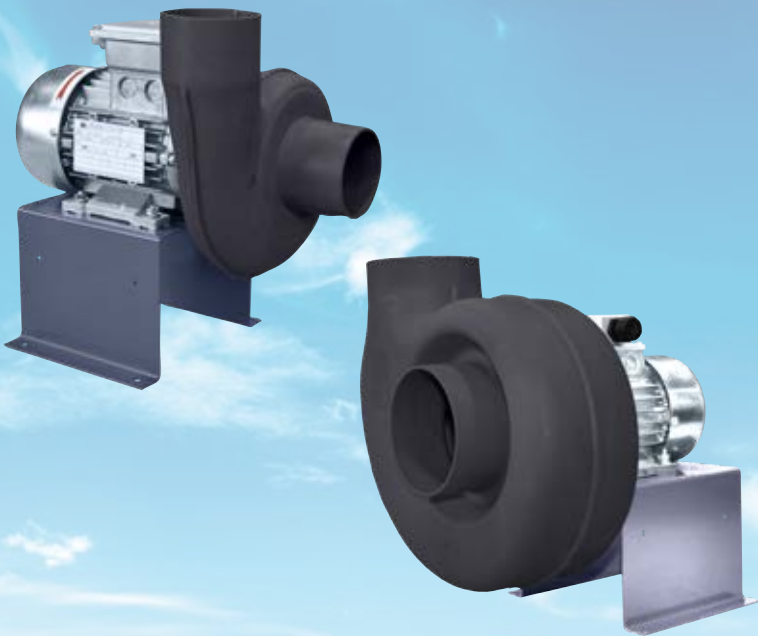


Small centrifugal fans made of plastic



durable
application-optimised
wide range of variants



Index



Small centrifugal fans made of plastic HF R 75-16 D and HF R 110-18 D

Advantages, Design, Application 3

HF R 75-16 D

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HF R 110-18 D

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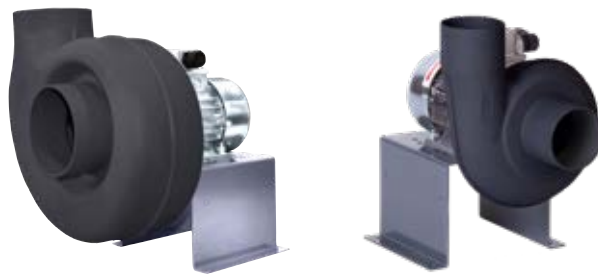
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HF R 75-16 D | HF R 110-18 D



Small centrifugal fans with frame or flange design with three-phase or single-phase motor

Advantages

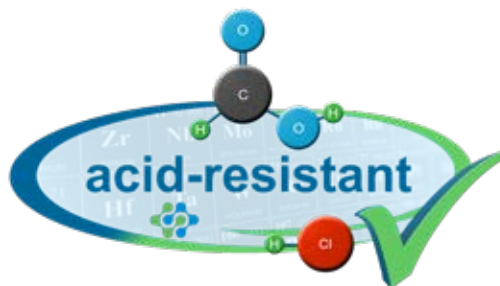
- Corrosion-resistant
- Compact design
- Variants for different installation situations
- Fast availability of standard variants

Application

- Ideal for 24h- exhaust air from chemical storage cabinets
- Handling of exhaust air and corrosive gases
- Handling of explosive atmospheres from Ex zones 2 and 1

Design

- Impeller and Housing made of PPs-el as standard
- Impeller and housing made of corrosion-resistant plastics
- Motor outside the airflow
- Standard with shaft seal
- Use of different explosion-proof motors possible



HF - Small centrifugal fans
HF R 75-16 D

Specification

HF - radial fan direct driven

Corrosion- resistant plastic radial fan, single inlet, housing in electrically conductive and flame retarding PPs-el, injection- moulded and tight welded version, with sealing and grease-barrier on the shaft passage. Impeller in electrical- conductive PPs-el with vanes mounted on the back of the impeller for relief on shaft passage. All parts exposed to exhaust air are made of plastic or encapsulated by plastic. Motor encapsulated against the medium, with overload protection over the entire power range. Fan frame made of powder- coated steel sheet for mounting on horizontal ground.

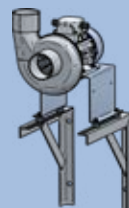
| | | |
|---------------------------------|---|-----------------------|
| Manufacturer | : Hürner Luft- und Umwelttechnik | |
| Type | : HF R 75-16 D / .. | |
| Housing-material | : PPs-el | |
| Impeller-material | : PPs-el | |
| Housing position | : GL ... | |
| Inlet diameter | : ... | mm |
| Medium | : exhaust air | |
| Volume flow | : ... | m ³ /h |
| Total pressure difference | : ... | Pa |
| Static pressure difference | : ... | Pa |
| Sound pressure level Lp2A (1 m) | : ... | dB(A) |
| SFP | : ... | W/(m ³ /s) |
| Motor power | : ... | kW |
| Voltage | : ... | V |
| Frequency | : 50 | Hz |
| Rated current | : ... | A |
| Enclosure/motor protection | : IP 55 / ... | |

Accessories:

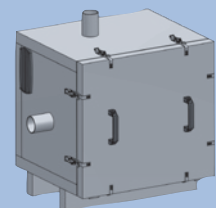

Sleeve
P. 14



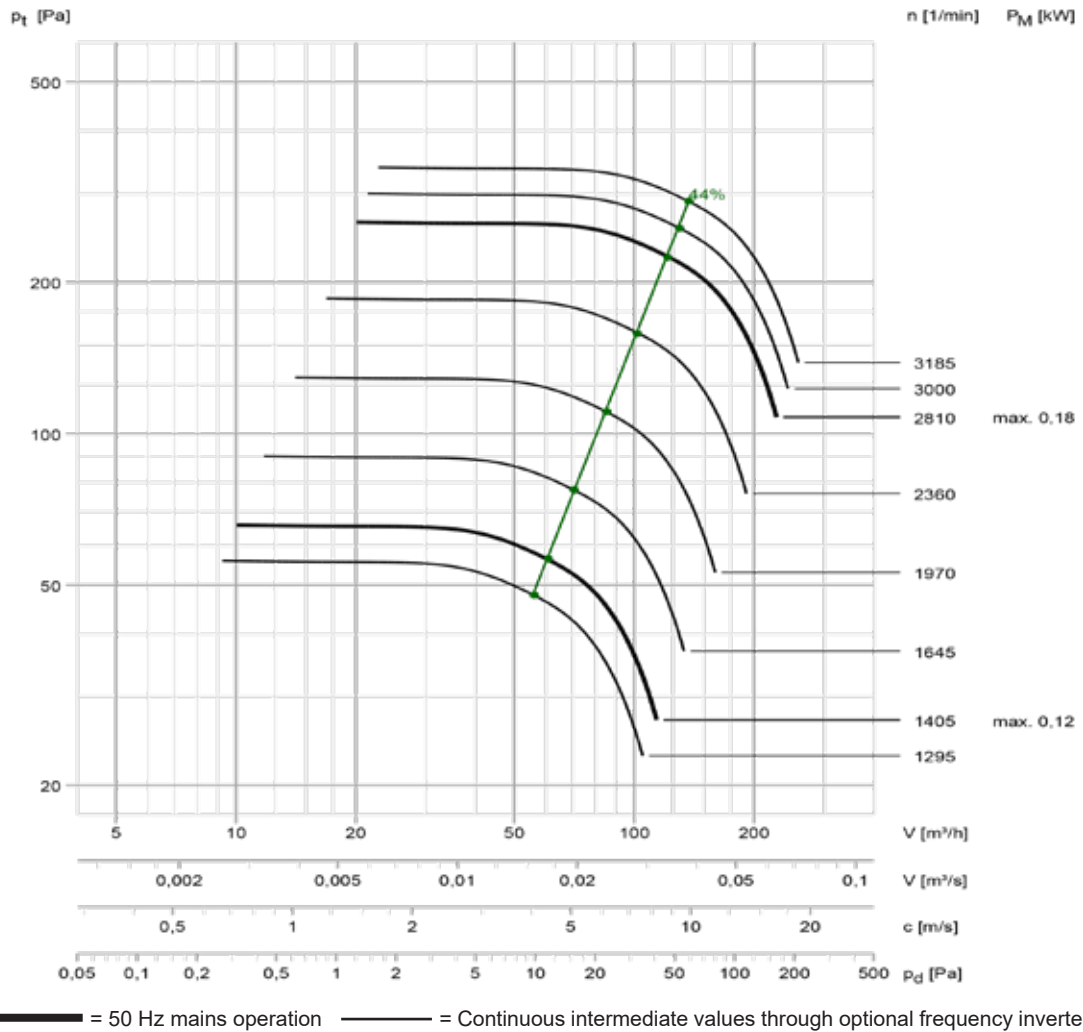
Motor cover
P. 16



Wall bracket
P. 17



Sound enclosure
P. 18



| Acoustic level according to DIN 45635 | | | | | | | | | |
|---------------------------------------|---|-----|-----|-----|------|------|------|------|-----------------------|
| Speed [1/min] | inlet level / outlet level of the duct sound level non-valuated; Lw3 = Lw4 [dB] | | | | | | | | Lp2A (1 m) [dB(A)] |
| | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | |
| 3185 | 69 | 69 | 68 | 76 | 63 | 59 | 54 | 48 | 58 |
| 3000 | 68 | 68 | 67 | 74 | 61 | 57 | 52 | 46 | 57 |
| 2810 | 67 | 67 | 65 | 73 | 60 | 56 | 51 | 45 | 56 |
| 2360 | 64 | 64 | 62 | 70 | 56 | 52 | 46 | 40 | 52 |
| 1970 | 60 | 59 | 67 | 54 | 51 | 46 | 40 | 34 | 45 |
| 1645 | 57 | 55 | 63 | 50 | 46 | 42 | 36 | 29 | 42 |
| 1405 | 54 | 53 | 60 | 47 | 43 | 38 | 32 | 25 | 38 |
| 1295 | 52 | 51 | 59 | 45 | 41 | 36 | 30 | 23 | 37 |

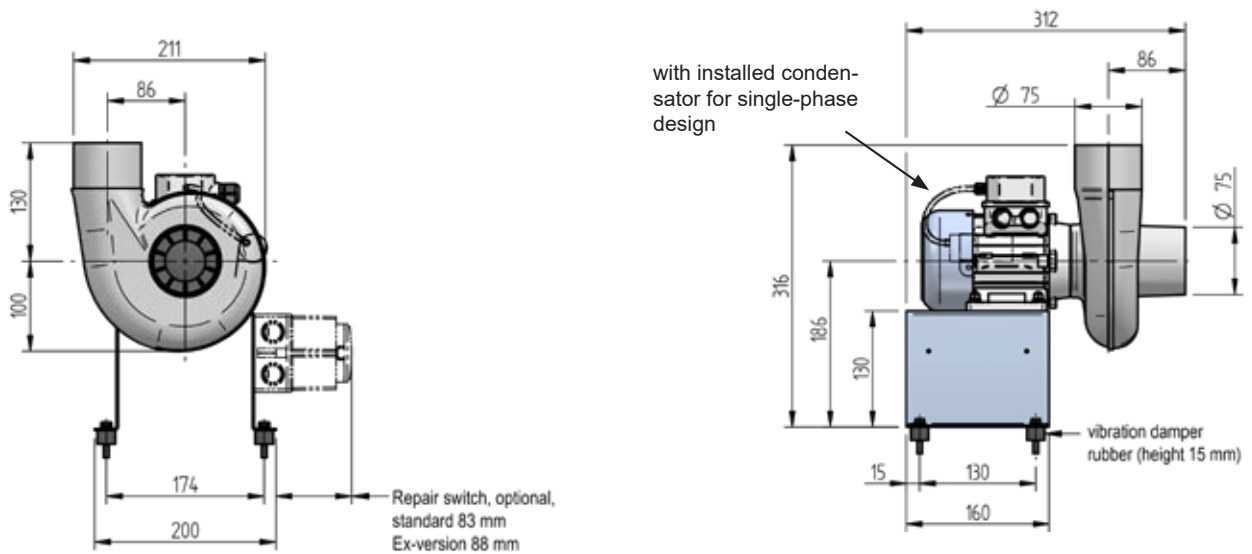

 Protection grid
P. 19

 Repair switch
P. 19

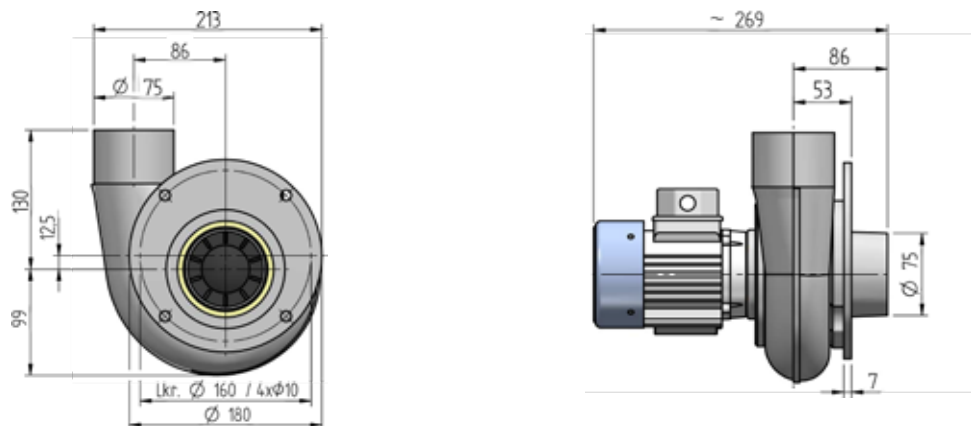
 Fans optionally available
for Ex-Zone!
P. 20

HF R 75-16 D / DS | HF R 75-16 D / WS
 Frame design with three-phase or single-phase motor

| Speed [1/min] | DS-Motor | | WS-Motor | |
|------------------|----------------|-------------|----------------|-------------|
| | Article no. | Motor power | Article no. | Motor power |
| 1500 | 367-010-160501 | 0,09 kW | 367-010-300510 | 0,09 kW |
| 3000 | 367-010-150501 | 0,09 kW | 367-010-300501 | 0,09 kW |


HF R 75-16 D / FL-WS
 Flange design with single-phase motor

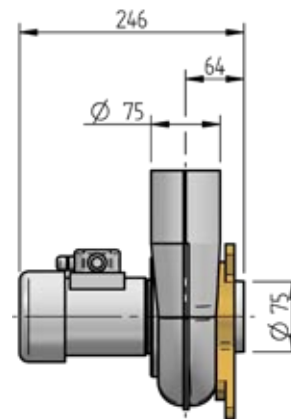
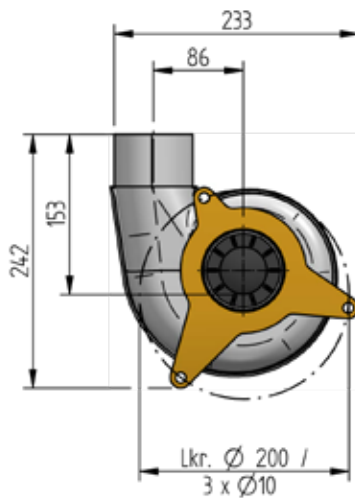
| Speed [1/min] | WS-Motor | |
|------------------|----------------|-------------|
| | Article no. | Motor power |
| 1500 | 367-010-000010 | 0,06 kW |
| 3000 | 367-010-000011 | 0,08 kW |



HF R 75-16 D / WS Special design with asymmetric mounting plate



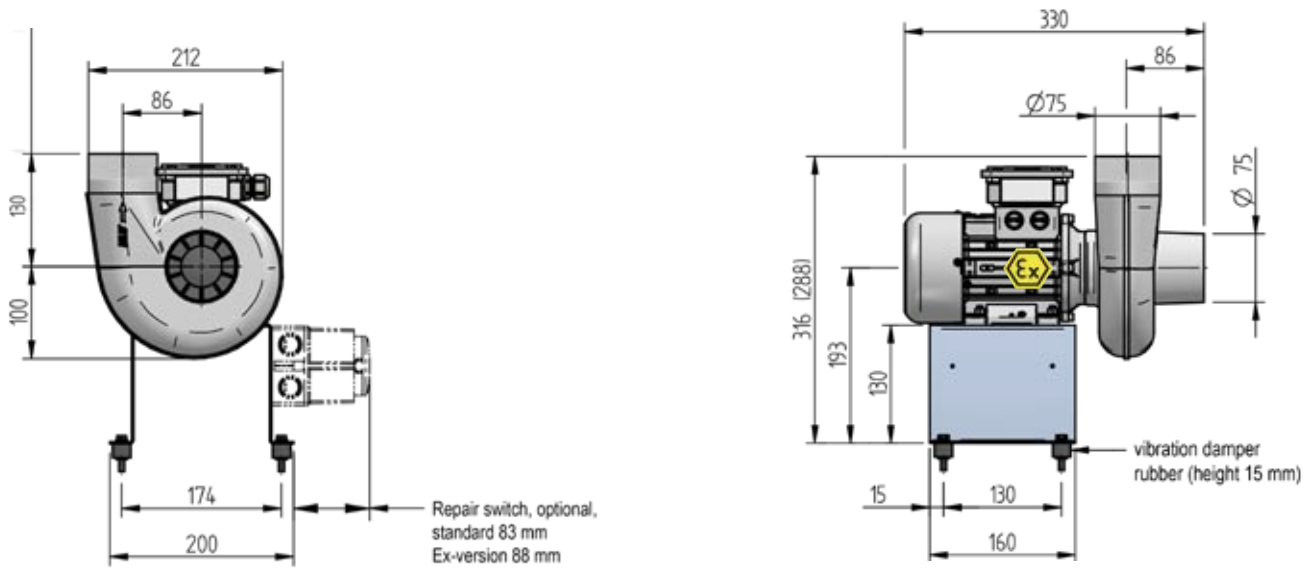
| Speed [1/min] | WS-Motor | |
|------------------|----------------|-------------|
| | Article no. | Motor power |
| 3000 | 301-010-170000 | 0,08 kW |



HF R 75-16 D / DS

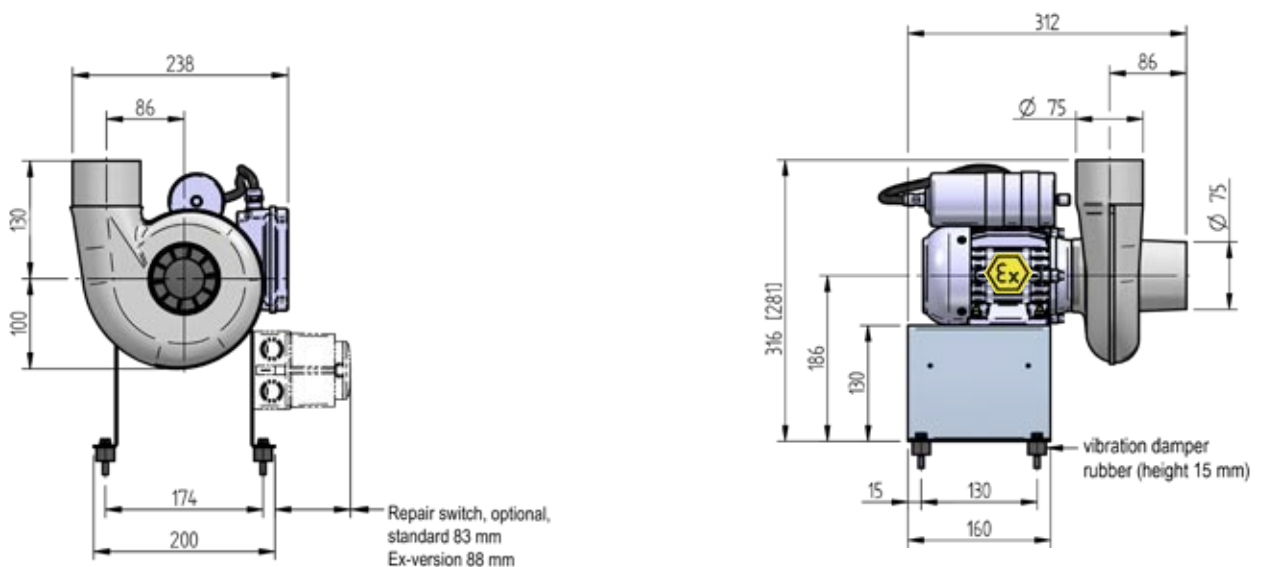
Frame design with three-phase Ex eb motor

| Speed [1/min] | ATEX zone 2 | | ATEX zone 1 | |
|------------------|----------------|-------------|----------------|-------------|
| | DS-Motor | | DS-Motor | |
| | Article no. | Motor power | Article no. | Motor power |
| 1500 | 367-010-020001 | 0,12 kW | 367-370-000001 | 0,12 kW |
| 3000 | 367-010-040001 | 0,18 kW | 367-370-040001 | 0,18 kW |


HF R 75-16 D / WS

Frame design with single-phase Ex eb motor

| Speed [1/min] | ATEX zone 2 | | ATEX zone 1 | |
|------------------|----------------|-------------|----------------|-------------|
| | WS-Motor | | WS-Motor | |
| | Article no. | Motor power | Article no. | Motor power |
| 3000 | 367-010-180000 | 0,12 kW | 367-370-180000 | 0,12 kW |

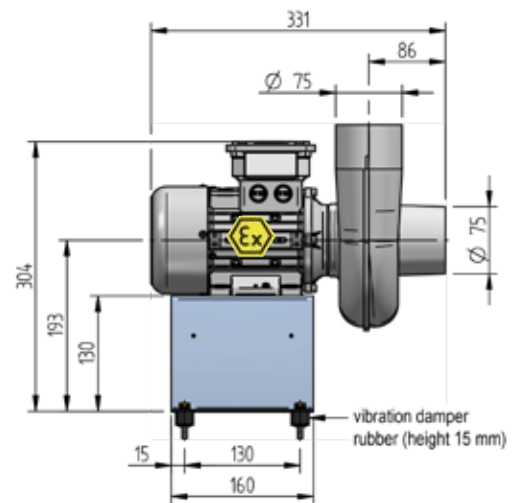
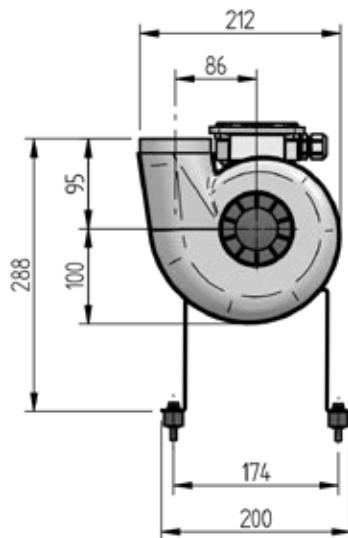


Special design HF R 75-16 D - wenn Vielfalt zum Standard wird

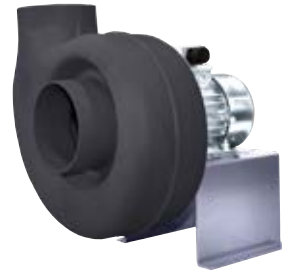
HF R 75-16 D

Frame design with three-phase Ex db eb motor

| Speed [1/min] | DS-Motor | |
|------------------|----------------|-------------|
| | Article no. | Motor power |
| 1500 | 367-370-000100 | 0,12 kW |
| 3000 | 367-370-000101 | 0,18 kW |



Small centrifugal fan
Type series HF R 110-18 D
Frame design with
three-phase or single-phase
motor



Specification

HF - radial fan direct driven

Corrosion- resistant plastic radial fan, single inlet, housing in electrically conductive and flame retarding PPs-el, injection- moulded and tight welded version, with sealing and grease-barrier on the shaft passage. Impeller in electrical- conductive PPs-el with vanes mounted on the back of the impeller for relief on shaft passage. All parts exposed to exhaust air are made of plastic or encapsulated by plastic. Motor encapsulated against the medium, with overload protection over the entire power range. Fan frame made of powder- coated steel sheet for mounting on horizontal ground.

| | | |
|---------------------------------|---|-----------------------|
| Manufacturer | : Hürner Luft- und Umwelttechnik | |
| Type | : HF R 110-18 D / .. | |
| Housing-material | : PPs-el | |
| Impeller-material | : PPs-el | |
| Housing position | : GL 360 | |
| Inlet diameter | : ... | mm |
| Medium | : exhaust air | |
| Volume flow | : ... | m ³ /h |
| Total pressure difference | : ... | Pa |
| Static pressure difference | : ... | Pa |
| Sound pressure level Lp2A (1 m) | : ... | dB(A) |
| SFP | : ... | W/(m ³ /s) |
| Motor power | : ... | kW |
| Voltage | : ... | V |
| Frequency | : 50 | Hz |
| Rated current | : ... | A |
| Enclosure/motor protection | : IP 55 / ... | |

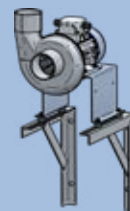
Accessories:



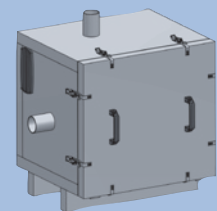
Sleeve
P. 14



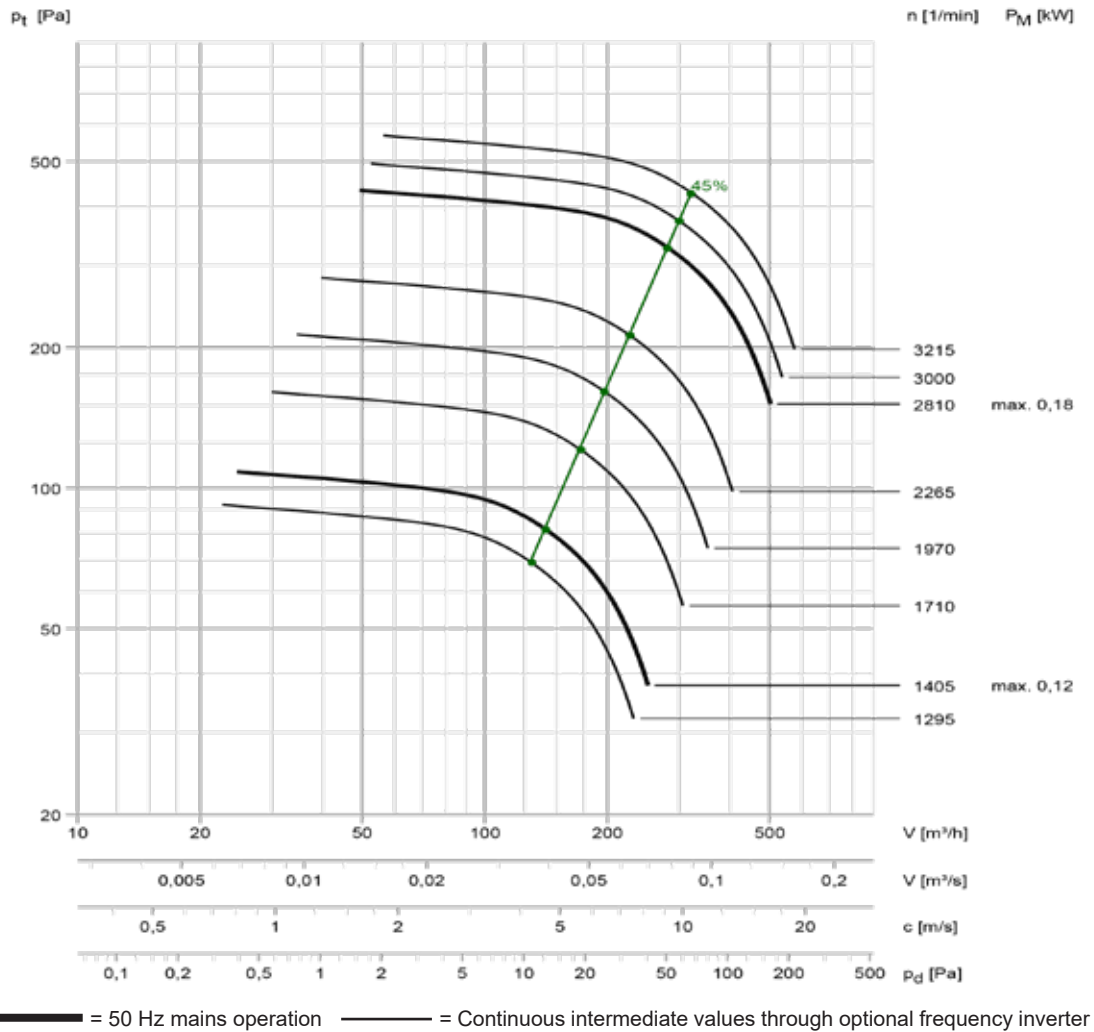
Motor cover
P. 16



Wall bracket
P. 17



Sound enclosure
P. 18



| Acoustic level according to DIN 45635 | | | | | | | | | |
|---------------------------------------|---|-----|-----|-----|------|------|------|------|-----------------------|
| Speed [1/min] | inlet level / outlet level of the duct sound level non-valuated; Lw3 = Lw4 [dB] | | | | | | | | Lp2A (1 m) [dB(A)] |
| | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | |
| 3215 | 77 | 77 | 76 | 84 | 71 | 67 | 62 | 56 | 66 |
| 3000 | 76 | 76 | 74 | 82 | 69 | 65 | 60 | 54 | 64 |
| 2810 | 75 | 75 | 73 | 81 | 68 | 64 | 58 | 53 | 63 |
| 2265 | 70 | 69 | 78 | 65 | 61 | 57 | 52 | 45 | 55 |
| 1970 | 68 | 67 | 75 | 62 | 58 | 54 | 48 | 42 | 53 |
| 1710 | 65 | 64 | 72 | 59 | 55 | 50 | 45 | 38 | 50 |
| 1405 | 62 | 60 | 68 | 55 | 51 | 46 | 40 | 33 | 46 |
| 1295 | 59 | 67 | 55 | 51 | 47 | 42 | 36 | 29 | 40 |

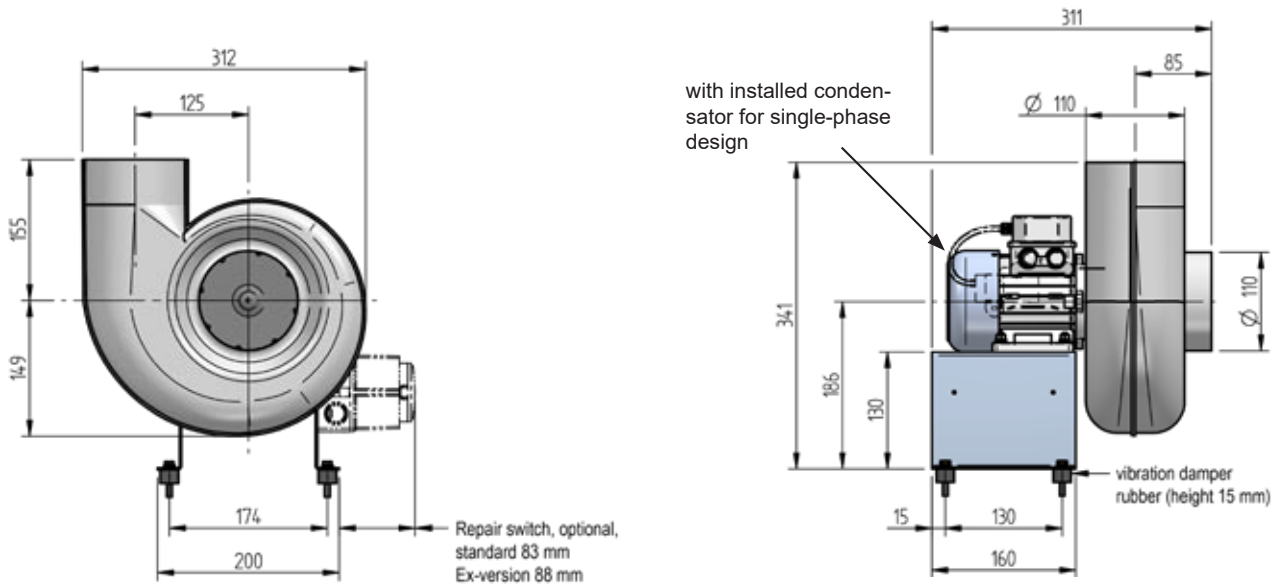

 Protection grid
P. 19

 Repair switch
P. 19

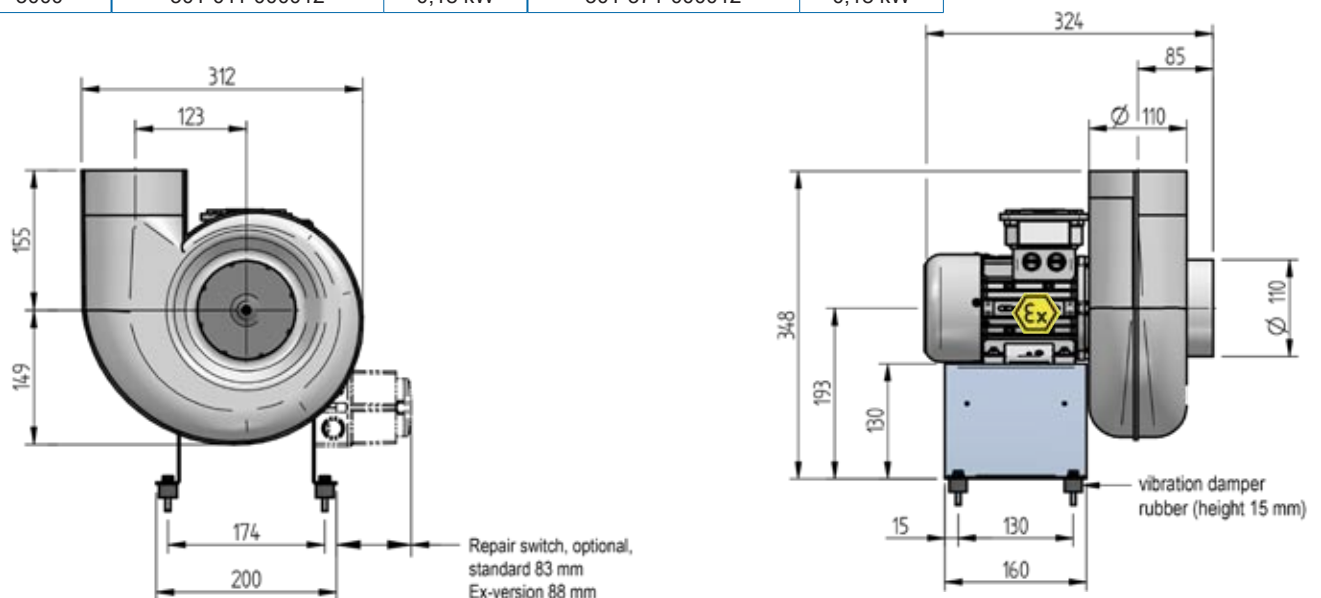
 Fans optionally available
for Ex-Zone!
P. 20

HF R 110-18 D / DS | HF R 110-18 D / WS
 Frame design with three-phase or single-phase motor

| Speed [1/min] | DS-Motor | | WS-Motor | |
|------------------|----------------|-------------|----------------|-------------|
| | Article no. | Motor power | Article no. | Motor power |
| 1500 | 301-011-000016 | 0,09 kW | 301-011-000008 | 0,09 kW |
| 3000 | 301-011-000011 | 0,09 kW | 301-011-000009 | 0,09 kW |


HF R 110-18 D / DS
 Frame design with three-phase Ex eb motor

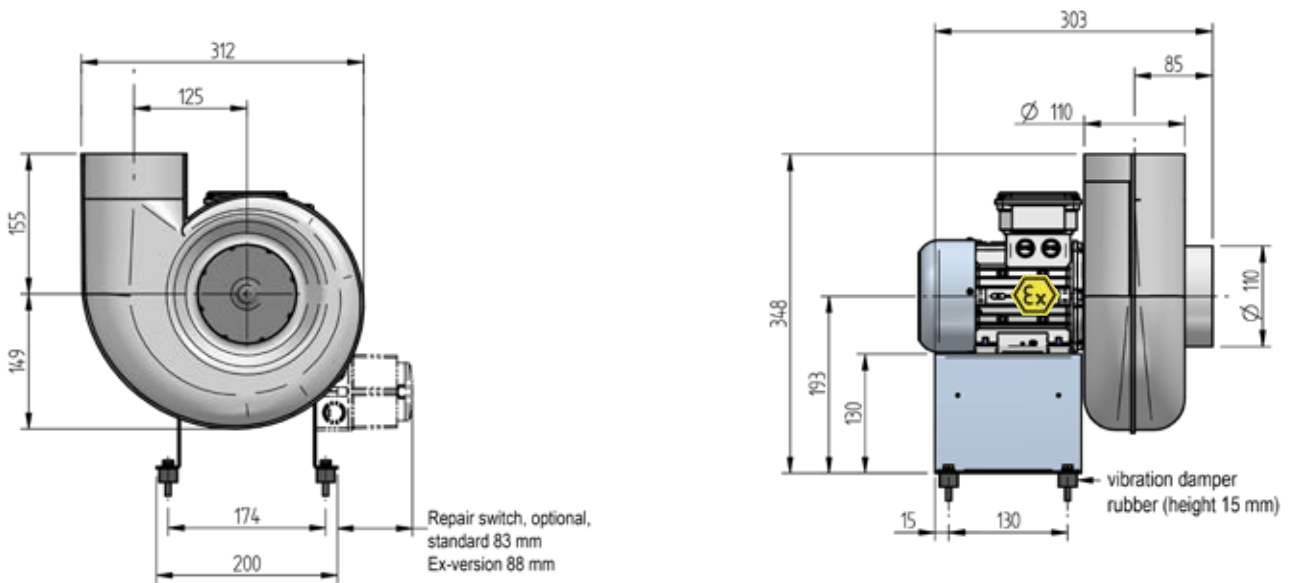
| Speed [1/min] | ATEX zone 2 | | ATEX zone 1 | |
|------------------|----------------|-------------|----------------|-------------|
| | DS-Motor | | DS-Motor | |
| | Article no. | Motor power | Article no. | Motor power |
| 1500 | 301-011-000002 | 0,12 kW | 301-371-000002 | 0,12 kW |
| 3000 | 301-011-000012 | 0,18 kW | 301-371-000012 | 0,18 kW |



HF R 110-18 D

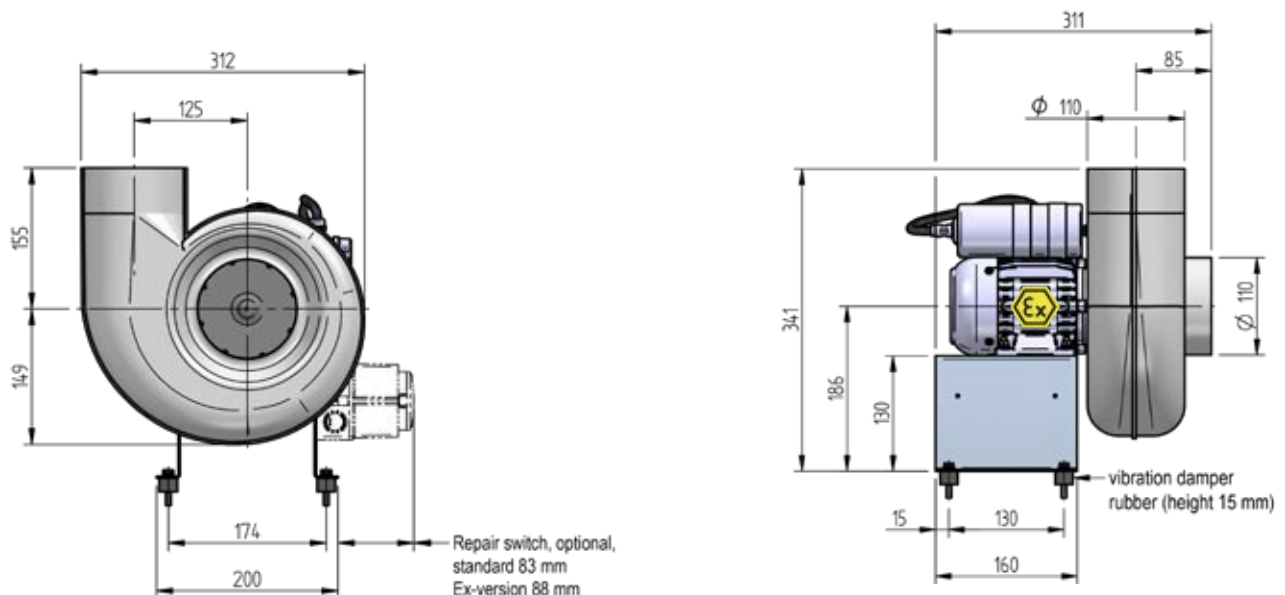
HF R 110-18 D / DS Frame design with three-phase Ex db eb motor

| Speed [1/min] | DS-Motor | |
|------------------|----------------|-------------|
| | Article no. | Motor power |
| 3000 | 301-371-000025 | 0,18 kW |



HF R 110-18 D / WS Frame design with single-phase Ex eb motor

| Speed [1/min] | ATEX zone 2 | | ATEX zone 1 | |
|------------------|----------------|-------------|----------------|-------------|
| | WS-Motor | | WS-Motor | |
| | Article no. | Motor power | Article no. | Motor power |
| 3000 | 301-011-000014 | 0,12 kW | 301-371-000014 | 0,12 kW |



Accessories for
HF - Small centrifugal fans



Vibration dampers

Protect against vibrations



| Size | Rubber |
|------|----------------|
| Ø | Article no. |
| 75 | 441-065-000000 |
| 110 | 441-065-000000 |

Sleeve with VA tightening straps

For easy flexible connection to duct



| Size | PVC-soft | |
|------|----------------|----------------|
| | Inlet side | Outlet side |
| Ø | Article no. | Article no. |
| 75 | 441-063-100012 | 441-064-100012 |
| 110 | 441-063-100013 | 441-064-100013 |

| Size | PVC-el-soft | |
|------|----------------|----------------|
| | Inlet side | Outlet side |
| Ø | Article no. | Article no. |
| 75 | 441-063-200012 | 441-064-200012 |
| 110 | 441-063-200013 | 441-064-200013 |



Accessories for
HF - Small centrifugal fans

Flange connection

Recommended for higher demands on tightness and at higher pressures



| Size | PPs-el | |
|------|----------------|----------------|
| | Inlet side | Outlet side |
| Ø | Article no. | Article no. |
| 75 | 441-060-075001 | 441-061-075001 |
| 110 | 441-061-110001 | 441-061-110004 |

Sleeve with flanges

For flexible connection with higher demands on tightness and at higher pressures



| Size | PVC-oft | |
|------|----------------|----------------|
| | Inlet side | Outlet side |
| Ø | Article no. | Article no. |
| 75 | 441-063-000016 | 441-064-000016 |
| 110 | 441-063-000017 | 441-064-000017 |

Accessories for
HF - Small centrifugal fans

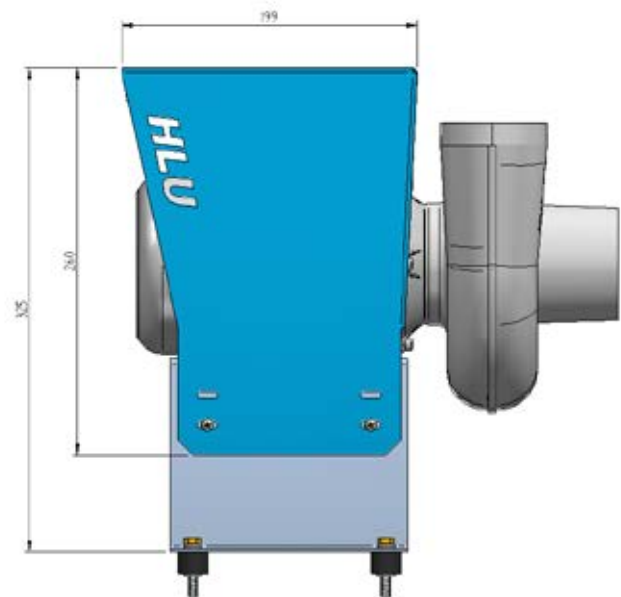
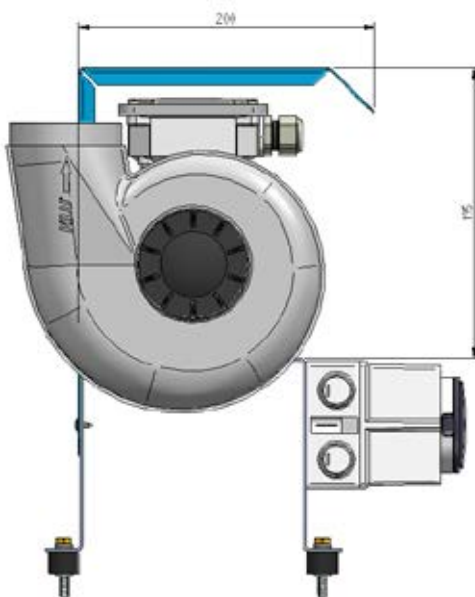


Motor cover

Protects the electric motor from weather influences



| Size | powder coated steel |
|------|---------------------|
| Ø | Article no. |
| 75 | 441-030-110004 |
| 110 | 441-030-110004 |



The dimensions of the wall bracket size Ø 110 are identical.

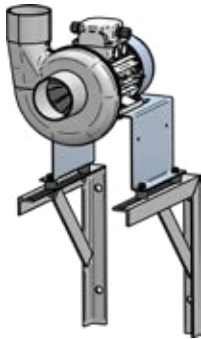
Accessories



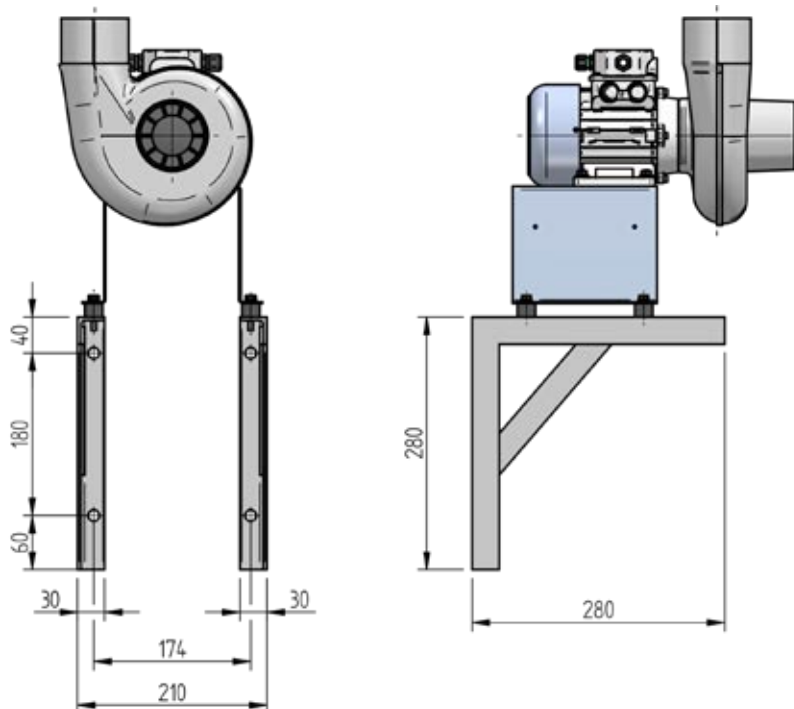
Accessories for
HF - Small centrifugal fans

Wall bracket set

For easy wall mounting



| Size | Steel, galvanized |
|------|-------------------|
| Ø | Article no. |
| 75 | 017-829-101000 |
| 110 | 017-829-101000 |



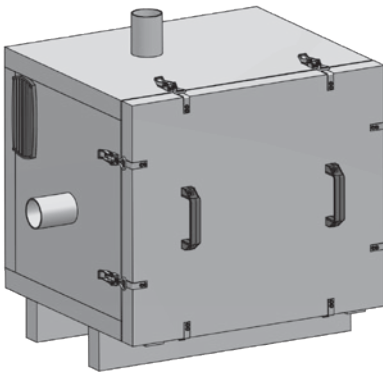
The dimensions of the wall bracket size Ø 110 are identical.

Accessories for HF - Small centrifugal fans

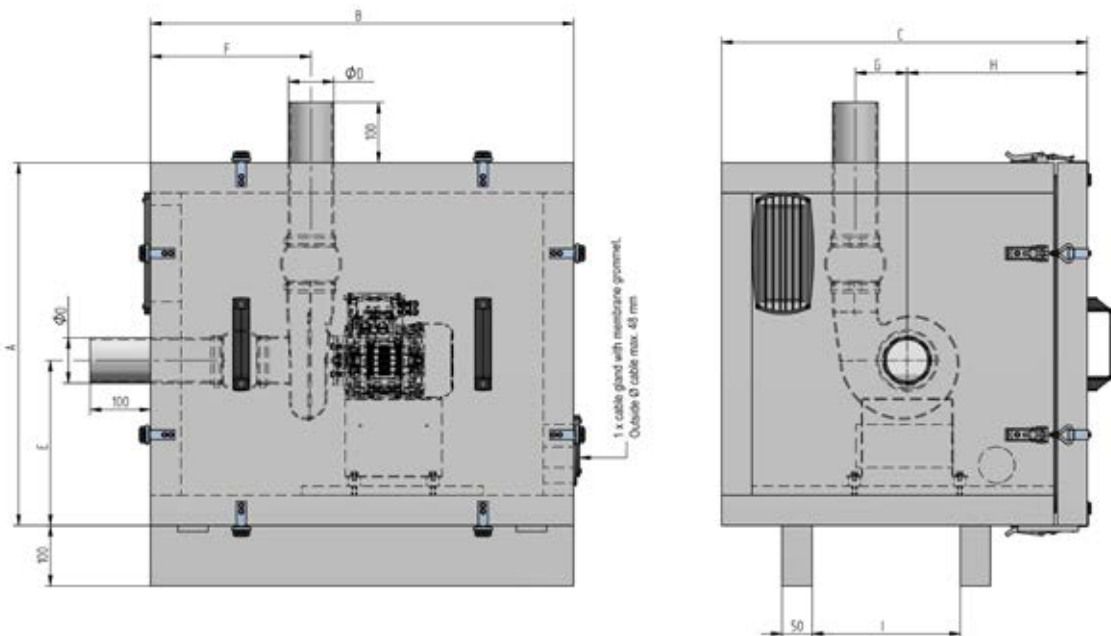


Sound enclosure GL 360°

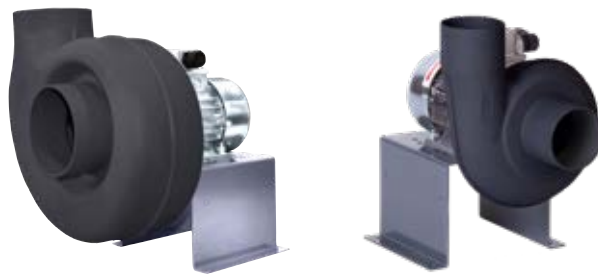
Reduces the sound emission from the fan



| Size | PPs |
|------|----------------|
| Ø | Article no. |
| 75 | 440-013-007504 |
| 110 | 440-013-011003 |



| Size | Dimension [mm] | | | | | | | |
|------|----------------|-----|-----|-----|-----|-----|-----|-----|
| | A | B | C | E | F | G | H | I |
| 75 | 600 | 700 | 605 | 273 | 266 | 86 | 298 | 245 |
| 110 | 600 | 700 | 655 | 273 | 275 | 125 | 310 | 295 |



Accessories for
HF - Small centrifugal fans

Protection grid

Protects against foreign bodies



| Size | Inlet side | Outlet side |
|------|----------------|----------------|
| Ø | Article no. | Article no. |
| 75 | 441-020-075001 | 441-021-075001 |
| 110 | 441-020-110001 | 441-021-110001 |

Repair switch

Protects during maintenance and repair work



| Size | DS-Motor up to 2,2 kW | WS-Motor up to 2,2 kW |
|------|--------------------------|--------------------------|
| Ø | Article no. | Article no. |
| 75 | 441-001-000112 | 441-001-000113 |
| 110 | 444-001-000112 | 441-001-000113 |

| Size | DS-Motor with FU up to 2,2 kW | DS- / WS-Motor up to 2,2 kW Ex |
|------|----------------------------------|-------------------------------------|
| Ø | Article no. | Article no. |
| 75 | 441-002-000113 | 441-001-000212 |
| 110 | 441-002-000113 | 441-001-000212 |



ATEX 2014/34/EU


HLU fans according to ATEX 2014/34/EU

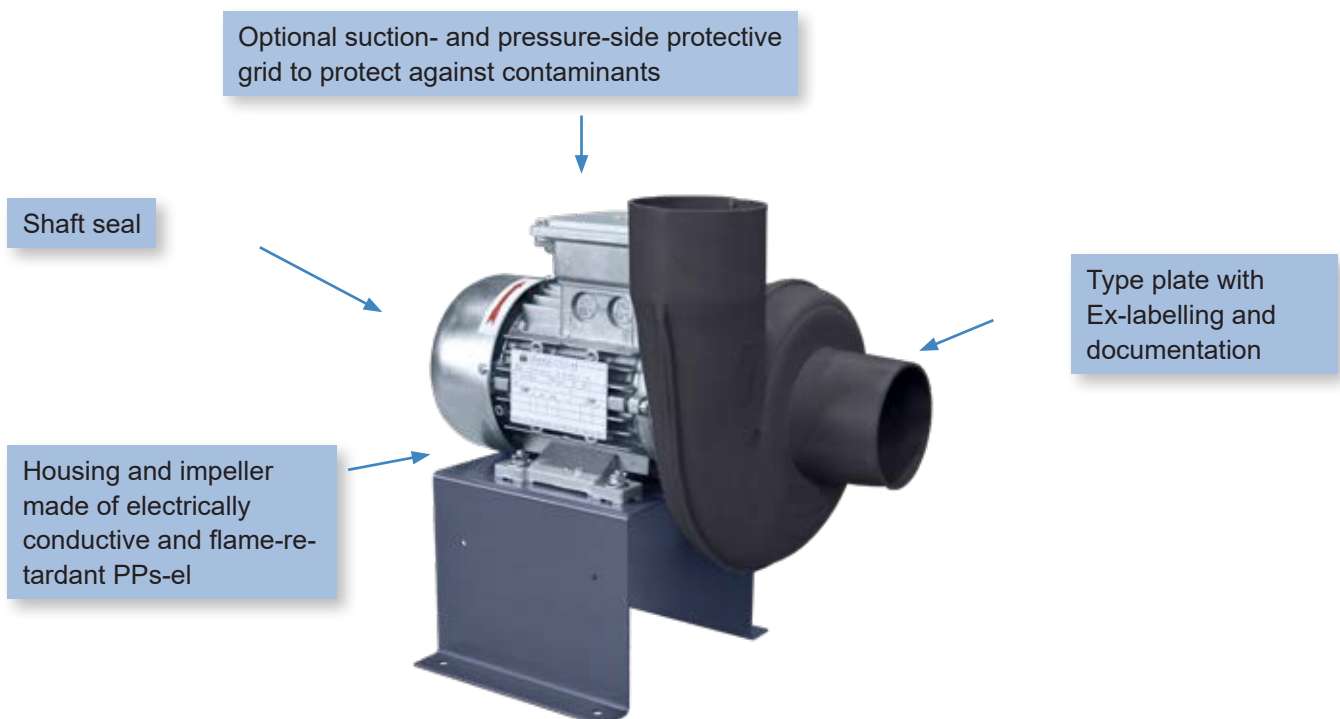
The ATEX Directive 2014/34/EU regulates the requirements with regard to placing products on the market that are used in potentially explosive atmospheres. The term ATEX is derived from the French abbreviation "Atmosphère explosible" and is used as a synonym for the two directives of the

European Community in the area of explosion protection, ATEX Directive 2014/34/EU and ATEX Directive 1999/92/EG. The design of fans in the ATEX area is described in detail in the norms DIN EN 14986 and DIN EN ISO 80079.

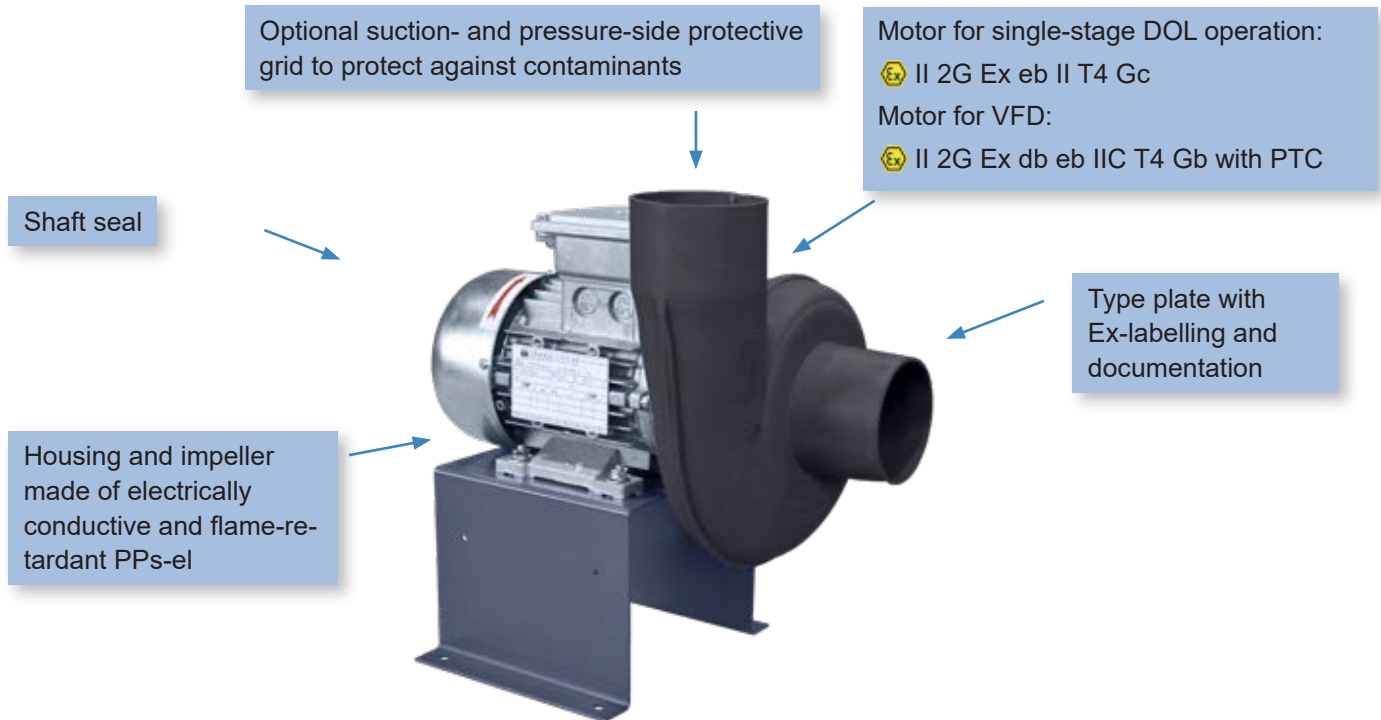
Explosion protection is differentiated according to the conveyed atmosphere (inside) and the surroundings of the installation site (outside).

HLU supplies fans for the ATEX Zones 2 and 1 for different zone combinations.

| inside | outside |
|--------|---------|
| Zone 1 | Zone 1 |
| Zone 1 | Zone 2 |
| Zone 2 | Zone 2 |
| Zone 2 | no Zone |

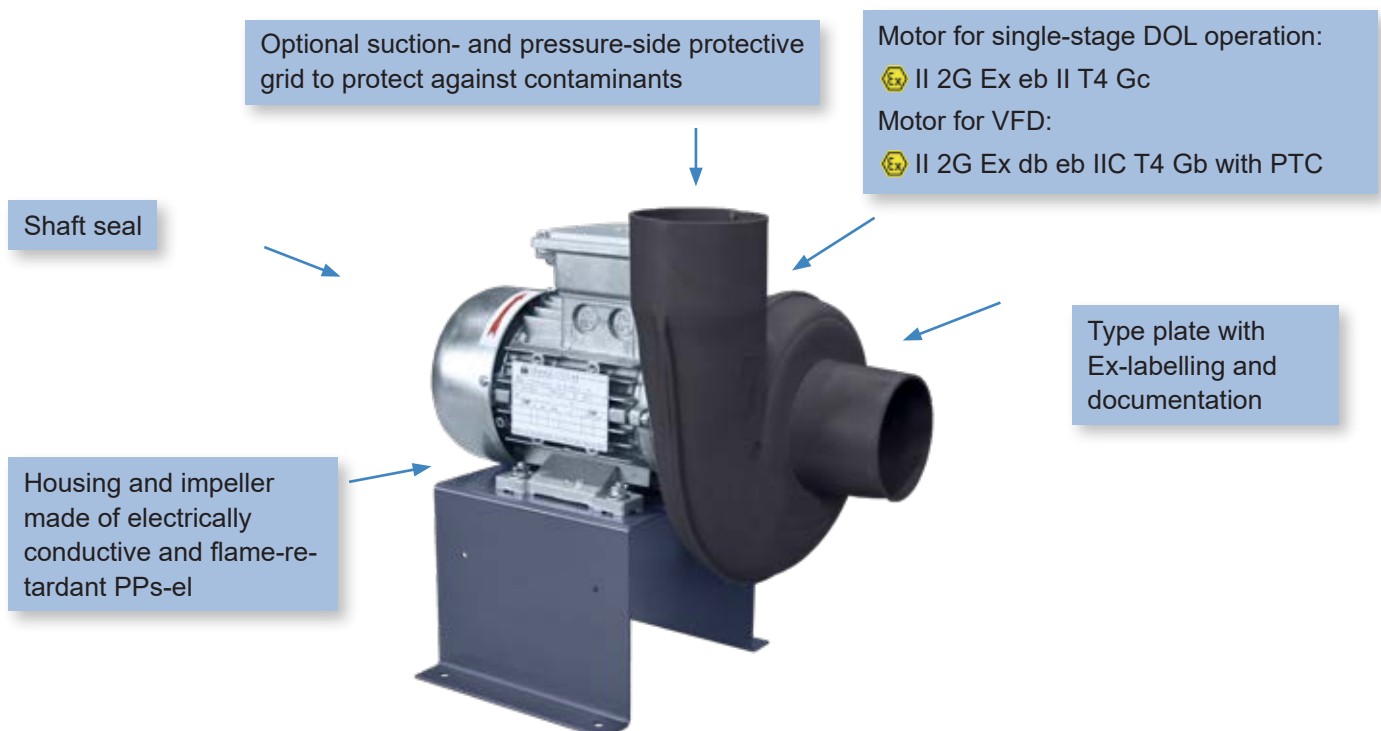
HF - Small centrifugal fan in ATEX version – for Zone 2 inside / no Zone outside:


HF - Small centrifugal fan in ATEX version – for Zone 2 inside / Zone 2 outside:



HF - Small centrifugal fan in ATEX version – for Zone 1 inside / Zone 2 outside: – for Zone 1 inside / Zone 1 outside:

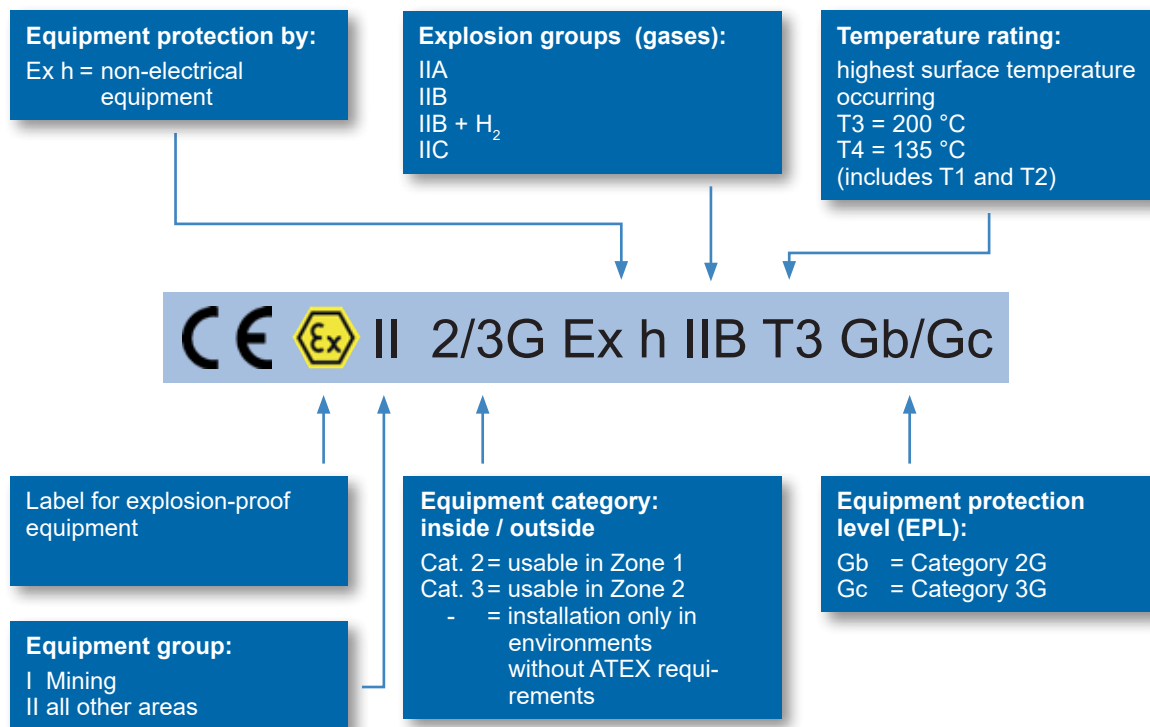
HLU fans for ATEX Zone 1 are made of electrical conductive plastics (el).



ATEX 2014/34/EU



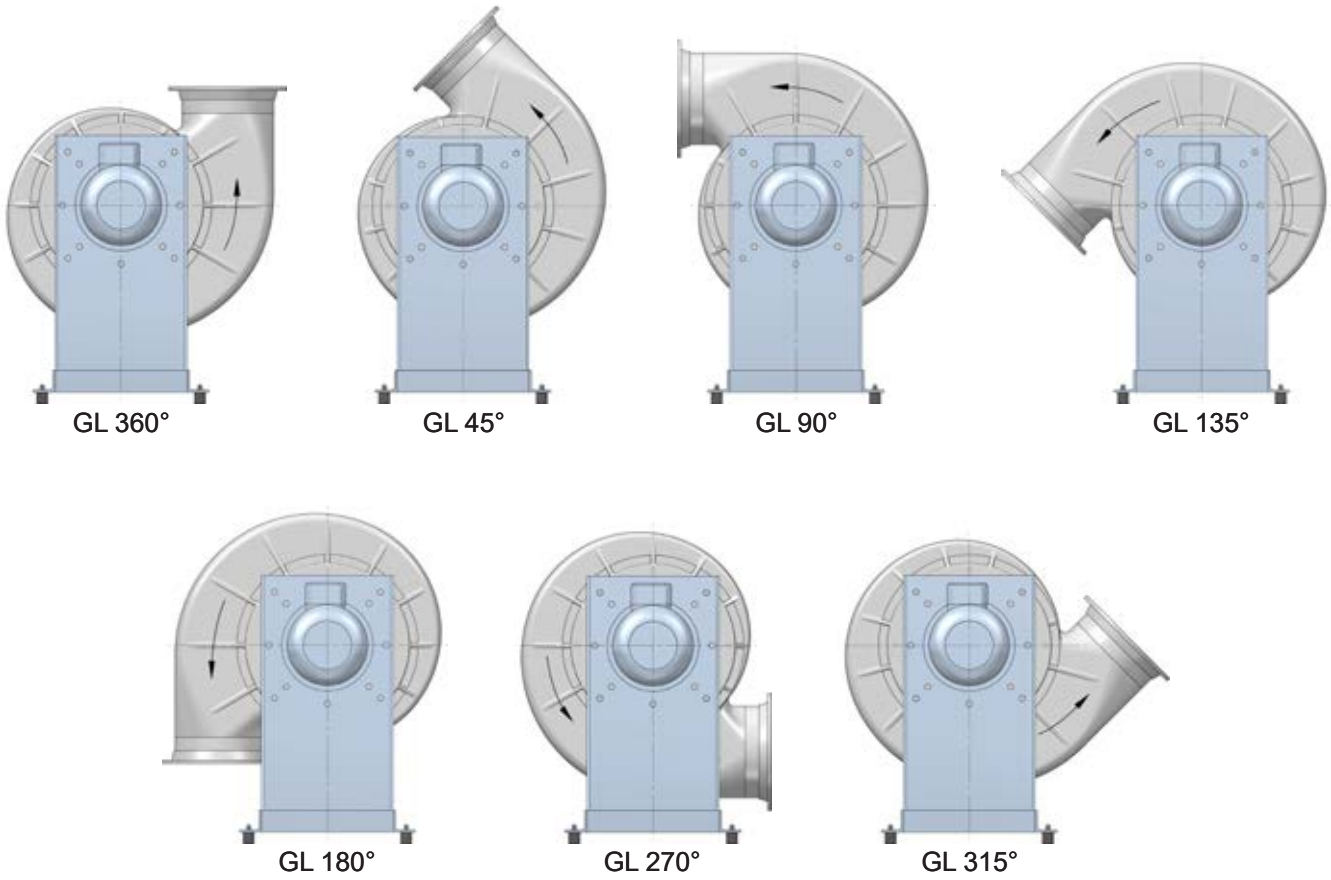
You will see on the fan's type plate a permanent identification of the explosion protection. The following illustration explains the labelling of equipment for potentially explosive atmospheres:



The operator of a facility is obligated to conduct a risk assessment. For questions regarding the Zone classification, you can contact various test centres such as for example safety engineers and special consultants. The following tables serve as reference:

| An explosive gas atmosphere exists ... | ATEX Ex Zone | ATEX Device category | IEC EPL (International) (Equipment Protection Level) |
|--|--------------|----------------------|--|
| for more than 30 min. per year, however, less than 50% of the operational period daily | Zone 1 | Category 2G | Gb |
| for a max. of 30 min. in a year | Zone 2 | Category 3G | Gc |

Housing positions



www.hlu.eu

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