CT-14-1000

Highly compact, high-speed, electrically driven diagonal turbo compressor for the circulation and compression of various gases and refrigerants.

- Lowest ratio of volume and weight versus pressure and mass flow due to highest speeds
- Aerodynamic and electromagnetic optimization for highest total efficiency
- High-speed ball bearings with permanent lubrication
- Compatible to converter CC-230-3500 or CC-100-1000
- Integrated temperature measurement for overload

### Specifications turbo compressor

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum pressure ratio</td>
<td>1.43</td>
</tr>
<tr>
<td>Maximum mass flow</td>
<td>55 g/s</td>
</tr>
<tr>
<td>Maximum overall efficiency $\eta_{tot}$</td>
<td>66 %</td>
</tr>
<tr>
<td>Rated power</td>
<td>1,000 W</td>
</tr>
<tr>
<td>Rated speed</td>
<td>200,000 rpm</td>
</tr>
<tr>
<td>Weight</td>
<td>700 g</td>
</tr>
</tbody>
</table>

### Drawing (in mm)

[Diagram of the turbo compressor with dimensions indicated]
The specifications and compressor maps in this datasheet for overpressure operation refer to air (ISO 8778) at the inlet: temperature: $T = 293.15 \, K = 20 \, ^\circ C$, pressure: $p_{in} = 1 \, bar$.

For technical details and further information please refer to the user’s manual.

Compressor maps: vacuum operation
Compressor maps: vacuum operation

Suction efficiency versus mass flow

Suction power versus mass flow

Order codes: CT-14-1000.Bxx.Wxx

Bearing options Gxx
B00 Standard ball bearing
B01 Vacuum ball bearing
B99 Custom specific ball bearing (inlet conditions and / or gas, etc.)

Winding options Wxx
W01 Standard winding for converter CC-230-3500
W02 Winding for converter CC-100-1000 (limited performance)

\[ \eta_{tot} = \eta_{is} \times \eta_m \]: isentropic overall efficiency
\[ \eta_{is} \]: isentropic compressor efficiency
\[ \eta_m \]: motor efficiency