TDC Series
DIRECT DRIVE VANE AXIAL FAN
Direct Drive Vane Axial Fan – TDC Series

Feature
For commercial and industrial application where large volume of air is required at moderate to high pressure. Volume coefficient ranged from 0.2 to 0.5 and pressure coefficient ranged from 0.3 to 0.4. Specially designed integral straightening vanes reduce turbulence and provide high efficiency and low sound level.

Construction
Double flanged casing is produced in mild steel or galvanized steel. The impeller blades are made of Aluminum Alloy.

Finish
Zinc rich primer and polyester power coating or galvanized finishing are available for all mild steel parts.

Operating Temperature
Normal Ventilation : -20°C to +55°C
High Temperature Application : available up to 250°C/2Hrs.

Motors
Totally Enclosed Class ‘F’ or ‘H’, with a min. IP55 protection are fitted as standard. Motors 3.0kW and above are star/delta starting. Motor of other specification are available upon request.

Airflow Direction
Air flow from impeller to motor is fitted as standard. Air flow from motor to impeller can be supplied upon request.

Nomenclature

<table>
<thead>
<tr>
<th>TDC 1250 / C20 / D / 4-9V / 20° / N20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan Design – N=Normal mode e.g. N20, N40, N80 etc. (Numerical value represents fan operating temperature)</td>
</tr>
<tr>
<td>F=High Temperature rated e.g. F251 (250°C/1Hr), F252 (250°C/2Hrs)</td>
</tr>
<tr>
<td>Blade Angle</td>
</tr>
<tr>
<td>Blade Number – Vane number</td>
</tr>
<tr>
<td>Hub Ratio</td>
</tr>
<tr>
<td>Blade Type</td>
</tr>
<tr>
<td>Nominal Fan Diameter</td>
</tr>
<tr>
<td>Fan Model</td>
</tr>
</tbody>
</table>

Kruger Ventilation Industries (North India) Pvt Ltd. certifies that the TDC Series shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.
## Dimension

All dimensions in mm.

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>N°</th>
<th>Ø</th>
<th>Weight* (kg)</th>
<th>Max. Motor Frame Size**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1250</td>
<td>1250</td>
<td>1315</td>
<td>1380</td>
<td>1250</td>
<td>24</td>
<td>12</td>
<td>321</td>
<td>D225</td>
</tr>
<tr>
<td>1400</td>
<td>1400</td>
<td>1465</td>
<td>1530</td>
<td>1400</td>
<td>32</td>
<td>14</td>
<td>447</td>
<td>D250</td>
</tr>
<tr>
<td>1600</td>
<td>1600</td>
<td>1663</td>
<td>1730</td>
<td>1556</td>
<td>32</td>
<td>14</td>
<td>648</td>
<td>D280</td>
</tr>
<tr>
<td>1800</td>
<td>1800</td>
<td>1856</td>
<td>1930</td>
<td>1858</td>
<td>32</td>
<td>14</td>
<td>760</td>
<td>D315</td>
</tr>
<tr>
<td>2000</td>
<td>2000</td>
<td>2073</td>
<td>2130</td>
<td>1858</td>
<td>32</td>
<td>14</td>
<td>862</td>
<td>D315</td>
</tr>
</tbody>
</table>

* Weight without motor.

** Please consult KRUGER for motor frame size other than specified.
Example of Selection

**TDC 1250 / C20 / D / 4-9V**

1450 rpm - 50 Hz

- **Air Volume** $Q = 24.07 \text{ m}^3/\text{s}$
- **Outlet Velocity** $V_{\text{out}} = 19.61 \text{ m/s}$
- **Total Pressure** $P_t = 844 \text{ Pa}$
- **Fan Speed** $N = 1450 \text{ rpm}$
- **Absorbed Power** $H = 27.33 \text{ kW}$
- **Total Efficiency** $\eta = 74.31 \%$
- **Sound Power Level** $L_{\text{wA}} = 105 \text{ dB(A)}$

---

Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet $L_{\text{wia}}$ sound power levels for installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end corrections.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet $L_w(A)$ sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
TDC 1400 / C22 / D / 4-9V
950 rpm - 50 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
TDC 1400 / C22 / D / 4-9V
1450 rpm - 50 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
TDC 1400 / C22 / D / 4-9V
1150 rpm - 60 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.

γ = 1.2 kg/m³
Hub dia = 400 mm

FEG 75
TDC 1600 / C25 / D / 4-9V
725 rpm - 50 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
TDC 1600 / C25 / D / 4-9V
950 rpm - 50 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
TDC 1600 / C25 / D / 4-9V
875 rpm - 60 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
TDC 1600 / C25 / D / 4-9V
1150 rpm - 60 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.

γ = 1.2 kg/m³
Hub dia = 500 mm

FEG 75
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
TDC 2000 / C31 / D / 4-9V
725 rpm - 50 Hz

- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Performance certified is for installation type D - ducted inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The A-weighted sound ratings shown here have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for Installation Type D - ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
The company is always improving and developing its products, therefore the company reserves the right of making changes to the illustrated products. Certified dimension can be provided upon request.