POWERLINE® ULTRA SERIES

Description

The PowerLine® Ultra Series of In-Line Mixed-Flow Fans is designed for a wide range of duct mounted applications. They are most suitable in commercial and industrial applications where medium pressure is required.

Typical Applications

Commercial and industrial supply or exhaust air applications such as shopping centres, office buildings, exhibition centres, hotels, health centres, schools and universities.

Features

- Robust, yet lightweight galvanised steel construction.
- Easy to fit 35mm TDF profile flange connections.
- To improve energy efficiency, motors can be speed-controlled.
- Can be mounted in any position.
- A range of matched ancillaries is also available.

Construction

Galvanised steel housings with 35mm TDF profile flange connections.
Mixed-Flow impellers are made from high performance injection moulded composite plastic material.

Motor

Standard direct-drive motors.
Electricity supply - three-phase to suit a wide range of voltages and frequencies.
Bearings - sealed for life, ball.
Standard direct-drive motors can be single or multi-speed and can be speed-controlled using a variable speed drive.

Internal Thermal Protection

Optional extra on standard frame motors.

Testing

Airflow tests based on ISO5801 or ANSI/AMCA 210-16
Noise tests based on BS848:Part 2, 1985, or ISO13347-3

Suggested Specification

The duct mounted fans shall be of the In-Line Mixed-Flow PowerLine® Ultra Series as designed and manufactured by Elta Fans and be of the model number shown on the schedule/drawing.
They shall include galvanised steel housings with 35mm TDF profile flange connections.
The Mixed-Flow impellers shall be made from high performance injected moulded composite plastic and driven by external rotor or standard direct-drive motors as nominated.

All performance data shall be for a complete assembled unit based on ISO5801 or ANSI/AMCA 210-16 for air flow and BS848: Part 2, 1985 or ISO13347-3 for noise.

Ancillary Equipment

Vibration Isolators
POW - Matching Ranges
FT - Mounting Foot
SD - Star/Delta switch
Variable speed drives
VA - Speed controller

How To Order

PowerLine®, Ultra
D- 3 phase
Fan diameter in cm
Fan speed, no. of poles
DD - standard motor
Special requirements ie epoxy finish, etc.

Note

Performance curves shown are based as-run speeds.
As motor speeds may vary from one manufacturer to another, and from one motor type to another, it is possible actual fan speeds may differ and, therefore, the performance of the fan.

Dimensions

<table>
<thead>
<tr>
<th>Model PUD..</th>
<th>Nominal dimensions, mm</th>
<th>App. wt. kg</th>
<th>App. vol. m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>454</td>
<td>600 550 583</td>
<td>55</td>
<td>0.23</td>
</tr>
<tr>
<td>504</td>
<td>700 650 683</td>
<td>67</td>
<td>0.36</td>
</tr>
</tbody>
</table>
### Technical Data & Noise Levels

<table>
<thead>
<tr>
<th>Model PUD..</th>
<th>Nom. speed, rev/sec</th>
<th>Max. operating temp</th>
<th>PUD... avg. dB(A) @ 3m</th>
<th>PUD.. DD 3 ph. kW*</th>
<th>In-Duct Sound Levels, dB</th>
<th>Power Levels, kW*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUD454</td>
<td>24.19</td>
<td>60</td>
<td>Inlet 51</td>
<td>1.10</td>
<td>73 75 70 67 64 65 63 58</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Outlet 55</td>
<td></td>
<td>78 74 72 71 71 68 65 59</td>
<td></td>
</tr>
<tr>
<td>PUD504</td>
<td>24.46</td>
<td>60</td>
<td>Inlet 56</td>
<td>2.2</td>
<td>77 81 76 71 70 69 66 61</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Outlet 60</td>
<td></td>
<td>85 81 82 73 76 72 67 60</td>
<td></td>
</tr>
</tbody>
</table>

*Amperages for standard TE motors can be obtained at time of order. Check fan nameplate for exact amperage of all motors.

Elta Fans Malaysia Sdn. Bhd. certifies that the Powerline Ultra series of direct drive inline mixed flow fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Programs. Performance certified is for installation type D: Ducted inlet, Ducted outlet. Speed (RPS) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).