Utilise the energy of the sun to reduce fuel costs and increase profits

CPC
COMPOUND PARABOLIC CONCENTRATOR

Compound Parabolic Concentrators are ideal for large-scale medium-temperature hot water applications up to 120°C in a wide variety of industrial sectors. The CPC supplied is based on technology from Ritter Gruppe, Germany.

About Energy Efficiency Solutions
A.T.E.’s passion and commitment to sustainability has led us to develop energy-efficient technologies and products. Our unique approach to combine energy efficiency and renewable solar energy delivers the largest savings in carbon-intensive fuels, and directly influences the bottom line. A.T.E. is an accredited MNRE channel partner for off grid and decentralised solar applications.
Glass tubes with highly selective absorber layer absorb maximum solar radiation. Compression ring fittings are easy to install and safe.

U-shaped copper pipes carry heat transfer fluid to extract the heat. Modular design enables customisation to the application. Can be ground-mounted or roof-mounted. A highly reflective, weatherproof Compound Parabolic Concentrator reflector placed behind the evacuated tubes helps achieve higher thermal output.

Specifications

<table>
<thead>
<tr>
<th>Particulars</th>
<th>CPC45</th>
<th>CPC70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of tubes in each module</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Weight of each module</td>
<td>37 kg</td>
<td>54 kg</td>
</tr>
<tr>
<td>Gross size</td>
<td>1.39 m x 1.64 m x 0.10 m</td>
<td>2.08 m x 1.64 m x 0.10 m</td>
</tr>
<tr>
<td>Gross surface area</td>
<td>2.28 m²</td>
<td>3.41 m²</td>
</tr>
<tr>
<td>Aperture area</td>
<td>2.0 m²</td>
<td>3.0 m²</td>
</tr>
<tr>
<td>Nominal thermal output (at 1000 W/m² and 30°C)</td>
<td>1302 kWh/year</td>
<td>1953 kWh/year</td>
</tr>
</tbody>
</table>

Process Flow Schematic

Applications

- Boiler feed water
- Clean-in-place
- Textile processing
- Distillation
- Degreasing/parts washing

Industries

- Textile
- Dairy and Food
- Automobile
- Distillery
- Chemical
- Healthcare
- Hospitality
- Pharmaceutical

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