

CT-14-1000



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

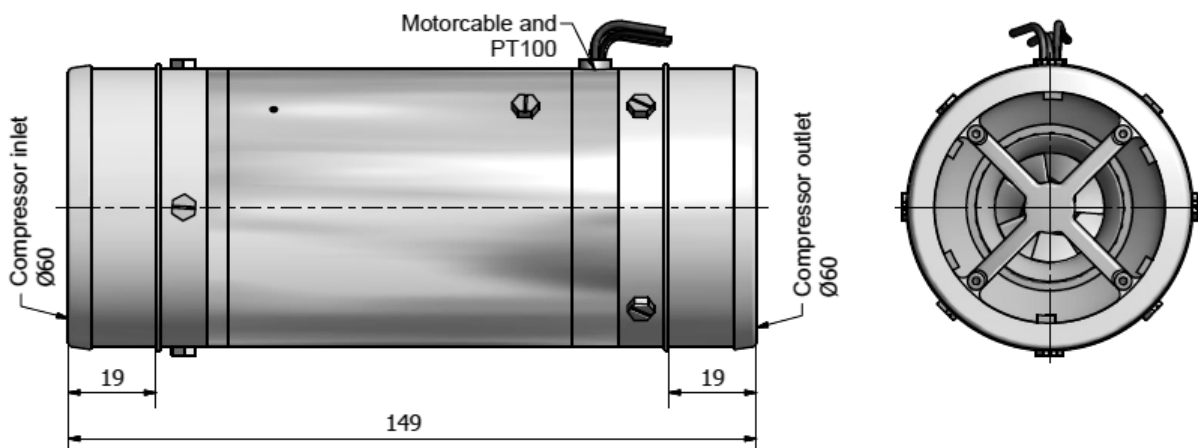
- Lowest ratio of volume and weight versus pressure and mass flow due to highest speeds
- Aerodynamic and electromagnetic optimization for highest total efficiency
- High-speed ball bearings with permanent lubrication
- Compatible to converter CC-230-3500 or CC-100-1000
- Integrated temperature measurement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



Specifications turbo compressor

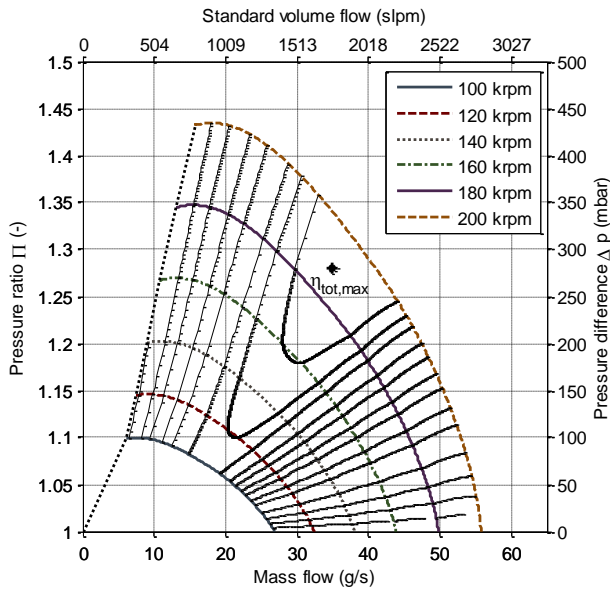
Maximum pressure ratio	1.43
Maximum mass flow	55 g/s
Maximum overall efficiency η_{tot}	66 %
Rated power	1,000 W
Rated speed	200,000 rpm
Weight	700 g

Drawing (in mm)

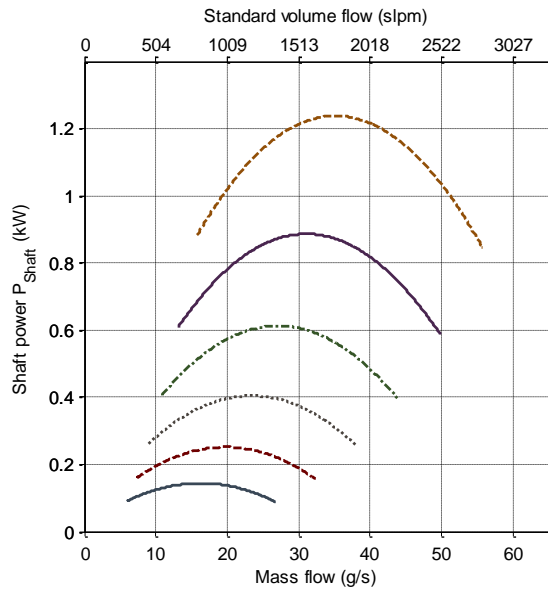


Compressor maps: overpressure operation

Pressure ratio versus mass flow



compressor input power versus mass flow

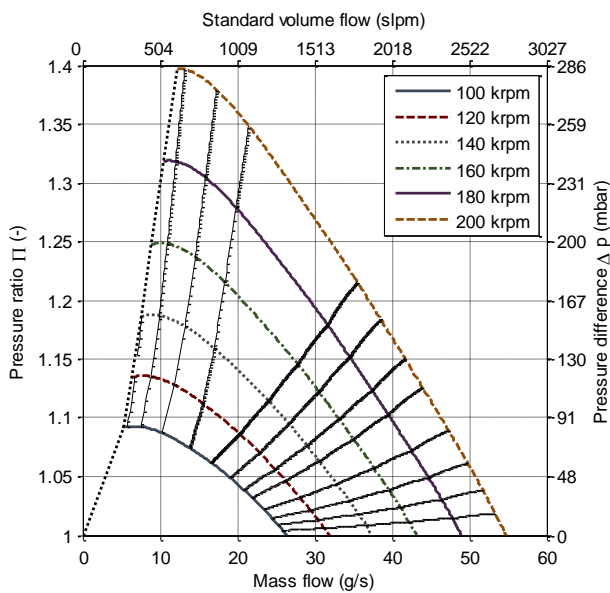


The specifications and compressor maps in this datasheet for overpressure operation refer to air (ISO 8778) at the inlet: temperature: $T = 293.15\text{ K} = 20^\circ\text{ C}$, pressure: $p_{in} = 1\text{ bar}$.

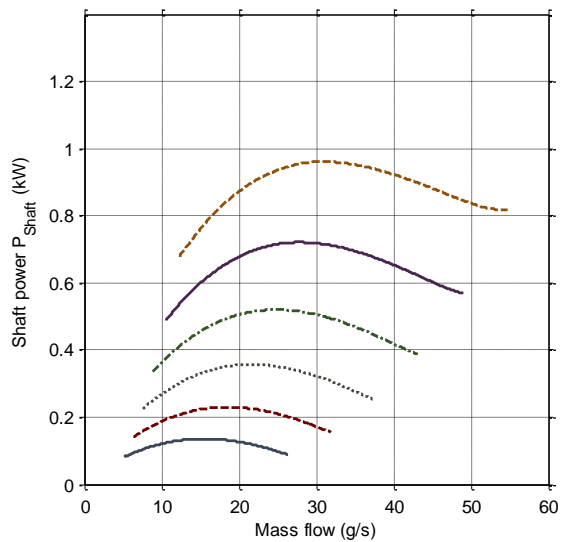
For technical details and further information please refer to the user's manual.

Compressor maps: vacuum operation

Pressure ratio versus mass flow

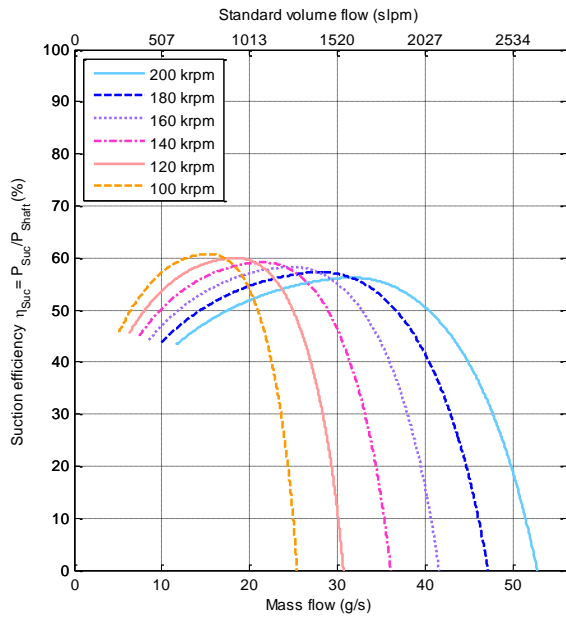


compressor input power versus mass flow

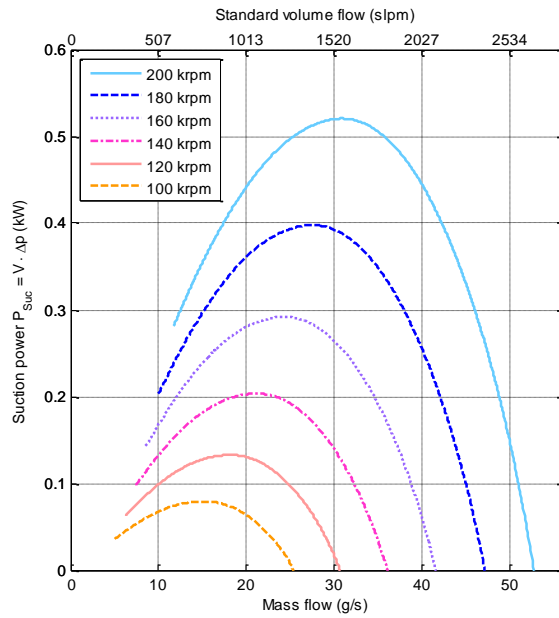


Compressor maps: vacuum operation

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)

$\eta_{tot} = \eta_{is} * \eta_m$: isentropic overall efficiency
 η_{is} : isentropic compressor efficiency
 η_m : motor efficiency

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