

# CT-17-1000



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

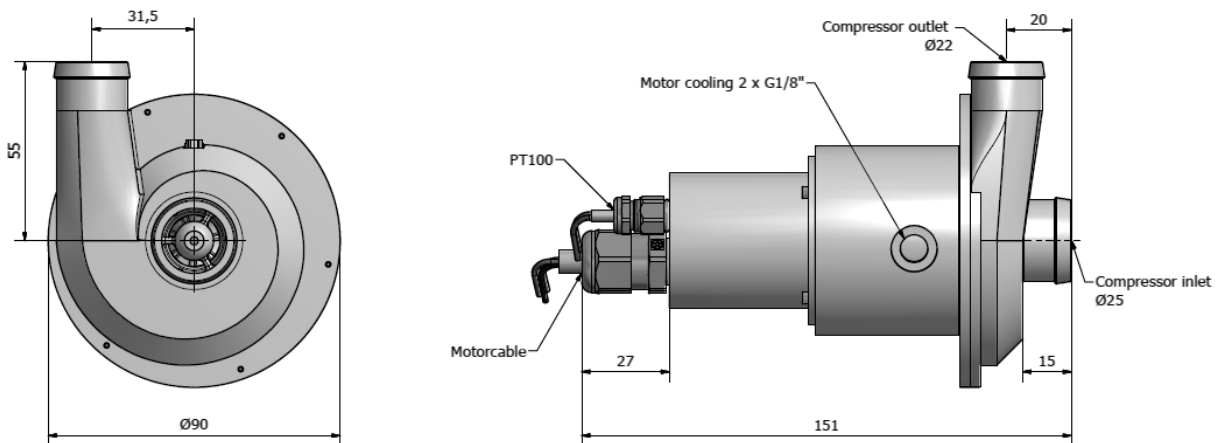
- Lowest ratio of volume and weight versus pressure and mass flow due to highest speeds
- Aerodynamic and electromagnetic optimization for highest total efficiency
- High-speed ball bearings, permanent lubrication
- Compatible to converters CC-230-3500 or CC-100-1000
- Integrated temperature measurement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



## Specifications turbo compressor

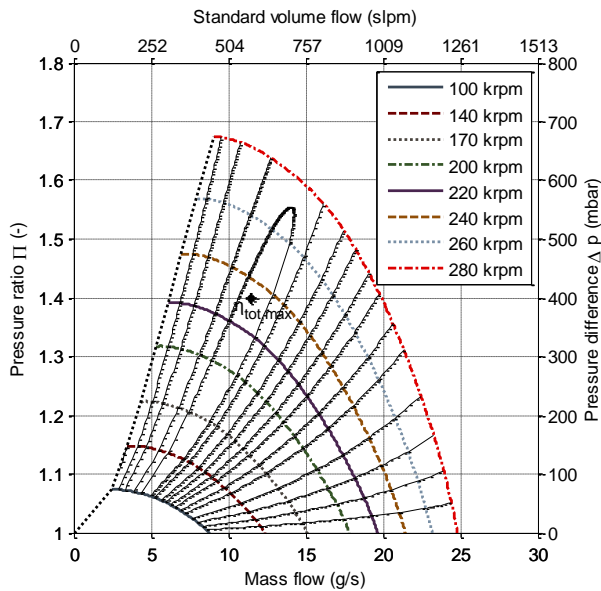
|  |             |
|--|-------------|
| Maximum pressure ratio                     | 1.68        |
| Maximum mass flow                          | 25 g/s      |
| Isentropic overall efficiency $\eta_{tot}$ | 64 %        |
| Rated power                                | 1,000 W     |
| Rated speed                                | 280,000 rpm |
| Weight                                     | 600 g       |

## Drawing (in mm)

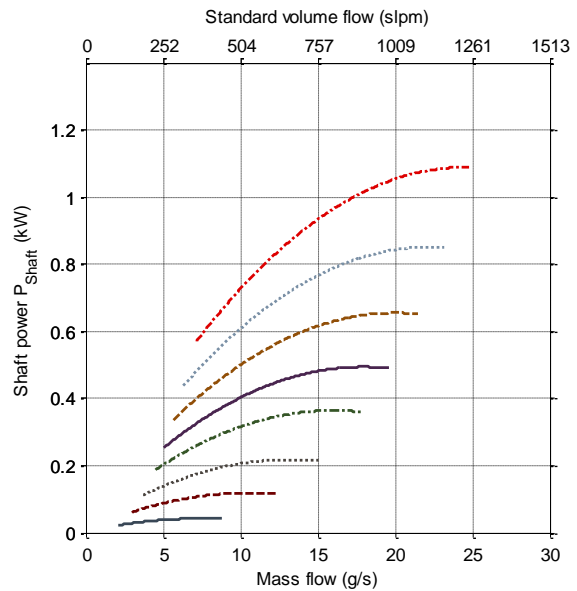


## Compressor maps: overpressure operation

Pressure ratio versus mass flow



Compressor input power versus mass flow

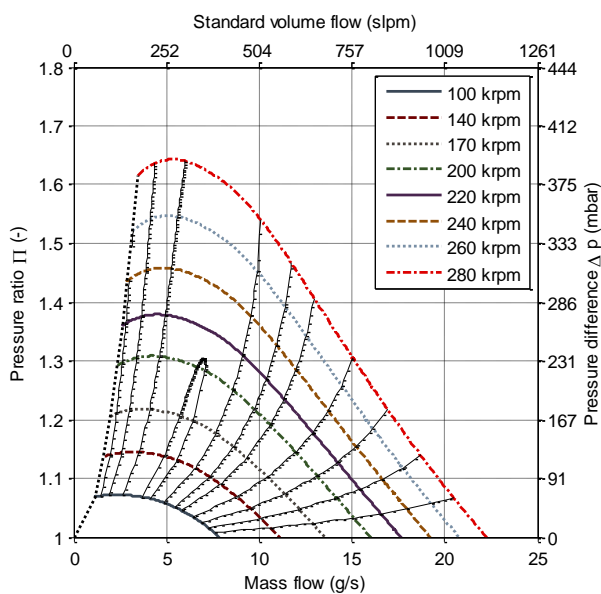


The specifications and compressor maps in this datasheet for overpressure operation refer to air (ISO 8778) at the inlet: temperature:  $T = 293.15 \text{ K} = 20^\circ \text{ C}$ , pressure:  $p_{in} = 1 \text{ bar}$ .

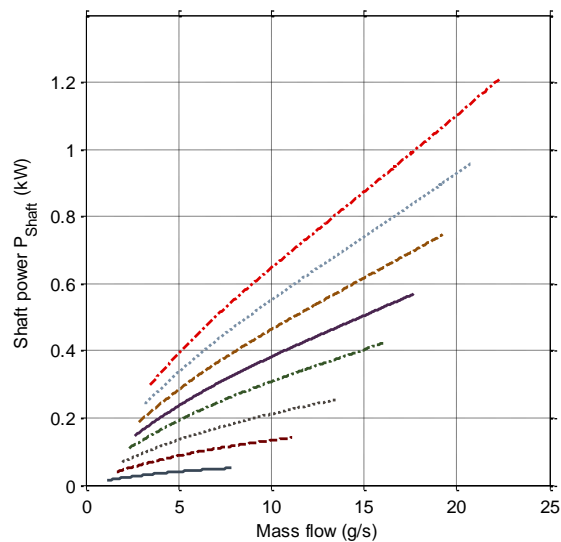
For technical details and further information please refer to the user's manual.

## Compressor maps: vacuum operation

Pressure ratio versus mass flow



Compressor input power versus mass flow



**Order codes: CT-17-1000.Bxx.Wxx**

**Bearing options Bxx**

|     |  |
|-----|--|
| 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 |
| W04 | Winding for converter CC-100-1000          |

$\eta_{tot} = \eta_{is} * \eta_m$  : isentropic overall efficiency

$\eta_{is}$  : isentropic compressor efficiency

$\eta_m$  : motor efficiency

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