



Monoplan

High specification flat fronted radiators



Features and Benefits

Types: ER, EK, DR, C, DK, T, TK3

Material: Steel (2mm front panel)

Finish: RAL 9016 Traffic White (other colours available on request)

Heights: Horizontal: 220 - 900mm
Vertical: 1200 - 3800mm

Widths: Horizontal: 220 - 950mm
Vertical: 1200 - 3800mm

Models: 2623

Outputs: 111 - 14,756 watts

Standard Working Pressure: 6 bar (7.8 bar test)
10 bar working pressure
(13 bar test on request)

Warranty: 5 years



Monoplan

The flat-fronted style and simple beauty of the Monoplan designer radiators provide a completely tailor-made service to suit the requirements of the system designer.

Two specifications are available on the Monoplan, Standard or Comfort range, these vary from open profile to fully welded top and side panels. Manufactured with a durable 2.0mm front panel and 1.25mm internal panel, the Monoplan is available in single, double or triple panel configurations with ½" bsp-f connections.

Suitable for most applications these superb flat-fronted radiators come in heights from 220 to 950mm for horizontally configured models and from 1200 to 3800mm for vertical models. A range of horizontal lengths from 400 to 4000mm are available in 100mm increments.



These high quality Monoplan steel designer radiators are supplied finished in a powder coated RAL 9016 Traffic White, with other MHS RAL colours available to order, and a choice of floor or wall brackets.

The ranges operate up to a working pressure of 6 bar (7.8 bar test) or on request 10 bar operating (13 bar test). All models carry a five year guarantee against manufacturing defect.



Standard Single Panel



Standard Double Panel



Comfort Double Panel Horizontal

Specification

The Monoplan radiator is a high quality smooth flat fronted radiator with a traditional profiled rear face for the single panel models with double and treble panel models having smooth flat faces to all external surfaces.

Standard Range

Single panel radiators with 32mm return edge. Double/triple panel radiators constructed to give open aspect to sides and top with flat surfaces to front and rear.

Comfort Range

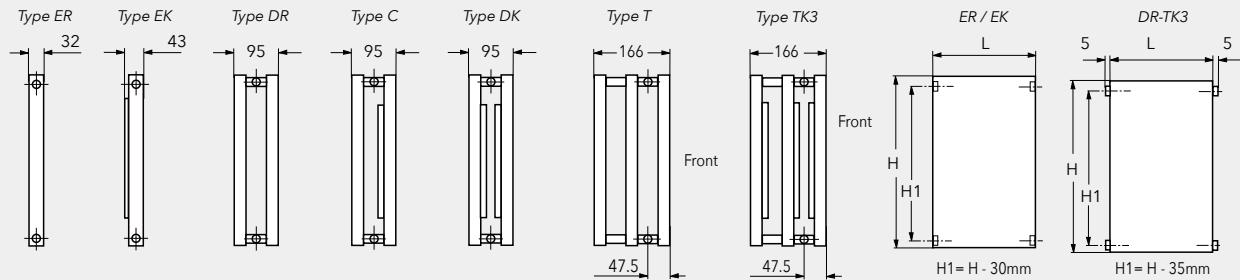
For models DR to TK3. Each radiator is provided with a top grille and fully finished side panels making the radiator flat to all surfaces.

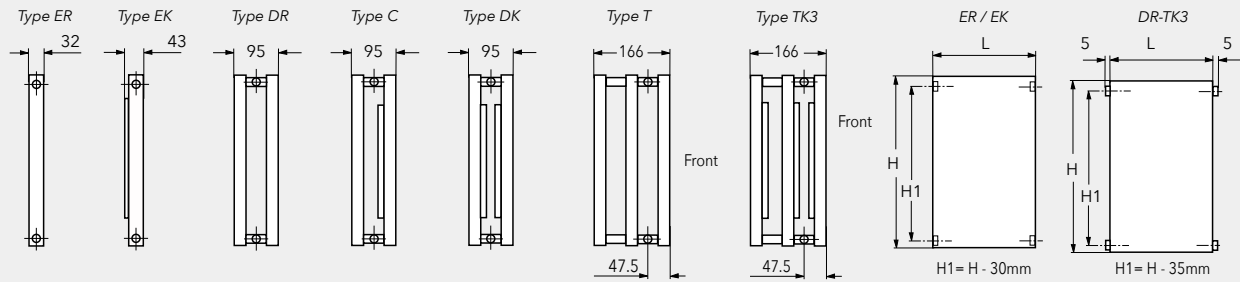
Radiator Heights/Lengths

The Monoplan is available in seven heights: 220, 320, 420, 520, 620, 720, 950mm with lengths ranging from 400 to 4000mm in 100mm increments. Vertical models are available for types ER, EK, DR and DK (DR and DK Vertical models have welded on in-fill panels on the sides) in heights ranging from 1200 to 3800mm in 100mm increments and widths from 320 to 950mm in the standard specification range.

Models

- ER Single panel
- EK Single panel with rear fin convector
- DR Double panel
- C Double panel with one internal fin convector
- DK Double panel with two fin convectors
- T Triple panel
- TK3 Triple panel with three fin convectors





Monoplan Horizontal

Available Lengths 400 - 4000mm in 100mm increments

Height	Type ER (Single Panel) Depth 32mm			Type EK (Single Panel Single Convactor) Depth 43mm			Type DR (Double Panel) Depth 95mm			Type C (Double Panel Single Convactor) Depth 95mm		
	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)
220	278	7.5	1.7	371	8.6	1.7	468	14.3	2.4	561	15.4	2.4
320	375	10.0	1.8	508	11.9	1.8	624	19.6	2.8	785	21.7	2.8
420	466	14.0	2.1	665	15.6	2.1	784	24.9	3.5	1016	28.1	3.5
520	560	17.4	2.3	824	19.2	2.3	941	30.3	4.0	1245	34.4	4.0
620	651	20.4	2.5	971	23.0	2.5	1095	35.6	4.5	1459	40.8	4.5
720	749	22.9	2.8	1108	26.7	2.8	1248	40.9	4.9	1657	47.2	4.9
950	974	26.8	3.2	1387	35.6	3.2	1592	53.2	5.7	2055	61.9	5.7

Height	Type DK (Double Panel Double Convactor) Depth 95mm			Type T (Triple Panel) Depth 166mm			Type TK3 (Triple Panel Triple Convactor) Depth 166mm		
220	674	16.5	2.4	668	21.7	3.8	987	25.5	3.8
320	985	23.8	2.8	899	30.1	4.5	1439	36.3	4.5
420	1269	31.4	3.5	1124	38.1	5.2	1849	46.6	5.2
520	1546	38.8	4.0	1346	46.0	5.9	2252	57.1	5.9
620	1806	46.1	4.5	1564	54.0	6.6	2629	67.8	6.6
720	2047	53.3	4.9	1778	61.9	7.3	2980	78.8	7.3
950	2533	69.2	5.7	2251	80.0	8.9	3689	104.7	8.9

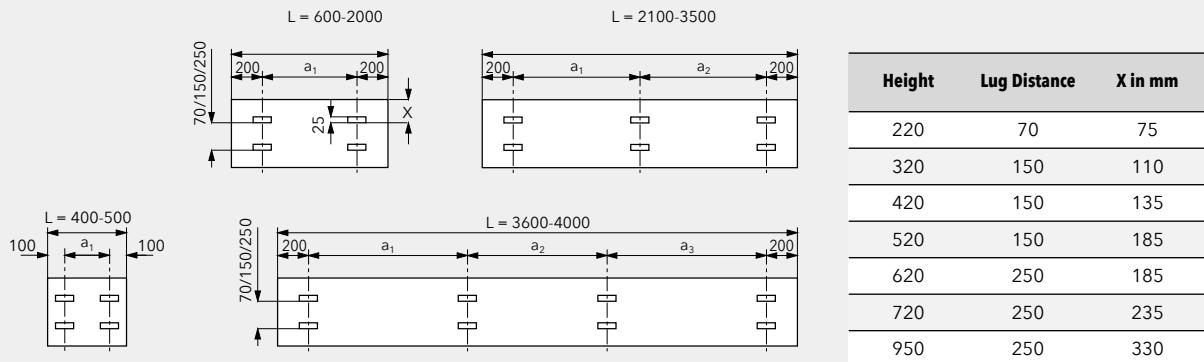
Monoplan Vertical

Available Heights 1200 - 3800mm in 100mm increments

Width	Type ER (Single Panel) Depth 32mm			Type EK (Single Panel Single Convactor) Depth 43mm			Type DR (Double Panel) Depth 95mm		
	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)
320	338	10.0	1.8	457	11.9	1.8	562	19.6	2.8
420	419	14.0	2.1	599	15.6	2.1	706	24.9	3.5
520	504	17.4	2.3	742	19.2	2.3	847	30.3	4.0
620	586	20.4	2.5	874	23.0	2.5	986	35.6	4.5
720	674	22.9	2.8	997	26.7	2.8	1123	40.9	4.9
950	877	26.8	3.2	1248	35.6	3.2	1433	53.2	5.7

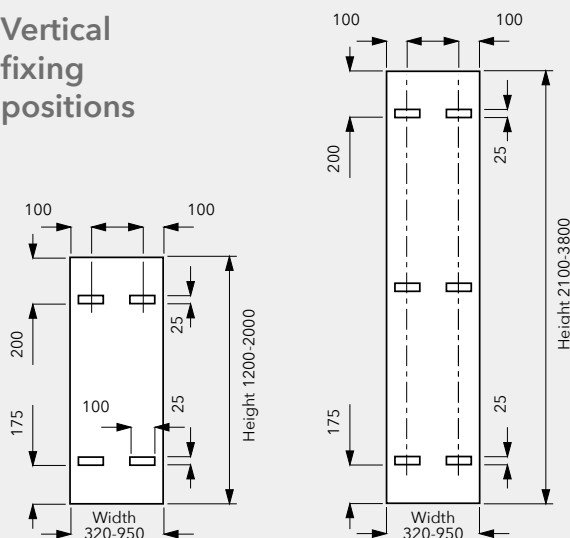
Width	Type DK (Double Panel Double Convactor) Depth 95mm			Type TK3 (Triple Panel Triple Convactor) Depth 166mm		
	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litres (Per Metre)
320	887	23.8	2.8	1338	36.3	4.5
420	1142	31.4	3.5	1719	46.6	5.2
520	1391	38.8	4.0	2094	57.1	5.9
620	1625	46.1	4.5	2445	67.8	6.6
720	1842	53.3	4.9	2771	78.8	7.3
950	2280	69.2	5.7	3430	104.7	8.9

Horizontal fixing positions



L 400 - 2000mm			L 2100 - 3500mm			L 3600 - 4000mm					
Length		a ₁	Length		a ₁	a ₂	Length		a ₁	a ₂	a ₃
400	400	200	2500	2100	850	850	4000	3600	1300	600	1300
	500	300		2200	900	900		3700	1300	700	1300
800	600	200		2300	950	950		3800	1300	800	1300
	700	300		2400	1000	1000		3900	1300	900	1300
	800	400		2500	1050	1050		4000	1300	1000	1300
1200	900	500		3000	2600	1100		1100			
	1000	600	2700		1150	1150					
	1100	700	2800		1200	1200					
	1200	800	2900		1250	1250					
1600	1300	900	3500		3000	1300	1300				
	1400	1000		3100	1350	1350					
	1500	1100		3200	1400	1400					
1600	1600	1200		3300	1450	1450					
	1700	1300		3400	1500	1500					
	1800	1400	3500	1550	1550						
	1900	1500									
	2000	1600									

Vertical fixing positions



Correction factor table

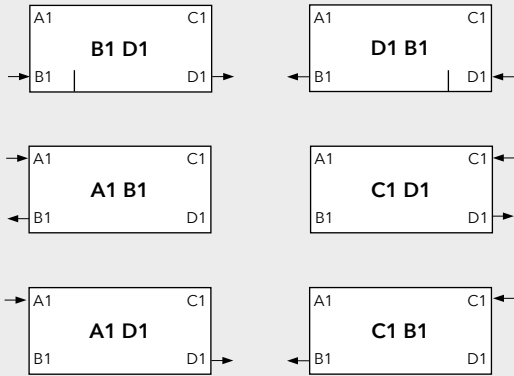
Δt	CF
60	1.267
59	1.240
58	1.213
57	1.186
56	1.159
55.5	1.145
55	1.132
54	1.105
53	1.079
52	1.052
51	1.026
50	1.000
45	0.872
40	0.748
35	0.629

The outputs shown within this brochure are based on BS EN442, 75-65-20°C operating conditions, giving a Δt of 50°C, for Δt's other than this, a correction factor must be applied.

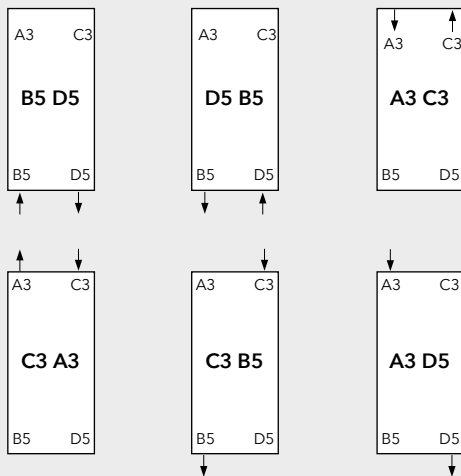
Example: Output required @ 82-71-21°C Δt 55.5 the CF = 1.145, therefore multiply the listed output by the correction factor to give actual radiator output under these operating conditions. (This assumes an averaged exponent of 1.3)

Connection details

Horizontal Models



Vertical Models



Default connection B1 D1 (BBOE) flow left return right on horizontal models and B5 D5 on vertical models (unless specified otherwise)

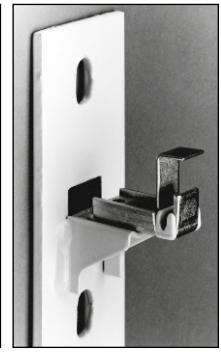
Mounting brackets



NR11 & NR21L



Type A & Type B



Security Clip



NR255

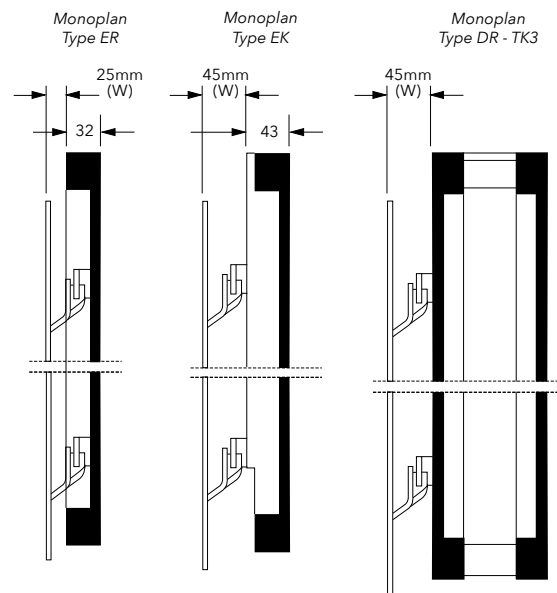


NR226

NR11L 45-65mm.
NR21L 85-115mm.
Type A Fixed Wall for Horizontal 320 - 950 high.
Type B Adjustable Wall Bracket.
Security Clip for NR11, NR21L & Type B Brackets.

NR255 Floor Bracket for Double/Treble Panel Radiators 140 + 40mm adjustment.

NR226 Free Standing Bracket for Single, Double and Triple Panel Radiators.



The above dimensions (W) = Typical setting on Type A fixed wall bracket, the NR11 & Type B = (W) +20mm adjustment

Water treatment: These products are for use on closed heating systems only; they are not suitable for installation on secondary HWS circuits. On completion of the installation the entire system MUST be thoroughly cleaned and flushed to remove debris/flux residues etc. If a chemical cleanser is used, it must be thoroughly flushed from the system. Following this, the system MUST be dosed with a good eminence water treatment to prevent corrosion. System design, flushing and dosing must be in accordance with BS 5449: 1990, BS EN 12828 & 12831: 2003 and BS 7593: 2006

IMPORTANT: Failure to observe these requirements will render the guarantee on the product void. Corrosion inhibitor must be used in accordance with the manufacturer's instructions and recommendations and should take into account the particular metals within the system.

This publication is issued subject to alteration or withdrawal without notice. The illustrations and specifications are not binding in detail.



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