E2

Low Temperature Radiator

GB 01

Heating & Plumbing

EMMETI

Ideas to install

reddot design award
winner 2013

E2

Low temperature radiator

The E2 low temperature radiator is a one-of-a-kind product, since it makes emission of heat at low temperature possible, combining efficiency and energy savings, with an eye to aesthetics and design.

10 YEARS WARRANTY*

*2 YEARS ON ELECTRICAL/ELECTRONIC COMPONENTS

Elevated energy saving potential

The E2 radiator, working at an average operating temperature that is considerably lower compared to the static radiators present on the market today, helps increase the efficiency of the heat generator, with consequent elevated energy savings.

Extremely rapid heat emission and reaction time

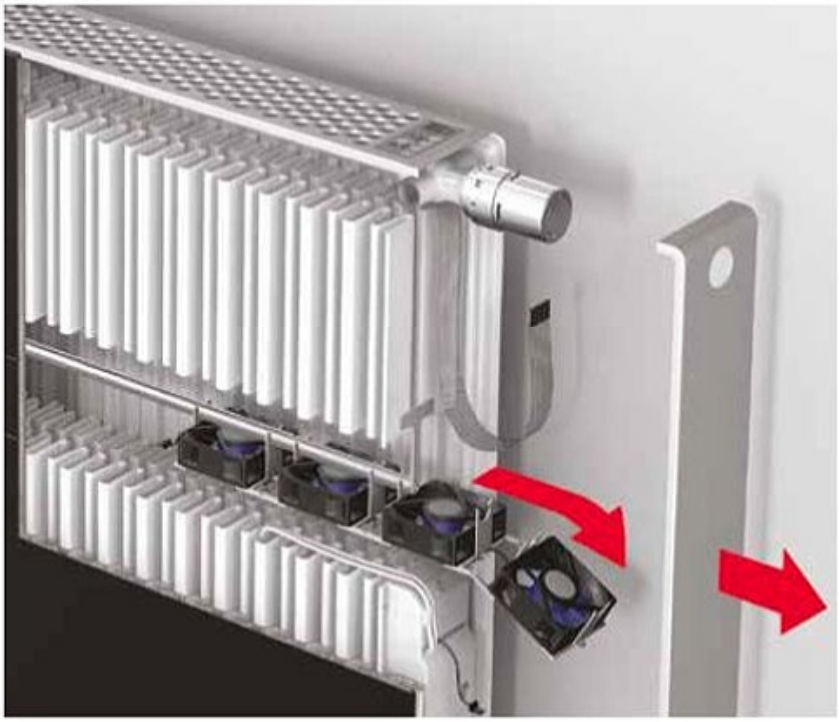
The E2 radiator ensures rapid heat emission and short reaction times through a high percentage of irradiation guaranteed by front and rear plates (static operation), and the optimisation of the modulated convection through smart adjustment of the fans' speed (dynamic operation). In winter, the lowering of temperature during the night hours are thus compensated easily, as are those due to the airing out of the rooms.

Quick and easy installation and maintenance

The E2 radiator is delivered ready for quick and easy installation, just like a normal radiator; this characteristic is particularly appreciated in the renovation phase.

The particularity of E2 consists in being able to remove and reassemble the individual components without requiring special equipment: each functional and electronics element is easily reachable within the radiator and is connected through plugs or connectors; the end result translates into savings of both time and money, particularly during maintenance and cleaning.

The E2 radiator can be cleaned just like a normal flat surface radiator, while the fans, placed on sliding guides, can be easily extracted and re-inserted.



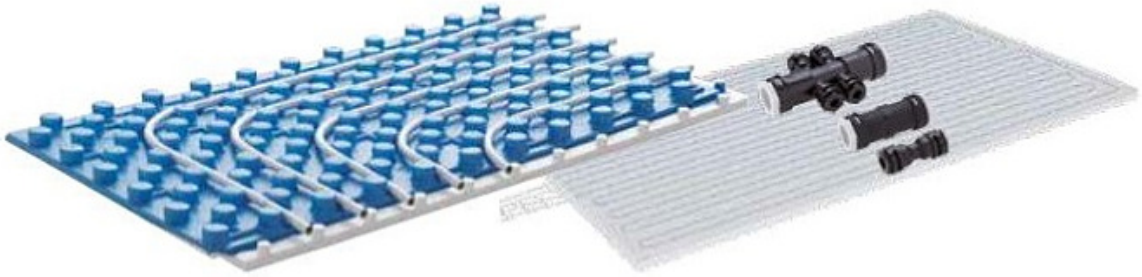
Advantages that make the difference

Compatible with different types of heat generators

The low temperature E2 radiator also works at supply temperatures lower than 40 °C, and therefore combines perfectly both with low temperature heat generators that use renewable energy sources (e.g. heat pumps), and with heat generators such as condensing boilers.

Compatible with various system solutions

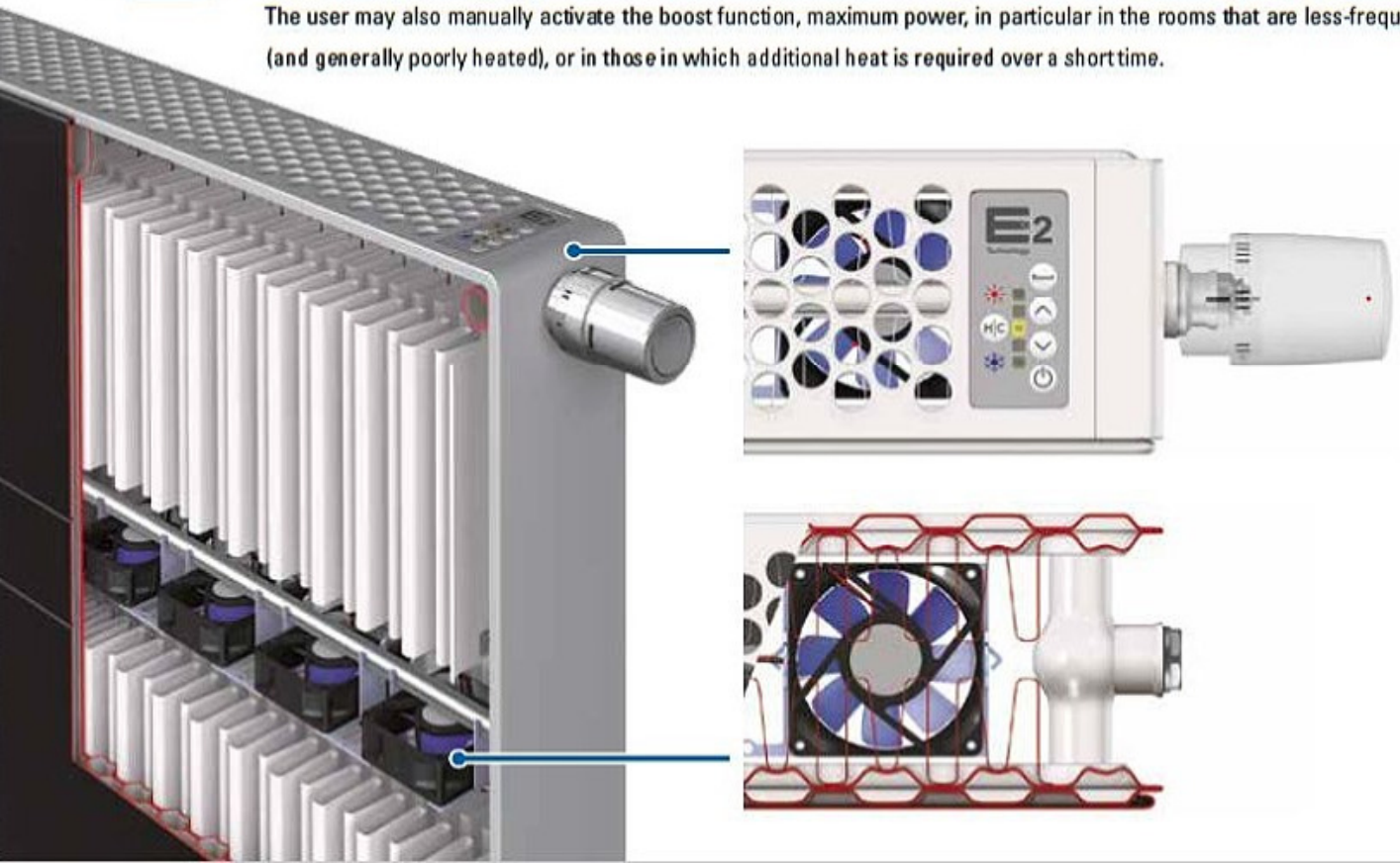
The E2 radiator, thanks to the reduced average operating temperatures, represents a system solution that is particularly suited to being combined with other low temperature heating systems, such as radiant floor, wall and ceiling systems.



Intelligent adjustment

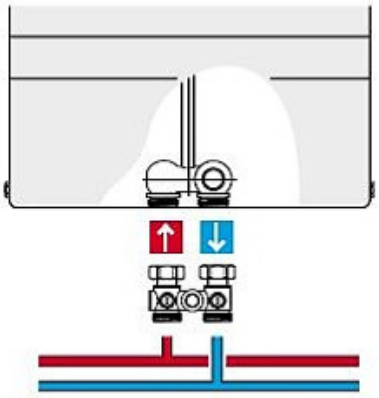
The E2 radiator is one-of-a-kind due to the presence of internal fans, adjusted by an intelligent controller, which add a dynamic mode to the static operation of a normal radiator.

The user may also manually activate the boost function, maximum power, in particular in the rooms that are less-frequented (and generally poorly heated), or in those in which additional heat is required over a short time.

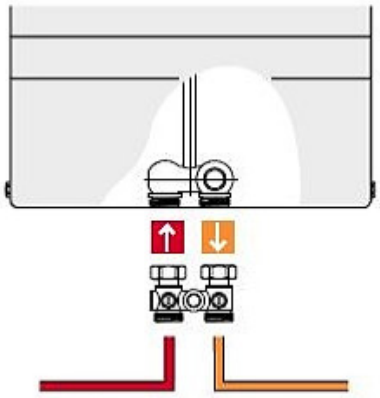


Hydraulic connections in the central position

As a confirmation of the simplicity of its installation, the hydraulic connection in the central position ensures easy assembling, reduces the margin of error, and offers maximum freedom of design.



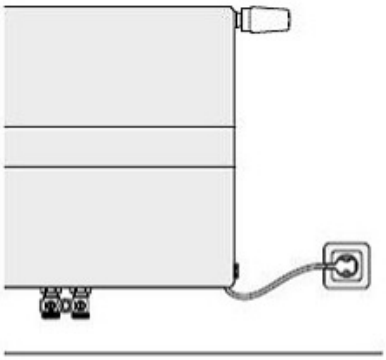
Double-pipe connection



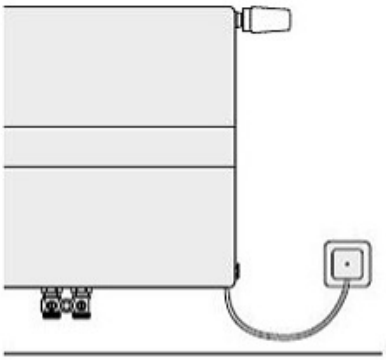
Single-pipe connection

Flexible electrical connections

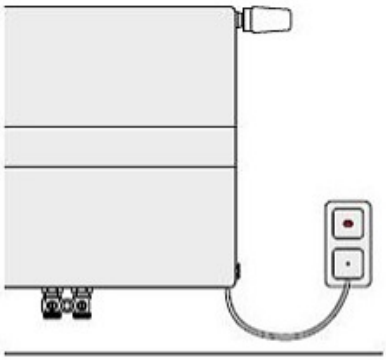
The E2 radiator can be connected to the electrical network in two different ways: through the plug, or with direct connection by means of an adapter. The length of the power cable is adjustable up to a maximum of 1,20 metres.



Plug connection



Direct connection
without on/off switch



Direct connection
with on/off switch

Ideal for renovated buildings and new constructions

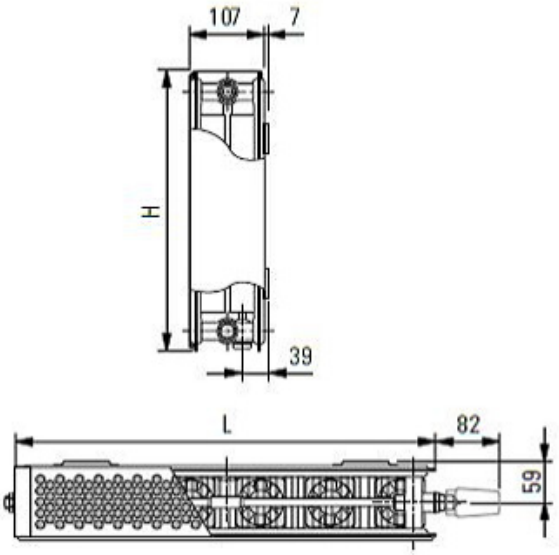
It can be concluded that the E2 radiator is an ideal solution both during renovation and in the case of new constructions, in combination with other low temperature heating systems (such as radiant floors, walls and ceilings), it is powered by generators that use renewable energy sources (e.g., heat pumps).

Constructional characteristics

- In cold rolled steel, in accordance with EN 442-1, front plate with a thickness of 1 mm.
- Standard powder epoxy finish in RAL 9016 (White traffic) or black/grey.
- Standard equipment: pre-calibrated and adjustable thermostatic valve, factory installed and complete with cap; thermostatic head; no. 2 blind plugs; no. 1 swivelling manual vent valve; angular support with secure anti-lift device.

Technical data

Mode of operation: heating only
Electrical supply: 230 Vac / 50 Hz
Max. absorption: 15 W
Hydraulic connections: no. 2 male connections G 3/4" lower central position (takeoffs 50 mm), and no. 4 female connections G ½"
Minimum water temperature for the activation of the fans: 30 °C
Maximum operating temperature: 60 °C
Maximum operating pressure: 10 bar
Sound pressure level:
Comfort: from 20 to 25 dB / Boost: 34 dB
These values have been calculated on the basis of the 2 m distance provided by the VDI 2081 standard, "Production and reduction of noise in air conditioning and ventilation systems" (Mod. 600x1000 mm).



Model	H [mm]	L [mm]	Weight [kg]	Heating capacity [W]											
				(Tin / Tout / Tamb) 55 / 45 / 20 °C			(Tin / Tout / Tamb) 45 / 35 / 20 °C			(Tin / Tout / Tamb) 40 / 35 / 20 °C			(Tin / Tout / Tamb) 35 / 30 / 20 °C		
				Operating mode			Operating mode			Operating mode			Operating mode		
				Static	Comfort	Boost	Static	Comfort	Boost	Static	Comfort	Boost	Static	Comfort	Boost
				≈	≈+♣	≈+♣	≈	≈+♣	≈+♣	≈	≈+♣	≈+♣	≈	≈+♣	≈+♣
E2 500-400	500	400	15,70	282	415	475	163	252	294	140	220	257	89	149	176
E2 500-600	500	600	22,43	424	622	713	245	379	440	210	331	385	134	224	263
E2 500-800	500	800	29,18	565	829	951	327	505	587	280	441	514	179	298	351
E2 500-1000	500	1000	36,11	706	1036	1189	409	631	734	349	551	642	224	373	439
E2 500-1200	500	1200	42,85	848	1243	1427	490	757	881	419	661	770	268	448	527
E2 500-1400	500	1400	49,69	989	1451	1664	572	883	1028	489	771	899	313	522	615
E2 500-1600	500	1600	56,53	1130	1658	1902	654	1010	1174	559	882	1027	358	597	702
E2 500-1800	500	1800	63,46	1272	1865	2139	735	1136	1321	629	992	1156	402	671	790
E2 500-2000	500	2000	70,20	1413	2072	2377	817	1262	1468	699	1102	1284	447	746	878
E2 600-400	600	400	17,59	322	446	507	184	272	317	157	238	277	100	162	189
E2 600-600	600	600	25,20	484	670	760	276	409	475	236	357	416	150	242	284
E2 600-800	600	800	32,82	645	893	1013	368	545	634	314	476	554	200	323	378
E2 600-1000	600	1000	40,62	806	1116	1266	460	681	792	393	595	693	250	404	473
E2 600-1200	600	1200	48,24	968	1339	1519	552	817	950	472	714	832	300	485	568
E2 600-1400	600	1400	55,94	1129	1562	1773	644	953	1109	550	833	970	350	566	662
E2 600-1600	600	1600	63,65	1290	1785	2026	736	1090	1267	629	952	1109	400	646	757
E2 600-1800	600	1800	71,45	1451	2008	2279	828	1226	1426	707	1071	1247	450	727	851
E2 600-2000	600	2000	79,07	1312	2231	2532	920	1362	1584	786	1190	1386	500	808	946
E2 900-400	900	400	25,19	411	536	806	233	324	375	198	238	277	126	189	225
E2 900-600	900	600	36,57	617	804	910	349	486	562	298	423	492	188	254	337
E2 900-800	900	800	47,95	623	1072	1213	466	648	750	397	564	656	251	378	450
E2 900-1000	900	1000	59,51	1028	1340	1517	582	810	937	496	705	820	314	473	562
E2 900-1200	900	1200	70,90	1234	1607	1820	698	972	1124	595	846	984	377	846	984
E2 900-1400	900	1400	82,37	1440	1875	2123	815	1134	1312	694	987	1148	440	662	787
E2 900-1600	900	1600	93,84	1645	2143	2427	931	1296	1499	794	1128	1312	502	757	899
E2 900-1800	900	1800	105,41	1851	2411	2730	1048	1458	1687	893	1269	1476	565	851	1012
E2 900-2000	900	2000	116,79	2057	2679	3033	1164	1620	1874	992	1410	1640	628	946	1124

≈ Irradiation + Natural Convection ≈+♣ Irradiation + Forced convection ≈+♣ Irradiation + Max Forced convection

Tin = Supply Temperature / Tout = Return Temperature / Tamb = Room Temperature

Accessories supplied separately

Straight double-pipe H valve

Square double-pipe H valve

Straight single-pipe H valve

Square single-pipe H valve

White cover plate
Straight H valve
Chrome-plated cover plate
Straight H valve

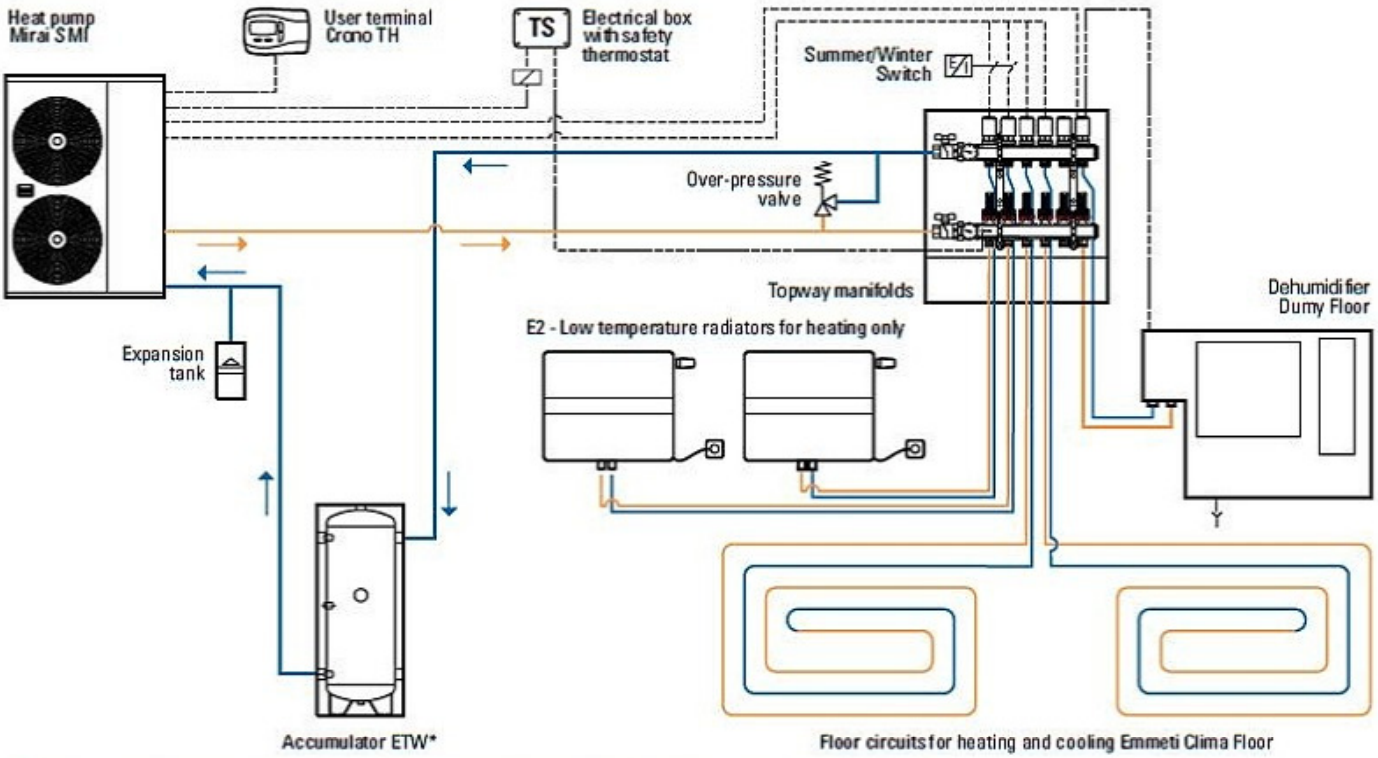
White cover plate
Square H valve
Chrome-plated cover plate
Square H valve

Straight X valve
for inverted
flow and return
connections

Straight X valve
for inverted
flow and return
connections

Installation example

System with heat pump in direct supply, floor circuits for heating and cooling Emmeti Floor, low temperature radiators E2 for heating only



* The volume of the open manifold/storage tank must be defined according to the working capacity of the heat pump.
Note: Check the thermal efficiency of the E2 radiator in function of the water temperature and the heating requirements of the room in which it is installed.

Rev. 0 -01.2017 - Ufficio Pubblicità & Immagine - DV

**The data contained in this publication are subject to change in every time, for technical and commercial requirements.
Emmeti are not responsible for eventual errors or inexactitudes.**

EMMETI spa - Via Brigata Osoppo, 166 - 33074 Vigonovo frazione di Fontanafredda (PN) - Italia
Tel. 0434.567911 - Fax 0434.567901 - www.emmeti.com - info@emmeti.com