Powerful access for more savings

STULZ has worked towards lowering expenses by reducing operating costs, life cycle costs and power consumption. And now, the same German efficiency will be available in India at an unbeatable price advantage!

Manufactured by:
STULZ - CHPI (INDIA) PVT. LTD.,
A - 173, MBC, TTC INDUSTRIAL AREA,
NAIMUR MUNBA - 400 709
INDIA.

Your STULZ dealer/representative
http://www.stulzinada.com
http://www.stulz.co.in
Largest production facility in India for precision airconditioning using EC fan technology

**STULZ Quality Assurance**
for energy saving and reliability

STULZ has developed a strict set of guidelines, which all STULZ production sites worldwide must adhere to. These Quality Assurance Parameters ensure you get the best possible product.

- Machine Pipe Bending
- Vibration Absorber
- Automated Electronic Nitrogen Testing
- Power Monitoring Switch
- Gasflux
- Hi-Pot Testing
- Wire cut and strip technologies
- Witness Testing Facility
- Clients assured of capacity and performance parameters of units.
- Operational/witness testing of units at design conditions in addition to standard dry run testing.
High Efficiency high capacity Air Cooled Condensors

First globally & in India, to produce Precision Air Conditioning equipment with EC Fan technology for green data centres.

Global Production Centres

China  India
USA  Germany  Italy
Powerful Sound Absorption
instead of reflection

STULZ’s innovative design produces tangible benefits. Our engineers have one aim: The perfect blend of design and materials. Each design and component has been repeatedly tested. STULZ has specialised in the protection of critical systems for more than three decades. The result: More and more clients throughout the world trust our product and system solutions.

- STULZ Sound Absorption System reduces the sound levels by up to 5 dB(A) less than double skin panels
- EC fan emits up to 7/4 lesser sound compared to centrifugal/radial fans
- SEC units offer the greatest possible protection for critical systems rooms

Powerful Innovation
for energy saving

Stulz SEC DP series is equipped with electronically commutated fan motor under the false floor for better static and maximum efficiency.

- Fan section below false floor
- Reduced fan power consumption
- Increased air flow / capacity up to 20%
- Lowest dynamic pressure
- Largest face area heat exchanger for efficient heat transfer
- Available in:
  - CW  : Chilled water
  - DX  : Air cooled
  - A/CW : Water cooled
  - CW_s : Dual fluid
  - CW_2 : Dual chilled water
- Wide choice of refrigerants (R22/R407C/R410A/R134A)

* Technical Data for the DP series can be provided on request

Powerful Savings
in operating costs

- UPS
- Others
- IT
- Air Conditioning
**Powerful Savings in operating costs**

Optimised design and state-of-the-art equipment can cut energy consumption by up to 50%.

That’s all thanks to the Stulz EC (SEC) Series.

- High efficiency with energy savings up to 30%
- Frees up precious energy resources for core processes

The company DIVA runs a medium-sized computer centre with a thermal load of 350kW. Instead of using air conditioning only with traditional belt-driven centrifugal fans, the company decided for the SEC precision air conditioning solution with EC fans. Although this solution presented a higher capital investment, the additional procurement costs have already been recovered after 7.1 months. Considerable savings in operating costs can be achieved using SEC with EC fan technology over the service life of the equipment.

### EC Fan Technology
Nothing comes close to it

**What is an EC motor?**
- An EC motor is a DC motor with a shunt characteristic.
- The rotary motion is achieved by supplying the power via a switching device – the commutator.
- Previously, the commutator was realised using mechanical carbon brushes, and hence, had a limited service life of only a few thousand hours.
- On EC motors, this commutation is performed electronically, and therefore, wear free offering a service life of 80,000 hours.

### Comparison of operating costs SEC/AS Line

<table>
<thead>
<tr>
<th>Unit type</th>
<th>SEC/AS Plus A</th>
<th>Sec/AS Plus B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sets</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Air flow</td>
<td>96.68</td>
<td>94.58</td>
</tr>
<tr>
<td>Cooling capacity (total)</td>
<td>256.5</td>
<td>254.0</td>
</tr>
<tr>
<td>Cooling capacity (variable)</td>
<td>254.0</td>
<td>254.0</td>
</tr>
<tr>
<td>Fan power consumption</td>
<td>195.5</td>
<td>195.5</td>
</tr>
<tr>
<td>Fan power consumption</td>
<td>195.5</td>
<td>195.5</td>
</tr>
<tr>
<td>Total power consumption</td>
<td>159.5</td>
<td>128.5</td>
</tr>
<tr>
<td>Motor power 1.5, 1.5, 0.8</td>
<td>75</td>
<td>4.5</td>
</tr>
<tr>
<td>Power consumption</td>
<td>35.36, 36.94, 36.94</td>
<td>35.36, 36.94, 36.94</td>
</tr>
<tr>
<td>Operating costs per annum</td>
<td>43,524,298.00</td>
<td>43,524,298.00</td>
</tr>
<tr>
<td>Saving in energy costs</td>
<td>43,524,298.00</td>
<td></td>
</tr>
<tr>
<td>Payback period</td>
<td>7.1 months</td>
<td></td>
</tr>
</tbody>
</table>

**Cost saving**
Rs. 683,280.00 annually

Payback period
7.1 months

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Stulz SEC – DP Series

Supply Air Section Below
False Floor
Stulz SEC Series
SEC Series is equipped with electronically commutated fan motor for maximum energy savings.

### Powerful Statistics - 3 way airflow

#### Technical Specifications: SEC Series

<table>
<thead>
<tr>
<th>Air Flow Direction</th>
<th>Fan Power (kW)</th>
<th>Nominal Capacity (kW)</th>
<th>Refrigerant</th>
<th>Type of Compressor</th>
<th>Nominal Capacity (kW)</th>
<th>Equipment Total Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up Flow</td>
<td>3.5</td>
<td>46.3</td>
<td>R22</td>
<td>Scroll</td>
<td>46.3</td>
<td>970</td>
</tr>
<tr>
<td>Down Flow</td>
<td>3.5</td>
<td>46.3</td>
<td>R22</td>
<td>Scroll</td>
<td>46.3</td>
<td>970</td>
</tr>
<tr>
<td>Front Flow</td>
<td>3.5</td>
<td>46.3</td>
<td>R22</td>
<td>Scroll</td>
<td>46.3</td>
<td>970</td>
</tr>
</tbody>
</table>

All models available in three flow options.
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Powerful Statistics - 3 way air flow

Technical Specifications: SEC Series

<table>
<thead>
<tr>
<th>Type of Compressor</th>
<th>BDC 1900 - 2100</th>
<th>BDC 2100 - 2300</th>
<th>BDC 2300 - 2500</th>
<th>BDC 2500 - 2700</th>
<th>BDC 2700 - 2900</th>
<th>BDC 2900 - 3100</th>
<th>BDC 3100 - 3300</th>
<th>BDC 3300 - 3500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Airflow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front Flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up Flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Down Flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
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- High efficiency with energy savings up to 30%
- Frees up precious energy resources for core processes

The company chose a medium-sized computer centre with a thermal load of 300 kW. Instead of using air conditioning only with traditional belt-driven centrifugal fans, the company decided for the SEC provision for cooling solution with EC fans.

Although this solution presented a higher capital investment, the additional procurement costs have already been recovered after 7.1 months. Considerable savings in operating costs can be achieved using SEC with EC fan technology over the service life of the equipment.

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Payback period 7.1 months
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STULZ ENERGY
CALL IN THE ENERGY EXPERTS

STULZ the natural choice

Advanced Stulz EC series