

# EM DUO 315 EC 01

139976

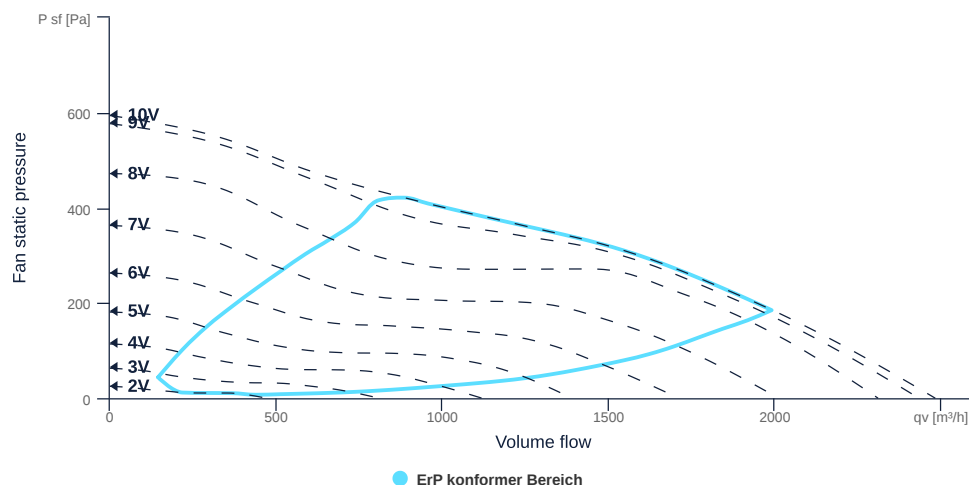
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- Efficient diagonal fan, redundant operation
- Optimally tuned and CFD-optimized aerodynamics
- Soundproof housing made of galvanized sheet steel
- High efficiency EC motor, steplessly controllable
- Built-in ETAMASTER with highest efficiency
- Conveyed medium temperature up to 40 °C in continuous operation



## MAP

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



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## GENERAL DATA

| Name                      | Value | Unit | Formula symbol      |
|---------------------------|-------|------|---------------------|
| ERP conformity            | Yes   |      |                     |
| Duct size                 | -     |      | WxH <sub>duct</sub> |
| Pipe connection size (DN) | DN315 |      | DN                  |



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## GENERAL DATA

| Name                                  | Value            | Unit | Formula symbol      |
|---------------------------------------|------------------|------|---------------------|
| Rated voltage (entire device)         | 230              | V    | U <sub>rated</sub>  |
| Phases (entire device)                | 1~               |      | phase               |
| Electrical protection (entire device) | 6 A              |      | fuse                |
| Housing material                      | Galvanized steel |      | matcasing           |
| Impeller material                     | Plastic          |      | matimpeller         |
| Weight                                | 65               | kg   | m                   |
| Fan type                              | Diagonal         |      | F <sub>antype</sub> |
| Category / Installation situation     | A                |      | cat                 |

## MAXIMAL DATA

| Name                            | Value |       | Unit  | Formula symbol        |
|---------------------------------|-------|-------|-------|-----------------------|
|                                 | 50 Hz | 60 Hz |       |                       |
| Max. power consumption (device) | 296   | 296   | W     | P <sub>ed, max</sub>  |
| Max. operating current (device) | 2.08  | 2.08  | A     | I <sub>ed, max</sub>  |
| Max. speed                      | 2890  | 2890  | 1/min | n <sub>max</sub>      |
| Max. stat. efficiency           | 42.8  | 42.8  | %     | η <sub>es</sub>       |
| Max. fan efficiency             | 45.5  | 45.5  | %     | η <sub>e</sub>        |
| Max. flowrate                   | 2480  | 2480  | m³/h  | Q <sub>v, max</sub>   |
| Max. stat pressure              | 590   | 590   | Pa    | p <sub>sf, max</sub>  |
| Max. medium temperature         | 40    | 40    | °C    | T <sub>m, max</sub>   |
| Max. environment temperature    | 40    | 40    | °C    | T <sub>amb, max</sub> |
| Min. environment temperature    | -30   | -30   | °C    | T <sub>amb, min</sub> |



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## MOTOR DATA

| Name                     | Value |                     | Unit  | Formula symbol          |
|--------------------------|-------|---------------------|-------|-------------------------|
|                          | 50 Hz | 60 Hz               |       |                         |
| Rated frequency (device) |       | 50                  |       | f                       |
| Motor type               |       | EC                  |       | phase                   |
| Control type             |       | stepless-controlled |       | ctrltype                |
| Installation type        |       | ORM (Out)           |       | install                 |
| Rotation direction       |       | right               |       | rotation                |
| Isolation class          |       | ISO F               |       | ISOclass                |
| Motor-protection         |       | TEC                 |       | protectmotor            |
| Protection class         |       | IP33                |       | IPmotor                 |
| Is pole-changeable       |       | No                  |       | polexch                 |
| Type of power supply     |       | AC 1~               |       | pwrsupmotor             |
| Rated voltage            | 230   | 230                 | V     | U <sub>rated, f1</sub>  |
| Rated current            | 1.83  | 1.83                | A     | I <sub>rated, f1</sub>  |
| Shaft power              | 280   | 280                 | W     | P <sub>out, f1</sub>    |
| Speed                    | 2500  | 2500                | 1/min | n <sub>f1</sub>         |
| Min. temperature         | -30   | -30                 | °C    | T <sub>motor, min</sub> |
| UL-Certification motor   |       | None                |       | ULcert                  |

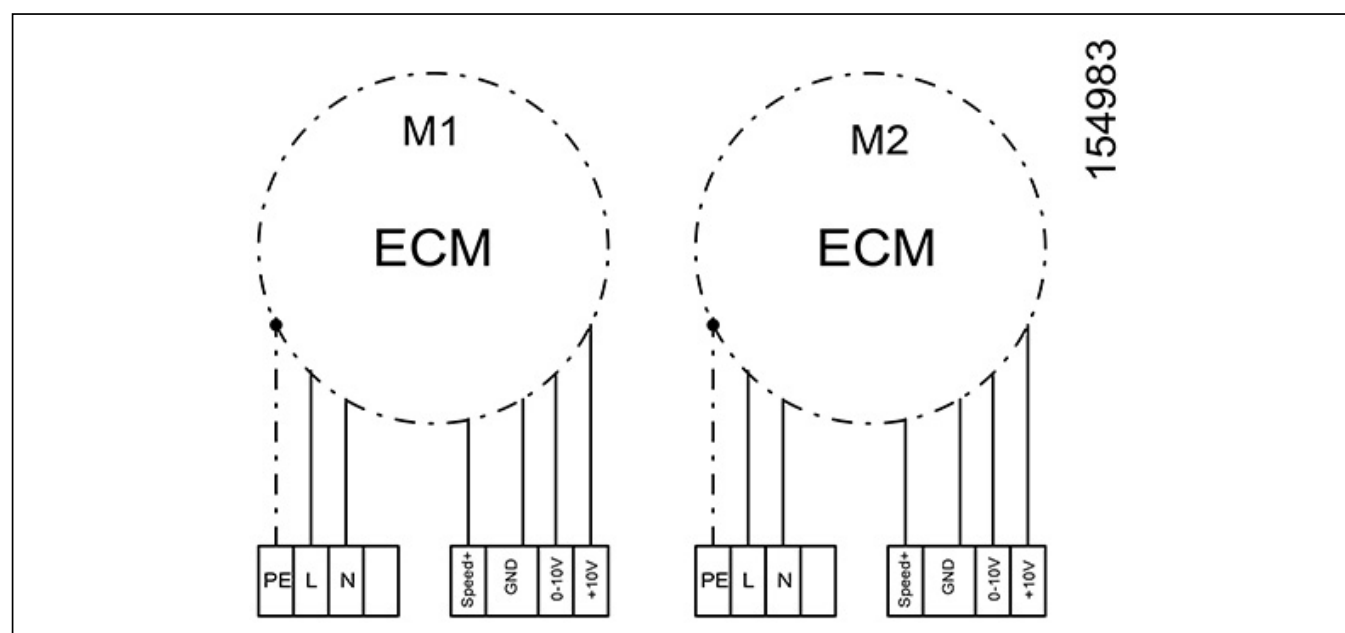
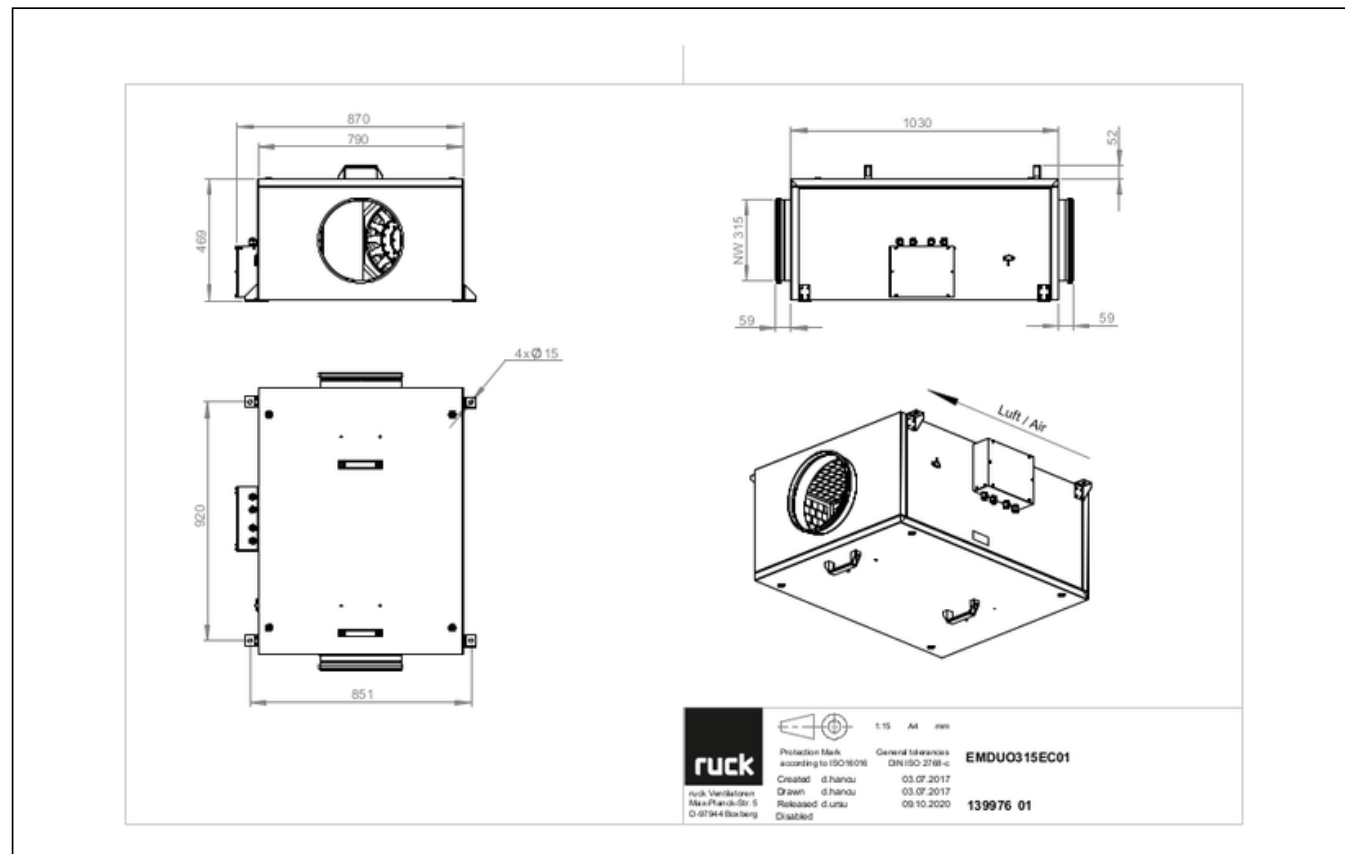
## ERP DATA (LOT11)

| Name                                                      | Value    | Unit  | Formula symbol      |
|-----------------------------------------------------------|----------|-------|---------------------|
| Speed at the energy efficiency optimum                    | 2453     | 1/min | n <sub>opt</sub>    |
| Efficiency level                                          | 60.6     | %     | N                   |
| Efficiency category                                       | statisch |       | catefficiency       |
| Input power of the motor at the energy efficiency optimum | 0.28     | kW    | P <sub>e, opt</sub> |
| Overall efficiency                                        | 76.9     | %     | η <sub>ges</sub>    |
| Measurement category                                      | A        |       | meas cat            |
| Fan pressure at energy efficiency optimum                 | 335      | Pa    | p <sub>f, opt</sub> |
| Flowrate at energy efficiency optimum                     | 1741     | m³/h  | q <sub>v, opt</sub> |



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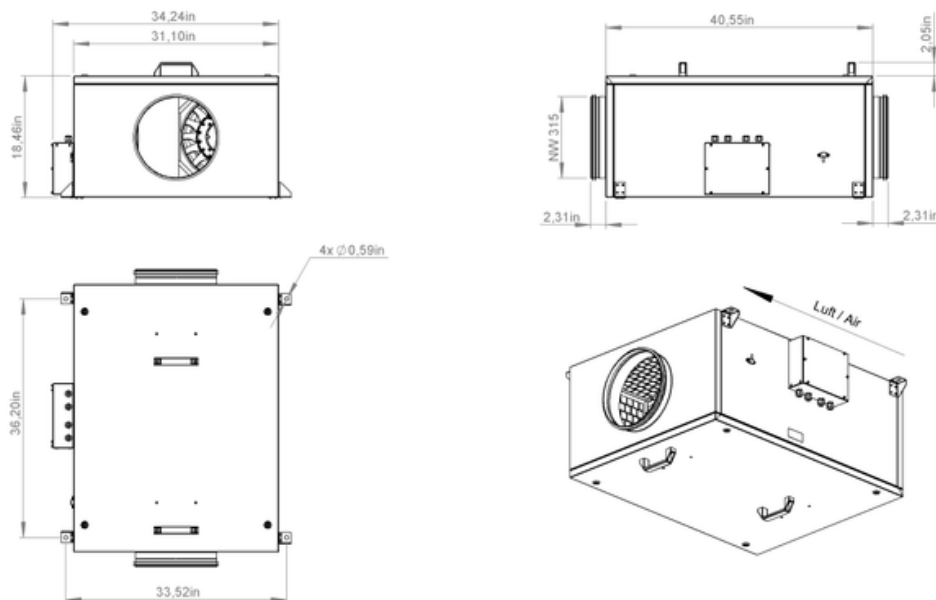
## SCHALTPLÄNE / MASSZEICHNUNGEN



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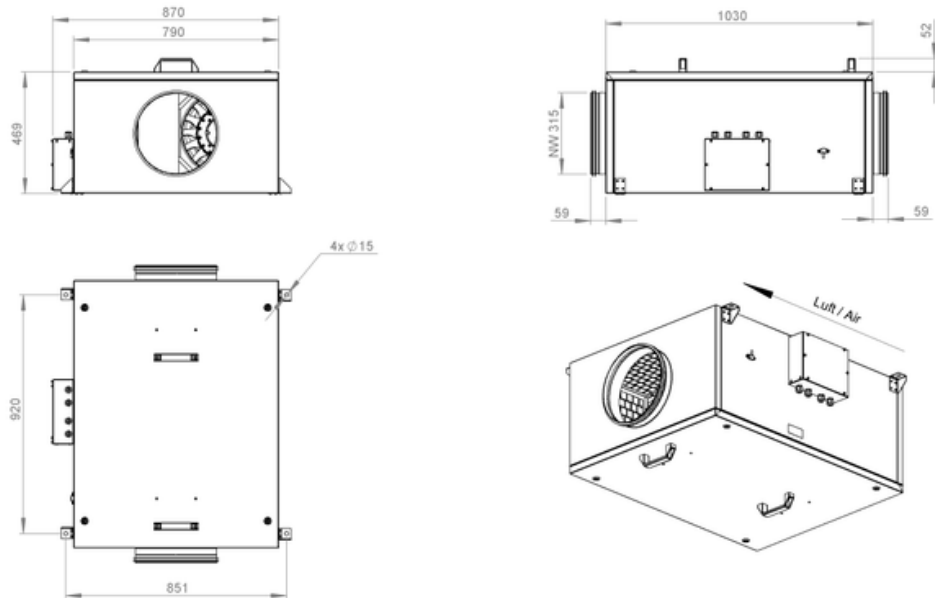


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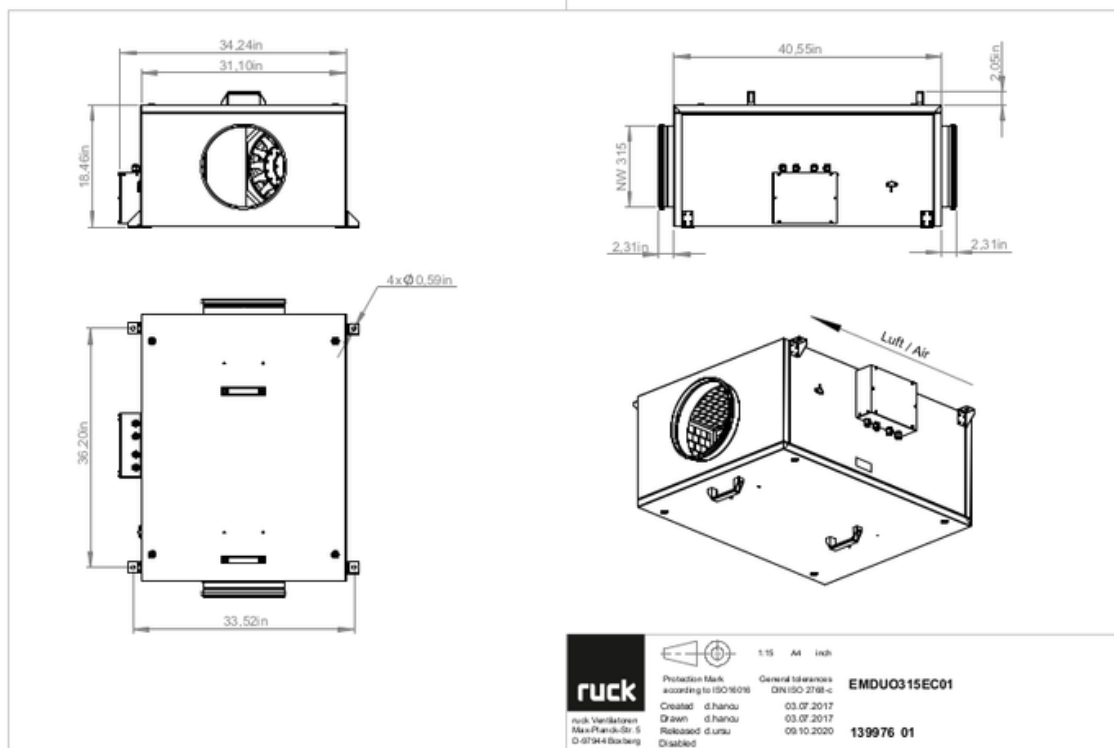


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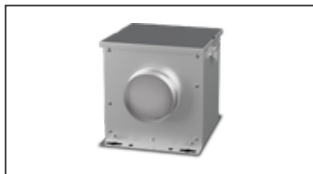
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## MECHANICAL ACCESSORIES

**FV 315 | 112834**



- Air filter box with mat filter ISO Coarse 45 % (G3)
- Toggle-type fastener

**FT 315 | 112846**



- Air filter box for pocket filter
- Toggle-type fastener
- Galvanized steel sheet housing
- Without filter

**FTW 315 | 112855**



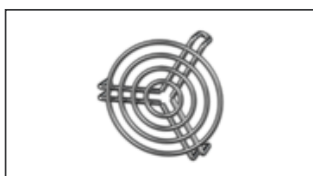
- Air filter box with pocket filter M5
- Integrated warm water heating coil
- Galvanized steel sheet housing
- Toggle-type fastener

**RSK 315 | 102664**



- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps

**SG 315 01 | 102900**



- Protection grille for tube connection
- Galvanized wire

**SDF 315 | 102706**



- Flexible tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm

**SDS 315 | 102723**



- Rigid tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm (mineral wool)

**RSK 315D | 113489**



- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps
- Integrated gasket

**VM 315 | 102652**



- Fast clamps for sound decoupling and sealing
- Galvanized steel sheet, 5 mm
- Neopren gasket
- 1 Pack = 2 pieces



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## ELECTRICAL ACCESSORIES

**GS 03 | 107633**



- Device switch
- $U_{max} = 400 \text{ V}$ ,  $I_{max} = 25 \text{ A}$
- Switching capacity  $400 \text{ V } 3\sim = 5,5 \text{ kW}$
- Protection class IP 55

**MTP 20 | 128146**



- Potentiometer  $10 \text{ k}\Omega$
- Switching contact  $1\text{A}/250\text{V AC}$  -  $2,5\text{A}/12\text{V DC}$
- Max. ambient temperature  $50^\circ\text{C}$
- VDE

**MTP 30 | 143289**



- Stepped potentiometer  $10 \text{ k}\Omega$
- Step 1 + 2 settable  $10\% - 100\% \text{ Vdc}$
- Step 3  $100\% \text{ Vdc}$
- Supply voltage  $+10 \text{ Vdc}$

**MTP 40 | 147359**



- Potentiometer  $10 \text{ k}\Omega$
- Connection in terminal box
- Max. ambient temperature  $50^\circ\text{C}$
- PU: 20 pieces

**CON P1000 | 115259**



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

**MTP 50 | 153133**



- Potentiometer with multifunction output
- $230 \text{ VAC} \pm 10\% / 50-60 \text{ Hz}$
- Selectable output:  $1-10 \text{ VDC} / 2-20 \text{ mA}$  /  $10-100\% \text{ PWM}$
- Min. and max. output value adjustable



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