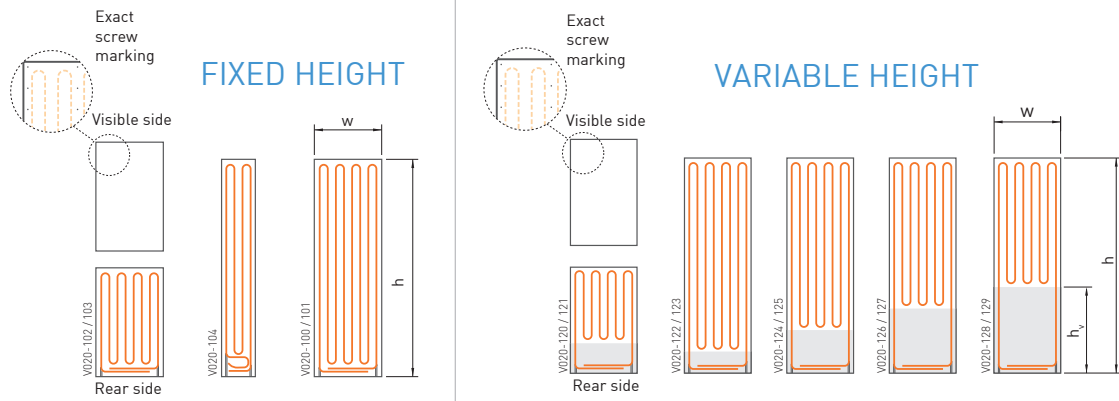
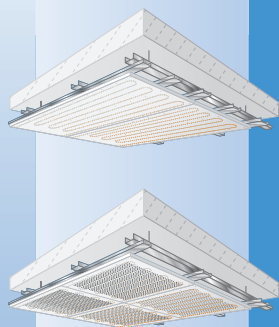


ModuleStandardPanels-Classic



Panel: Fermacell gypsum fibre board; Panel thickness: 18 mm

Pipe: Variomodular pipe 11.6x1.5 Laser

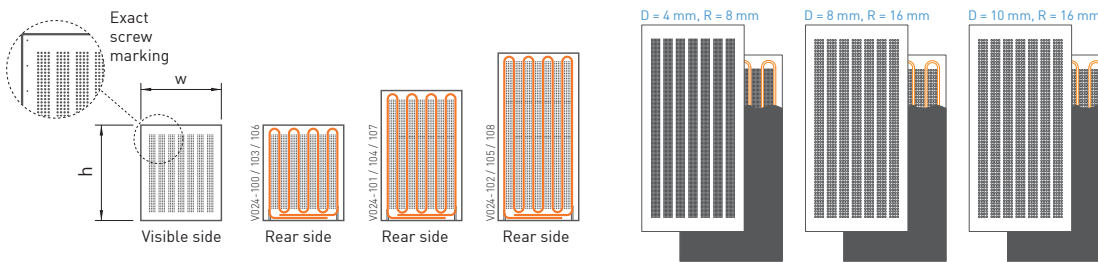
Pipe spacing: 75 mm

Note: The ModulePanels are mounted in such way, that the Variomodular pipe 11.6x1.5 Laser is no longer visible after installation.



| Part no. | Product code | h [mm] | w [mm] | A [m ²] | Height h _v [mm] | Heating/cooling area | | Weight | Palett |
|----------|--------------------|--------|--------|---------------------|----------------------------|-----------------------------------|--|---------|---------|
| | | | | | | A _{HC} [m ²] | | | |
| V020-100 | MSWC-2000-625 | 2000 | 625 | 1.25 | - | 1,25 | | 24.6 kg | 40 pce. |
| V020-101 | MSWC-2000-600 | 2000 | 600 | 1.20 | - | 1,20 | | 23.6 kg | 40 pce. |
| V020-102 | MSWC-1000-625 | 1000 | 625 | 0.63 | - | 0,63 | | 12.5 kg | 50 pce. |
| V020-103 | MSWC-1000-600 | 1000 | 600 | 0.60 | - | 0,60 | | 12.0 kg | 50 pce. |
| V020-104 | MSWC-2000-312 | 2000 | 312 | 0.62 | - | 0,62 | | 12.3 kg | 80 pce. |
| V020-120 | MSWC-1000-625-V300 | 1000 | 625 | 0.63 | 300 | 0,48 | | 12.3 kg | 50 pce. |
| V020-121 | MSWC-1000-600-V300 | 1000 | 600 | 0.60 | 300 | 0,46 | | 11.9 kg | 50 pce. |
| V020-122 | MSWC-2000-625-V200 | 2000 | 625 | 1.25 | 200 | 1,17 | | 24.8 kg | 40 pce. |
| V020-123 | MSWC-2000-600-V200 | 2000 | 600 | 1.20 | 200 | 1,12 | | 24.0 kg | 40 pce. |
| V020-124 | MSWC-2000-625-V400 | 2000 | 625 | 1.25 | 400 | 1,04 | | 25.1 kg | 40 pce. |
| V020-125 | MSWC-2000-600-V400 | 2000 | 600 | 1.20 | 400 | 1,00 | | 24.3 kg | 40 pce. |
| V020-126 | MSWC-2000-625-V600 | 2000 | 625 | 1.25 | 600 | 0,92 | | 25.4 kg | 40 pce. |
| V020-127 | MSWC-2000-600-V600 | 2000 | 600 | 1.20 | 600 | 0,88 | | 24.6 kg | 40 pce. |
| V020-128 | MSWC-2000-625-V800 | 2000 | 625 | 1.25 | 800 | 0,79 | | 25.8 kg | 40 pce. |
| V020-129 | MSWC-2000-600-V800 | 2000 | 600 | 1.20 | 800 | 0,76 | | 25.0 kg | 40 pce. |

ModuleStandardPanels-Acoustic



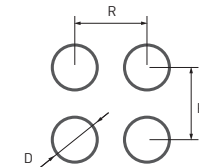
Panel: Fermacell gypsum fibre board; Panel thickness: 18 mm

Pipe: Variomodular pipe 11.6x1.5 Laser

Pipe spacing: 75 mm

Acoustic: Different sized holes to improve the acoustic characteristics, Acoustic fleece (AV 100) on the rear side

Note: The ModulePanels are mounted in such way, that the Variomodular pipe 11.6x1.5 Laser is no longer visible after installation.



R = hole grid size
D = hole diameter
Hole pattern: Block holes



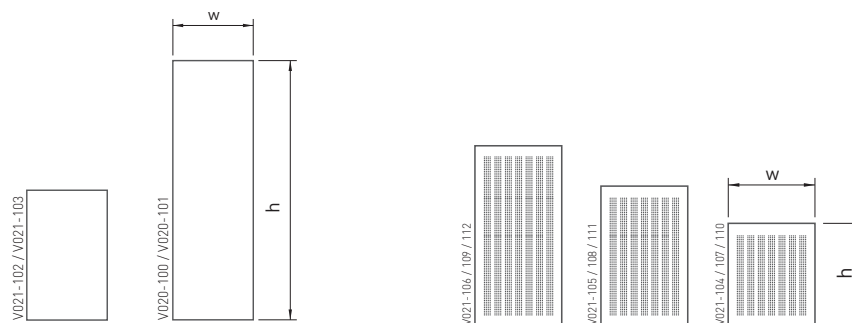
| Part no. | Product code | h [mm] | w [mm] | A [m ²] | D [mm] | R [mm] | Heating/cooling area | | Weight | Palett |
|-----------|-------------------|--------|--------|---------------------|--------|--------|-----------------------------------|--|---------|---------|
| | | | | | | | A _{HC} [m ²] | | | |
| V024-100* | MSDA-0750-625-B04 | 750 | 625 | 0.47 | 4 | 8 | 0,47 | | 8,4 kg | 50 pce. |
| V024-101* | MSDA-1000-625-B04 | 1000 | 625 | 0.63 | 4 | 8 | 0,63 | | 11,1 kg | 50 pce. |
| V024-102* | MSDA-1250-625-B04 | 1250 | 625 | 0.78 | 4 | 8 | 0,78 | | 13,7 kg | 50 pce. |
| V024-103 | MSDA-0750-625-B08 | 750 | 625 | 0.47 | 8 | 16 | 0,47 | | 8,0 kg | 50 pce. |
| V024-104 | MSDA-1000-625-B08 | 1000 | 625 | 0.63 | 8 | 16 | 0,63 | | 10,5 kg | 50 pce. |
| V024-105 | MSDA-1250-625-B08 | 1250 | 625 | 0.78 | 8 | 16 | 0,78 | | 13,5 kg | 50 pce. |
| V024-106* | MSDA-0750-625-B10 | 750 | 625 | 0.47 | 10 | 16 | 0,47 | | 7,6 kg | 50 pce. |
| V024-107* | MSDA-1000-625-B10 | 1000 | 625 | 0.63 | 10 | 16 | 0,63 | | 10,0 kg | 50 pce. |
| V024-108* | MSDA-1250-625-B10 | 1250 | 625 | 0.78 | 10 | 16 | 0,78 | | 12,4 kg | 50 pce. |

* Delivery time on request | Other panels of different sizes, different hole diameters and different hole patterns are available on request!

VARIOTHERM
 HEATING. COOLING. COMFORT.



ModuleExpansionPanels-Classic



Panel: Fermacell gypsum fibre board; Panel thickness: 18 mm

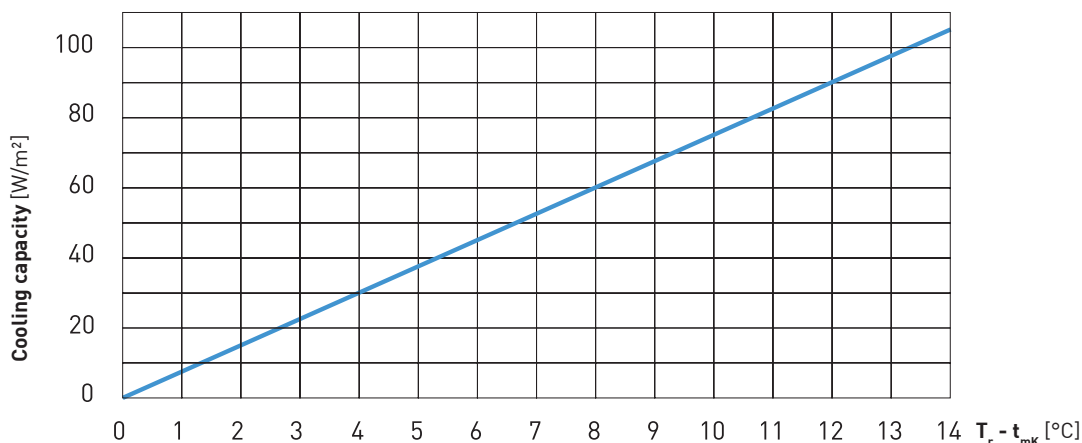
| Part no. | Product code | h [mm] | w [mm] | A [m ²] | Weight | Palett |
|----------|--------------|--------|--------|---------------------|---------|---------|
| V021-100 | MAC-2000-625 | 2000 | 625 | 1.25 | 27.0 kg | 40 pce. |
| V021-101 | MAC-2000-600 | 2000 | 600 | 1.20 | 26.0 kg | 40 pce. |
| V021-102 | MAC-1000-625 | 1000 | 625 | 0.63 | 13.1 kg | 50 pce. |
| V021-103 | MAC-1000-600 | 1000 | 600 | 0.60 | 12.5 kg | 50 pce. |

Acoustic: Different sized holes to improve the acoustic characteristics, Acoustic fleece (AV 100) on the rear side

| Part no. | Product code | h [mm] | w [mm] | A [m ²] | D [mm] | R [mm] | Weight | Palett |
|-----------|------------------|--------|--------|---------------------|--------|--------|---------|---------|
| V021-104* | MAA-0750-625-B04 | 750 | 625 | 0.47 | 4 | 8 | 9.2 kg | 50 pce. |
| V021-105* | MAA-1000-625-B04 | 1000 | 625 | 0.63 | 4 | 8 | 12.2 kg | 50 pce. |
| V021-106* | MAA-1250-625-B04 | 1250 | 625 | 0.78 | 4 | 8 | 15.1 kg | 50 pce. |
| V021-107 | MAA-0750-625-B08 | 750 | 625 | 0.47 | 8 | 16 | 8.8 kg | 50 pce. |
| V021-108 | MAA-1000-625-B08 | 1000 | 625 | 0.63 | 8 | 16 | 11.6 kg | 50 pce. |
| V021-109 | MAA-1250-625-B08 | 1250 | 625 | 0.78 | 8 | 16 | 14.9 kg | 50 pce. |
| V021-110* | MAA-0750-625-B10 | 750 | 625 | 0.47 | 10 | 16 | 8.4 kg | 50 pce. |
| V021-111* | MAA-1000-625-B10 | 1000 | 625 | 0.63 | 10 | 16 | 11.1 kg | 50 pce. |
| V021-112* | MAA-1250-625-B10 | 1250 | 625 | 0.78 | 10 | 16 | 13.7 kg | 50 pce. |

* Delivery time on request | Other panels of different sizes, different hole diameters and different hole patterns are available on request!

Cooling capacity



Dew point temperature

| Relative humidity [%rF] | Room temperature | | | | |
|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | T _r = 24 °C | T _r = 25 °C | T _r = 26 °C | T _r = 27 °C | T _r = 28 °C |
| 70 % | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 |
| 60 % | 15,5 | 16,5 | 17,5 | 18,5 | 19,2 |
| 50 % | 13,0 | 14,0 | 15,0 | 15,8 | 16,8 |
| 40 % | 9,8 | 10,5 | 11,5 | 12,5 | 13,2 |

$t_{mk} = \frac{t_i + t_r}{2}$ [°C] T_r = Room temperature [°C] T_r - t_{mk} = Room temperature - mean cooling circuit water temp.
 T₀ = Mean surface temperature [°C] t_i/t_r = Flow/return temperature [°C]

The surface temperature must not reach or rather fall below the dew point temperature!

The mean surface temperature T₀ corresponds approximately to the return temperature t_r