Pipework knock-outs on the left and right sides, to be utilised by the installer if required

Performance

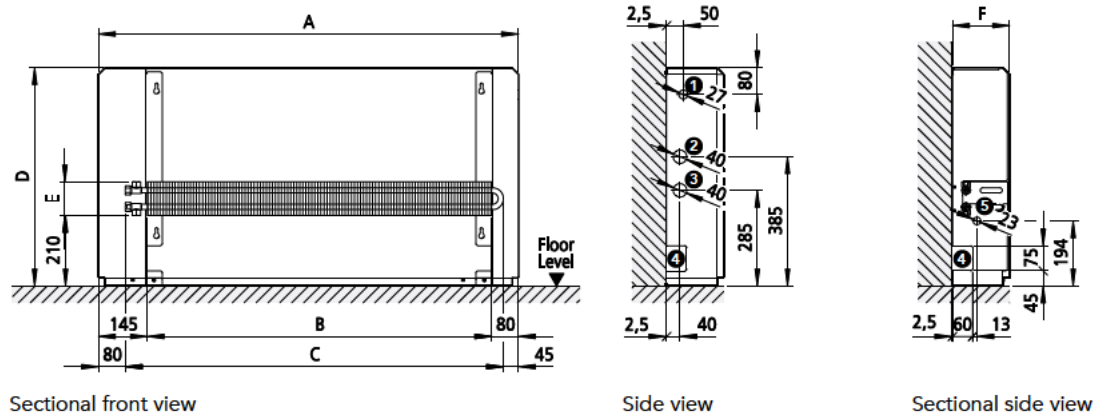
Casing Length	Convector Length	Depth	Single Convector			Twin Convector		
			Height			Height		
			500mm	650mm	800mm	500mm	650mm	800mm
(mm)			Output (watts Δt 50°C)			Output (watts Δt 50°C)		
650	525	120	413	453	482	509	558	594
		170	653	716	762	769	844	896
		220	900	987	1050	1020	1119	1190
850	725	120	607	666	708	748	821	873
		170	960	1053	1120	1131	1241	1318
		220	1323	1452	1544	1499	1645	1749
1050	925	120	801	879	935	988	1084	1153
		170	1267	1390	1478	1492	1638	1740
		220	1747	1916	2038	1979	2171	2309
1250	1125	120	995	1092	1161	1227	1347	1432
		170	1574	1727	1837	1854	2035	2165
		220	2170	2381	2532	2459	2698	2869
1450	1325	120	1189	1305	1388	1466	1610	1711
		170	1882	2064	2195	2216	2432	2584
		220	2593	2846	3026	2939	3224	3429
1650	1525	120	1384	1518	1615	1706	1872	1991
		170	2189	2401	2554	2578	2829	3005
		220	3017	3310	3520	3419	3751	3989
1850	1725	120	1578	1731	1841	1945	2135	2270
		170	2496	2738	2912	2940	3226	3427
		220	3440	3775	4014	3898	4277	4548
2050	1925	120	1772	1944	2068	2185	2398	2550
		170	2803	3075	3270	3301	3623	3849
		220	3864	4239	4508	4378	4803	5108

Stocked sizes

For ΔT 30°C, apply a correction factor of 0.515. For other operating temperatures, refer to page 10.

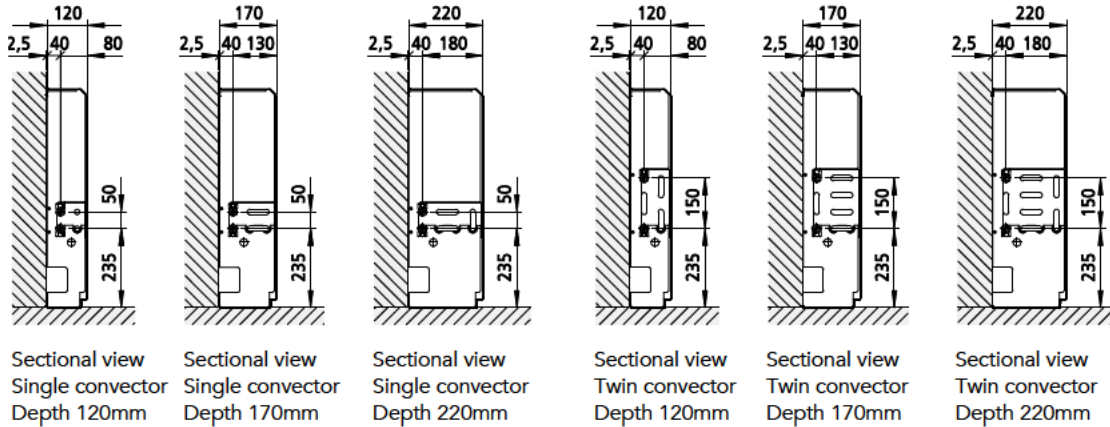
Dry weights and water contents per metre of casing						Exponent values		
	Depth (mm)	Casing Height (mm)			Water Content (l/m)	Casing Height (mm)		
		500	650	800		500	650	800
Single	120	11.71kg	14.50kg	17.30kg	0.65	1.3669	1.3392	1.3260
	170	14.41kg	17.59kg	20.77kg	0.97	1.3398	1.3127	1.2997
	220	17.12kg	20.68kg	24.24kg	1.31	1.3473	1.3200	1.3069
Twin	120	13.75kg	16.54kg	19.34kg	1.31	1.5043	1.4738	1.4593
	170	17.46kg	20.65kg	23.82kg	1.95	1.4744	1.4446	1.4303
	220	21.18kg	24.74kg	28.30kg	2.60	1.4827	1.4527	1.4382

Technical Drawings FTG Plus



Punching for valves

- ① Ø27mm - Knock-out for Inbuilt TRV Head
- ② Ø40mm - Valve knock-out for External TRV Head (Twin Convector)
- ③ Ø40mm - Valve knock-out for External TRV Head (Single Convector)
- ④ Pipework knock-out
- ⑤ 23mm - Knock-out for Tamper Proof Internal TRV



Dimensions in mm

Casing Length A mm	Finned Length B mm	Convactor Length C mm	Casing Heights D mm	Convactor Height E mm	Casing Depth mm	Convactor Depth mm
650	425	525	500	100 (Single)	120	100
850	625	725	650	200 (Twin)	170	120
1050	825	925	800		220	150
1250	1025	1125				
1450	1225	1325				
1650	1425	1525				
1850	1625	1725				
2050	1825	1925				

Technical Data

Advice on measuring conditions

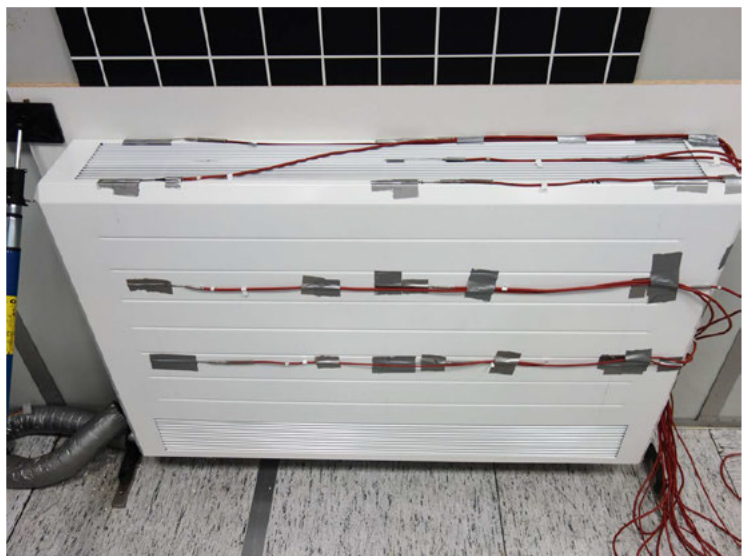
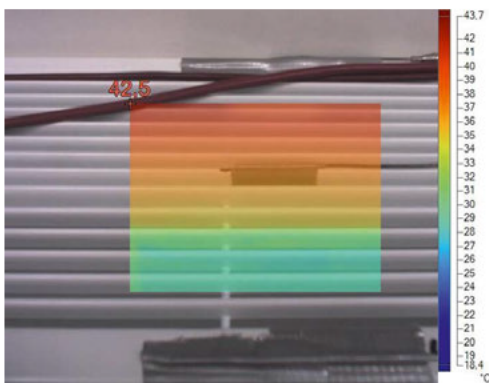
The heat outputs were measured in accordance with BS EN 442 'Radiators and Convectors'.

The standard regulates the performance measurements specifically of convectors.

Part 1 "Technical Specification and Requirements"

Part 2 "Test Procedure and Performance Data"

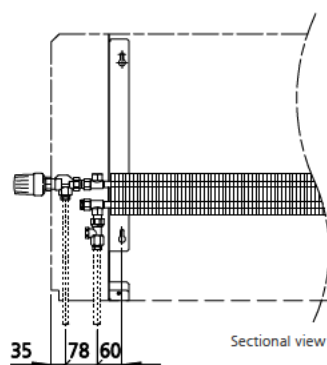
The reference/air temperature is measured in the centre of the test chamber (2 metres from the external wall) at a height of 0.75 metres). The surface temperature is measured in line with the NHS DN4 requirements to not exceed 43 °C.



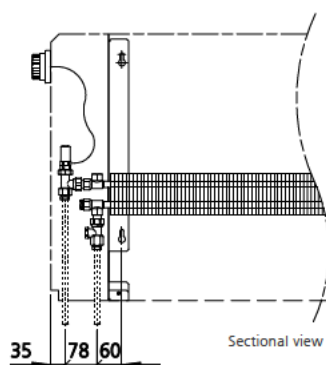
Test setup

Installation

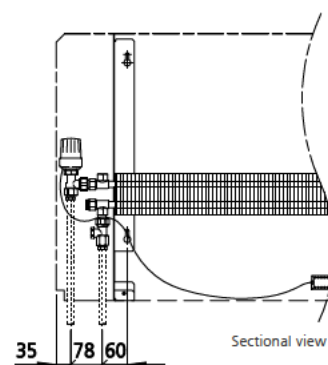
Valve positions



External TRV head



Inbuilt TRV head

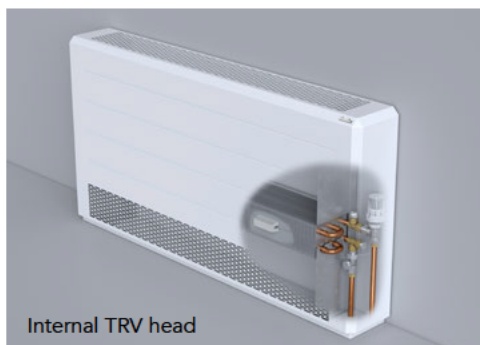


Internal TRV head

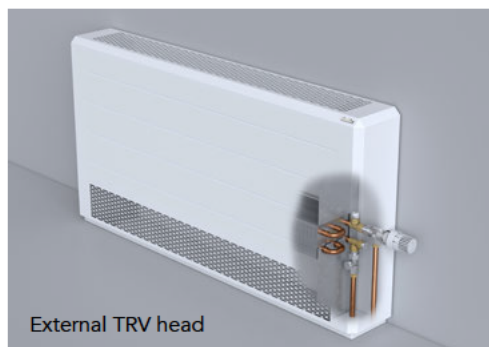
*Not compatible with
Height: 500mm (Twin Convector)*



Inbuilt TRV head



Internal TRV head



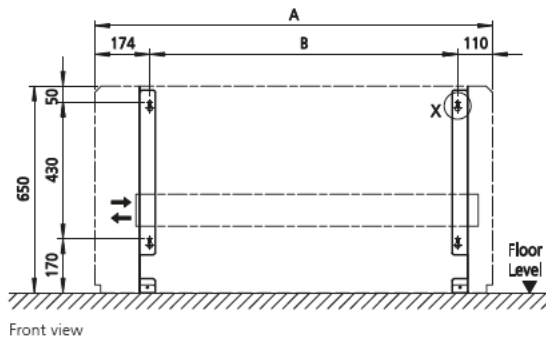
External TRV head

Code	Valve Type
PKVLV-EXT	Powerkon External TRV Valve Set
PKVLV-EXTPI	Powerkon External Pressure Independent TRV Valve Set
PKVLV-IB	Powerkon Inbuilt TRV Valve Set
PKVLV-IBPI	Powerkon Inbuilt Pressure Independent TRV Valve Set
PKVLV-INT	Powerkon Internal TRV Valve Set
PKVLV-INTPI	Powerkon Pressure Independent Internal TRV Valve Set

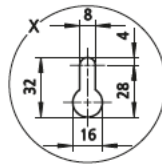
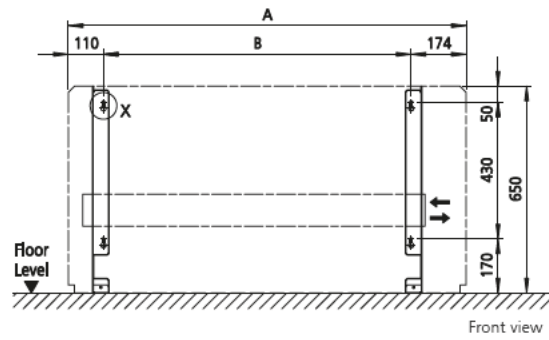
Dimensions in mm

Installation

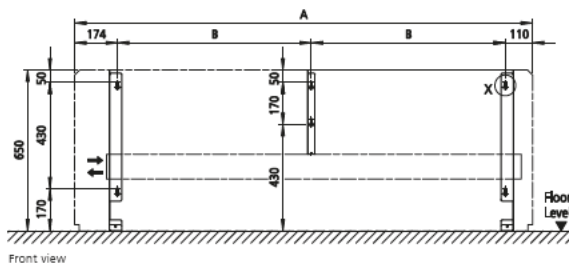
LH valve position, Casing Length 650 - 1450mm



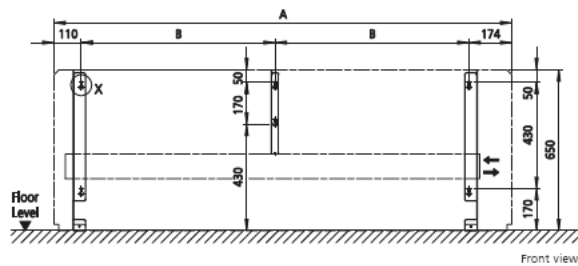
RH valve position, Casing Length 650 - 1450mm



LH valve position, Casing Length 1650 - 2050mm



RH valve position, Casing Length 1650 - 2050mm



Dimensions in mm

Casing Length A	Fixing Length B	Casing Heights C
mm		
650	366	500
850	566	650
1050	766	800
1250	966	
1450	1166	
1650	683	
1850	783	
2050	883	

Correction factors

The outputs shown within this brochure are based on BS EN442. BS EN442 specifies that all outputs must be stated at ΔT 50°C, which is based on 75-65-20°C operating conditions.

To calculate the output of a radiator at operating conditions other than ΔT 50°C, multiply the listed output by the correction factors shown in the table below.

ΔT	CORRECTION FACTOR	ΔT	CORRECTION FACTOR
60	1.267	41	0.773
59	1.240	40	0.748
58	1.213	39	0.724
57	1.186	38	0.700
56	1.159	37	0.676
55.5	1.145	36	0.652
55	1.132	35	0.629
54	1.105	34	0.606
53	1.079	33	0.583
52	1.052	32	0.560
51	1.026	31	0.537
50	1.000	30	0.515
49	0.974	29	0.493
48	0.948	28	0.471
47	0.923	27	0.449
46	0.897	26	0.427
45	0.872	25	0.406
44	0.847	24	0.385
43	0.822	23	0.364
42	0.797	22.5	0.354



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