

**Description RD EC**

Horizontal outlet EC roof fan with efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

**Description VD EC**

Vertical outlet EC roof fan with efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

**Common features RD EC and VD EC**

- **Casing**  
 Made of sea water-resistant aluminium with integrated tamper protection. Motor support plate and base plate with inlet nozzle made of galvanised steel. Base plate with threaded screws for attachment of inlet-side accessories (hole pattern according to DIN 24155).

- **Impeller**  
 High-performance centrifugal impeller with backward curved blades made of plastic. Dynamically balanced according to DIN ISO 21940-11 – quality grade 6.3.

- **Drive**  
 Energy-saving, speed-controllable EC external rotor motor with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

- **Motor protection**  
 Integrated electronic temperature monitoring system for EC motor and electronics.

- **Electrical connection**  
 ND 180 – 250 to external terminal box in protection category IP65.

- **Protection grille**  
 On outlet side as standard according to DIN EN ISO 13857.

- **Power control**  
 Continuously variable speed control via internal (delivery) or external potentiometer or continuously variable speed control with universal control system.

■ **Delivery**

Units are ready-for-connection, fully pre-assembled in the shipping box /wooden crate.

■ **Noise**

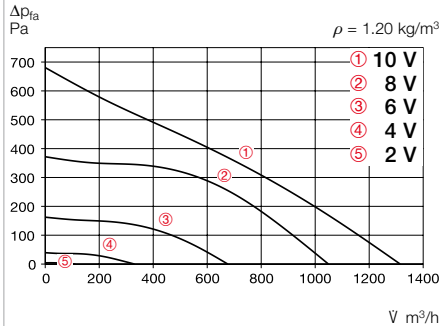
The total level and range are specified above the performance diagram for:

- Inlet side sound power
  - Outlet side sound power.
- The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table and the table below the performance curve.

| References   | Page    |
|--|---------|
| Planning information   | 14 ff.  |
| Technical description  | 499 f.  |
| Selection table  | 501 f.  |
| Accessories, details   | 558 f.  |
| Universal control systems, electronic controllers, speed potentiometer | 613 ff. |

### Performance curves RDW EC 225 A

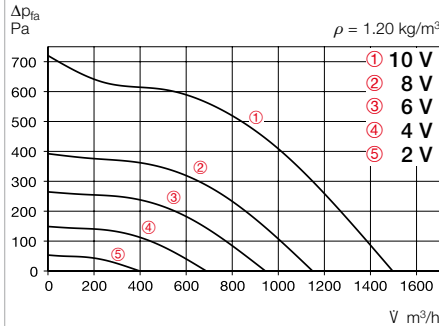
|                             |    |       |     |     |     |    |    |    |    |    |
|-----------------------------|----|-------|-----|-----|-----|----|----|----|----|----|
| Frequency                   | Hz | Tot.  | 125 | 250 | 500 | 1k | 2k | 4k | 8k |    |
| L <sub>WA</sub> Inlet side  |    | dB(A) | 67  | 50  | 56  | 61 | 62 | 59 | 59 | 49 |
| L <sub>WA</sub> Outlet side |    | dB(A) | 69  | 49  | 60  | 66 | 62 | 58 | 58 | 48 |



| Free blowing |                     |                     |     |      |          |                          |
|--------------|---------------------|---------------------|-----|------|----------|--------------------------|
| Voltage V    | n min <sup>-1</sup> | V m <sup>3</sup> /h | P W | I A  | Lp dB(A) | SFP kW/m <sup>3</sup> /s |
| 10           | 2700                | 1300                | 145 | 1.05 | 52       | 0.40                     |
| 8            | 2160                | 1050                | 75  | 0.55 | 48       | 0.26                     |
| 6            | 1430                | 680                 | 25  | 0.20 | 39       | 0.13                     |
| 4            | 720                 | 330                 | 5   | 0.05 | 28       | 0.05                     |

### Performance curves RDW EC 225 B

|                             |    |       |     |     |     |    |    |    |    |
|-----------------------------|----|-------|-----|-----|-----|----|----|----|----|
| Frequency                   | Hz | Tot.  | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| L <sub>WA</sub> Inlet side  |    | dB(A) | 75  | 49  | 66  | 69 | 68 | 67 | 64 |
| L <sub>WA</sub> Outlet side |    | dB(A) | 77  | 55  | 69  | 70 | 70 | 69 | 66 |

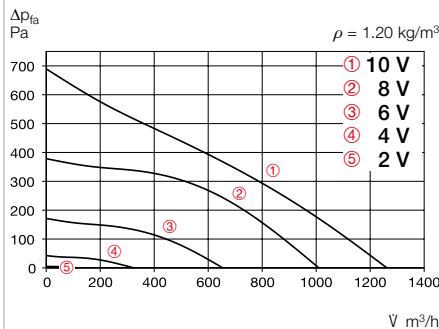


| Free blowing |                     |                     |     |      |          |                          |
|--------------|---------------------|---------------------|-----|------|----------|--------------------------|
| Voltage V    | n min <sup>-1</sup> | V m <sup>3</sup> /h | P W | I A  | Lp dB(A) | SFP kW/m <sup>3</sup> /s |
| 10           | 3020                | 1500                | 205 | 0.90 | 52       | 0.49                     |
| 8            | 2350                | 1150                | 105 | 0.45 | 55       | 0.33                     |
| 6            | 1940                | 945                 | 65  | 0.30 | 51       | 0.25                     |
| 4            | 1450                | 690                 | 35  | 0.20 | 45       | 0.18                     |

| Type  | Ref. no. | Speed             | Flow rate<br>Free blowing | Noise sound pressure | Power consumption | Current consump. |              | Wiring diagram | Max. air flow temp. |              | Wgt net | Speed potentiometer |               |              |          |
|---|----------|-------------------|---------------------------|----------------------|-------------------|------------------|--------------|----------------|---------------------|--------------|---------|---------------------|---------------|--------------|----------|
|   |          |                   |                           |                      |                   | at rated voltage | with control |                | at rated voltage    | with control |         | Flush-mounted       | Surf.-mounted |              |          |
|   |          | min <sup>-1</sup> | m <sup>3</sup> /h         | dB(A) in 4 m         | W                 | A                | A            | No.            | °C                  | °C           | kg      | Type                | Ref. no.      | Type         | Ref. no. |
| <b>Single phase alternating current, 1~, 230 V, 50 Hz, EC motor, protection category IP44</b> |          |                   |                           |                      |                   |                  |              |                |                     |              |         |                     |               |              |          |
| <b>RDW EC 225 A</b>   | 07262    | 2550              | 1310                      | 52                   | 163               | 1.14             | 1.14         | 1149           | 50                  | —            | 6.7     | <b>PU 10</b>        | 01734         | <b>PA 10</b> | 01735    |
| <b>Single phase alternating current, 1~, 230 V, 50 Hz, EC motor, protection category IP54</b> |          |                   |                           |                      |                   |                  |              |                |                     |              |         |                     |               |              |          |
| <b>RDW EC 225 B</b>   | 07243    | 3020              | 1500                      | 60                   | 246               | 1.06             | 1.06         | 1149           | 50                  | —            | 8       | <b>PU 10</b>        | 01734         | <b>PA 10</b> | 01735    |

### Performance curves VDW EC 225 A

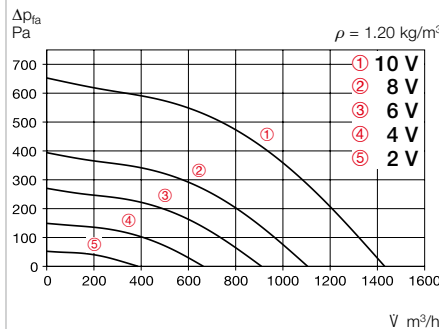
|                             |    |       |     |     |     |    |    |    |    |    |
|-----------------------------|----|-------|-----|-----|-----|----|----|----|----|----|
| Frequency                   | Hz | Tot.  | 125 | 250 | 500 | 1k | 2k | 4k | 8k |    |
| L <sub>WA</sub> Inlet side  |    | dB(A) | 68  | 43  | 59  | 61 | 62 | 61 | 60 | 56 |
| L <sub>WA</sub> Outlet side |    | dB(A) | 70  | 46  | 61  | 62 | 64 | 64 | 62 | 57 |



| Free blowing |                     |                     |     |      |          |                          |
|--------------|---------------------|---------------------|-----|------|----------|--------------------------|
| Voltage V    | n min <sup>-1</sup> | V m <sup>3</sup> /h | P W | I A  | Lp dB(A) | SFP kW/m <sup>3</sup> /s |
| 10           | 2690                | 1260                | 150 | 1.05 | 53       | 0.43                     |
| 8            | 2160                | 1000                | 75  | 0.60 | 49       | 0.27                     |
| 6            | 1430                | 650                 | 25  | 0.20 | 40       | 0.14                     |
| 4            | 720                 | 330                 | 5   | 0.05 | 27       | 0.05                     |

### Performance curves VDW EC 225 B

|                             |    |       |     |     |     |    |    |    |    |    |
|-----------------------------|----|-------|-----|-----|-----|----|----|----|----|----|
| Frequency                   | Hz | Tot.  | 125 | 250 | 500 | 1k | 2k | 4k | 8k |    |
| L <sub>WA</sub> Inlet side  |    | dB(A) | 74  | 47  | 65  | 68 | 67 | 67 | 66 | 62 |
| L <sub>WA</sub> Outlet side |    | dB(A) | 75  | 50  | 66  | 68 | 69 | 68 | 67 | 63 |



| Free blowing |                     |                     |     |     |          |                          |
|--------------|---------------------|---------------------|-----|-----|----------|--------------------------|
| Voltage V    | n min <sup>-1</sup> | V m <sup>3</sup> /h | P W | I A | Lp dB(A) | SFP kW/m <sup>3</sup> /s |
| 10           | 3020                | 1430                | 205 | 0.9 | 58       | 0.52                     |
| 8            | 2350                | 1100                | 105 | 0.5 | 53       | 0.34                     |
| 6            | 1950                | 910                 | 65  | 0.3 | 49       | 0.26                     |
| 4            | 1450                | 670                 | 35  | 0.2 | 43       | 0.19                     |

| Type  | Ref. no. | Speed             | Flow rate<br>Free blowing | Noise sound pressure | Power consumption | Current consump. |              | Wiring diagram | Max. air flow temp. |              | Wgt net | Speed potentiometer |               |              |          |
|---|----------|-------------------|---------------------------|----------------------|-------------------|------------------|--------------|----------------|---------------------|--------------|---------|---------------------|---------------|--------------|----------|
|   |          |                   |                           |                      |                   | at rated voltage | with control |                | at rated voltage    | with control |         | Flush-mounted       | Surf.-mounted |              |          |
|   |          | min <sup>-1</sup> | m <sup>3</sup> /h         | dB(A) in 4 m         | W                 | A                | A            | No.            | °C                  | °C           | kg      | Type                | Ref. no.      | Type         | Ref. no. |
| <b>Single phase alternating current, 1~, 230 V, 50 Hz, EC motor, protection category IP44</b> |          |                   |                           |                      |                   |                  |              |                |                     |              |         |                     |               |              |          |
| <b>VDW EC 225 A</b>   | 07241    | 2500              | 1260                      | 53                   | 161               | 1.14             | 1.14         | 1149           | 50                  | —            | 7.3     | <b>PU 10</b>        | 01734         | <b>PA 10</b> | 01735    |
| <b>Single phase alternating current, 1~, 230 V, 50 Hz, EC motor, protection category IP54</b> |          |                   |                           |                      |                   |                  |              |                |                     |              |         |                     |               |              |          |
| <b>VDW EC 225 B</b>   | 07240    | 3015              | 1430                      | 58                   | 244               | 1.06             | 1.06         | 1149           | 50                  | —            | 8.5     | <b>PU 10</b>        | 01734         | <b>PA 10</b> | 01735    |