

EFFECTIVE THERMAL MANAGEMENT

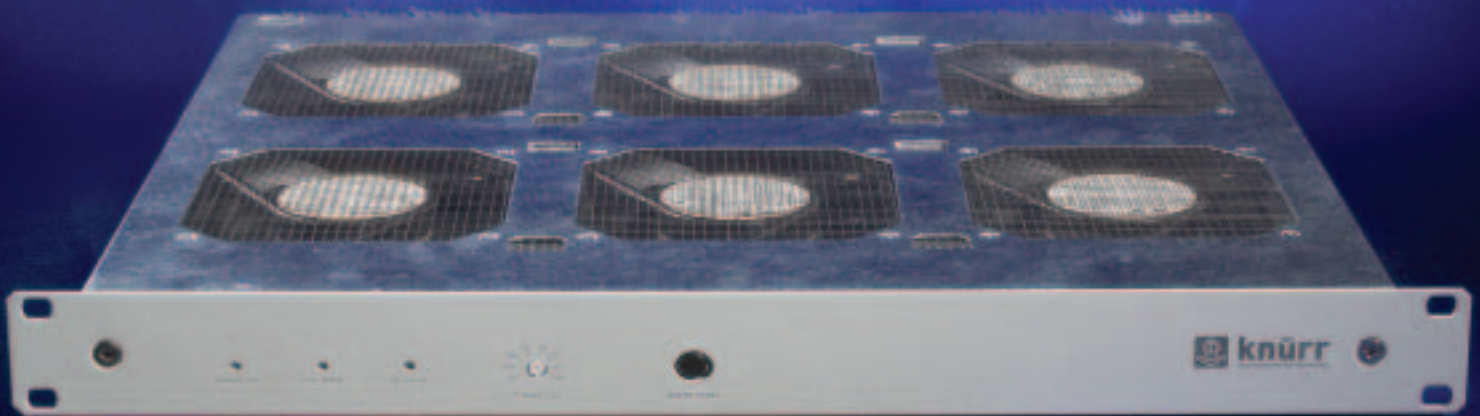
by knürr

[www.knuerr.com](http://www.knuerr.com)

# CoolBlast®



Large Airflow Volumes for  
optimised Heat Dissipation



CoolBlast® - Top-Mounting Fan



**knürr**  
environments for electronics

# CoolBlast®: “Power up – Cool down!”



## Modularity

Selection according to the required volume flow. Adaption is made specifically via fan selection according to three performance classes:

- **Standard Performance** (axial fan)
- **High Performance** (axial fan with high speed rate)
- **Ultra High Performance** (diagonal fan)



## Grid (optimised according to airflow)

- With very low pressure loss, so that high cooling power of the modules is guaranteed
- Contributes to considerable noise reduction (depending on design and construction)



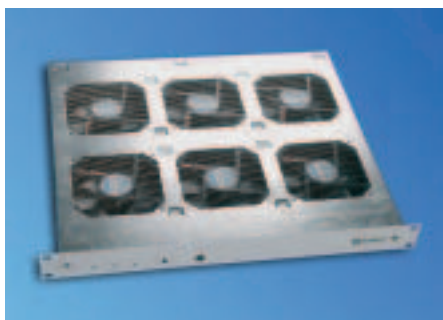
## Thermostat

- Unit is switched on and off thermostat-controlled
- Adjustable according to required temperature





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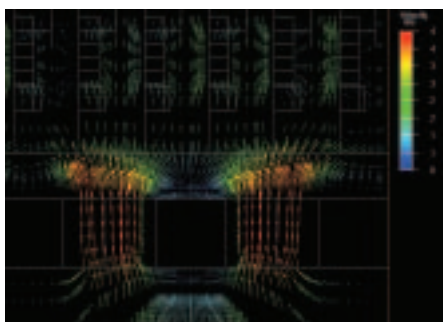
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## CoolBlast® fan unit Strong points

The constantly increasing power losses of electronic modules make high demands on the effective cooling of electronic modules.

Large airflow volumes ensure secured heat dissipation, whereby higher airflow speeds reach the components, which leads to better heat transfer.

The packing density of the electronics in the racks is also increasing. Fans with high pressure jump overcome the resulting higher pressure loss.

The space-saving 1 HU construction guarantees maximum installation space for our customers' equipment.

1 The **CoolBlast®** fan unit from Knürr is available as fan plug-in for vertical cooling of modules with 3 and 6 fans. The airflow required for cooling is primarily determined by the fan selection. Fans in three different performance classes are available (Standard, High, and Ultra High Performance). Selection can be made between quiet axial fans and special diagonal fans with an especially high support rate for cooling air.

2 To ensure that plenty of cooling air reaches the electronic components, **CoolBlast®** has an IP protective grid with high free cross-section surface. The grid form minimises the pressure loss of the streaming airflow and reduces the streaming noise.

3 The Knürr **CoolBlast®** adjusts its cooling airflow to the power loss to be cooled. The temperature-regulated control of the fan rotation optimises the noise emission and the lifespan of the fans. The maximum reference temperature is set at the front.

A fan failure detector ensures high operational security. Exceeding the reference temperature

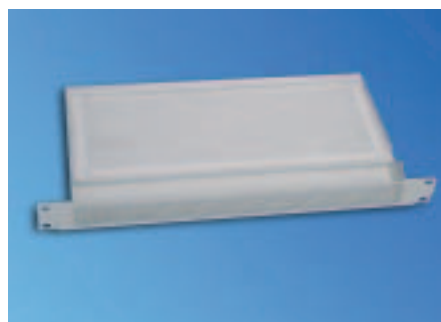
is also detected in the same way. The fault signal can be connected with the rack monitoring system (RMS).

A simple thermostat-controlled model is also available.

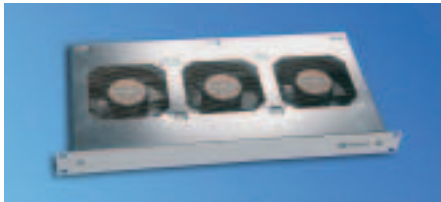
4 Optimum heat dissipation of the cooled module is attained with the high airflow volumes and pressure springs in the **CoolBlast®** fan unit. Building-specific CFD simulations can optimise each customer thermal management application.

5 Air conduction components, optional with filter, round off the product range. The filter mats protect the electronic components in use from dirt build-ups and dust and can be changed during running operation.

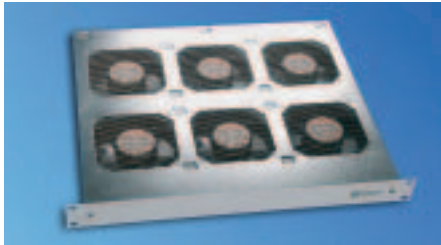
In addition to the **CoolBlast®** fan unit, a number of other components and accessory parts are also available for rack thermal management.



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## CoolBlast® fan unit Uncontrolled

- Fan unit for vertical cooling of modules in 19" racks
- Chassis rails are recommended for mounting. Chassis rails are required with CoolBlast 6-fan.

### Material

Sheet steel, high-grade steel grid

### Finish / Colour

Housing: zinc-passivated  
Front panel, powder-coated, smooth in RAL 7035 light-grey

### How supplied

Assembled, wired and tested

### Approvals

CE mark in accordance with the low voltage directive 73/23/EEC and EMC directive 89/366/EEC

### Supply schedule

1 CoolBlast® fan unit, packed, incl. operating instructions

Only with DC devices:

1 connection cable, 2m, with connector plug and free ends

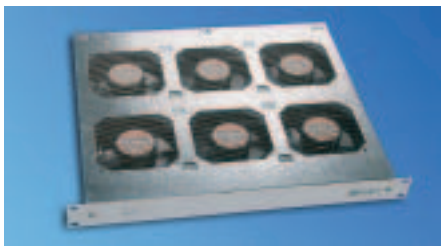
Only with 230V AC devices:

1 connection cable, 2m, Schuko-plug for low voltage devices

| Name                   | W   | H    | D   | kg  | n | Elec. connection            | W   | $\dot{V}$ (m³/h) | Pa  | dB(A) | Order no.           |
|------------------------|-----|------|-----|-----|---|-----------------------------|-----|------------------|-----|-------|---------------------|
| CoolBlast 230V 3-fan   | 440 | 43.6 | 230 | 3   | 3 | 207 ... 253VAC; 50/60Hz     | 45  | 495              | 74  | 45.2  | <b>03.027.001.1</b> |
| CoolBlast 230V 6-fan   | 440 | 43.6 | 390 | 6   | 6 | 207 ... 253VAC; 50/60Hz     | 90  | 990              | 74  | 48.8  | <b>03.027.002.1</b> |
| CoolBlast 115V 3-fan   | 440 | 43.6 | 230 | 3   | 3 | 103.5 ... 126.5VAC; 50/60Hz | 44  | 576              | 88  | 47.3  | <b>03.027.004.1</b> |
| CoolBlast 115V 6-fan   | 440 | 43.6 | 390 | 6   | 6 | 103.5 ... 126.5VAC; 50/60Hz | 88  | 1152             | 88  | 50.8  | <b>03.027.005.1</b> |
| CoolBlast 24V 3-fan SP | 440 | 43.6 | 230 | 2.5 | 3 | 12 ... 27VDC                | 23  | 553              | 68  | 49.6  | <b>03.027.031.1</b> |
| CoolBlast 24V 6-fan SP | 440 | 43.6 | 390 | 5   | 6 | 12 ... 27VDC                | 46  | 1106             | 68  | 53.3  | <b>03.027.032.1</b> |
| CoolBlast 24V 3-fan HP | 440 | 43.6 | 230 | 3   | 3 | 12 ... 25VDC                | 30  | 711              | 160 | 55.8  | <b>03.027.034.1</b> |
| CoolBlast 24V 6-fan HP | 440 | 43.6 | 390 | 6   | 6 | 12 ... 25VDC                | 60  | 1422             | 160 | 59.1  | <b>03.027.035.1</b> |
| CoolBlast 24V 3-fan UP | 440 | 43.6 | 230 | 3   | 3 | 16 ... 26VDC                | 62  | 825              | 310 | 61.8  | <b>03.027.037.1</b> |
| CoolBlast 24V 6-fan UP | 440 | 43.6 | 390 | 6   | 6 | 16 ... 26VDC                | 123 | 1650             | 310 | 65.1  | <b>03.027.038.1</b> |
| CoolBlast 48V 3-fan SP | 440 | 43.6 | 230 | 3   | 3 | 36 ... 55VDC                | 24  | 553              | 68  | 49.6  | <b>03.027.041.1</b> |
| CoolBlast 48V 6-fan SP | 440 | 43.6 | 390 | 6   | 6 | 36 ... 55VDC                | 48  | 1106             | 68  | 53.2  | <b>03.027.042.1</b> |
| CoolBlast 48V 3-fan HP | 440 | 43.6 | 230 | 3   | 3 | 36 ... 55VDC                | 54  | 826              | 160 | 58.6  | <b>03.027.044.1</b> |
| CoolBlast 48V 6-fan HP | 440 | 43.6 | 390 | 6   | 6 | 36 ... 55VDC                | 108 | 1652             | 160 | 62    | <b>03.027.045.1</b> |
| CoolBlast 48V 3-fan UP | 440 | 43.6 | 230 | 3   | 3 | 36 ... 53VDC                | 60  | 825              | 310 | 61.9  | <b>03.027.047.1</b> |
| CoolBlast 48V 6-fan UP | 440 | 43.6 | 390 | 6   | 6 | 36 ... 53VDC                | 119 | 1650             | 310 | 65.3  | <b>03.027.048.1</b> |



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LUF20138

## CoolBlast® fan unit Thermostat-controlled

- Fan unit for vertical cooling of modules in 19" racks
- Fan function (ON/OFF) thermostat-controlled, setting from 0°C to 60°C
- Chassis rails are recommended for mounting. Chassis rails are required with CoolBlast 6-fan.

### Material

Sheet steel, high-grade steel grid

### Finish / Colour

Housing: zinc-passivated  
Front panel, powder-coated, smooth in RAL 7035 light-grey

### How supplied

Assembled, wired and tested

### Approvals

CE label in accordance with low voltage directive 73/23/EEC EMC directive 89/366/EEC

### Supply schedule

1 CoolBlast® fan unit, packed, incl. operating instructions

Only with DC devices:

1 connection cable, 2m, with connector plug and free ends

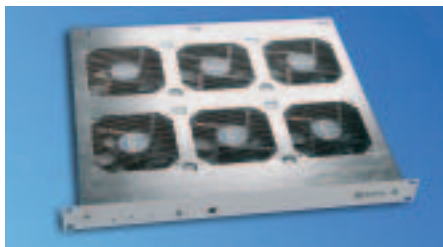
Only with 230V AC devices:

1 connection cable, 2m, Schuko-plug for low voltage devices

| Name                            | W   | H    | D   | kg | n | Elec. connection            | W  | $\dot{V}$ (m³/h) | Pa | dB(A) | Order no.           |
|---------------------------------|-----|------|-----|----|---|-----------------------------|----|------------------|----|-------|---------------------|
| CoolBlast 230V 3-fan Thermostat | 440 | 43.6 | 230 | 3  | 3 | 207 ... 253VAC; 50/60Hz     | 45 | 495              | 74 | 45.2  | <b>03.027.011.1</b> |
| CoolBlast 230V 6-fan Thermostat | 440 | 43.6 | 390 | 6  | 6 | 207 ... 253VAC; 50/60Hz     | 90 | 990              | 74 | 48.8  | <b>03.027.012.1</b> |
| CoolBlast 115V 3-fan Thermostat | 440 | 43.6 | 230 | 3  | 3 | 103.5 ... 126.5VAC; 50/60Hz | 44 | 576              | 88 | 47.3  | <b>03.027.014.1</b> |
| CoolBlast 115V 6-fan Thermostat | 440 | 43.6 | 390 | 6  | 6 | 103.5 ... 126.5VAC; 50/60Hz | 88 | 1152             | 88 | 50.8  | <b>03.027.015.1</b> |



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## CoolBlast® fan unit Speed-controlled

- Fan unit for vertical cooling of modules in 19" racks
- Reference temperature can be set (20°C to 55°C)
- Speed regulation 30% to 100% of the nominal speed, with sensor failure 100% speed
- Monitoring of individual fans
- Floating common alarm output for excess temperature alarm and fan failure
- Optical status display for O.K., excess temperature and fan failure
- Acoustic warning
- Chassis rails are recommended for mounting. Chassis rails are required with CoolBlast 6-fan.

**Material**  
Sheet steel, high-grade steel grid

**Finish / Colour**  
Housing: zinc-passivated  
Front panel, powder-coated, smooth in RAL 7035 light-grey

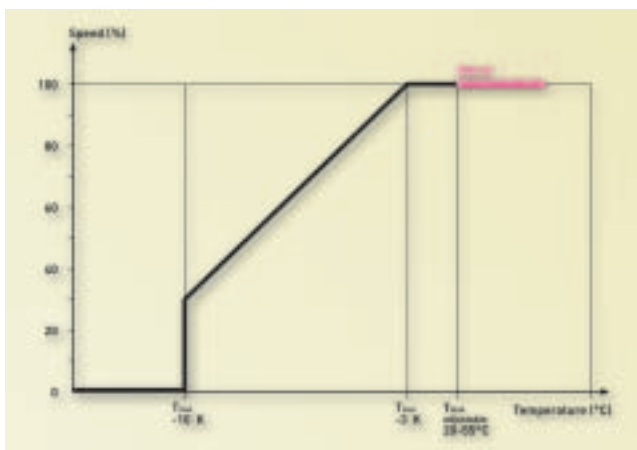
**Approvals**  
CE label in accordance with low voltage directive 73/23/EEC  
EMC directive 89/366/EEC

**Supply schedule**  
1 CoolBlast® fan unit, packed, incl. operating instructions  
1 Sensor cable, 2m (plug-in)  
1 Signal cable, 2m (plug-in)

Only with DC devices:  
1 connection cable, 2m, with connector plug and free ends

Only with 230V AC devices:  
1 connection cable, 2m, Schuko-plug for low voltage devices

**How supplied**  
Assembled, wired and tested



LUF20179

| Name                                    | W   | H    | D   | kg  | n | Elec. connection       | W   | V̇(m³/h) | Pa  | dB(A) | Order no.           |
|---|-----|------|-----|-----|---|------------------------|-----|----------|-----|-------|---------------------|
| CoolBlast 115/230V, 3-fan controlled SP | 440 | 43.6 | 230 | 3.2 | 3 | 100 to 253VAC; 50/60Hz | 25  | 553      | 68  | 49.6  | <b>03.027.021.1</b> |
| CoolBlast 115/230V, 6-fan controlled SP | 440 | 43.6 | 390 | 6.2 | 6 | 100 to 253VAC; 50/60Hz | 48  | 1106     | 68  | 53.3  | <b>03.027.022.1</b> |
| CoolBlast 115/230V, 3-fan controlled HP | 440 | 43.6 | 230 | 3.2 | 3 | 100 to 253VAC; 50/60Hz | 32  | 711      | 173 | 55.8  | <b>03.027.024.1</b> |
| CoolBlast 115/230V, 6-fan controlled HP | 440 | 43.6 | 390 | 6.2 | 6 | 100 to 253VAC; 50/60Hz | 62  | 1422     | 173 | 59.1  | <b>03.027.025.1</b> |
| CoolBlast 115/230V, 3-fan controlled UP | 440 | 43.6 | 230 | 3.4 | 3 | 100 to 253VAC; 50/60Hz | 64  | 825      | 310 | 61.8  | <b>03.027.027.1</b> |
| CoolBlast 115/230V, 6-fan controlled UP | 440 | 43.6 | 390 | 6.4 | 6 | 100 to 253VAC; 50/60Hz | 125 | 1650     | 310 | 65.1  | <b>03.027.028.1</b> |
| CoolBlast 24/48V, 3-fan controlled SP   | 440 | 43.6 | 230 | 3.1 | 3 | 20 to 60VDC            | 25  | 553      | 68  | 49.6  | <b>03.027.051.1</b> |
| CoolBlast 24/48V, 6-fan controlled SP   | 440 | 43.6 | 390 | 6.1 | 6 | 20 to 60VDC            | 48  | 1106     | 68  | 53.3  | <b>03.027.052.1</b> |
| CoolBlast 24/48V, 3-fan controlled HP   | 440 | 43.6 | 230 | 3.1 | 3 | 20 to 60VDC            | 32  | 711      | 173 | 55.8  | <b>03.027.054.1</b> |
| CoolBlast 24/48V, 6-fan controlled HP   | 440 | 43.6 | 390 | 6.1 | 6 | 20 to 60VDC            | 62  | 1422     | 173 | 59.1  | <b>03.027.055.1</b> |
| CoolBlast 24/48V, 3-fan controlled UP   | 440 | 43.6 | 230 | 3.3 | 3 | 20 to 60VDC            | 64  | 825      | 310 | 61.8  | <b>03.027.057.1</b> |
| CoolBlast 24/48V, 6-fan controlled UP   | 440 | 43.6 | 390 | 6.3 | 6 | 20 to 60VDC            | 125 | 1650     | 310 | 65.1  | <b>03.027.058.1</b> |

Dimensions in mm: W = Width  
H = Height  
D = Depth  
h = Installation height  
d = Usable depth  
L = Length

HU = Standard height of unit  
1HU=66.65mm  
UP = Unit of packaging  
Kg = Weight

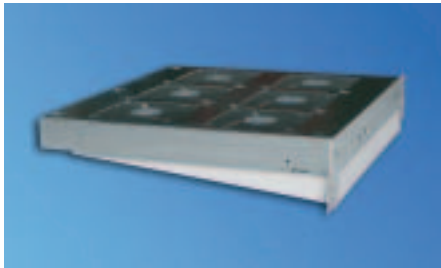
Express Item

Conversion: 1mm = 0.03937 inch 1 kg = 2.2046 pounds

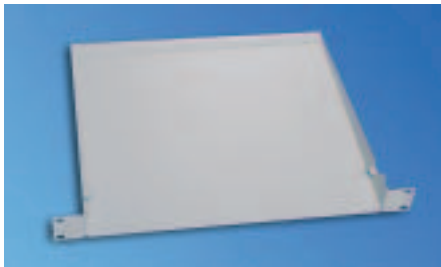
SP = Standard Performance  
HP = High Performance  
UP = Ultra High Performance

n = Number of fans  
W = Power consumption [W]  
V̇ = Air volume stream (m³/h)  
ΔV = Loss of air volume stream (%)

Pa = Pressure increase  
I<sub>nom</sub> = Nominal current [A]  
I<sub>max</sub> = Residual current [A]  
V = Voltage (400V-3-phase)  
dB(A) = Sound pressure  
1mm distance from the rack  
{600mmx600mm, raised cover}



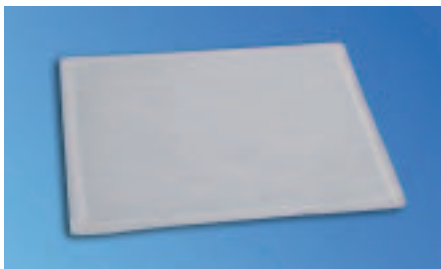
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3 LUF20146

## CoolBlast® Airflow Routing via Front Intake

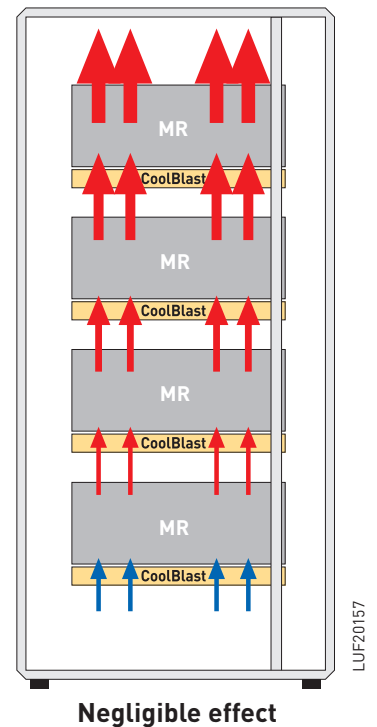
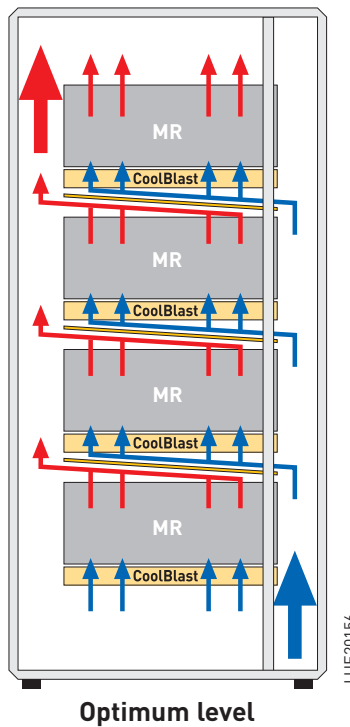
### Strong points

The **CoolBlast**® “front intake unit” is specifically designed for cooling the modular chassis (heat sources).

1 Optimised airflow routing channels warm air selectively towards the back (see figure 1), thereby avoiding the accumulative warming of vertical air streams from one module rack (MR) to the other (see figure 2).

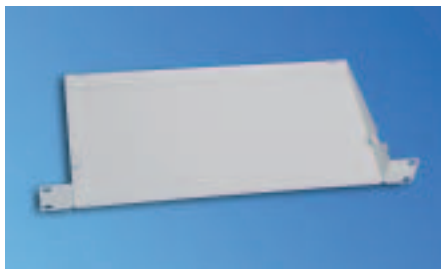
2 The front panel is available as optional equipment and can be installed at a later stage. It is often used for appearance reasons.

3 The filter mat protects electronics in use against dust and dirt. It may be replaced during operation.



## Optional Combinations:

| Order from                                 | Figure    | Order no.,                                   |  | Loss of Airflow Volume |       |
|--|-----------|--|--|------------------------|-------|
|  |           | 3-fan  | 6-fan  | 3-fan                  | 6-fan |
| Airflow router                             | 1         | 03.027.094.1                                 | 03.027.095.1                                 | 30 %                   | 45 %  |
| Airflow router plus front panel            | 1 + 2     | 03.027.094.1<br>03.027.097.1                 | 03.027.095.1<br>03.027.097.1                 | 40 %                   | 55 %  |
| Airflow router plus front panel and filter | 1 + 2 + 3 | 03.027.094.1<br>03.027.097.1<br>03.027.098.1 | 03.027.095.1<br>03.027.097.1<br>03.027.099.1 | 50 %                   | 60 %  |



LUF20131

## Airflow Router for Front Intake, 1 HU CoolBlast®

- For fan insert CoolBlast® 3-fan and 6-fan and front intake
- Used as air baffle
- Upgradeable with front panel and filter mat

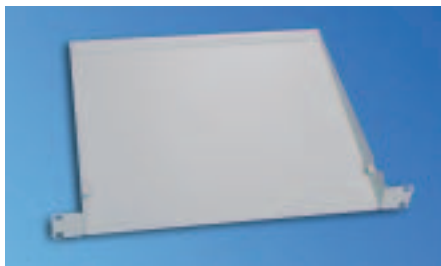
**Material**  
Sheet steel

**Finish / Colour**  
Powder-coated RAL 7035, light-grey textured

**Supply schedule**  
1 airflow router

**How supplied**  
By unit

| W   | H    | D   | Design    | Order no.           | UP    |
|-----|------|-----|-----------|---------------------|-------|
| 19" | 43.6 | 230 | For 3-fan | <b>03.027.094.1</b> | 1 Set |
| 19" | 43.6 | 390 | For 6-fan | <b>03.027.095.1</b> | 1 Set |



LUF20142

## Front Panel for Airflow Router and Front Intake, 1 HU CoolBlast®

- Use in combination with vent airflow for front intake
- Later mounting optional

**Material**  
Sheet steel

**Finish / Colour**  
Powder-coated RAL 7035  
Light-grey, smooth

**Supply schedule**  
1 Front panel

**How supplied**  
By unit

| W   | H    | D | Design | Order no.           | UP    |
|-----|------|---|--------|---------------------|-------|
| 19" | 43.6 |   |        | <b>03.027.097.1</b> | 1 Set |



LUF20136

## Filter Unit for Front Intake CoolBlast®

- Use in combination with vent airflow for front intake
- Later mounting and/or filter replacement during operation optional

**Filter class**  
G2

**Material**  
Viledon K15/150

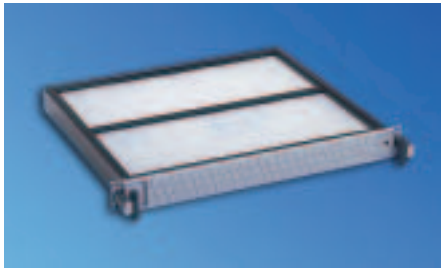
**Supply schedule**  
1 Filter

**How supplied**  
By unit

| W   | H | D   | Design    | Order no.           | UP    |
|-----|---|-----|-----------|---------------------|-------|
| 400 |   | 160 | For 3-fan | <b>03.027.098.1</b> | 1 Set |
| 400 |   | 320 | For 6-fan | <b>03.027.099.1</b> | 1 Set |



LUF20135



LUF00205

## 19" Plug-in Filter Unit, 1 HU

- Suitable for use with plug-in fan unit CoolBlast®
- Adjusted to the respective depth of insertion

### Material

Housing: sheet steel  
 Front panel: ABS (UL94 V-0)  
 Handle: extruded aluminium profile  
 Filter: Viledon P 15/150

### Filter class

G2

### Finish / Colour



Housing: powder-coated  
 - RAL 9011 black textured  
 Front panel: RAL 7035  
 - Light-grey  
 Handle: powder-coated  
 RAL 5008, grey-blue textured

### Supply schedule

1 Plug-in filter unit  
 1 Filter

### How supplied

By unit

| W   | H    | D   | kg  | W | n | Design | Order no.           | Up  |
|-----|------|-----|-----|---|---|--------|---------------------|---|
| 19" | 43.6 | 282 | 2.0 |   |   |        | <b>03.025.250.1</b> |  1 Set |
| 19" | 43.6 | 660 | 4.0 |   |   |        | <b>03.025.253.1</b> |  1 Set |



LUF00280

## Replacement Filter Unit

- For 19" plug-in filter

### Material

Filter: Viledon P 15/150

### Filter class



G2

### Supply schedule

1 Filter unit

### How supplied

By unit

| W | H | D   | kg | W | n | Design | Order no.           | Up  |
|---|---|-----|----|---|---|--------|---------------------|---|
|   |   | 282 |    |   |   |        | <b>03.025.246.9</b> |  1 Set |
|   |   | 660 |    |   |   |        | <b>03.025.249.9</b> |  1 Set |



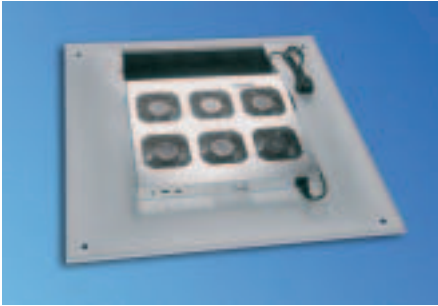
## CoolBlast® Filter Units: Technical Data

|                                | CoolBlast®          | CoolBlast®          | CoolBlast®          | CoolBlast®          |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Item Number</b>             | <b>01.914.070.9</b> | <b>01.914.075.9</b> | <b>01.914.090.9</b> | <b>01.914.071.9</b> |
| Dimensions L x W x H           | 119 x 119 x 38      | 119 x 119 x 38      | 119 x 119 x 38      | 119 x 119 x 38      |
| Max. Volume flow               |                     |                     |                     |                     |
| Free blowing                   | 184.2 m³/h          | 237 m³/h            | 275 m³/h            | 184.2 m³/h          |
| Voltage                        | 24 VDC              | 24 VDC              | 24 VDC              | 48 VDC              |
| Frequency                      |                     |                     |                     |                     |
| Power consumption              | 7,4 W               | 11 W                | 20,5 W              | 7,7 W               |
| Noise free-blowing             | 43 dB(A)            | 59 dB(A)            | 60 dB(A)            | 43 dB(A)            |
| Bearing system                 | Ball bearing        | Ball bearing        | Ball bearing        | Ball bearing        |
| Nominal rotation speed         | 2950 min-1          | 4400 min-1          | 6000 min-1          | 2950 min-1          |
| permissible.                   |                     |                     |                     |                     |
| Ambient temperature            | -10 °C to +70 °C    | -30 °C to +55 °C    | -20 °C to +65 °C    | -10 °C to +70 °C    |
| Life-span L 10 at 40 °C        | 75,000 h            | 70,000 h            | 70,000 h            | 75,000 h            |
| Approvals                      | CE, VDE             | CE, VDE             | CE, VDE             | CE, VDE             |
| <b>Insert into CoolBlast®:</b> | 03.027.031.1        | 03.027.034.1        | 03.027.037.1        | 03.027.041.1        |
|                                | 03.027.032.1        | 03.027.035.1        | 03.027.038.1        | 03.027.042.1        |
|                                | 03.027.021.1        | 03.027.024.1        | 03.027.027.1        |                     |
|                                | 03.027.022.1        | 03.027.025.1        | 03.027.028.1        |                     |
|                                | 03.027.051.1        | 03.027.054.1        | 03.027.057.1        |                     |
|                                | 03.027.052.1        | 03.027.055.1        | 03.027.058.1        |                     |

|                                | CoolBlast®          | CoolBlast®          | CoolBlast®          | CoolBlast®          |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Item Number</b>             | <b>01.914.076.9</b> | <b>01.914.091.9</b> | <b>01.914.050.9</b> | <b>01.914.051.9</b> |
| Dimensions L x W x H           | 119 x 119 x 38      | 119 x 119 x 38      | 119 x 119 x 38      | 119 x 119 x 38      |
| Max. Volume flow               |                     |                     |                     |                     |
| Free blowing                   | 275.4 m³/h          | 275 m³/h            | 192 m³/h            | 165 m³/h            |
| Voltage                        | 48 VDC              | 48 VDC              | 115 VAC             | 230 VAC             |
| Frequency                      |                     |                     | 50 Hz               | 50 Hz               |
| Power consumption              | 17,8 W              | 19,7 W              | 14,5 W              | 15 W                |
| Noise free-blowing             | 57 dB(A)            | 60 dB(A)            | 41 dB(A)            | 38 dB(A)            |
| Bearing system                 | Ball bearing        | Ball bearing        | Ball bearing        | Ball bearing        |
| Nominal rotation speed         | 4200 min-1          | 6000 min-1          | 2900 min-1          | 2600 min-1          |
| permissible.                   |                     |                     |                     |                     |
| Ambient temperature            | -10 °C to +70 °C    | -20 °C to +65 °C    | -40 °C to +60 °C    | -40 °C to +60 °C    |
| Life-span L 10 at 40 °C        | 105,000 h           | 70,000 h            | 43,500 h            | 43,500 h            |
| Approvals                      | CE, VDE             | CE, VDE             | CE, VDE             | CE, VDE             |
| <b>Insert into CoolBlast®:</b> | 03.027.044.1        | 03.027.047.1        | 03.027.004.1        | 03.027.001.1        |
|                                | 03.027.045.1        | 03.027.048.1        | 03.027.005.1        | 03.027.002.1        |
|                                |                     |                     | 03.027.014.1        | 03.027.011.1        |
|                                |                     |                     | 03.027.015.1        | 03.027.012.1        |

# New: CoolBlast® Top-Mounting Fan

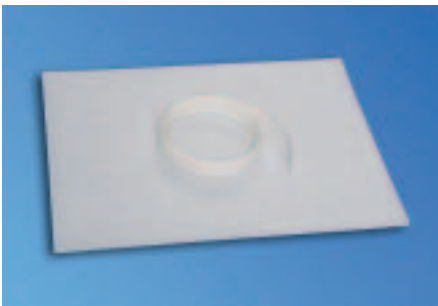




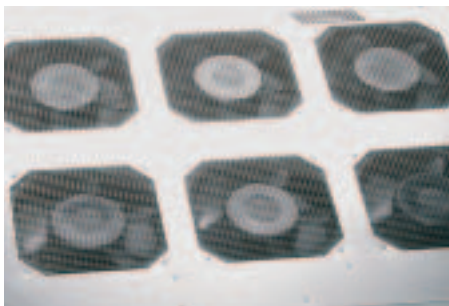
1 LUF20124



2 LUF20162



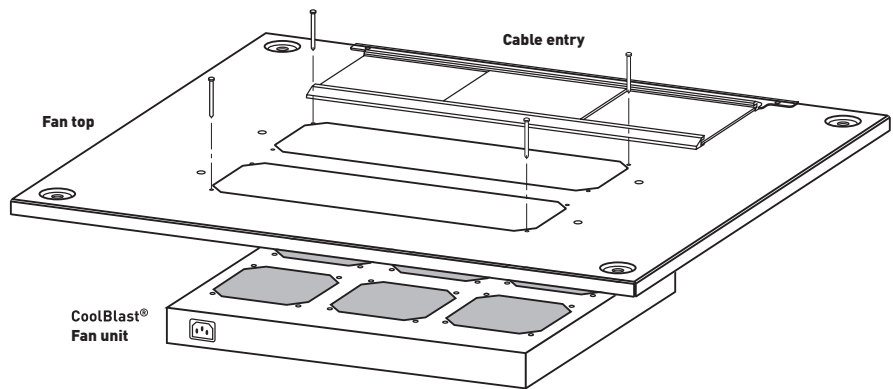
3 LUF20121



4 LUF20124

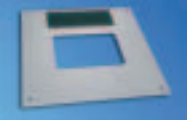

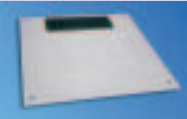
## CoolBlast® Top-Mounting Fan Strong points

- 1 The ever-increasing dissipation loss of electronic components continues to increase the thermal load within the rack. **CoolBlast®** features a modular structure that offers the right solution for any thermal load.
- 2 The **CoolBlast®** top-mounting fan from Knürr is therefore available in different designs with two, three or six fans. The product range contains controlled, thermostat-controlled and uncontrolled model types.
- 3 An optional ventilation dome or optional filters (see chart) avoid the intrusion of dust if a fan is not active.
- 4 The **CoolBlast®** top-mounting fan and its recently developed protective grid minimize the air streams' pressure loss and reduce airflow noises. The **CoolBlast®** top-mounting fan is a system with a notably low noise level.



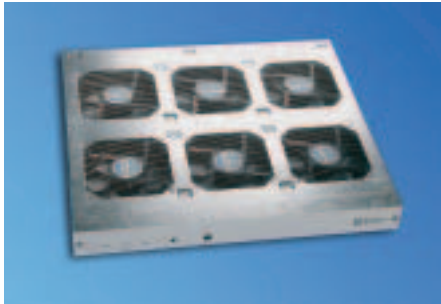
LUF20175

## Optional combinations:

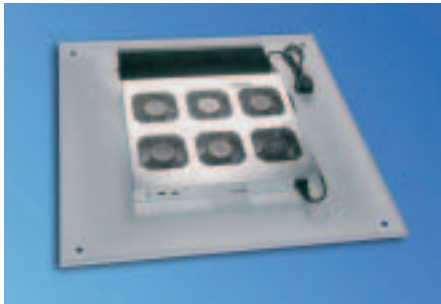
| Order form  | Chart     | Checklist for installation into miracle   |
|---|-----------|---|
| Top-mounting fan<br>                 | 1         | 1. What is the rack's width and depth?<br>2. Fan unit with 2, 3 or 6 fans?<br>3. What is the required supply voltage?<br>4. What is the target flow rate? |
| Top-mounting fan plus CoolBlast®<br> |           | 5. What pressure is there?<br>6. CoolBlast® with or without controls and/or thermostat controlled design?<br>7. Is it the right network cable?            |
| Top-mounting fan plus filter<br>     | 1 + 2 + 3 | 8. Do you require particular protection from particles (ventilation dome and / or filter)?  |



LUF20160



LUF20161



LUF20124

## CoolBlast® Top-Mounting Fan

- DC model types and designs for 115 VAC upon request (see CoolBlast® fan plug-ins)

### Material

Housing: sheet steel, stainless steel grid  
Front panel: sheet steel

### Finish / Colour

Housing: zinc-passivated  
Front panel (only controlled designs): Powder-coated RAL 7035  
Light-grey textured

### Supply schedule

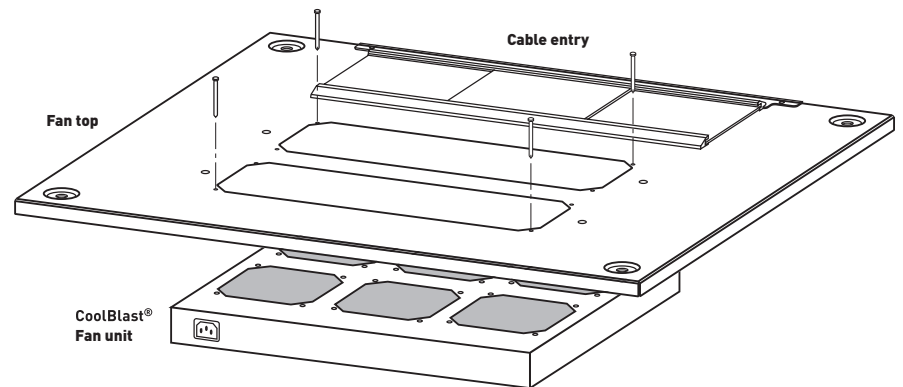
1 CoolBlast® fan unit  
1 Network cable, 3m, with shock-proof plug (230 VAC)  
Accessories for assembly  
Operating instructions

### How supplied

Assembled, wired and tested

### Note

**Please order specific mains cable (see page 15) extra!**



LUF20175

| Name                  | Design        | Electrical connection   | P[W] | $\dot{V}$ (m³/h) | $\Delta P$ (Pa) | $p$ (dB(A)) | Order No.           | UP    |
|-----------------------|---------------|-------------------------|------|------------------|-----------------|-------------|---------------------|-------|
| CoolBlastT 230V 2-fan |               | 207...253VAC; 50/60 Hz  | 30   | 330              | 74              | 43.4        | <b>03.027.300.1</b> | 1 Set |
| CoolBlastT 230V 3-fan |               | 207...253VAC; 50/60 Hz  | 45   | 495              | 74              | 45.2        | <b>03.027.301.1</b> | 1 Set |
| CoolBlastT 230V 6-fan |               | 207...253VAC; 50/60 Hz  | 90   | 990              | 74              | 48.8        | <b>03.027.302.1</b> | 1 Set |
| CoolBlastT 230V 2-fan | Thermostat    | 207...253VAC; 50/60 Hz  | 30   | 330              | 74              | 43.4        | <b>03.027.310.1</b> | 1 Set |
| CoolBlastT 230V 3-fan | Thermostat    | 207...253 VAC; 50/60 Hz | 45   | 495              | 74              | 45.2        | <b>03.027.311.1</b> | 1 Set |
| CoolBlastT 230V 6-fan | Thermostat    | 207...253 VAC; 50/60 Hz | 90   | 990              | 74              | 48.8        | <b>03.027.312.1</b> | 1 Set |
| CoolBlastT 230V 3-fan | Controlled SP | 100...253 VAC; 50/60 Hz | 25   | 553              | 68              | 49.6        | <b>03.027.321.1</b> | 1 Set |
| CoolBlastT 230V 6-fan | Controlled SP | 100...253 VAC; 50/60 Hz | 48   | 1106             | 68              | 53.3        | <b>03.027.322.1</b> | 1 Set |
| CoolBlastT 230V 3-fan | Controlled HP | 100...253 VAC; 50/60 Hz | 32   | 711              | 173             | 55.8        | <b>03.027.324.1</b> | 1 Set |
| CoolBlastT 230V 6-fan | Controlled HP | 100...253 VAC; 50/60 Hz | 62   | 1422             | 173             | 59.1        | <b>03.027.325.1</b> | 1 Set |
| CoolBlastT 230V 3-fan | Controlled UP | 100...253 VAC; 50/60 Hz | 64   | 825              | 310             | 61.8        | <b>03.027.327.1</b> | 1 Set |
| CoolBlastT 230V 6-fan | Controlled UP | 100...253 VAC; 50/60 Hz | 125  | 1650             | 310             | 65.1        | <b>03.027.328.1</b> | 1 Set |

Dimensions in mm: W = Width  
H = Height  
D = Depth  
h = Installation height  
d = Usable depth  
L = Length

HU = Standard height of unit  
1HU=66.65mm  
UP = Unit of packaging  
Kg = Weight

= Express Item

Conversion: 1mm = 0.03937 inch

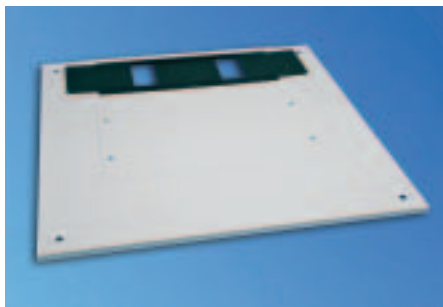
1 kg = 2.2046 pounds

SP = Standard Performance  
HP = High Performance  
UP = Ultra High Performance

n = Number of fans  
W = Power consumption [W]  
 $\dot{V}$  = Air volume stream (m³/h)  
 $\Delta \dot{V}$  = Loss of air volume stream (%)

Pa = Pressure increase  
I<sub>nom</sub> = Nominal current [A]  
I<sub>max</sub> = Residual current [A]  
V = Voltage [400V-3-phase]  
dB(A) = Sound pressure  
1mm distance from the rack  
(600mmx600mm, raised cover)





LUF20163



(Without fan)

LUF20169

## Top Cover for CoolBlast®

- For use in combination with CoolBlast® fan unit
- Suitable for installation into miracle
- With cable entry point (sliding panel)
- Two-piece cover for subsequent assembly or service

**Material**  
Sheet steel

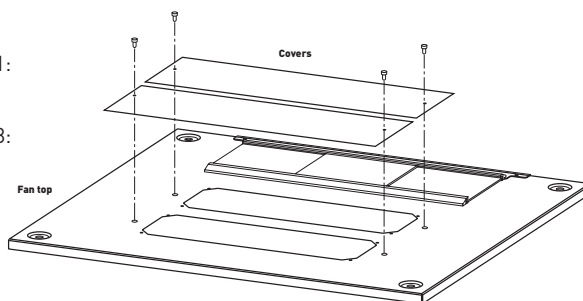
**Finish / Colour**  
Final digit of order number .1:  
- Powder-coated RAL 7035  
- Light-grey textured  
Final digit of order number .8:  
- Powder-coated RAL 7021  
- Black grey textured

### Supply schedule

- 1 fan roof with cable entry (three-part sliding section, can be completely opened)
- 2 covers
- Accessories for assembly

### How supplied

Pre-assembled



LUF20176

| W   | H | D    | Design             | Order No.           | UP     |
|-----|---|------|--------------------|---------------------|--------|
| 600 |   | 600  | For 2- or 3-fans   | <b>01.149.031.X</b> | 1 unit |
| 700 |   | 600  | For 2- or 3-fans   | <b>01.149.041.X</b> | 1 unit |
| 800 |   | 600  | For 2- or 3-fans   | <b>01.149.051.X</b> | 1 unit |
| 600 |   | 800  | For 2-/3-or 6-fans | <b>01.149.033.X</b> | 1 unit |
| 700 |   | 800  | For 2-/3-or 6-fans | <b>01.149.043.X</b> | 1 unit |
| 800 |   | 800  | For 2-/3-or 6-fans | <b>01.149.053.X</b> | 1 unit |
| 600 |   | 900  | For 2-/3-or 6-fans | <b>01.149.034.X</b> | 1 unit |
| 700 |   | 900  | For 2-/3-or 6-fans | <b>01.149.044.X</b> | 1 unit |
| 800 |   | 900  | For 2-/3-or 6-fans | <b>01.149.054.X</b> | 1 unit |
| 600 |   | 1000 | For 2-/3-or 6-fans | <b>01.149.035.X</b> | 1 unit |
| 700 |   | 1000 | For 2-/3-or 6-fans | <b>01.149.045.X</b> | 1 unit |
| 800 |   | 1000 | For 2-/3-or 6-fans | <b>01.149.055.X</b> | 1 unit |
| 600 |   | 1200 | For 2-/3-or 6-fans | <b>01.149.037.X</b> | 1 unit |
| 800 |   | 1200 | For 2-/3-or 6-fans | <b>01.149.057.X</b> | 1 unit |



LUF20121



LUF20168

## Dust and Particle Protection for CoolBlast® Solution no. 1: Filter mat

- For use in combination with CoolBlast® roof mounted fan
- Simple filter cover protecting against the intrusion of dust when fan is not active (controlled or thermostat-controlled design)
- For all roof sizes; filter and adhesive velcro tape may be cut to fit the required dimensions

**Material**  
Viledon (Filter Class G2)

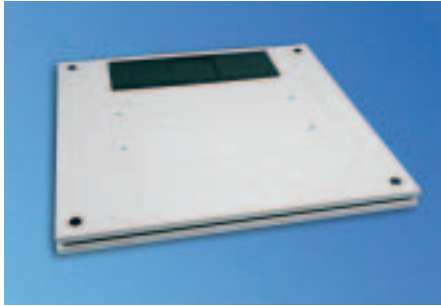
### Supply schedule

- 1 Filter
- Adhesive velcro tape

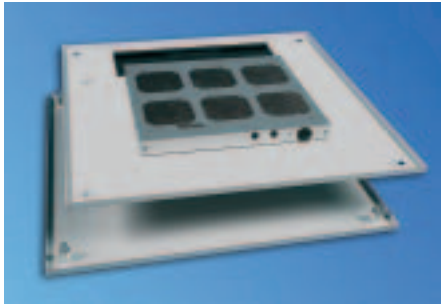
### How supplied

By set

| W | H | D | kg | Design                    | Order No.           | UP    |
|---|---|---|----|---------------------------|---------------------|-------|
|   |   |   |    | Fan units, 2, 3 or 6 fans | <b>01.149.101.9</b> | 1 Set |



LUF20174



LUF20172

## Dust and Particle Protection for CoolBlast® Solution no. 2: Ventilation dome

- For use in combination with CoolBlast® roof mounted fan
- Closed top cover with cable entry point for protection against contaminants and dust
- Mounted on spacers on the standard top cover

**Material**  
Sheet steel

### Finish / Colour

- Final digit of order number .1:  
- Powder-coated RAL 7035  
- Light-grey textured
- Final digit of order number .8:  
- Powder-coated t RAL 7021  
- Dark-grey textured

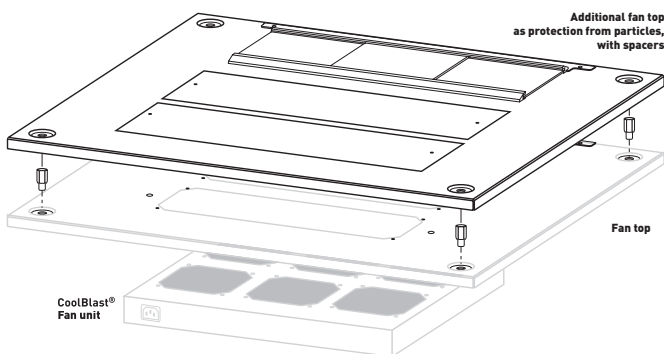
### Supply schedule

- 1 cover with cable entry point  
Accessories for assembly

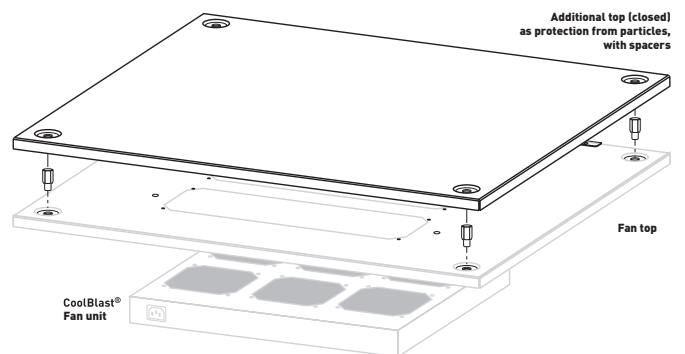
### How supplied

- By set

| W   | H    | D   | Design                 | Order No.           | UP    |
|-----|------|-----|------------------------|---------------------|-------|
| 600 |      | 600 | With cable entry point | <b>01.149.031.X</b> | 1 Set |
| 700 |      | 600 | With cable entry point | <b>01.149.041.X</b> | 1 Set |
| 800 |      | 600 | With cable entry point | <b>01.149.051.X</b> | 1 Set |
| 600 | 800  |     | With cable entry point | <b>01.149.033.X</b> | 1 Set |
| 700 | 800  |     | With cable entry point | <b>01.149.043.X</b> | 1 Set |
| 800 | 800  |     | With cable entry point | <b>01.149.053.X</b> | 1 Set |
| 600 | 900  |     | With cable entry point | <b>01.149.034.X</b> | 1 Set |
| 700 | 900  |     | With cable entry point | <b>01.149.044.X</b> | 1 Set |
| 800 | 900  |     | With cable entry point | <b>01.149.054.X</b> | 1 Set |
| 600 | 1000 |     | With cable entry point | <b>01.149.035.X</b> | 1 Set |
| 700 | 1000 |     | With cable entry point | <b>01.149.045.X</b> | 1 Set |
| 800 | 1000 |     | With cable entry point | <b>01.149.055.X</b> | 1 Set |
| 600 | 600  |     | Closed                 | <b>01.130.690.X</b> | 1 Set |
| 700 | 600  |     | Closed                 | <b>01.130.694.X</b> | 1 Set |
| 800 | 600  |     | Closed                 | <b>01.130.691.X</b> | 1 Set |
| 600 | 800  |     | Closed                 | <b>01.130.691.X</b> | 1 Set |
| 700 | 800  |     | Closed                 | <b>01.130.695.X</b> | 1 Set |
| 800 | 800  |     | Closed                 | <b>01.130.699.X</b> | 1 Set |
| 600 | 900  |     | Closed                 | <b>01.130.692.X</b> | 1 Set |
| 700 | 900  |     | Closed                 | <b>01.130.696.X</b> | 1 Set |
| 800 | 900  |     | Closed                 | <b>01.130.700.X</b> | 1 Set |
| 600 | 1000 |     | Closed                 | <b>01.127.700.X</b> | 1 Set |
| 700 | 1000 |     | Closed                 | <b>01.127.701.X</b> | 1 Set |
| 800 | 1000 |     | Closed                 | <b>01.127.702.X</b> | 1 Set |



LUF20177



LUF20178



DOS00076

## Mains Cable for Euro Sockets DIN 49 440 and French/Belgian Standard

- Mains plug: CEE/VII - Euro socket IEC 320
- Cable: conduction H05VV-F 3G 1 mm<sup>2</sup>

**Mains voltage**  
250 VAC

**Nominal current**  
10 A

| L    | S | n | F1 | F2 | 19" | safe | Design | Order No.           | UP    |
|------|---|---|----|----|-----|------|--------|---------------------|-------|
| 2000 |   |   |    |    |     |      |        | <b>04.000.054.9</b> | 1 Set |
| 5000 |   |   |    |    |     |      |        | <b>04.000.050.9</b> | 1 Set |



DOS00077

## Mains Cable for Euro Sockets Swiss Standard

- Mains plug: type 12 - Euro socket IEC 320
- Cable: conduction H05VV-F 3G 1 mm<sup>2</sup>

**Mains voltage**  
250 VAC

**Nominal current**  
10 A

| L    | S | n | F1 | F2 | 19" | safe | Design | Order No.           | UP    |
|------|---|---|----|----|-----|------|--------|---------------------|-------|
| 2000 |   |   |    |    |     |      |        | <b>04.000.055.9</b> | 1 Set |



DOS00078

## Mains Cable for Euro Sockets British Standard

- Mains plug: type BS 1363 - Euro socket IEC 320
- Cable: conduction H05VV-F 3G 1mm<sup>2</sup>

**Mains voltage**  
250 VAC

**Nominal current**  
10 A

| L    | S | n | F1 | F2 | 19" | safe | Design | Order No.           | UP    |
|------|---|---|----|----|-----|------|--------|---------------------|-------|
| 2000 |   |   |    |    |     |      |        | <b>04.000.056.9</b> | 1 Set |



DOS00519

## Euro Socket Connection Cable

- Mains plug: IEC 320 - Euro socket IEC 320
- Cable: EU: H05VV-F 3G 1 mm<sup>2</sup>  
USA: SJT AWG18

**Mains voltage**  
EU: 250 VAC  
USA: 125 VAC

**Nominal current**  
10 A

| L   | S | n | F1 | F2 | 19" | safe | Design | Order No.           | UP    |
|-----|---|---|----|----|-----|------|--------|---------------------|-------|
| 900 |   |   |    |    |     |      | EU     | <b>04.000.051.9</b> | 1 Set |
| 990 |   |   |    |    |     |      | USA    | <b>04.000.052.9</b> | 1 Set |

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