# THE SENSOTHERM **WMOC**
# SMART HORIZONTAL CONVECTOR RANGE

Sensotherm
heat with style

# SENSOTHERM WMOC SMART HORIZONTAL CONVECTOR RANGE

## WALL-MOUNTED CONVECTORS
## with forced convection and optimised convection

Developed for low temperature heating systems, high efficiency guaranteed also at very low temperature gradients, e.g. 35/30 °C. Ideal everywhere, where the heat source is a heat pump, a solar system, a condensing boiler or as a supplementary source of heat for floor heating, particularly during a transitional period or when an instant temperature increase in the room is required. At the same time suitable for rooms' dry-cooling during the summer months. All of this with the benefits of the Optimised Convection system – low noise and low fan intake while maintaining maximum attainable performance.

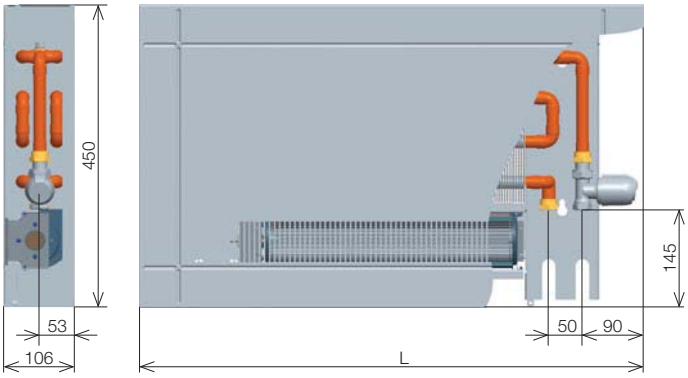
**Universal use – heating and dry-cooling!**

OPTIMIZED CONVECTION

# Wall-mounted convector with forced convection Sensotherm WMOC 45/11

OPTIMIZED CONVECTION

- used for heating or dry-cooling
- high efficiency even at low temperatures of the heating system
- patented design solutions
- high-perfomance, low energy and quiet fans
- controls are the same as our FSCOC Range. Please see our Optimised Convecton Control brochure.
- two pipe system
- right bottom connection
- controls possible through BMS
- the convector is intended for dry environment




*The dimensions are given in mm*

## Specification

| | |
|---|---|
| depth *(mm)* | 110 |
| height *(mm)* | 450 |
| lengths *(L mm)* | 750, 1 000, 1 250, 1 500, 1 750, 2 000 |
| outputs *(W)* | 281 - 6257 |
| exchanger height *(mm)* | 240 |
| exchanger width *(mm)* | 100 |
| fan impeller diameter *(mm)* | 60 |
| connection to the heating system | inner G 1/2" |
| connection method | recommended bottom connection, right |

## Specification

| Height | cm | 45 | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Width | cm | 11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lengths | cm | 75 | | | | 100 | | | | 125 | | | | 150 | | | | 175 | | | | 200 | | | | | |
| Acoustic pressure 1m | dB(A) | 0 | 23.1 | 31.3 | 38 | 0 | 23.4 | 31.7 | 38.5 | 0 | 23.7 | 32.1 | 39 | 0 | 24 | 32.5 | 39.5 | 0 | 24.4 | 33 | 40.1 | 0 | 24.7 | 33.4 | 40.6 | | |
| Max. intake/voltage DC | W/V | 5.5 / 13.5 | | | | 8 / 13.5 | | | | 9.5 / 13.5 | | | | 14 / 13.5 | | | | 16 / 13.5 | | | | 18.5 / 13.5 | | | | | |
| Rpm | | Off | 1 | 2 | 3 | Off | 1 | 2 | 3 | Off | 1 | 2 | 3 | Off | 1 | 2 | 3 | Off | 1 | 2 | 3 | Off | 1 | 2 | 3 | | |
| Cooling output | °C | hum. % | Cooling output [W] | | | | | | | | | | | | | | | | | | | | | | | | |
| 16/19 °C | 28 | 50 | 0 | 149 | 207 | 263 | 0 | 291 | 407 | 527 | 0 | 387 | 542 | 703 | 0 | 434 | 604 | 791 | 0 | 523 | 732 | 966 | 0 | 618 | 864 | 1141 | | |
| | 26 | 50 | 0 | 123 | 171 | 218 | 0 | 240 | 337 | 435 | 0 | 320 | 448 | 581 | 0 | 359 | 499 | 653 | 0 | 432 | 605 | 798 | 0 | 510 | 714 | 943 | | |
| | 24 | 50 | 0 | 93 | 128 | 163 | 0 | 180 | 252 | 327 | 0 | 241 | 336 | 435 | 0 | 270 | 375 | 490 | 0 | 323 | 454 | 598 | 0 | 383 | 536 | 708 | | |
| Heat output | °C | Heat output [W] / EN 442 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75/65 °C | 18 | 281 | 858 | 1139 | 1444 | 563 | 1716 | 2279 | 2888 | 751 | 2288 | 3039 | 3850 | 844 | 2574 | 3418 | 4332 | 1032 | 3146 | 4178 | 5294 | 1220 | 3718 | 4938 | 6257 | | |
| | 20 | **270** | **823** | **1093** | **1385** | **540** | **1646** | **2186** | **2770** | **720** | **2195** | **2915** | **3693** | **810** | **2469** | **3279** | **4155** | **990** | **3018** | **4008** | **5078** | **1170** | **3566** | **4736** | **6002** | | |
| | 22 | 259 | 788 | 1047 | 1326 | 517 | 1576 | 2093 | 2652 | 689 | 2102 | 2791 | 3537 | 776 | 2364 | 3140 | 3979 | 948 | 2890 | 3838 | 4863 | 1120 | 3415 | 4535 | 5747 | | |
| 70/55 °C | 18 | 239 | 727 | 966 | 1224 | 477 | 1454 | 1932 | 2448 | 636 | 1939 | 2575 | 3263 | 716 | 2182 | 2897 | 3671 | 875 | 2666 | 3541 | 4487 | 1034 | 3151 | 4185 | 5303 | | |
| | 20 | 227 | 693 | 920 | 1165 | 454 | 1385 | 1839 | 2331 | 606 | 1847 | 2453 | 3108 | 682 | 2078 | 2759 | 3496 | 833 | 2539 | 3372 | 4273 | 985 | 3001 | 3986 | 5050 | | |
| | 22 | 216 | 658 | 874 | 1107 | 432 | 1316 | 1748 | 2215 | 576 | 1755 | 2330 | 2953 | 648 | 1974 | 2622 | 3322 | 791 | 2413 | 3204 | 4060 | 935 | 2851 | 3787 | 4798 | | |
| 55/45 °C | 18 | 168 | 512 | 680 | 862 | 336 | 1025 | 1361 | 1724 | 448 | 1366 | 1814 | 2299 | 504 | 1537 | 2041 | 2587 | 616 | 1879 | 2495 | 3161 | 728 | 2220 | 2949 | 3736 | | |
| | 20 | 157 | 478 | 635 | 805 | 314 | 957 | 1271 | 1610 | 419 | 1276 | 1694 | 2147 | 471 | 1435 | 1906 | 2415 | 575 | 1754 | 2330 | 2952 | 680 | 2073 | 2753 | 3489 | | |
| | 22 | 146 | 445 | 590 | 748 | 292 | 889 | 1181 | 1496 | 389 | 1186 | 1575 | 1995 | 438 | 1334 | 1771 | 2245 | 535 | 1630 | 2165 | 2743 | 632 | 1927 | 2559 | 3242 | | |
| 50/40 °C | 18 | 140 | 428 | 568 | 720 | 281 | 856 | 1136 | 1440 | 374 | 1141 | 1515 | 1920 | 421 | 1283 | 1704 | 2160 | 515 | 1568 | 2083 | 2640 | 608 | 1854 | 2462 | 3119 | | |
| | 20 | 129 | 394 | 524 | 663 | 259 | 788 | 1047 | 1327 | 345 | 1051 | 1396 | 1769 | 388 | 1183 | 1571 | 1990 | 474 | 1445 | 1920 | 2432 | 560 | 1708 | 2269 | 2875 | | |
| | 22 | 118 | 361 | 479 | 607 | 237 | 722 | 958 | 1214 | 316 | 962 | 1278 | 1619 | 355 | 1082 | 1437 | 1821 | 434 | 1323 | 1757 | 2226 | 513 | 1563 | 2076 | 2631 | | |

***Cooling is possible only in the non-condensation zone, i.e. above the temperature of the dew-point.***
***The element is not provided with condensate drain. Listed cooling performance SENSITIV.***
*Cooling performances for other operating conditions on request.*
** SENSITIV – cooling power actually delivered for cooling the air.*

# Correction factor kt for a variant temperature difference Δt (K)

## WMOC 45/11

| Δt (K) | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| kt | 0.338 | 0.358 | 0.378 | 0.398 | 0.418 | 0.438 | 0.459 | 0.479 | 0.499 | 0.520 | 0.540 | 0.561 | 0.581 | 0.602 | 0.623 | 0.643 |
| Δt (K) | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| kt | 0.664 | 0.685 | 0.705 | 0.726 | 0.747 | 0.768 | 0.789 | 0.810 | 0.831 | 0.852 | 0.873 | 0.894 | 0.915 | 0.936 | 0.958 | 0.979 |
| Δt (K) | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | | | | | |
| kt | 1.000 | 1.021 | 1.043 | 1.064 | 1.085 | 1.107 | 1.128 | 1.149 | 1.171 | 1.192 | 1.214 | | | | | |

# Weights and water volumes of the wall-mounted convector WMOC

| Type | 45/11 |
|---|---|
| kg/linear meter | 18.2 |
| l/1 linear meter | 1.4 |

*The listed weights are without packaging.*

# The contents of supplies and selectable specifications

## Standard delivery contains

- casing of zinc galvanised steel sheet coated in shade RAL 9010 – white
- Al/Cu heat exchanger with low water content, air vent and uniquely shaped fins for a higher heat output
- group of low-energy fans
- connecting terminal (F Box)
- convector wall-mounting consoles
- convector mounting and maintenance instructions
- the set is packed in strong cardboard packaging

## Optional accessories

- in case of ordering more than 5 units it is possible to select another RAL colour at an additional charge.
- shut off valve, thermostatic valve and actuator

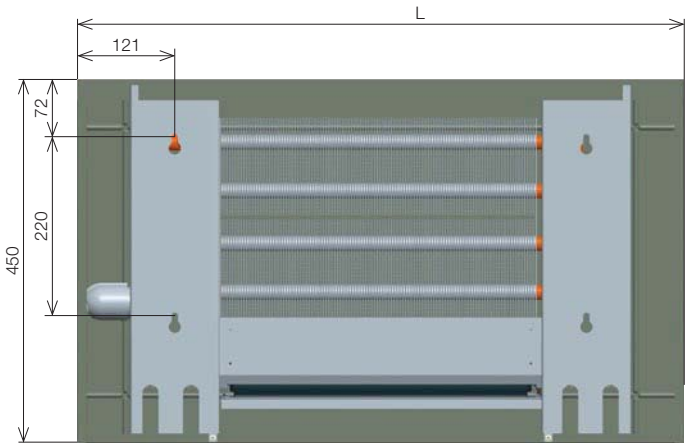
## Note:

- For suitable control products, see our Optimised Convection Control brochure.

# Convector installation – construction recommendations Sensotherm WMOC

- It is recommended to position the wall-mounted heating element on a peripheral wall, 10 cm above the floor.
- We recommend to fit the fans only once all building work has been completed. The exchanger and the casing must be well protected against fouling and regular maintenance carried out - including cleaning of exchangers and fans.
- The convector is fitted to the wall using brackets. Then the heat exchanger is inserted and connected to the heating system. We recommend checking the correct position of the exchanger and the fittings in relation to the casing.

## Anchoring diagram




## Assembly electrical part

- Regulation is identical with the FSCOC free standing convector with forced convection
- We recommend to fit WMOC with the thermoelectric drive, order no. 02300
- Do not forget to provide power supply near the installation – more details can be found in the Optimised Convection Control brochure.

## Design solution of the front face of the WMOC

The WMOC wall-mounted heating units have on their front face a significant design element, which consists of one design section in the lengths of 75, 100 and 125 cm, two sections in the lengths of 150 and 175 cm and three sections in the length of 200 cm.

# Ordering codes for WMOC Convectors

| | | | | length | | height | | depth | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Exclusive | white steel/unpainted exchanger | WMOC | - | ... | / | ... | / | .. | - | 1 |

* *custom-made design*

Wall-mounted convectors with forced convection Sensotherm WMOC (heating and dry-cooling)

Casing material
1 steel, white coat RAL 9010
9 other finish/colour RAL of the casing *

Sensotherm
heat with style

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