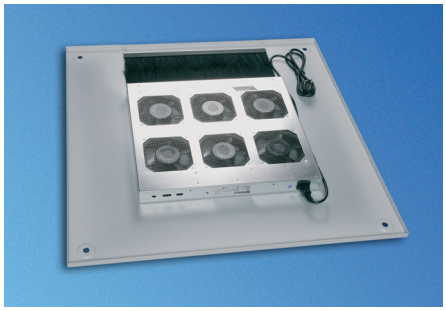
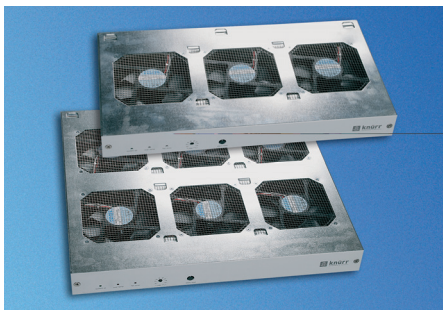
Knürr Accessories

Knürr CoolBlast® Top-Mounting Fan for Miracel®



1 LUF20124



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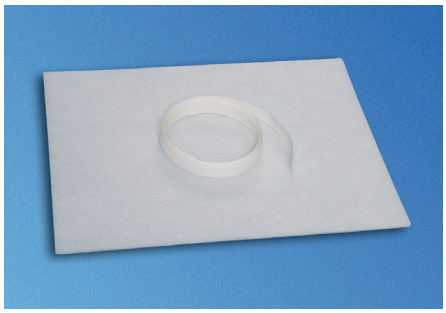

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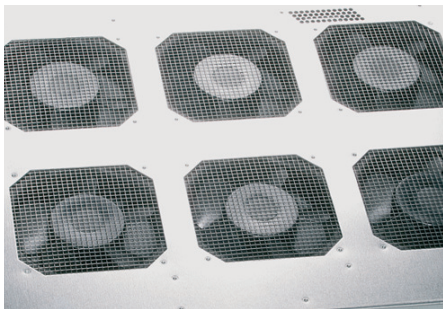


4 LUF20124

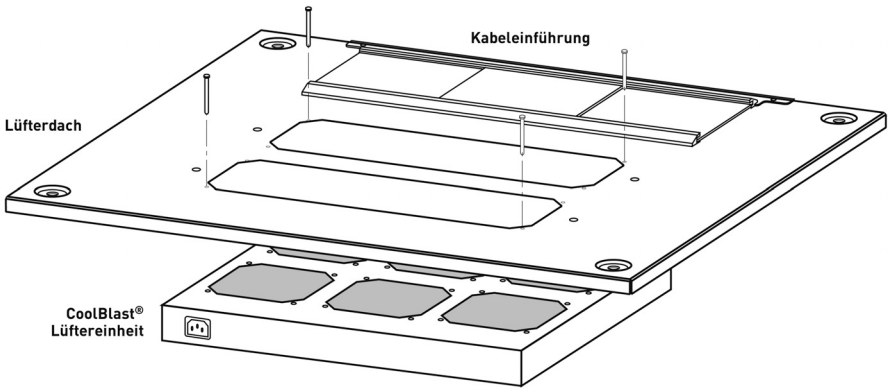
Knürr CoolBlast® Top-Mounting Fan
Strong points

1 The constantly increasing power loss in electronic modules constantly increases heat loads in the rack.
The **CoolBlast®** is modularly configured so that a suitable solution can be selected for every heat load.

2 The **CoolBlast®** top-mounting fan is therefore available in models with two, three or six fans. Regulated, thermostat-controlled and unregulated models are provided.

3 An optional fan lid or an optional filter (see picture) prevent dust from penetrating when the fan is in standstill mode.

4 The recently developed protection grid of the **CoolBlast®** top-mounting fan minimizes the pressure loss of through-flowing air and reduces the airflow noise The **CoolBlast®** roof fan is an especially quiet system.



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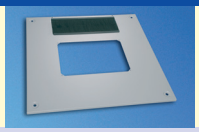
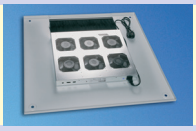
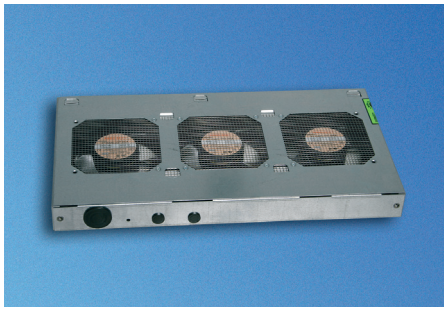
Possible configurations:

Consists of		Figure	Questions before installation in Miracel:
Fan Top			1. How wide and deep is the rack? 2. For 2, 3 or 6-piece fan unit? 3. What power supply will be required? 4. What volume flow is targeted? 5. What pressure? 6. With or without regulated or thermostat-controlled CoolBlast® model? 7. Correct mains cable? 8. Is particulate matter protection required? (Fan lid and filter)
Fan Top plus CoolBlast®		1 + 2	
Fan top plus CoolBlast® plus filter		1 + 2 + 3	



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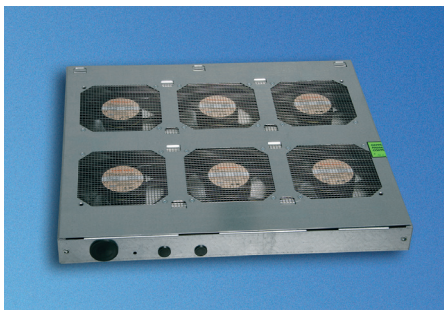

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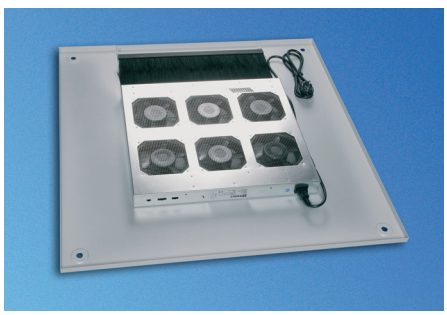


LUF20124

Knürr CoolBlast® Fan Unit for roof/door installation
Unregulated

- For forced rack cooling
- Suitable for installation at any time in the Miracel® top
- DC versions and 115 VAC versions on request (see CoolBlast® fan units)

Material
Housing: Sheet steel, high-grade steel grid

Finish
Zinc-passivated

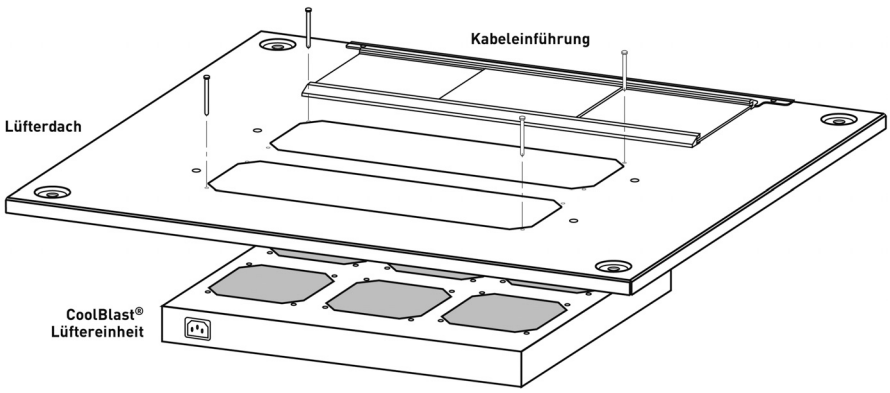
Single fan technical data
See page 12.9

Approvals
CE Symbol in acc. with Low Voltage Directive 73/23/EEC, EMC directive 89/366/EEC

Supply schedule
1 CoolBlast fan unit®
1 mains cable, 3 m with safety plug (230 VAC)
Mounting material
Operating instructions

How supplied
Assembled, wired and tested

Note
Please also order specific mains cable



LUF20175

Name	Model	Elec. connection	P(W)	V̇(m³/h)	ΔP(Pa)	p(dB(A))	Order no.		UP
CoolBlastT 230V 2-piece		207...253 VAC; 50/60 Hz	30	330	74	43.4	**03.027.300.1**		1 unit
CoolBlastT 230V 3-piece		207...253 VAC; 50/60 Hz	45	495	74	45.2	**03.027.301.1**		1 unit
CoolBlastT 230V 6-piece		207...253 VAC; 50/60 Hz	90	990	74	48.8	**03.027.302.1**		1 unit

Dimensions in mm: W = Width; H = Height; D = Depth; h = installation height; d = useful depth; L = length; U = standard height unit; 1 U = 44.45 mm; UP = unit of packaging; kg = weight; = Express item

Conversion: 1 mm = 0.03937 inch; 1 kg = 2.2046 pound

SP = Standard Performance; HP = High performance; UP = Ultra high performance

n = Number of fans; P = Power consumption (W); V̇ = Air volume flow (m3/h); ΔV̇ = Airflow volume loss (%)

ΔP = Pressure increase (Pi); I nom = Nom. current (A); I max = Max. residual current (A); V = Voltage (400V = 3-phase); p = Sound pressure (dB(A)) in 1 m from the rack (600 mm x 600 mm; raised cover)

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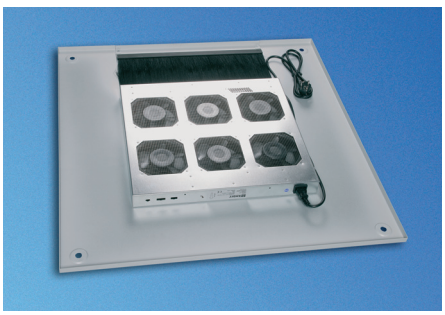


LUF20124

Knürr CoolBlast® Fan Unit for roof/door installation
Thermostat-controlled

- For forced rack cooling
- Suitable for installation at any time in the Miracel® top
- 115 VAC versions on request
- Fan function (ON/OFF) thermostat-controlled, setting from 0° to +60° C

Material
Housing: Sheet steel, high-grade steel grid

Finish
Zinc-passivated

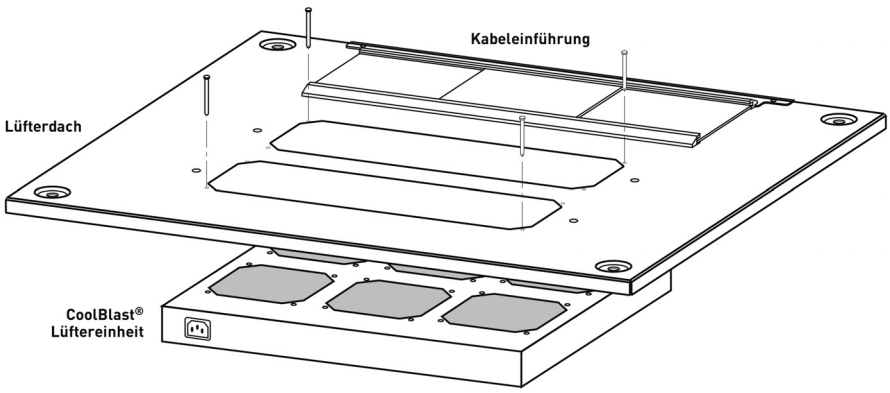
Single fan technical data
See page 12.9

Approvals
CE Symbol in acc. with Low Voltage Directive 73/23/EEC, EMC directive 89/366/EEC

Supply schedule
1 CoolBlast fan unit®
1 mains cable, 3 m with safety plug (230 VAC)
Mounting material
Operating instructions

How supplied
Assembled, wired and tested

Note
Please also order specific mains cable



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Name	Model	Elec. connection	P(W)	V(m³/h)	ΔP(Pa)	p(dB(A))	Order no.		UP
CoolBlastT 230V 2-piece	Thermostat	207...253 VAC; 50/60 Hz	30	330	74	43.4	**03.027.310.1**		1 unit
CoolBlastT 230V 3-piece	Thermostat	207...253 VAC; 50/60 Hz	45	495	74	45.2	**03.027.311.1**		1 unit
CoolBlastT 230V 6-piece	Thermostat	207...253 VAC; 50/60 Hz	90	990	74	48.8	**03.027.312.1**		1 unit

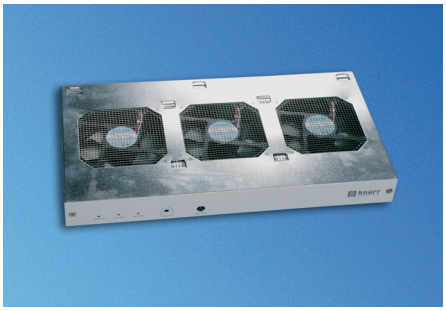
Dimensions in mm: W = Width; H = Height; D = Depth; h = installation height; d = useful depth; L = length; U = standard height unit; 1 U = 44.45 mm; UP = unit of packaging; kg = weight; = Express item

Conversion: 1 mm = 0.03937 inch; 1 kg = 2.2046 pound

SP = Standard Performance; HP = High performance; UP = Ultra high performance

n = Number of fans; P = Power consumption (W); V̇ = Air volume flow (m3/h); ΔV̇ = Airflow volume loss (%)

ΔP = Pressure increase (Pi); I nom = Nom. current (A); I max = Max. residual current (A); V = Voltage (400V = 3-phase); p = Sound pressure (dB(A)) in 1 m from the rack (600 mm x 600 mm; raised cover)



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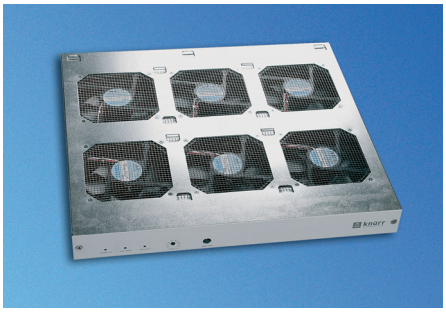

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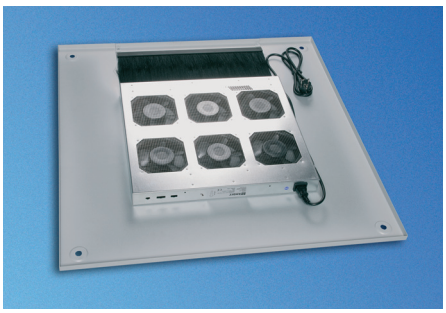


LUF20124

Knürr CoolBlast® Fan Unit for roof/door installation
Speed-controlled

- For forced rack cooling
- Suitable for installation at any time in the Miracel® top
- DC version on request (see CoolBlast® fan units)
- Settable reference temperature (20° to 55°C)
- Speed control, 30 to 100%, with sensor break 100% rotation
- Individual fan monitoring
- Floating common alarm output for excess temperature alarm and fan failure
- Optical status display for O.K., excess temperature and fan failure
- Acoustic warning incl. reset button

Material
Housing: Sheet steel, high-grade steel grid

Finish
Zinc-passivated front panel, powder-coated, smooth in RAL 7035 light gray

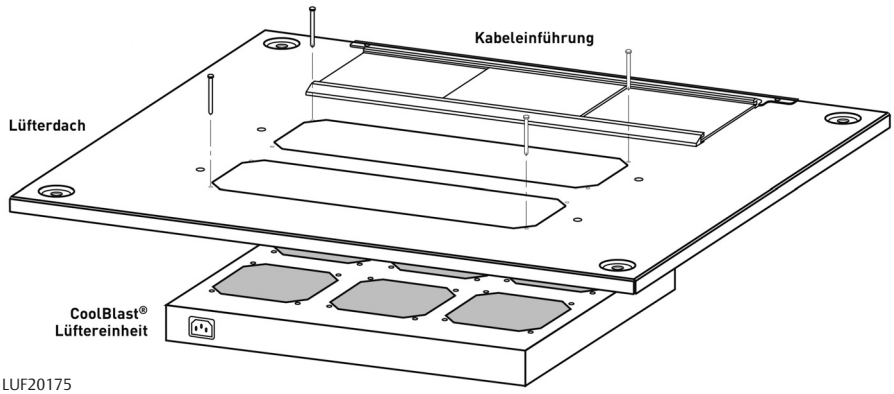
Single fan technical data
See page 12.9

Approvals
CE Symbol in acc. with Low Voltage Directive 73/23/EEC, EMC directive 89/366/EEC

Supply schedule
1 CoolBlast fan unit®
1 sensor cable, 2 m (plug-in)
1 signal cable, 2 m (plug-in)
1 mains cable, 3 m with safety plug (230 VAC)
Mounting material
Operating instructions

How supplied
Assembled, wired and tested

Note
Please also order specific mains cable



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Name	Model	Elec. connection	P(W)	V̇(m³/h)	ΔP(Pa)	p(dB(A))	Order no.	UP
CoolBlastT 230V 3-piece	controlled SP	100...253 VAC; 50/60 Hz	25	553	68	49.6	**03.027.321.1**	1 uni
CoolBlastT 230V 6-piece	controlled SP	100...253 VAC; 50/60 Hz	48	1106	68	53.3	**03.027.322.1**	1 unit
CoolBlastT 230V 3-piece	controlled HP	100...253 VAC; 50/60 Hz	32	711	173	55.8	**03.027.324.1**	1 unit
CoolBlastT 230V 6-piece	controlled HP	100...253 VAC; 50/60 Hz	62	1422	173	59.1	**03.027.325.1**	1 unit

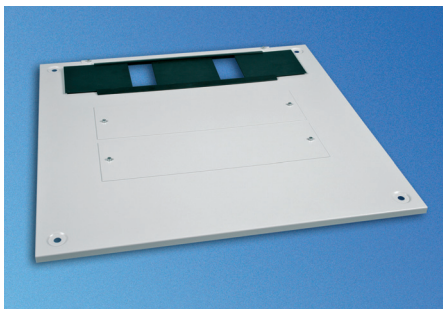
Dimensions in mm: W = Width, H = Height, D = Depth, h = installation height, d = useful depth, L = length
U = standard height unit, 1 U = 44.45 mm, UP = unit of packaging, kg = weight
= Express item

Conversion: 1 mm = 0.03937 inch, 1 kg = 2.2046 pound

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

n = Number of fans
P = Power consumption (W)
V̇ = Air volume flow (m3/h)
ΔV = Airflow volume loss (%)

ΔP = Pressure increase (Pi)
I nom = Nom. current (A)
I max = Max. residual current (A)
V = Voltage (400V = 3-phase)
p = Sound pressure (dB(A)) in 1 m from the rack (600 mm x 600 mm; raised cover)



LUF20163

LUF20169

Fan Top for Knürr CoolBlast®

- For use in conjunction with the CoolBlast fan unit
- Suitable for installation in Miracel
- With cable routing (sliding top)
- Cover divided in two parts for later installation and for servicing

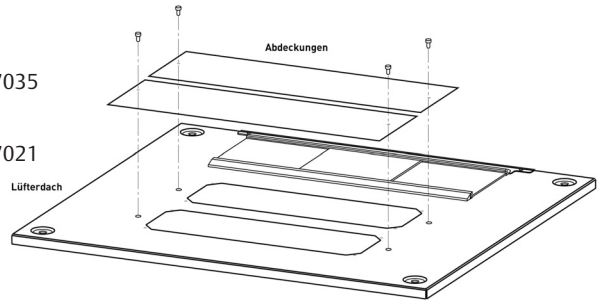
Material
Sheet steel

Finish / Color
Final digit of order number .1:
- Powder-coated texture, RAL 7035
- Light gray

Final digit of order number .8:
- Powder-coated texture, RAL 7021
- Dark gray

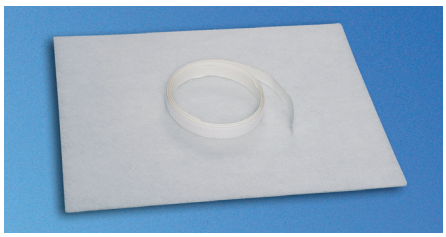
Supply schedule
1 top cover with cover strip and cable entry
2 covers

How supplied
Preassembled



LUF20176

W	H	D	Model	Order no.	UP
600		600	For 2 or 3-piece	**01.149.031.X**	1 unit
700		600	For 2 or 3-piece	**01.149.041.X**	1 unit
800		600	For 2 or 3-piece	**01.149.051.X**	1 unit
600		800	For 2/3 or 6-piece	**01.149.033.X**	1 unit
700		800	For 2/3 or 6-piece	**01.149.043.X**	1 uni
800		800	For 2/3 or 6-piece	**01.149.053.X**	1 unit
600		900	For 2/3 or 6-piece	**01.149.034.X**	1 unit
700		900	For 2/3 or 6-piece	**01.149.044.X**	1 unit
800		900	For 2/3 or 6-piece	**01.149.054.X**	1 unit
600		1000	For 2/3 or 6-piece	**01.149.035.X**	1 unit
700		1000	For 2/3 or 6-piece	**01.149.045.X**	1 unit
800		1000	For 2/3 or 6-piece	**01.149.055.X**	1 unit
600		1200	For 2/3 or 6-piece	**01.149.037.X**	1 unit
800		1200	For 2/3 or 6-piece	**01.149.057.X**	1 unit



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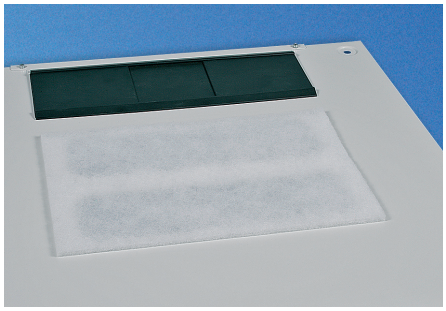


LUF20168

Dust and Particle Protection for CoolBlast®
Solution 1: Filter mat

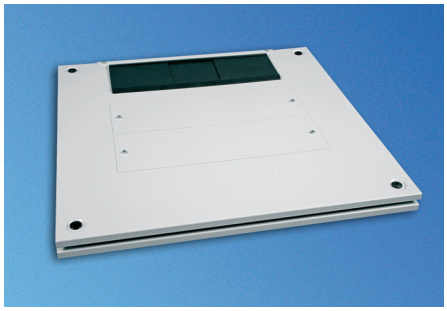
- For use in conjunction with the CoolBlast® fan top
- Easy filter covering so that dust cannot penetrate when the fan is stopped (regulated or thermostat-controlled version)
- For all top sizes; filter and adhesive tape can be cut to the required length

Material
Filedon (filter class - G2)

Supply schedule
1 filter
Adhesive tape

How supplied
Flat-packed kit

W	H	D	kg	Model	Order no.	UP
				For 2, 3 or 6-piece fan unit	**01.149.101.9**	1 set



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LUF20172

Dust and particle protection for Knürr CoolBlast®
Solution 2: Vent Lid

– For use in conjunction with the CoolBlast® fan top
– Closed top cover with cable entry for protection against foreign particles and dust
– Mounting on the spacer bolts on the standard cover

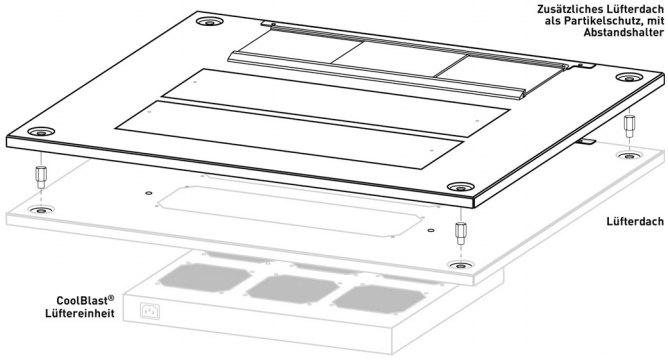
Material
Sheet steel

Finish / Color
Final digit of order number .1:
- Powder-coated texture, RAL 7035,
- Light gray
Final digit of order number .8:
- Powder-coated texture, RAL 7021,
- Dark gray

Supply schedule
1 top cover with cable entry

How supplied
Flat-packed kit

W	H	D	Model	Order no.	UP
600		600	With cable entry	**01.149.031.X**	1 unit
700		600	With cable entry	**01.149.041.X**	1 unit
800		600	With cable entry	**01.149.051.X**	1 unit
600		800	With cable entry	**01.149.033.X**	1 unit
700		800	With cable entry	**01.149.043.X**	1 uni
800		800	With cable entry	**01.149.053.X**	1 unit
600		900	With cable entry	**01.149.034.X**	1 unit
700		900	With cable entry	**01.149.044.X**	1 unit
800		900	With cable entry	**01.149.054.X**	1 unit
600		1000	With cable entry	**01.149.035.X**	1 unit
700		1000	With cable entry	**01.149.045.X**	1 unit
800		1000	With cable entry	**01.149.055.X**	1 unit
600		1200	With cable entry	**01.149.037.X**	1 unit
800		1200	With cable entry	**01.149.057.X**	1 unit
600		600	Closed	**01.130.690.X**	1 unit
700		600	Closed	**01.130.694.X**	1 unit
800		600	Closed	**01.130.691.X**	1 unit
600		800	Closed	**01.130.691.X**	1 unit
700		800	Closed	**01.130.695.X**	1 unit
800		800	Closed	**01.130.699.X**	1 unit
600		900	Closed	**01.130.692.X**	1 unit
700		900	Closed	**01.130.696.X**	1 unit
800		900	Closed	**01.130.700.X**	1 unit
600		1000	Closed	**01.127.700.X**	1 unit
700		1000	Closed	**01.127.701.X**	1 unit
800		1000	Closed	**01.127.702.X**	1 unit



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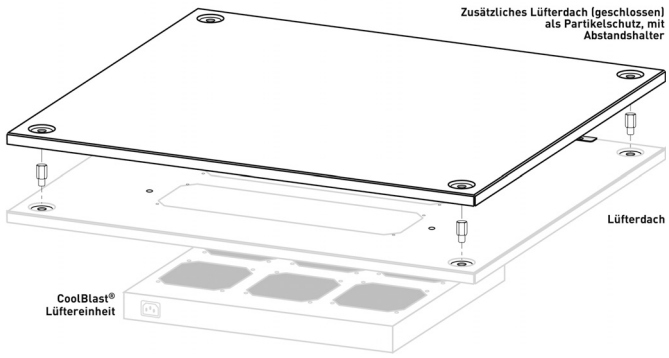


LUF20178

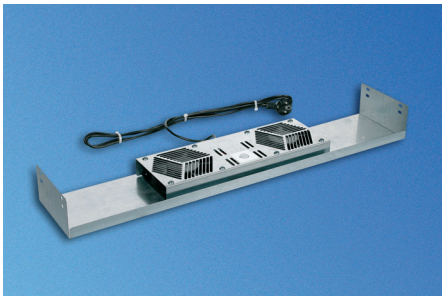
Dimensions in mm: W = Width, H = Height, D = Depth, h = installation height, d = useful depth, L = length
U = standard height unit, 1 U = 44.45 mm, UP = unit of packaging, kg = weight
= Express item

Conversion: 1 mm = 0.03937 inch, 1 kg = 2.2046 pound

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

n = Number of fans
P = Power consumption (W)
V̇ = Air volume flow (m3/h)
ΔV̇ = Airflow volume loss (%)

ΔP = Pressure increase (Pi)
I nom = Nom. current (A)
I max = Max. residual current (A)
V = Voltage (400V = 3-phase)
p = Sound pressure (dB(A)) in 1 m from the rack (600 mm x 600 mm; raised cover)



LUF20180

Knürr CoolBlast® Fan Installation Set
With thermostat

- For quick and easy forced exhaustion of racks
- Miracel / Tecoras Indoor
- Installation in the top cover area
- No loss of 19'' installation space
- Later installation also possible
- Incl. 2 fans (160 m3/h per fan)

Material / Finish
Sheet steel, 1.5 mm, zinc-passivated

Approvals
CE Symbol in acc. with Low Voltage Directive 73/23/EEC, EMC directive 89/336/EEC

Technical data: Thermostat
- Setting range: + 0°C ... + 60°C
- Power supply: 240 V / 50 Hz
- Mains current: 16 A

Supply schedule
1 mounting panel for fan
2 fans
1 connection cable, 2.0 m with safety plug
Type 1: with thermostat
Type 2: without thermostat
Mounting material

How supplied
Assembled, wired and tested

W	H	D	For rack type	Order no.	UP
534			Miracel / W 600 / with thermostat	**01.113.430.0**	1 unit
734			Miracel / W 800 / with thermostat	**01.113.431.0**	1 unit

LUF20194

LUF20195

Silent Top-Mounting Fan

- For forced rack cooling
- Suitable for installation in Miracel
- High volume flow with low noise generation (e.g. for office applications)

Material / Finish
Sheet steel

Single fan technical data
Max. volume current (free blowing): 1500 m³/h
Voltage/frequency: 230 V / 50 Hz
Power consumption: 117 W
Noise: 40 dB(A)
Temperature range: -25...40°C

Finish / Color
Final digit of order number .1:
- Powder-coated texture, RAL 7035
- Light gray

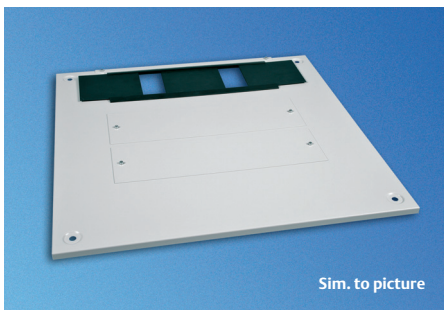
Final digit of order number .8:
- Powder-coated texture, RAL 7021
- Dark gray

Supply schedule
1 top-mounting fan
1 mains cable, 3 m with safety plug (230 VAC)
Mounting material

How supplied
Flat-packed kit

Note
Please also order suitable top

W	H	D	For rack type	Order no.	UP
449	237	490	Miracel	**03.028.111.X**	1 unit



LUF20163

LUF20195

Fan top for Silent top-mounting fan

- For use in conjunction with the Silent fan top
- Suitable for installation in Miracel
- With cable routing (sliding top)
- Cover divided in two parts for later installation and for servicing

Material/ Finish
Sheet steel

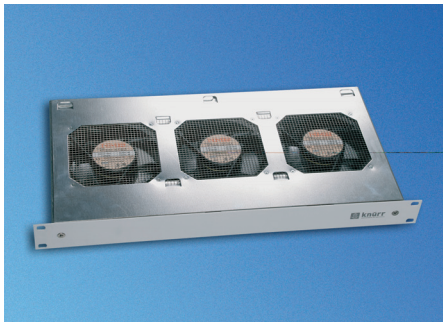
Finish / Color
Final digit of order number .1:
- Powder-coated texture, RAL 7035,
- Light gray

Final digit of order number .8:
- Powder-coated texture, RAL 7021,
- Dark gray

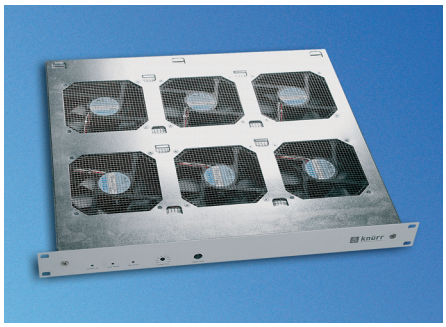
Supply schedule
1 top cover with cover strip and cable entry
Mounting material

How supplied
Flat-packed kit

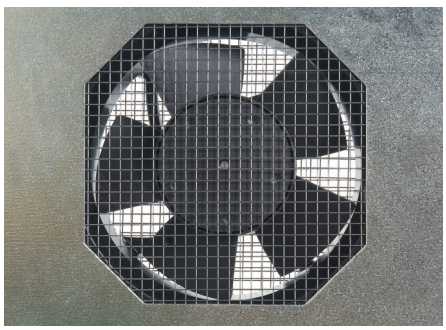
W	H	D	For rack type	Order no.	UP
600		600	Miracel	**01.149.201.x**	1 uni
700		600	Miracel	**01.149.202.x**	1 unit
800		600	Miracel	**01.149.203.x**	1 unit
600		800	Miracel	**01.149.206.x**	1 unit
700		800	Miracel	**01.149.207.x**	1 unit
800		800	Miracel	**01.149.208.x**	1 unit
600		900	Miracel	**01.149.211.x**	1 unit
700		900	Miracel	**01.149.212.x**	1 unit
800		900	Miracel	**01.149.213.x**	1 unit
600		1000	Miracel	**01.149.216.x**	1 unit
700		1000	Miracel	**01.149.217.x**	1 unit
800		1000	Miracel	**01.149.218.x**	1 unit
600		1200	Miracel	**01.149.221.x**	1 unit
700		1200	Miracel	**01.149.222.x**	1 unit
800		1200	Miracel	**01.149.223.x**	1 unit



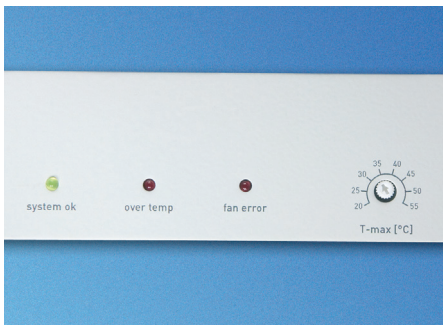
1 LUF20125



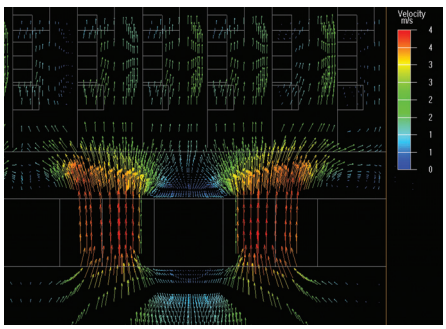
1 LUF20140



2 LUF20056



3 LUF20054



4 LUF20077

Knürr 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 increased pressure loss.

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

1 The **CoolBlast®** fan unit from Knürr is available as a slot-in unit with 3 and 6 fans for vertical ventilation of installed modules. The volume flow required for cooling is primarily determined by the selection of fans, which are available in three different performance classes (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 minimizes the pressure loss of the streaming airflow and reduces the streaming noise.

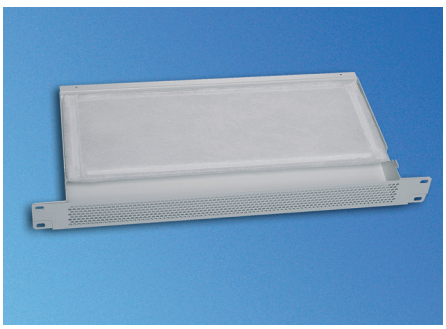
3 The Knürr **CoolBlast®** adjusts its cooling airflow to the power loss to be cooled.
The temperature-regulated control of the fan rotation optimizes the noise emission and the lifespan of the fans. The maximum reference temperature is set at the front. A fan failure detector ensures high operational reliability. 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.

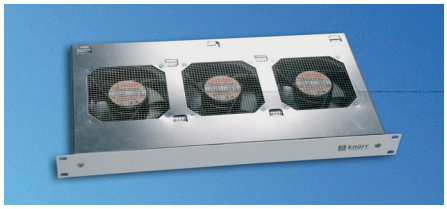
4 Optimum heat dissipation of the cooled module is attained with the high airflow volumes and pressure jumps in the **CoolBlast®** fan unit. Building-specific CFD simulations can optimize each customer thermal management application.

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

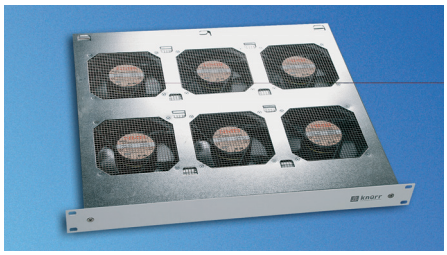
In addition to the **CoolBlast®** fan unit, a number of other components and accessory parts are also available for thermal management in server and network rack systems.



5 LUF20133



LUF20125



LUF20139

Knürr 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 6-piece CoolBlast.

Material
Sheet steel, high-grade steel grid

Finish/color
Housing, zinc-passivated
Front panel, powder-coated, smooth in RAL 7035 light gray

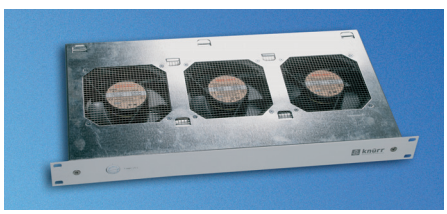
How supplied
Assembled, wired and tested

Approvals
CE Symbol in acc. with Low Voltage Directive 73/23/EEC, EMC Directive 89/366/EEC

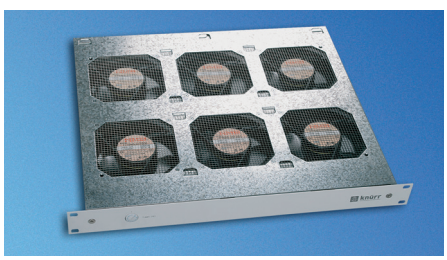
Supply schedule
1 CoolBlast fan unit, packed with operating instructions.
1 connection cable, 2 m Euro cable

Note
Please also order specific mains cable (see page 1.125)!

Na	W	H	D	kg	n	Elec. connection	P(W)	V (m3/h)	ΔP(Pa)	p(dB(A))	Order no.
CoolBlast 230V 3-piece	440	43.6	230	3	3	207 ... 253VAC; 50/60Hz	45	495	74	45.2	**03.027.001.1**
CoolBlast 230V 6-piece	440	43.6	390	6	6	207 ... 253VAC; 50/60Hz	90	990	74	48.8	**03.027.002.1**
CoolBlast 115V 3-piece	440	43.6	230	3	3	103.5 ... 126.5VAC; 50/60Hz	44	576	88	47.3	**03.027.004.1**
CoolBlast 115V 6-piece	440	43.6	390	6	6	103.5 ... 126.5VAC; 50/60Hz	88	1152	88	50.8	**03.027.005.1**



LUF20127



LUF20138

Knürr 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 6-piece CoolBlast.

Material
Sheet steel, high-grade steel grid

Finish/color
Housing, zinc-passivated
Front panel, powder-coated, smooth in RAL 7035 light gray

How supplied
Assembled, wired and tested

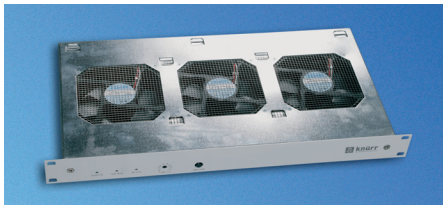
Approvals
CE Symbol in accordance with Low Voltage Directive 73/23/EEC, EMC Directive 89/366/EEC

Supply schedule
1 CoolBlast fan unit, packed with operating instructions

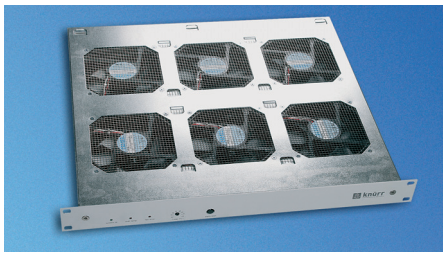
Only with DC devices:
1 connection cable, 2 m with connector plug and free ends

Only with 230V AC devices:
1 connection cable, 2 m Euro cable

Name	W	H	D	kg	n	Elec. connection	P(W)	V(m3/h)	ΔP(Pa)	p(dB(A))	Order no.
CoolBlast 230V 3-piece thermostat	440	43.6	230	3	3	207 ... 253VAC; 50/60Hz	45	495	74	45.2	**03.027.011.1**
CoolBlast 230V 6-piece thermostat	440	43.6	390	6	6	207 ... 253VAC; 50/60Hz	90	990	74	48.8	**03.027.012.1**
CoolBlast 115V 3-piece thermostat	440	43.6	230	3	3	103.5 ... 126.5VAC; 50/60Hz	44	576	88	47.3	**03.027.014.1**
CoolBlast 115V 6-piece thermostat	440	43.6	390	6	6	103.5 ... 126.5VAC; 50/60Hz	88	1152	88	50.8	**03.027.015.1**



LUF20128



LUF20140

Knürr 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 control, 30 to 100%, with sensor break 100% rotation
- Individual fan monitoring
- Digital alarm output for excess temperature alarm and fan failure
- Optical status display for O.K., excess temperature and fan failure
- Acoustic warning with push-button
- Chassis rails are recommended for mounting. Chassis rails are required with 6-piece CoolBlast.

Material
Sheet steel, high-grade steel grid

Finish/color
Housing, zinc-passivated
Front panel, powder-coated, smooth in RAL 7035 light gray

Approvals
CE Symbol in accordance with Low Voltage Directive 73/23/EEC, EMC Directive 89/366/EEC

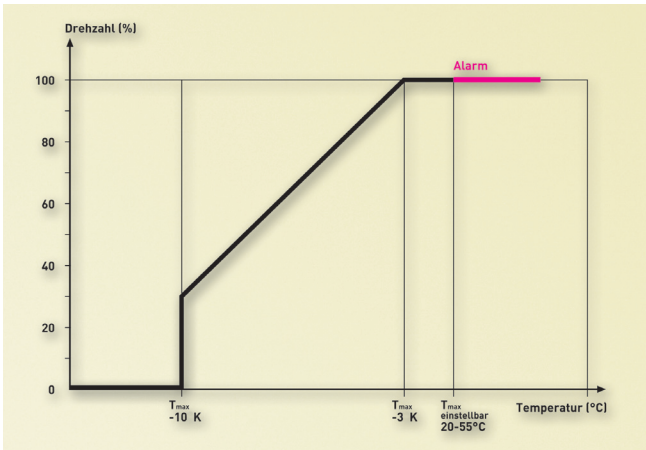
Supply schedule
1 CoolBlast fan unit, packed with operating instructions
1 sensor cable, 2 m (plug-in)
1 signal cable, 2 m (plug-in)

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

Only with AC devices:
1 connection cable, 2 m Euro cable

How supplied
Assembled, wired and tested

Note
Further characteristics can be implemented project-related in line with standards.



LUF20179

Name	W	H	D	kg	n	Elec. connection	P(W)	V˙(m³/h)	ΔP(Pa)	p(dB(A))	Order no.
CoolBlast 115/230V, 3-piece regulated SP	440	43.6	230	3.2	3	100 to 253VAC; 50/60Hz	25	553	68	49.6	**03.027.021.1**
CoolBlast 115/230V, 6-piece regulated SP	440	43.6	390	6.2	6	100 to 253VAC; 50/60Hz	48	1106	68	53.3	**03.027.022.1**
CoolBlast 115/230V, 3-piece regulated HP	440	43.6	230	3.2	3	100 to 253VAC; 50/60Hz	32	711	173	55.8	**03.027.024.1**
CoolBlast 115/230V, 6-piece regulated HP	440	43.6	390	6.2	6	100 bis 253VAC; 50/60Hz	62	1422	173	59.1	**03.027.025.1**
CoolBlast 24/48V, 3-piece regulated SP	440	43.6	230	3.1	3	20 bis 60VDC	25	553	68	49.6	**03.027.051.1**
CoolBlast 24/48V, 6-piece regulated SP	440	43.6	390	6.1	6	20 bis 60VDC	48	1106	68	53.3	**03.027.052.1**
CoolBlast 24/48V, 3-piece regulated HP	440	43.6	230	3.1	3	20 bis 60VDC	32	711	173	55.8	**03.027.054.1**
CoolBlast 24/48V, 6-piece regulated HP	440	43.6	390	6.1	6	20 bis 60VDC	62	1422	173	59.1	**03.027.055.1**

Dimensions in mm: W = Width, H = Height, D = Depth, h = installation height, d = useful depth, L = length

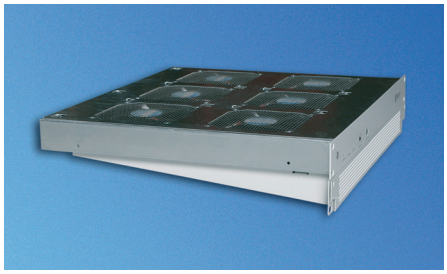
Conversion: 1 mm = 0.03937 inch

U = standard height unit 1 U = 44.45 mm
UP = unit of packaging
kg = weight
= Express item
1 kg = 2.2046 pound

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

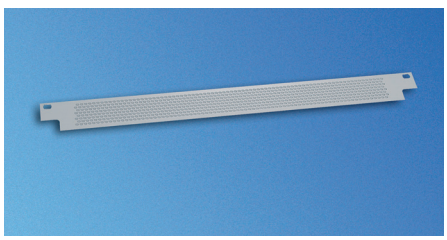
n = Number of fans
P = Power consumption (W)
V˙ = Air volume flow (m3/h)
ΔV˙ = Airflow volume loss (%) raised cover)

ΔP = Pressure increase (Pi)
I nom = Nom. current (A)
I max = Max. residual current (A)
V = Voltage (400V = 3-phase)
p = Sound pressure (dB(A)) in 1 m from the rack (600 mm x 600 mm;

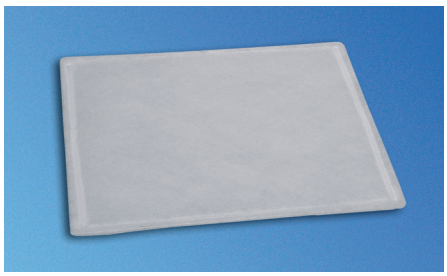


LUF20148

1 LUF20056



2 LUF20136



3 LUF20146

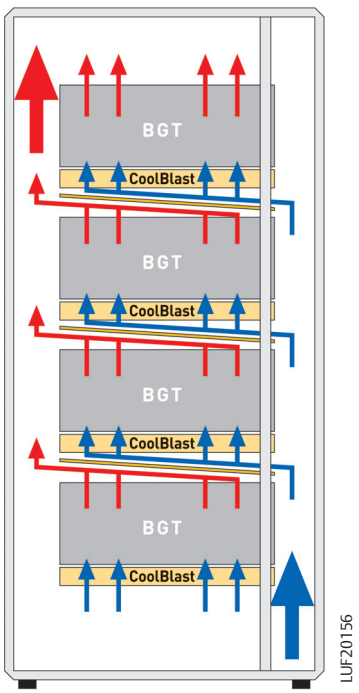
Knürr CoolBlast® Airflow via Front Intake
Strong points

The front intake unit for the **Knürr CoolBlast®** used for the targeted cooling of module units that are situated on top of one another (heat sources).

1 The optimized airflow guides the cooled air specifically to the rear. (See graphic 1). This prevents increased warming up of the vertical airflows from module chassis to module chassis. (See graphic 2).

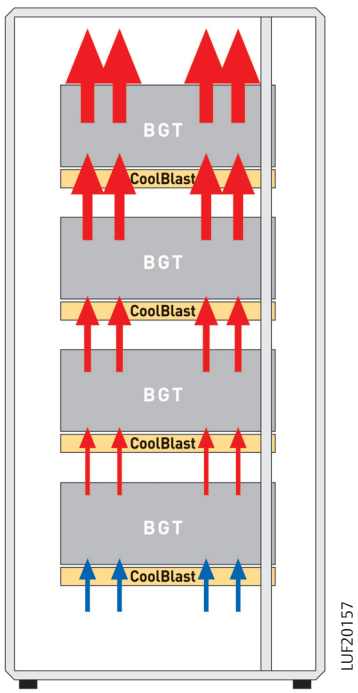
2 The optionally available front panel can be mounted later on and is often used for optical appearance reasons.

3 The filter mat protects the electronic components in use from dirt build-ups and dust, and they can also be swapped out during running operation.



LUF20156

Optimum

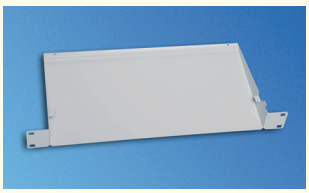


LUF20157

Little effect

Possible configurations:

Const. of		Fig.	Order no. 3-piece	6-piece	Airflow volume loss 3-piece	6-piece
Airflow		1	03.027.094.1	03.027.095.1	30 %	45 %
Airflow plus front panel		1 + 2	03.027.094.1 03.027.097.1	03.027.095.1 03.027.097.1	40 %	55 %
Airflow plus front panel and filter		1 + 2 + 3	03.027.094.1 03.027.097.1 03.027.098.1	03.027.095.1 03.027.097.1 03.027.099.	50 %	60 %



LUF20131

LUF20142

Knürr CoolBlast® Airflow via Front Intake, 1 U

- For CoolBlast® fan unit, 3-piece and 6-piece for front intake
- Use as cooling baffle
- Can be supplemented with front panel and filter mat

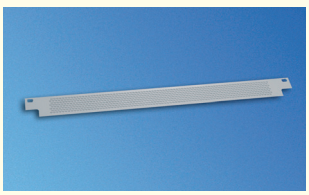
Material
Sheet steel

Finish/color
Powder-coated texture, RAL 7035 light gray

Supply schedule
1 air guide

How supplied
In units

W	H	D	Model	Order no.	UP
	43.6	230	For 3-piece	**03.027.094.1**	1 unit
	43.6	390	For 6-piece	**03.027.095.1**	1 unit



LUF20136

Knürr CoolBlast® Front Panel for airflow via front intake, 1 U

- For use with the front intake air guide
- Can be mounted later on

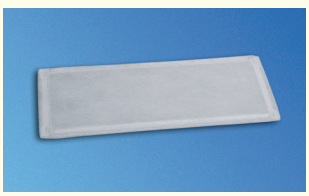
Material
Sheet steel

Finish/color
Powder-coated texture, RAL 7035 light gray, smooth

Supply schedule
1 front panel

How supplied
In units

W	H	D	Model	Order no.	UP
	43.6			**03.027.097.1**	1 unit



LUF20135

Knürr CoolBlast® Filter for front intake

- For use with the front intake air guide
- Can be mounted later on and filter can be swapped out during running operation

Filter class
G2

Material
Viledon K15/150

Supply schedule
1 filter

How supplied
In units

W	H	D	Model	Order no.	UP
400	160		For 3-piece	**03.027.098.1**	1 unit
400	320		For 6-piece	**03.027.099.1**	1 unit

LUF00205

19" Filter Unit, 1 U

- Suitable for use with the CoolBlast® fan unit
- Adjusted to the respective chassis depth

Material
Housing: Sheet steel
Front panel: ABS (UL94 V-0)
Handle: Extruded aluminum
Filter: Viledon P 15/150

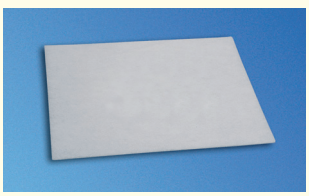
Filter class
G2

Finish/color
Housing: Powder-coated texture
- RAL 9011 black
Front panel: RAL 7035
- Light gray
Handle: Powder-coated texture
- RAL 5008 gray-blue

Supply schedule
1 filter unit
1 filter

How supplied
In units

W	H	D	kg	W n	Model	Order no.	UP
	43.6	282	2.0			**03.025.250.1**	1 unit
	43.6	660	4.0			**03.025.253.1**	1 unit



LUF00280

Replacement Filter

- For 19" filter insert

Material
Filter: Viledon P 15/150

Filter class
G2

Supply schedule
1 filter

How supplied
In units

W	H	D	kg	W n	Model	Order no.	UP
		282				**03.025.246.9**	1 unit
		660				**03.025.249.9**	1 unit

Dimensions in mm: W = Width, H = Height, D = Depth, h = installation height, d = useful depth, L = length, U = standard height unit 1 U = 44.45 mm, UP = unit of packaging, kg = weight, = Express item

Conversion: 1 mm = 0.03937 inch, 1 kg = 2.2046 pound

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

n = Number of fans
P = Power consumption (W)
V̇ = Air volume flow (m3/h)
ΔV̇ = Airflow volume loss (%) raised cover)

ΔP = Pressure increase (Pi)
I nom = Nom. current (A)
I max = Max. residual current (A)
V = Voltage (400V = 3-phase)
p = Sound pressure (dB(A)) in 1 m from the rack (600 mm x 600 mm;

Axial single fan technical data

	Knürr CoolBlast®	Knürr CoolBlast®
ID number	**01.914.070.9**	**01.914.075.9**
Dim: L x W x H119 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
Voltage	24 VDC	24 VDC
Frequency		
Power consumption	7.4 W	11 W
Noise, free blowing	43 dB(A)	59 dB(A)
Bearing system	Ball bearing	Ball bearing
Nominal speed	2950 min-1	4400 min-1
Permis. ambient temp.	-10 °C to +70 °C	-30 °C to +55 °C
Service life L10 at 40°C	75,000 h	70,000 h
Approvals	CE, VDE	CE, VDE
Use in fan unit:	03.027.021.1	03.027.024.1
	03.027.022.1	03.027.025.1
	03.027.051.1	03.027.054.1
	03.027.052.1	03.027.055.1
	03.027.321.1	03.027.324.1
	03.027.322.1	03.027.325.1

	Knürr CoolBlast®	Knürr CoolBlast®	Knürr CoolBlast®
ID number	**01.914.050.9**	**01.914.051.9**	**01.914.051.9-2**
Dim: L x W x H	119 x 119 x 38	119 x 119 x 38	119 x 119 x 38
Max. volume flow, free blowing	192 m3/h	165 m3/h	120 m3/h
Voltage	115 VAC	230 VAC	230 VAC
Frequency	50 Hz	50 Hz	50 Hz
Power consumption	14.5 W	15 W	7.5 W
Noise, free blowing	41 dB(A)	38 dB(A)	32 dB(A)
Bearing system	Ball bearing	Ball bearing	Ball bearing
Nominal speed	2900 min-1	2600 min-1	2100 min-1
Permis. ambient temp.	-40 °C to +60 °C	-40 °C to +60 °C	-40 °C to +70 °C
Service life L10 at 40°C	43,500 h	43,500 h	43,500 h
Approvals	CE, VDE	CE, VDE	CE, VDE
Use in fan unit:	03.027.004.1	03.027.001.1	02.111.181.9
	03.027.005.1	03.027.002.1	05.010.307.1
	03.027.014.1	03.027.011.1	
	03.027.015.1	03.027.012.1	
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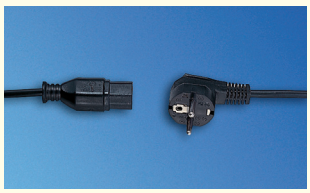
		03.027.302.1	
		03.027.310.1	
		03.027.311.1	
		03.027.312.1	
		02.111.180.9	
		05.010.306.1	
		01.113.430.0	
		01.113.431.0	
		01.243.428.1	
		03.028.110.8	



DOS00076

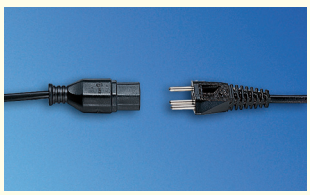
Euro Mains Cable for DIN 49 440 and French/Belgian standard

- Mains plug CEE/VII - Euro socket IEC 320
- Cable: H05VV-F 3G 1 mm²

Mains voltage
250 VAC

Nominal current
10 A

L	S	n	F1	F2 19"	Safe	Model	Order no.	UP
2000							**04.000.054.9**	1 unit
5000							**04.000.050.9**	1 unit



DOS00077

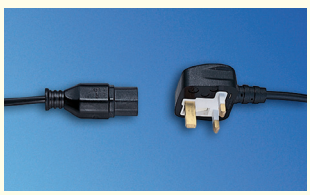
Euro Mains Cable for Swiss standard

- Mains plug: Type 12 - Euro socket IEC 320
- Cable: H05VV-F 3G 1 mm²

Mains voltage
250 VAC

Nominal current
10 A

L	S	n	F1	F2 19"	Safe	Model	Order no.	UP
2000							**04.000.055.9**	1 unit



DOS00078

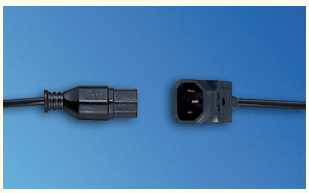
Euro Mains Cable for British standard

- Mains plug: Type BS 1363 - Euro socket IEC 320
- Cable: HO5VV-F 3G 1 mm2

Mains voltage
250 VAC

Nominal current
10 A

L	S	n	F1	F2 19"	Safe	Model	Order no.	UP
2000							**04.000.056.9**	1 unit



DOS00519

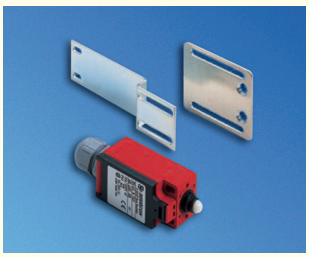
Euro Connection Cable

- Mains plug: IEC 320 - Euro socket IEC 320
- Cable: HO5VV-F 3G 1 mm2

Mains voltage
250 VAC

Nominal current
10 A

L	S	n	F1	F2 19"	Safe	Model	Order no.	UP
900							**04.000.051.9**	1 unit



ELM00137

Door Contact Switch

- On/off switch, 4 A, 230 V ~
- Activation with door opening and closing

Supply schedule
1 door contact switch (not wired)
1 mounting brackets
Mounting material

W	H	S	U	h	d	kg	Model	Order no.	UP
								01.110.722.9	1 unit

LUF20057

Filter Fan

- For specific use with hot spots
- Also suitable for later mounting, quick and easy
- The filter mats provide high filtering-out properties, are easily exchanged and can be cleaned
- The fans do not require maintenance and their value is especially emphasized by their long lifespan and low noise factor
- Airflow: Blowing in the rack (pre-setting)
- Can be used as blowing-out or sucking-in

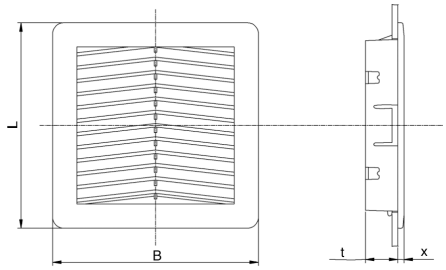
Material
Heat-resistant ABS plastic, UL 94 V-0

Color
RAL 7035 light gray

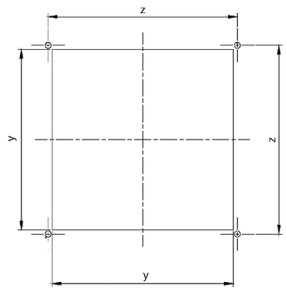
Approvals
CE Symbol

Protection rating
IP 54

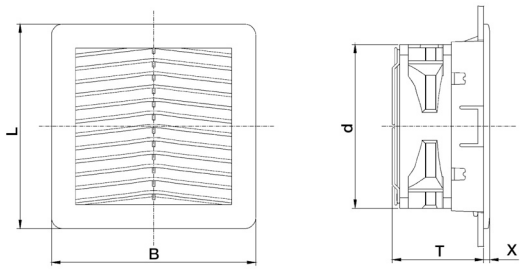
LUF20058



LUF80011



LUF80012



LUF800040

LxW	D/t/x	y/z	kg	Max. AF	El. conn.	P	N	N	Life/40°	Model	Order no.	UP
150x150	71/120/5	125/131	0.812	57 m³/h	230V / 50/60Hz	20 W	43 dB(A)	2650/min	40,000 h	Filter fan	**03.026.501.1**	1 unit
150x150	90/120/5.7	177/185	1	90 m³/h	230V / 50/60Hz	20 W	43 dB(A)	2650/min	40,000 h	Filter fan	**03.026.502.1**	1 unit
150x150	113/172/6	223/230	1.690	240m³/h	230V / 50/60Hz	29 W	50 dB(A)	2800/min	40,000 h	Filter fan	**03.026.503.1**	1 unit
150x150	125/208/7	291/302	3.620	520m³/h	230V / 50/60Hz	67 W	63 dB(A)	2770/min	50,000 h	Filter fan	**03.026.504.1**	1 unit
150x150	24/5	125/131	0.140							Exit filter	**03.026.511.1**	1 unit
204x204	20.5/5.7	177/185	0.275							Exit filter	**03.026.512.1**	1 unit
250x250	25/6	233/230	0.440							Exit filter	**03.026.513.1**	1 unit
325x325	26/7	291/302	0.780							Exit filter	**03.026.514.1**	1 unit
150x150										Replacement filter mat	**03.026.521.9**	6 units
204x204										Replacement filter mat	**03.026.522.9**	6 units
250x250										Replacement filter mat	**03.026.523.9**	6 units
325x325										Replacement filter mat	**03.026.524.9**	6 units

Dimensions in mm: W = Width, H = Height, D = Depth, h = installation height, d = useful depth, L = length
U = standard height unit, 1 U = 44.45 mm
UP = unit of packaging
kg = weight
= Express item

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

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

n = Number of fans
W = Power consumption (W)
m³/h = Air volume flow
P1 = Pressure increase
I nom = Nominal current (A)
I max = Residual current (A)
P = Power consumption (W)
V = Voltage (400V = 3-phase)

LUF00237a

Temperature Module

- For monitoring the inside temperature of the rack
- Temperature display (+ 10°C... + 70°C)
- Setting the alarm temperature via frontal potentiometer
- Optical alarm display (LED red)
- Alarm signaling via floating switching contact (1 changeover contact 250 VAC / 8 A)
- Power supply 230 V / 50Hz

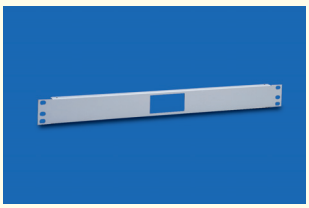
Material
Plastic

Approvals
CE Symbol in acc. with Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC

Supply schedule
1 temperature module
1 temperature sensor (3 m)

How supplied
Assembled, wired and tested

W	H	D	LxW	kg	W	n	Model	Order no.	UP
								01.117.525.1	1 unit



LUF00256

19" Front Panel 1 U for Temperature Module

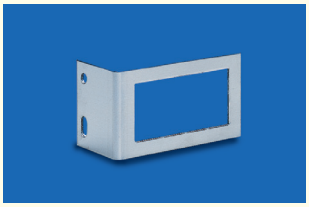
- For installing the temperature module

Material/finish
Sheet steel 1.5 mm, powder-coated

Color
RAL 7035 light gray

Supply schedule
1 19" front panel

W	H	D	LxW	kg	W	n	Model	Order no.	UP
								01.117.526.1	1 unit



LUF00255

Bracket for Temperature Module

- For non-standard installation of temperature module, e.g. laterally on the 19" extrusion

Material/finish
Aluminum, 2 mm, polished

Supply schedule
1 bracket
Mounting material

How supplied
Flat-packed kit

W	H	D	LxW	kg	W	n	Model	Order no.	UP
								01.117.527.0	1 unit

LUF20000

Thermostat

- For controlling the inside temperature of the rack in conjunction with fan units and heating fans
- Setting range: + 10°C ... + 60°C
- Switching temperature difference (hysteresis) 2K
- Contact type: 1 changeover contact
- Sensor: Thermo-bimetal
- Contact rating: 230 VAC/10 A (heating), 5 A (cooling)
- Interference suppression: in acc. with DIN 55014

Material
Plastic

Protection rating
IP 30

Approvals
CE Symbol in acc. with Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC

Dimensions
74 x 74 x 23 mm

Supply schedule
1 thermostat
1 mounting bracket
Mounting material

W	H	D	LxW	kg	W	n	Model	Order no.	UP
								01.113.384.3	1 unit