

## CT-1051-He

Highly compact, high-speed, electrically driven radial turbo compressor with gas bearing for the circulation and compression of helium (other noble, inert gases or refrigerants on request).

- High-speed gas bearings for oil free and contamination free operation
- Lowest ratio of volume and weight versus pressure and mass flow due to highest speeds
- Aerodynamic and electromagnetic optimization for highest total efficiency
- Compatible to converter CC-230-3500
- Integrated temperature measurement for overload protection

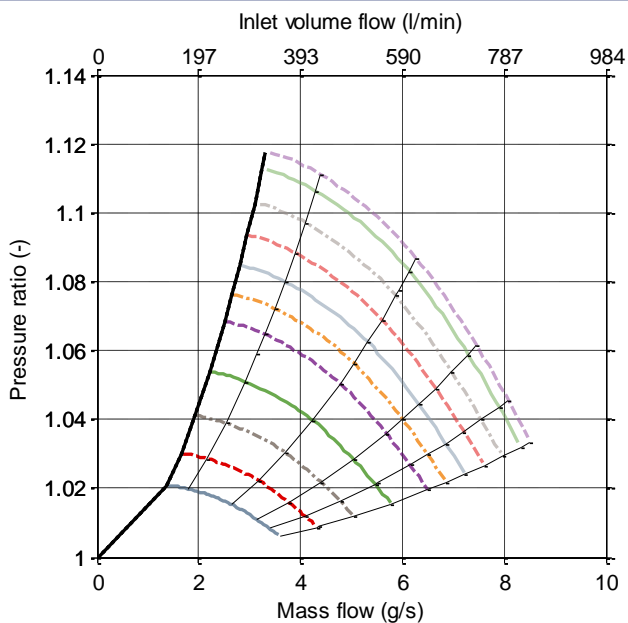


### Specifications turbo compressor (Inlet conditions: Helium, 1 bar abs., 20 °C)

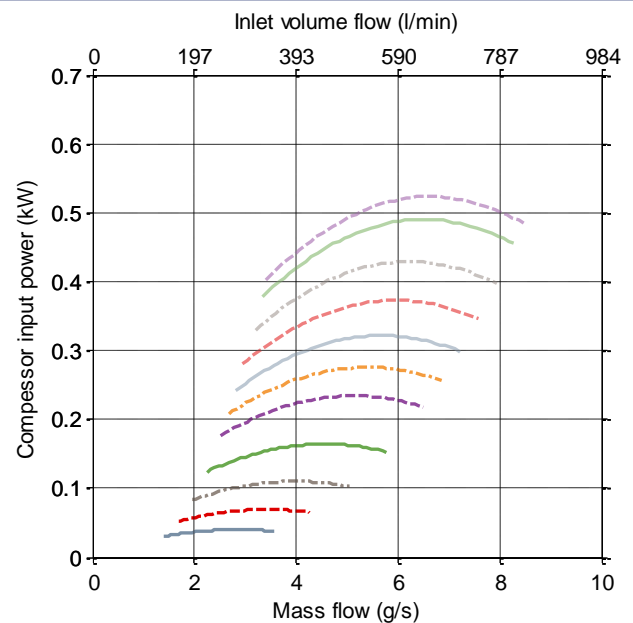
Model	CT-1051-He
Maximum pressure ratio	1.12
Maximum mass flow	9 g/s
Maximum isentropic efficiency <sup>1</sup>	65 %
Maximum speed	235,000 rpm
Maximum compressor input power	550 W
Weight (excl. cable)	4.6 kg
Cooling	Liquid cooling (water/glycol, 20-30 °C, >4 l/min)

### Compressor map: overpressure operation

Pressure ratio versus mass flow



Compressor input power versus mass flow



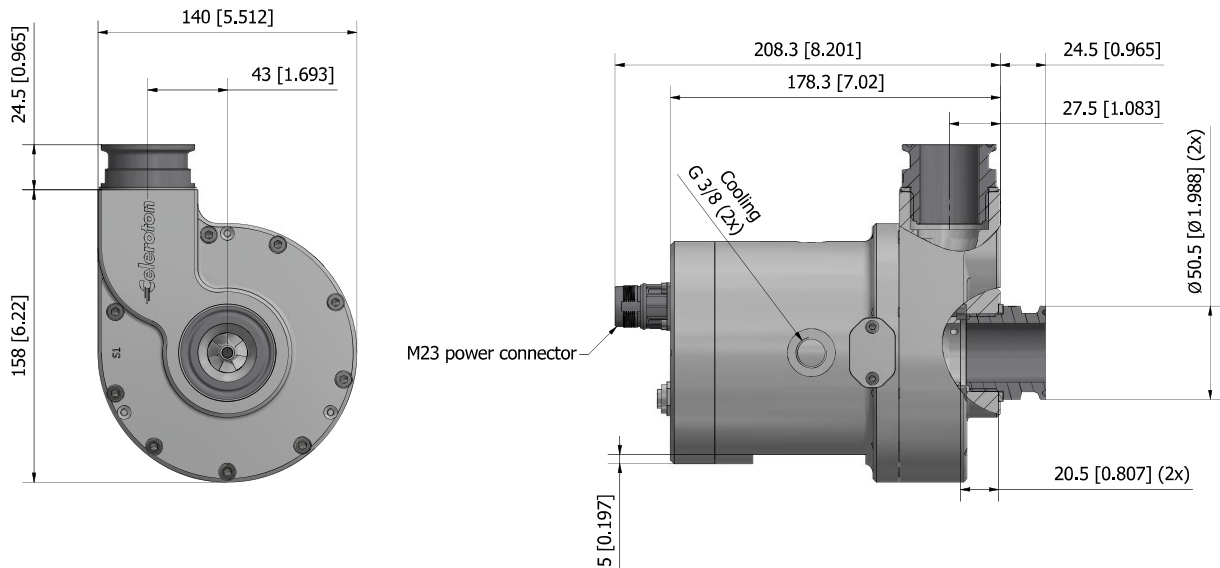
<sup>1</sup> Isentropic overall efficiency including aerodynamic, motor and bearing efficiency

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Order codes: CT-1051-He

Ordering information	Article number
CT-1051-He	4010043
CT-1051-He with CC-230-3500 (230/110 VAC)	4040052

**Drawing in mm [inch]<sup>2</sup>**



The specifications and compressor maps in this document refer to helium at the inlet of the compressor: temperature:  $T = 20\text{ }^{\circ}\text{C}$ , absolute 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.

<sup>2</sup> CF flange CL-MA32-DIN505G114-4L, optional. G 1¼ without CF flange

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