

CT-17-700.GB



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

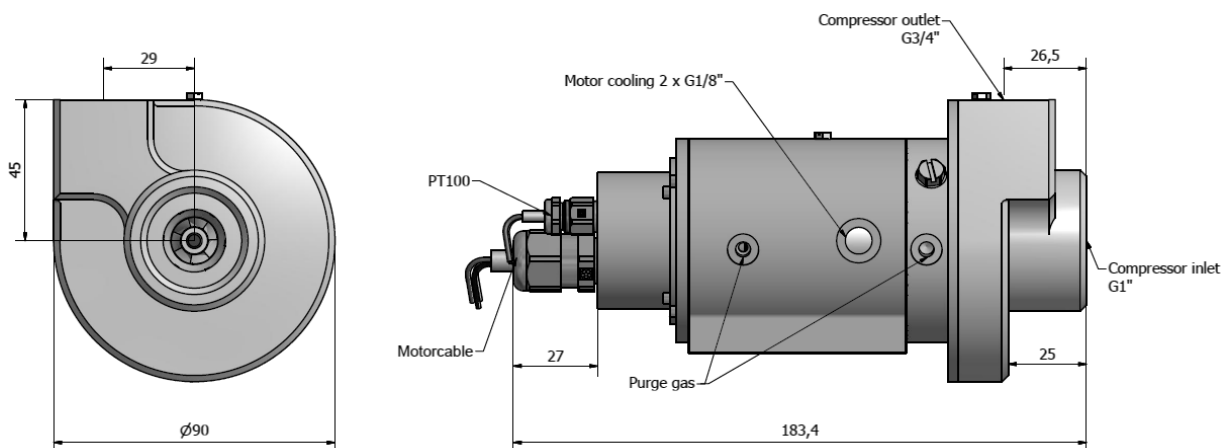
- High-speed gas bearings for oil free operation
- Lowest ratio of volume and weight versus pressure and mass flow due to highest speeds
- Aerodynamic and electromagnetic optimization for highest total efficiency
- Compatible to converter CC-120-1000 or CC-230-3500
- Integrated temperature measurement for overload protection



Specifications turbo compressor

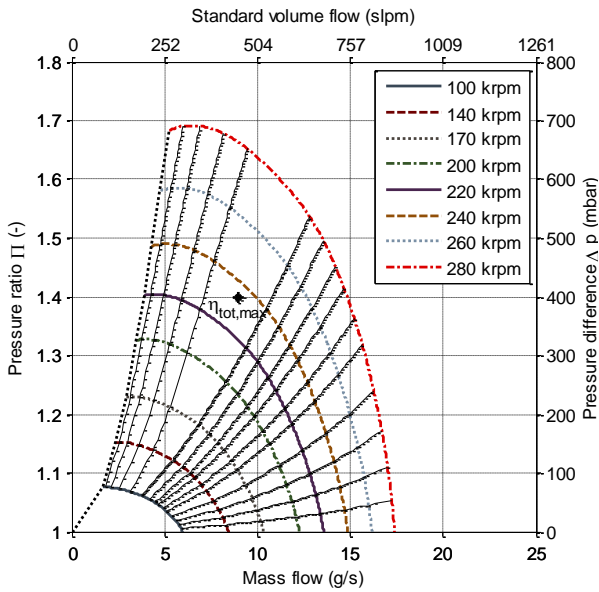
Maximum pressure ratio	1.65
Maximum mass flow	17 g/s
Isentropic overall efficiency η_{tot}	58 %
Rated speed (active cooling)	280'000 rpm
Rated power	700 W
Weight	1.5 kg

Drawing (in mm)

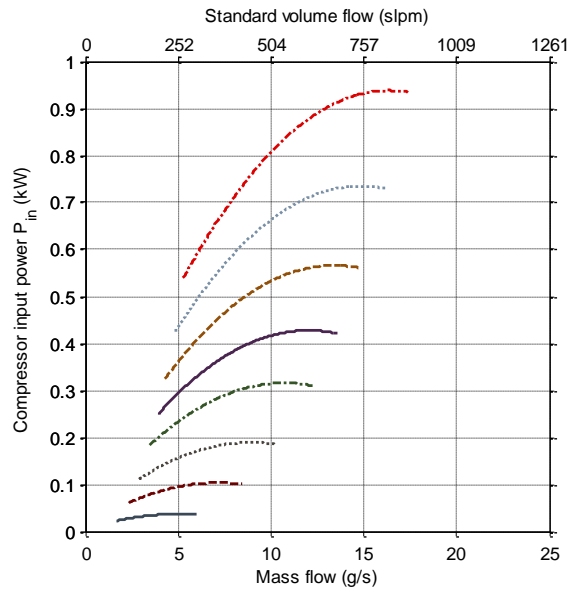


Compressor maps: overpressure operation

Pressure ratio versus mass flow



Compressor input power versus mass flow

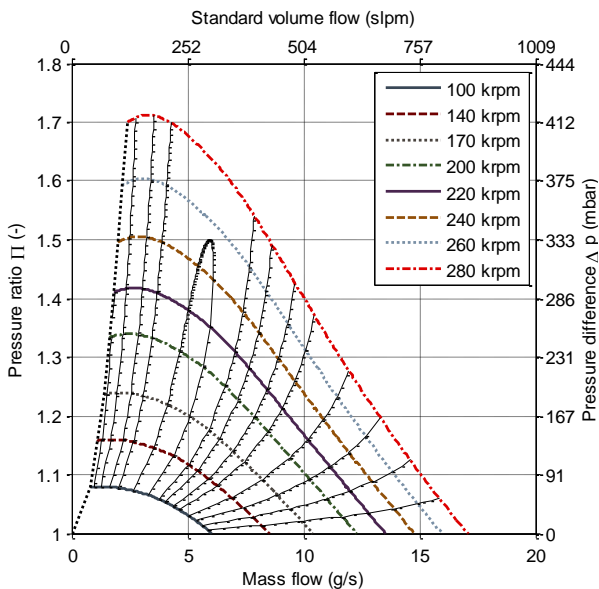


The specifications and compressor maps in this datasheet for overpressure operation refer to air (ISO 8778) at the inlet: temperature: $T = 293.15\text{ K} = 20^\circ\text{C}$, pressure: $p_{in} = 1\text{ bar}$.

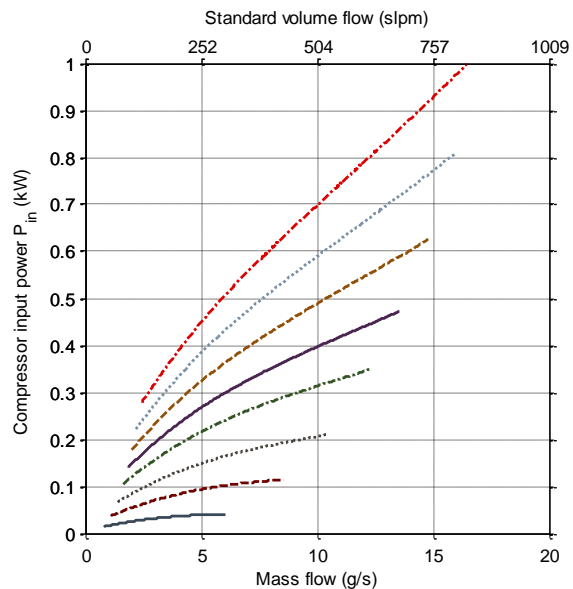
For technical details and further information please refer to the user's manual.

Compressor maps: vacuum operation

Pressure ratio versus mass flow



Compressor input power versus mass flow



Order codes: CT-17-700.GBxx.Wxx

Bearing options GBxx

GB01 Air bearing at ISO 8778 inlet conditions

GB99 Custom specific gas bearing (inlet conditions and / or gas, etc.)

Winding options Wxx

W01 Standard winding

Accessories

Damper set for mounting in mobile application

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

η_{is} : isentropic compressor efficiency

η_m : motor efficiency

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