

## 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/CC-100-1000/CC-120-1000
- Integrated temperature measurement for overload protection

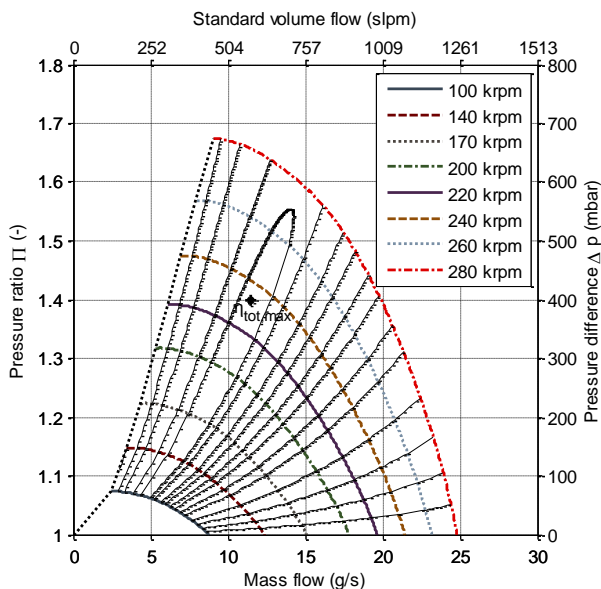


### Specifications turbo compressor

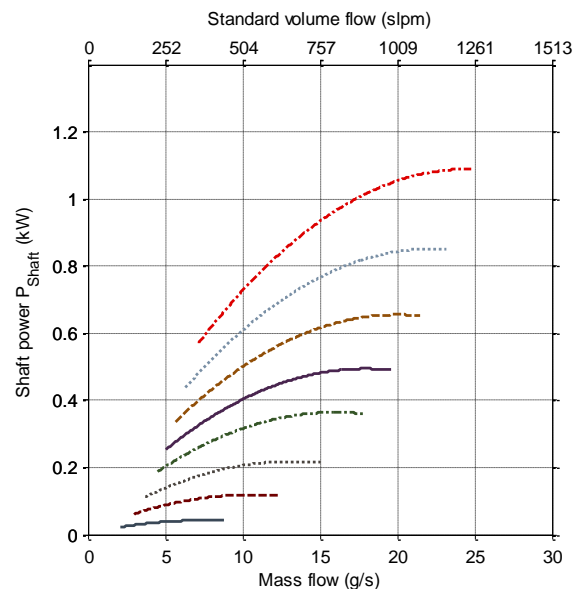
Maximum pressure ratio	1.68
Maximum mass flow	25 g/s
Maximum isentropic overall efficiency <sup>1</sup>	64%
Rated power	1,000 W
Rated speed	280,000 rpm
Weight	600 g

### Compressor map: overpressure operation

Pressure ratio versus mass flow



Compressor input power versus mass flow

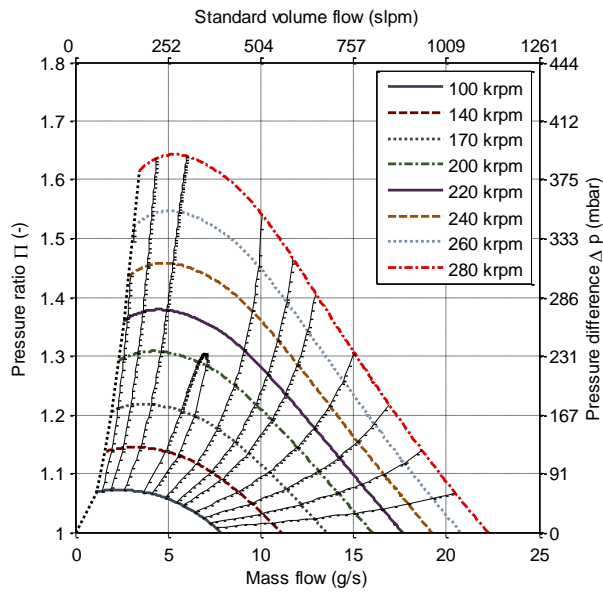


<sup>1</sup> Isentropic overall efficiency including aerodynamic, motor and bearing efficiency

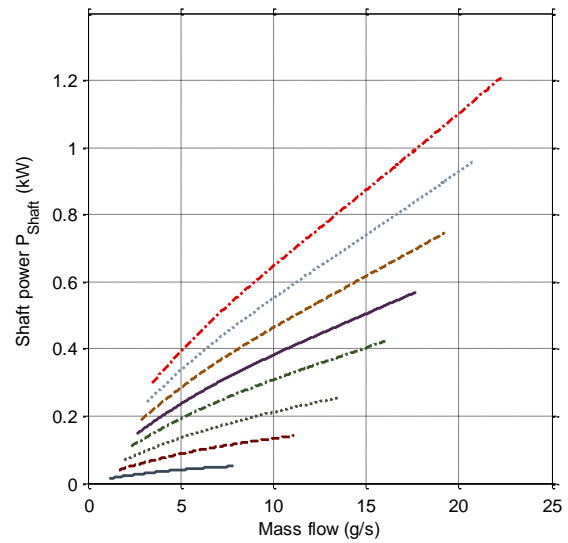
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## Compressor map: vacuum operation

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/CC-120-1000

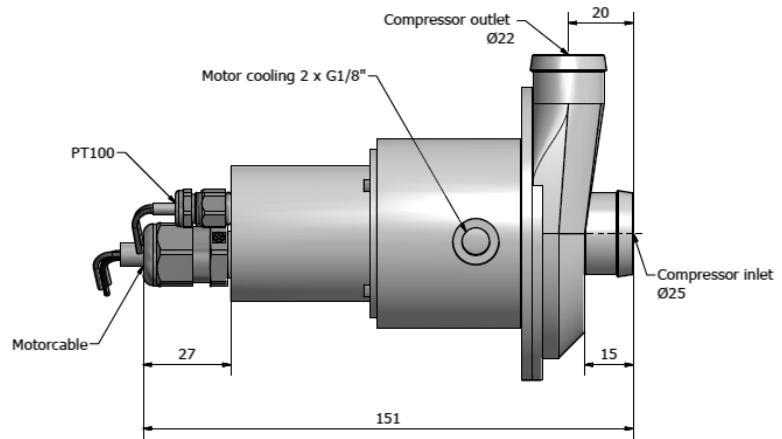
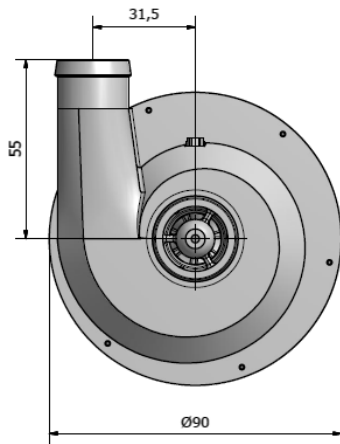
### Ordering information

### Article number

CT-17-1000.B00.W01	4010011
CT-17-1000.B00.W04	4010012
CT-17-1000.B01.W01	4010013
CT-17-1000.B01.W04	4010014
CT-17-1000.B00.W01 with CC-230-3500 (110/230 VAC)	4040020
CT-17-1000.B01.W01 with CC-230-3500 (110/230 VAC)	4040021
CT-17-1000.B00.W04 with CC-120-1000 (40 - 120 VDC)	4040022
CT-17-1000.B01.W04 with CC-120-1000 (40 - 120 VDC)	4040023
CT-17-1000.B00.W04 with CC-100-1000 (24 - 100 VDC)	4040035
CT-17-1000.B01.W04 with CC-100-1000 (24 - 100 VDC)	4040036

### Drawing in mm

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The specifications and compressor maps in this document for

- an overpressure operation refers to air (ISO 8778) at the inlet of the compressor with: temperature:  $T = 20^{\circ}\text{C}$ , absolute pressure:  $p_{in} = 1 \text{ bar}$ .
- a vacuum operation refers to air (ISO 8778) at the inlet of the compressor with: temperature:  $T = 20^{\circ}\text{C}$ , and a compressor absolute outlet pressure:  $p_{in} = 1 \text{ bar}$ .



Depending on custom specific operation conditions such as e.g. gas inlet pressure and temperature, humidity, cooling conditions, the operation in environmental conditions with vibrations and/or depending on the combination of the compressor and the corresponding Celeroton converter, the compressor maps shown in this document may be different or may have additional limitations.

For technical details and further information, please refer to the user manual or contact Celeroton directly.