

# AL 1000 D6 02

162652

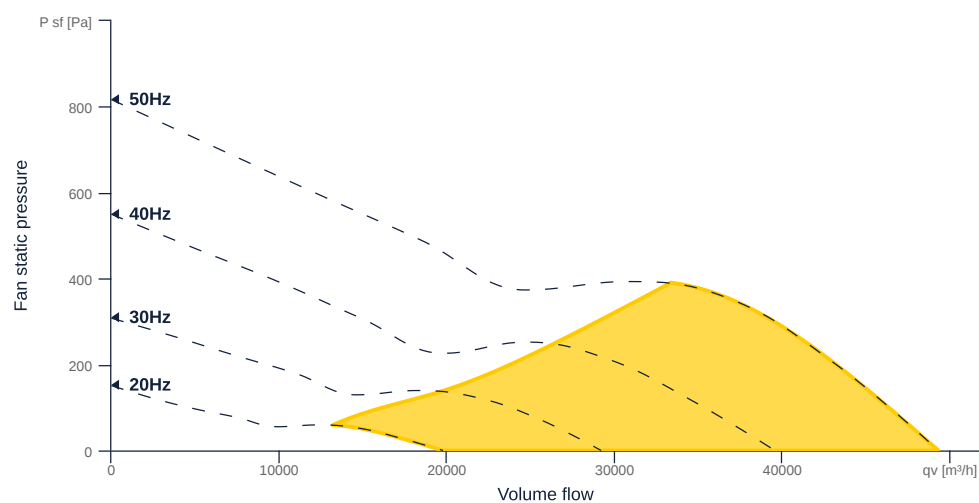
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- Innovative, high-efficiency axial fan
- Optimally tuned, CFD-optimized aerodynamics
- Housing weight optimized, powder coated
- Efficient IE3 motor, frequency controllable
- Conveyed medium temperature up to 60 °C in continuous operation
- Exceeds current ErP regulation by 15 - 20%



## FAN CURVES

| Name        | Value | Unit |
|-------------|-------|------|
| Volume flow | 0     | m³/h |
| Pressure    | 0     | Pa   |



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## GENERAL DATA

| Name                                  | Value    | Unit | Formula symbol      |
|---------------------------------------|----------|------|---------------------|
| Labeling                              | CE, UKCA |      |                     |
| Duct size                             | -        |      | $W \times H_{duct}$ |
| Pipe connection size (DN)             | DN1000   |      | DN                  |
| Rated voltage (entire device)         | 400      | V    | $U_{rated}$         |
| Phases (entire device)                | 3~       |      | phase               |
| Electrical protection (entire device) | 16 A     |      | fuse                |
| Housing material                      | Steel    |      | matcasing           |
| Impeller material                     | Steel    |      | matimpeller         |
| IP-protection class (entire device)   | IPX4     |      | IPcompl             |
| IP-Protection class (terminal box)    | IP66     |      | IPebox              |
| Weight                                | 195      | kg   | m                   |
| Fan type                              | Axial    |      | Fan <sub>type</sub> |
| Category / Installation situation     | B        |      | cat                 |

## MAXIMAL DATA

| Name                            | Value | Unit              | Formula symbol |
|---------------------------------|-------|-------------------|----------------|
| Max. power consumption (device) | 6663  | W                 | $P_{ed, max}$  |
| Max. operating current (device) | 14.4  | A                 | $I_{ed, max}$  |
| Max. speed                      | 980   | 1/min             | $n_{max}$      |
| Max. stat. efficiency           | 52.8  | %                 | $\eta_{es}$    |
| Max. fan efficiency             | 68.1  | %                 | $\eta_e$       |
| Max. flowrate                   | 49290 | m <sup>3</sup> /h | $Q_{v, max}$   |
| Max. stat pressure              | 400   | Pa                | $p_{sf, max}$  |
| Max. medium temperature         | 60    | °C                | $T_{m, max}$   |
| Max. environment temperature    | 60    | °C                | $T_{amb, max}$ |
| Min. environment temperature    | -20   | °C                | $T_{amb, min}$ |



## MOTOR DATA

| Name                        | Value    |                      | Unit  | Formula symbol          |
|-----------------------------|----------|----------------------|-------|-------------------------|
|                             | 50 Hz    | 60 Hz                |       |                         |
| Rated frequency (device)    |          | 50                   |       | f                       |
| Motor type                  |          | AC 3~                |       | phase                   |
| Control type                |          | frequency-controlled |       | ctrltype                |
| Installation type           |          | IRM (In)             |       | install                 |
| Isolation class             |          | ISO F                |       | ISOclass                |
| Protection class            |          | IP55                 |       | IPmotor                 |
| Is pole-changeable          |          | No                   |       | polexch                 |
| Type of power supply        |          | AC 3~                |       | pwrsupmotor             |
| Connection                  | $\Delta$ |                      |       | wiringw1                |
| Connection (wiring 2)       | Y        |                      |       | wiringw2                |
| Rated voltage               | 400      |                      | V     | U <sub>rated, f1</sub>  |
| Rated voltage (wiring 2)    | 690      |                      | V     | U <sub>rated, f2</sub>  |
| Rated current               | 12.5     |                      | A     | I <sub>rated, f1</sub>  |
| Rated current (wiring 2)    | 7.25     |                      | A     | I <sub>rated, f2</sub>  |
| Shaft power                 | 5500     |                      | W     | P <sub>out, f1</sub>    |
| Shaft power (wiring 2)      | 5500     |                      | W     | P <sub>out, f2</sub>    |
| Speed                       | 970      |                      | 1/min | n <sub>f1</sub>         |
| Speed (wiring 2)            | 970      |                      | 1/min | n <sub>f2</sub>         |
| Starting current            | 91.2     |                      | A     | I <sub>start, f1</sub>  |
| Starting current (wiring 2) | 52.9     |                      | A     | I <sub>start, f2</sub>  |
| Efficiency                  | 88       |                      | %     | $\eta_m, f1$            |
| Efficiency (wiring 2)       | 88       |                      | %     | $\eta_m, f2$            |
| Efficiency class            | IE3      |                      |       | IE <sub>motor</sub>     |
| Min. temperature            | -20      |                      | °C    | T <sub>motor, min</sub> |
| Cos Phi                     | 0.720000 | 0.000000             |       | cos $\varphi$           |
| UL-Certification motor      |          | UL recognized        |       | ULcert                  |

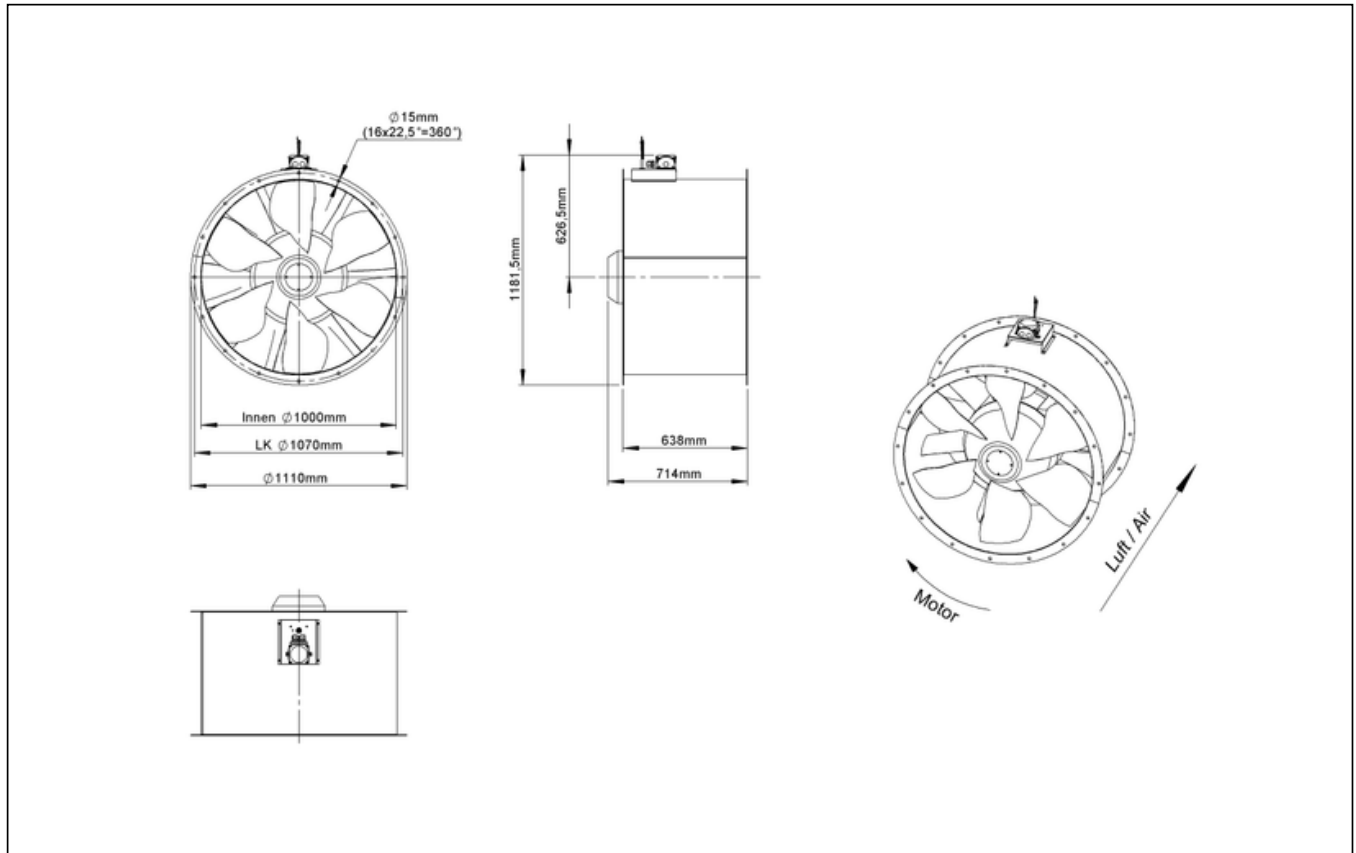
## ERP DATA (LOT11)

| Name                                                      | Value | Unit  | Formula symbol            |
|-----------------------------------------------------------|-------|-------|---------------------------|
| Speed at the energy efficiency optimum                    | 971   | 1/min | n <sub>opt</sub>          |
| Efficiency level                                          | 68.8  | %     | N                         |
| Efficiency category                                       | total |       | cat <sub>efficiency</sub> |
| Input power of the motor at the energy efficiency optimum | 6.64  | kW    | P <sub>e, opt</sub>       |
| Overall efficiency                                        | 69.9  | %     | $\eta_{ges}$              |
| Measurement category                                      | B     |       | meas cat                  |
| Fan pressure at energy efficiency optimum                 | 413   | Pa    | p <sub>f, opt</sub>       |
| Flowrate at energy efficiency optimum                     | 39739 | m³/h  | Q <sub>v, opt</sub>       |



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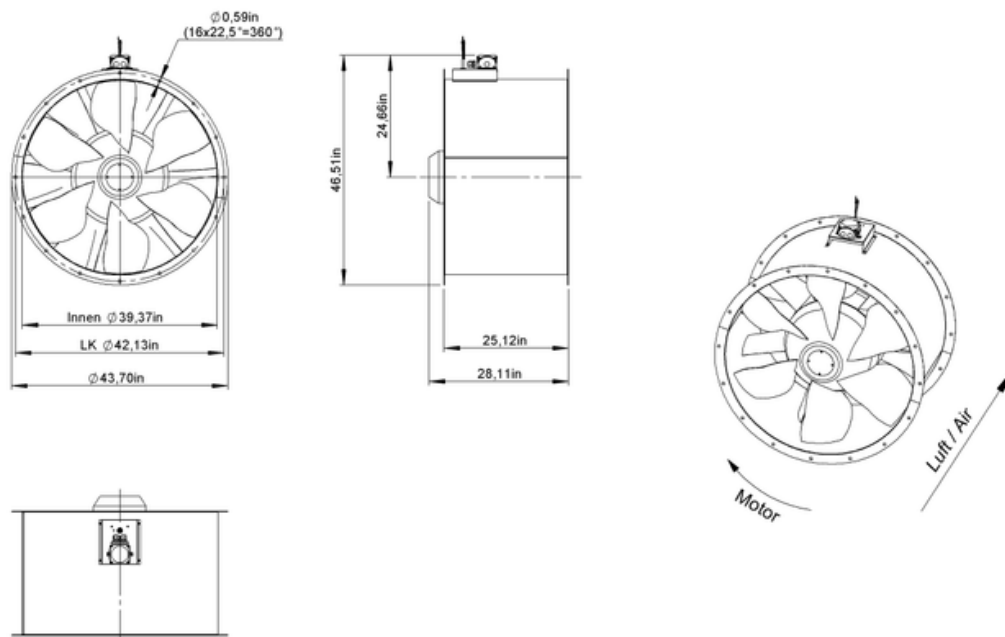
## CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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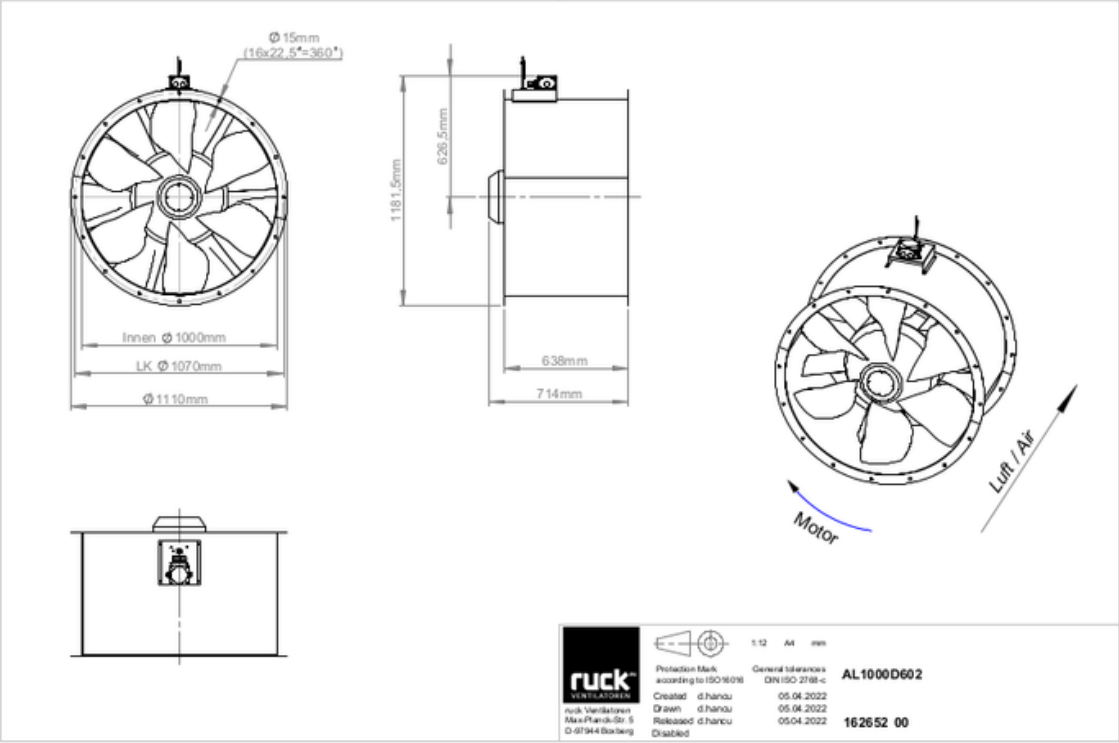
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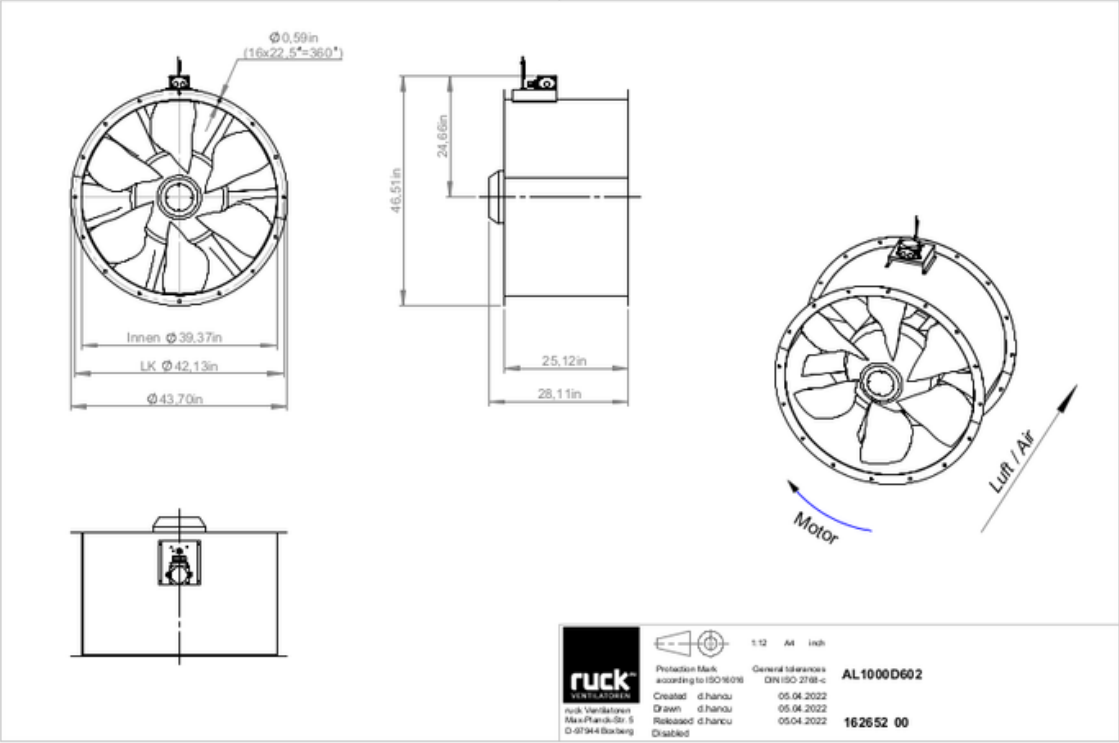
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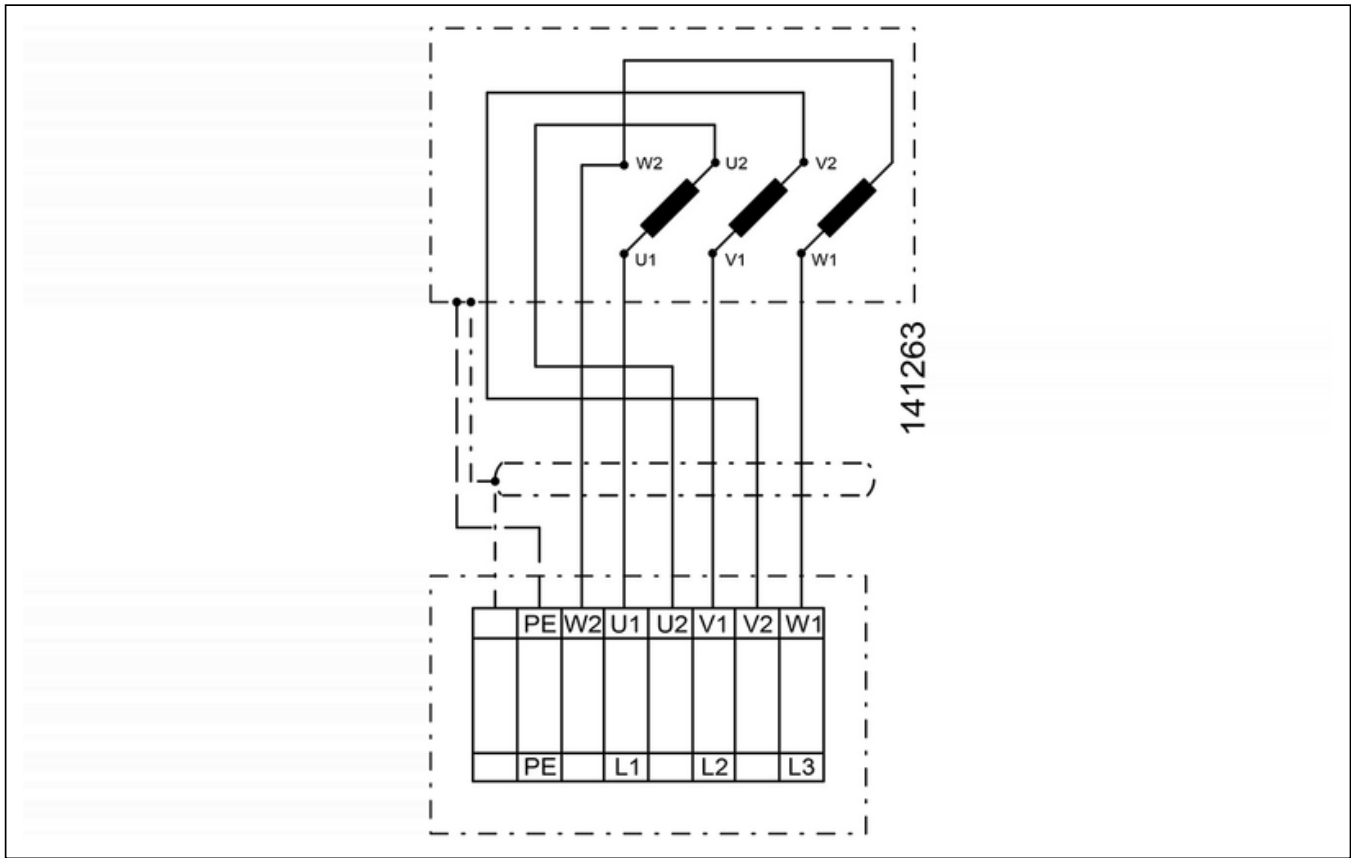
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## MECHANICAL ACCESSORIES

**RVK H 1000 | 159573**



- Automatic tube shutter
- Sheet steel, powder coated
- For horizontal installation
- Flange mounting

**RVS 1000-01 | 157480**



- Tube connection spigot
- Sheet steel, powder coated
- Suitable for outdoor installation
- Flange mounting

**ESD 1000 | 157569**



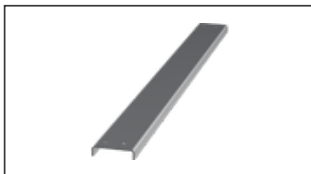
- Inlet cone
- Steel sheet, powder coated
- Flange mounting

**FAL 1000 | 157899**



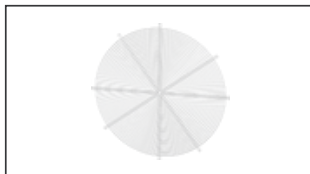
- Mounting foot
- Sheet steel, powder coated
- Flange mounting

**TRA1000 | 162924**



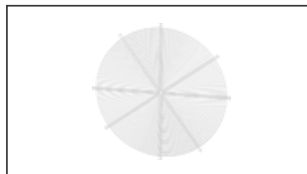
- Crossbeam
- Connection between mounting feet
- Galvanized steel sheet

**SGW 1000 | 159542**



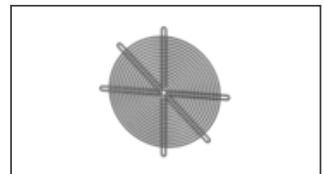
- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

**SGW 1120 | 159543**



- Protection grille, wide meshed
- Steel sheet, galvanized
- Flange mounting

**SGE 1000 | 159518**



- Protection grille, narrow meshed
- Steel sheet, galvanized
- Flange mounting

**FSD 08 | 162473**



- Set of 4 vibration dampers
- Made of natural rubber, hardness 55 Shore A

**RAF 1000 | 157414**



- Round flange
- Sheet steel, powder coated

**RAS 1000 | 157632**



- Round spigot, flexible
- Galvanized steel sheet, plastic band (PES)
- Temperature resistant up to 75 °C
- Flange mounting

**FSD10 | 162484**



- Set of 4 vibration dampers
- All metal design, galvanized

**RVK 1000 | 157766**



- Automatic tube shutter
- Sheet steel, powder coated
- For vertical installation
- Flange mounting

**MR 1000 | 164951**



- Mounting ring
- For vertical mounting
- Powder-coated sheet steel
- Flange mounting DN 1000



## ELECTRICAL ACCESSORIES

**MS 05 | 160183**



- Motor protection switch with device switch function
- For three phase motors
- I<sub>max</sub> = 6.3 A
- Protection class IP 55

**MTP 20 | 128146**



- Potentiometer 10 kΩ
- Switching contact 1A/250V AC - 2,5A/12V DC
- Max. ambient temperature 50 °C
- VDE

**MTP 30 | 143289**



- Stepped potentiometer 10 kΩ
- Step 1 + 2 settable 10 % - 100 % Vdc
- Step 3 100 % Vdc
- Supply voltage +10 Vdc

**SEN AIR | 148641**



- Airflow and temperature transducer
- Measuring range temperature 0...+50 °C
- With adjustable switching threshold (air speed)
- Measuring range air velocity up to 20 m/s

**CON P1000 | 115259**



- Constant pressure control
- Actual value display possible via optional control unit
- Output 0-10 V DC + FC enable + setpoint reached
- Pressure setting by means of decade switch

**FU 55 33 | 161413**



- Frequency converter
- Supply voltage 400 V 3~ 50/60 Hz
- Output voltage 0 - 400 V 3~
- Fire mode function (smoke extract fans)

**FU 55 32 | 161412**



- Frequency converter
- Supply voltage 400 V 3~ 50/60 Hz
- Output voltage 0 - 400 V 3~
- Protection class IP 20, for switch cabinet

