

## FERROLI STEEL PANEL RADIATORS

- 5 different types
- 6 different heights
- 21 different lengths
- High performance
- Durability



# FEATURES



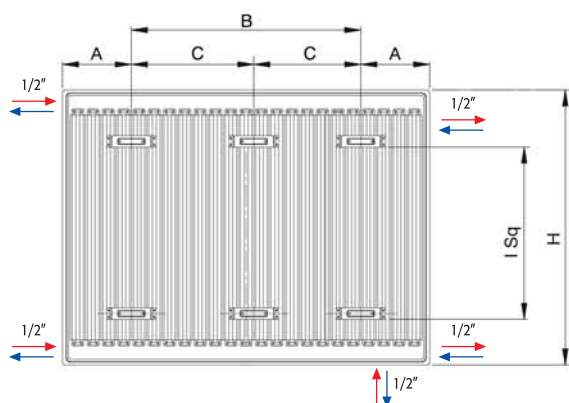
- 5 different types: Type 11, Type 20, Type 21, Type 22, Type 33.
- 6 different heights: 300, 400, 500, 600, 700, 900 mm.
- 21 different lengths between 400 - 3000 mm.
- 4 or 6 connections models total range of 1260 available choices radiators are subjected to surface special treatment to assure a perfect coating and resistance to corrosion.
- Afterwards, radiators are carefully coated with primer paint and RAL 9010 white epoxy polyester powder paint.
- Convectors are directly welded on the wet ducts of the radiator to minimize the thermal losses and get maximum performance.
- Optionally equipped with compact plug or insert regulation valve.
- Maximum working pressure: 10 bars.
- Each radiator is tested at 13 bar pressure.
- Protected against damages during shipping and storage by strong packaging system.
- Easy-to-clean thanks to removable top grills and side covers.
- Ferrol Steel Panel radiators are produced according to EN 442 standard.

## STEEL RADIATORS EQUIPPED WITH COMPACT PLUG/VALVE

Bottom connections radiators equipped with compact plugs/valves allow connections from below. Radiators with insert valves, besides providing efficient and economic heating, keep the connection pipes invisible and thus, are highly aesthetic.



## DIMENSIONS

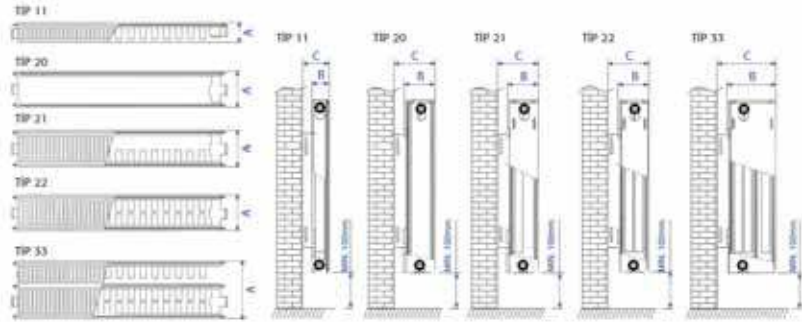


Panel Types 11-20-21-22-33	
H	I Sq
300	142
400	192
500	250
600	347
700	451
900	647

L (mm)	WALL HANGERS QTY	Type 11 (PK)			Type 20 (PP) - Type 21 (PKP) Type 22 (PKKP) - Type 33 (PKKPKP)		
		A (mm)	B (mm)	C (mm)	A (mm)	B (mm)	C (mm)
400	4	83.5	233	-	83.5	233	-
500	4	150	200	-	116.5	267	-
600	4	150	300	-	116.5	367	-
700	4	150	400	-	116.5	467	-
800	4	150	500	-	116.5	567	-
900	4	150	600	-	116.5	667	-
1000	4	150	700	-	116.5	767	-
1100	4	150	800	-	116.5	867	-
1200	4	150	900	-	116.5	967	-
1300	4	150	1000	-	116.5	1067	-
1400	4	150	1100	-	116.5	1167	-
1500	4	150	1200	-	116.5	1267	-
1600	6	150	-	650	116.5	-	683.5
1800	6	150	-	750	116.5	-	783.5
2000	6	150	-	850	116.5	-	883.5
2200	6	150	-	950	116.5	-	983.5
2300	6	150	-	1000	116.5	-	1033.5
2400	6	150	-	1050	116.5	-	1084
2600	6	150	-	1150	116.5	-	1183.5
2800	6	150	-	1250	116.5	-	1283.5
3000	6	150	-	1350	116.5	-	1383.5

As part of its efforts to constantly improve its range of products, with the aim of increasing the level of customer satisfaction, Ferrol informs that the appearance, dimensions, technical data and accessories may be subject to variation.

# RADIATOR TYPES



	Unit	Type 11	Type 20	Type 21	Type 22	Type 33
A						
Radiator thickness	mm	56	66	66	104	160
Radiator thickness with covers	mm	66	66	66	104	160
B						
Radiator thickness with bracket	mm	61	72.2	72.2	110.2	166.2
C						
Total depth with wall hanger (long side)	mm	99	110.2	110.2	148.2	204.2
Total depth with wall hanger (short side)	mm	84	95.2	95.2	133.2	189.2

# STANDARD ACCESSORIES

Ferrolli steel panel radiators are equipped as a standard in the package with wall brackets, fischer screws, one blind plug and one air vent. For 6-connection-radiators, such accessories are available upon request.



# QUALITY PACKAGING

In order to minimize the damages during shipping and storage;

- Side lids of the panel radiator's are covered with cardboard
- Plastic suspension bracket protector placed on suspensions
- Plastic side protectors placed to prevent smashing
- Steel radiator completely covered with bubble nylon and shrinking nylon to be ready for shipping



OUTPUT ACCORDING TO EN442		55/45 °C CH INLET/OUTLET	
ROOM TEMPERATURE		20 °C	
OUTPUT PER METER			
TYPE	H(mm)	(W)	(KCal/h)
11	300	231	198
11	400	311	267
11	500	388	333
11	600	460	395
11	700	525	452
11	900	639	550
20	300	284	244
20	400	361	311
20	500	436	375
20	600	508	437
20	700	578	497
20	900	713	613
21	300	369	317
21	400	472	406
21	500	571	491
21	600	663	570
21	700	750	645
21	900	909	782
22	300	479	412
22	400	611	525
22	500	735	632
22	600	853	733
22	700	974	838
22	900	1210	1041
33	300	688	591
33	400	884	760
33	500	1067	918
33	600	1241	1067
33	700	1396	1200
33	900	1676	1441

# WEIGHT and WATER CONTENT

Type	Height	Unit	300	400	500	600	700	900
11	Weight	kg	7.7	10.4	13.1	15.8	18.6	24.2
	Water content	litre	1.7	2.1	2.6	3.0	3.4	4.2
20	Weight	kg	11.3	15.1	18.9	22.7	26.5	34.0
	Water content	litre	3.3	4.2	5.1	5.9	6.7	8.2
21	Weight	kg	13.3	17.9	22.4	26.9	31.6	40.8
	Water content	litre	3.3	4.2	5.1	5.9	6.7	8.2
22	Weight	kg	15.3	20.5	25.8	31.1	36.6	47.3
	Water content	litre	3.3	4.2	5.1	5.9	6.7	8.2
33	Weight	kg	22.9	30.7	38.6	46.5	54.7	70.7
	Water content	litre	4.4	5.8	7.2	8.6	10.0	12.7



$\Delta 50\text{ }^{\circ}\text{C}$  :  $T_{room} = 20\text{ }^{\circ}\text{C}$   $T_{in} = 75\text{ }^{\circ}\text{C}$   $T_{out} = 65\text{ }^{\circ}\text{C}$   
 $\Delta T 60\text{ }^{\circ}\text{C}$  :  $T_{room} = 20\text{ }^{\circ}\text{C}$   $T_{in} = 90\text{ }^{\circ}\text{C}$   $T_{out} = 70\text{ }^{\circ}\text{C}$

THERMAL POWER CHART (Watt)												Height (mm)	
	L (mm.)	300		400		500		600		700		900	
		n 1.31042	Km 0.089186	n 1.30793	Km 0.121153	n 1.30542	Km 0.152454	n 1.30291	Km 0.182355	n 1.30498	Km 0.206875	n 1.30915	Km 0.248231
		$\Delta T 50\text{ }^{\circ}\text{C}$	$\Delta T 60\text{ }^{\circ}\text{C}$	$\Delta T 50\text{ }^{\circ}\text{C}$	$\Delta T 60\text{ }^{\circ}\text{C}$	$\Delta T 50\text{ }^{\circ}\text{C}$	$\Delta T 60\text{ }^{\circ}\text{C}$	$\Delta T 50\text{ }^{\circ}\text{C}$	$\Delta T 60\text{ }^{\circ}\text{C}$	$\Delta T 50\text{ }^{\circ}\text{C}$	$\Delta T 60\text{ }^{\circ}\text{C}$	$\Delta T 50\text{ }^{\circ}\text{C}$	$\Delta T 60\text{ }^{\circ}\text{C}$
TYPE 11	400	180	229	242	308	302	383	358	454	409	519	499	634
	500	225	286	303	385	378	475	447	567	512	649	624	792
	600	270	343	364	462	453	575	537	681	614	779	749	951
	700	315	401	424	539	529	671	626	794	716	909	874	1109
	800	361	458	485	616	604	767	716	908	819	1039	998	1268
	900	406	515	546	693	680	863	805	1021	921	1168	1123	1426
	1000	451	572	606	769	755	958	895	1135	1023	1298	1248	1584
	1100	496	629	667	846	831	1054	984	1248	1126	1428	1373	1743
	1200	541	687	727	923	906	1150	1074	1362	1228	1558	1498	1901
	1300	586	744	788	1000	982	1246	1163	1475	1330	1688	1622	2060
	1400	631	801	849	1077	1058	1342	1253	1588	1433	1817	1747	2218
	1500	676	858	909	1154	1133	1438	1342	1702	1535	1947	1872	2377
	1600	721	916	970	1231	1209	1533	1432	1815	1637	2077	1997	2535
	1800	811	1030	1091	1385	1360	1725	1610	2042	1842	2337	2246	2852
	2000	901	1145	1212	1539	1511	1917	1789	2269	2047	2596	2496	3169
	2200	991	1259	1334	1693	1662	2108	1968	2496	2251	2856	2746	3486
2300	1036	1316	1394	1770	1752	2204	2058	2610	2354	2986	2870	3644	
2400	1082	1373	1457	1847	1833	2300	2150	2723	2456	3116	2995	3803	
2600	1172	1488	1576	2001	1964	2492	2326	2950	2661	3375	3245	4120	
2800	1262	1602	1697	2155	2115	2683	2505	3177	2865	3635	3494	4437	
3000	1352	1717	1819	2308	2266	2875	2684	3404	3070	3894	3744	4753	
TYPE 20	400	222	282	282	358	340	432	396	503	451	572	558	708
	500	278	353	353	448	425	540	495	628	564	716	697	886
	600	333	423	423	538	510	647	594	754	676	859	836	1063
	700	389	494	494	627	595	755	693	880	789	1002	976	1240
	800	445	564	564	717	680	863	793	1005	902	1115	1085	1417
	900	500	635	635	806	765	971	891	1131	1015	1288	1255	1594
	1000	555	705	706	896	850	1079	990	1257	1127	1431	1394	1771
	1100	611	776	776	986	935	1187	1090	1382	1240	1574	1533	1948
	1200	667	847	847	1075	1020	1295	1189	1508	1353	1717	1673	2125
	1300	722	917	917	1165	1105	1403	1288	1634	1466	1861	1812	2303
	1400	778	988	988	1254	1190	1511	1387	1760	1578	2004	1952	2480
	1500	833	1058	1058	1344	1275	1619	1486	1885	1691	2147	2091	2657
	1600	889	1129	1129	1434	1360	1727	1585	2011	1804	2290	2230	2834
	1800	1000	1270	1270	1613	1530	1942	1783	2262	2029	2576	2509	3188
	2000	1111	1411	1411	1792	1700	2158	1981	2514	2255	2862	2788	3542
	2200	1222	1552	1552	1971	1870	2374	2179	2765	2480	3149	3067	3897
2300	1278	1623	1623	2061	1955	2482	2278	2891	2593	3292	3206	4074	
2400	1333	1694	1694	2150	2040	2590	2377	3016	2706	3435	3346	4251	
2600	1444	1854	1854	2350	2211	2806	2575	3261	2931	3721	3624	4605	
2800	1555	1975	1976	2509	2381	3022	2773	3519	3157	4007	3903	4959	
3000	1666	2116	2117	2688	2551	3237	2971	3770	3382	4294	4182	5314	
TYPE 21	400	289	367	371	472	449	571	523	666	593	756	721	921
	500	361	459	463	589	561	714	653	832	741	944	902	1151
	600	433	550	556	707	673	857	784	999	889	1133	1082	1382
	700	505	642	649	825	785	1000	915	1165	1037	1322	1262	1612
	800	578	734	741	943	898	1143	1045	1332	1185	1511	1443	1842
	900	651	826	834	1061	1010	1275	1176	1506	1353	1700	1623	2073
	1000	722	917	927	1179	1122	1428	1307	1665	1481	1889	1803	2303
	1100	794	1009	1019	1297	1234	1571	1437	1831	1630	2078	1984	2533
	1200	866	1101	1112	1415	1347	1714	1568	1998	1778	2267	2164	2763
	1300	938	1193	1205	1532	1459	1857	1699	2164	1926	2456	2344	2994
	1400	1011	1284	1298	1650	1571	2000	1829	2330	2074	2644	2525	3224
	1500	1083	1376	1390	1768	1683	2143	1960	2497	2222	2833	2705	3454
	1600	1155	1468	1483	1886	1795	2286	2105	2663	2370	3022	2894	3684
	1800	1299	1651	1668	2122	2020	2571	2352	2996	2667	3400	3246	4145
	2000	1444	1835	1854	2358	2244	2857	2613	3329	2978	3778	3606	4606
	2200	1588	2018	2039	2593	2469	3142	2875	3662	3259	4156	3967	5066
2300	1660	2110	2132	2711	2581	3285	3005	3829	3407	4344	4147	5296	
2400	1733	2202	2224	2829	2693	3428	3136	3995	3556	4533	4328	5527	
2600	1877	2385	2410	3065	2918	3714	3397	4328	3852	4911	4688	5987	
2800	2021	2569	2595	3301	3142	4000	3659	4661	4148	5289	4948	6448	
3000	2166	2752	2780	3536	3366	4285	3920	4994	4444	5667	5410	6908	
TYPE 22	400	372	472	478	608	580	739	678	866	772	986	954	1215
	500	465	590	598	760	725	923	847	1082	965	1232	1192	1519
	600	558	708	717	912	870	1108	1016	1299	1158	1478	1431	1822
	700	651	826	837	1063	1015	1293	1186	1515	1351	1725	1669	2126
	800	744	944	956	1215	1160	1478	1355	1731	1544	1971	1907	2430
	900	837	1062	1076	1367	1302	1662	1525	1948	1737	2218	2146	2733
	1000	930	1179	1195	1519	1449	1847	1694	2164	1931	2464	2384	3037
	1100	1023	1297	1315	1671	1594	2032	1863	2381	2124	2710	2623	3341
	1200	1117	1415	1434	1823	1739	2216	2033	2597	2317	2957	2861	3645
	1300	1210	1533	1554	1975	1884	2401	2202	2813	2510	3203	3100	3948
	1400	1303	1651	1674	2127	2029	2586	2372	3030	2703	3449	3338	4252
	1500	1396	1769	1793	2279	2174	2770	2541	3246	2896	3696	3577	4556
	1600	1489	1887	1913	2431	2319	2955	2710	3463	3089	3942	3815	4859
	1800	1675	2123	2152	2735	2609	3324	3049	3896	3475	4435	4292	5467
	2000	1861	2359	2391	3039	2899	3694	3388	4328	3861	4928	4769	6074
	2200	2047	2595	2630	3342	3189	4063	3727	4761	4247	5421	5246	6682
2300	2140	2713	2749	3494	3334	4248	3896	4978	4440	5667	5484	6985	
2400	2233	2831	2869	3646	3479	4433	4066	5194	4633	5913	5722	7289	
2600	2419	3067	3108	3950	3768	4802	4405	5627	5019	6406	6199	7897	
2800	2605	3303	3347	4254	4058	5171	4743	6060	5405	6899	6706	8504	
3000	2791	3538	3586	4558	4348	5541	5082	6493	5792	7392	7153	9111	
TYPE 33	400	536	680	689	875	833	1058	969	1231	1093	1326	1261	1691
	500	670	850	862	1093	1041	1322	1212	1539	1369	1741	1657	2114
	600	804	1020	1034	1312	1250	1586	1454	1847	1643	2089	1989	2537
	700	938	1190	1206	1531	1458	1851	1697	2154	1916	2437	2320	2959
	800	1072	1360	1378	1749	1666	2115	1939	2462	2190	2785	2651	3382
	900	1206	1548	1567	1968	1874	2380	2181	2764	2420	3064	2913	3805
	1000	1340	1699	1723	2187	2083	2644	2424	3078	2738	3482	3331	4228
	1100	1473	1869	1895	2405	2291	2908	2666	3385	3011	3830	3646	4650
	1200	1607	2039	2068	2624	2499	3173	2908	3693	3285	4178	3977	5073
	1300	1741	2209	2240	2843	2708	3437	3151	4001	3559	4526	4309	5496
	1400	1875	2379	2412	3061	2916	3702	3393	4309	3833	4874	4640	5919
	1500	2009	2549	2585	3280	3124	3966	3635</					