

CT-13-1000

Diagonal turbocompressor CT-13-1000

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

- Lowest ratio of volume and weight versus pressure and volume flow due to highest speeds
- Thermodynamic and electromagnetic optimization for highest total efficiency
- High-speed ball bearings with permanent lubrication
- Ideal in combination with converter CC-230-1500
- Customized adaptations available



Specification compressor (air, inlet temperature 25°C, inlet pressure 1 bar)¹

| | |
|-------------------------------|---------|
| Maximum pressure ratio | 1.3 |
| Maximum mass flow | 55 g/s |
| Maximum isentropic efficiency | 74 % |
| Weight | 500 g |
| Rated power | 1,000 W |

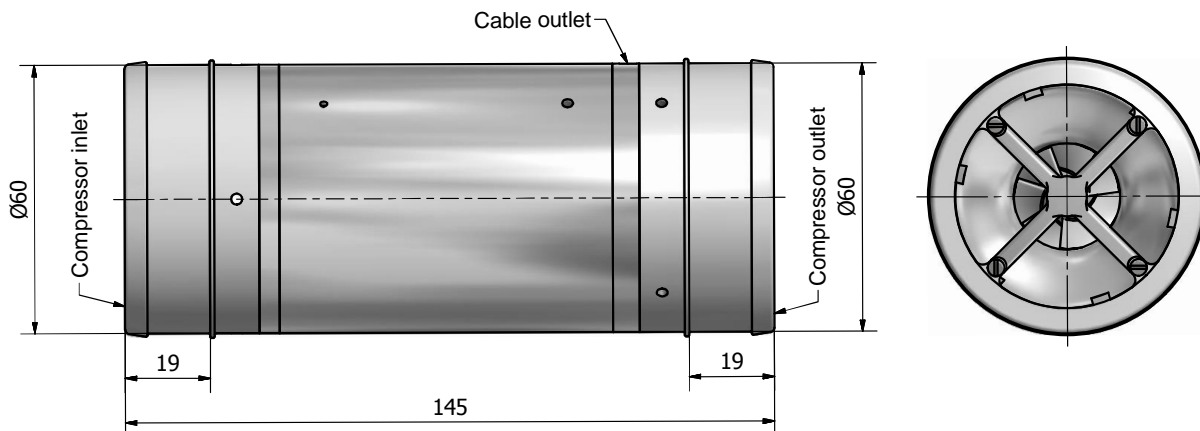
Specifications integrated motor (air, inlet temperature 25°C, inlet pressure 1 bar)¹

| | |
|--|---|
| Pole-pair number | 1 |
| Rated speed | 200,000 rpm |
| Rated power | 1,000 W |
| Input voltage converter (min. ac) | 110 V |
| Permanent-magnet flux linkage | $8.6 \cdot 10^{-3} \text{ V} \cdot \text{s}$ |
| Phase current (rms) | |
| ▪ Rated | 2.6 A |
| ▪ Maximal | 5.2 A |
| ▪ Sync | 2.0 A |
| Motor losses at rated operating point ² | 46.0 W |
| Temperature measurement | Pt100 |
| Axial moment of inertia (rotor) | $1.6 \cdot 10^{-6} \text{ kg} \cdot \text{m}^2$ |
| Phase resistance | 0.75 Ω |
| Phase inductance | 193 μH |

¹Specifications for other media and inlet conditions on request

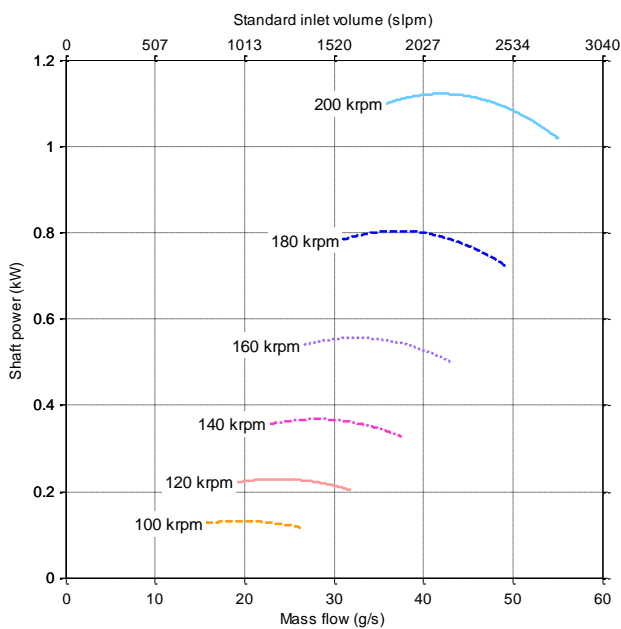
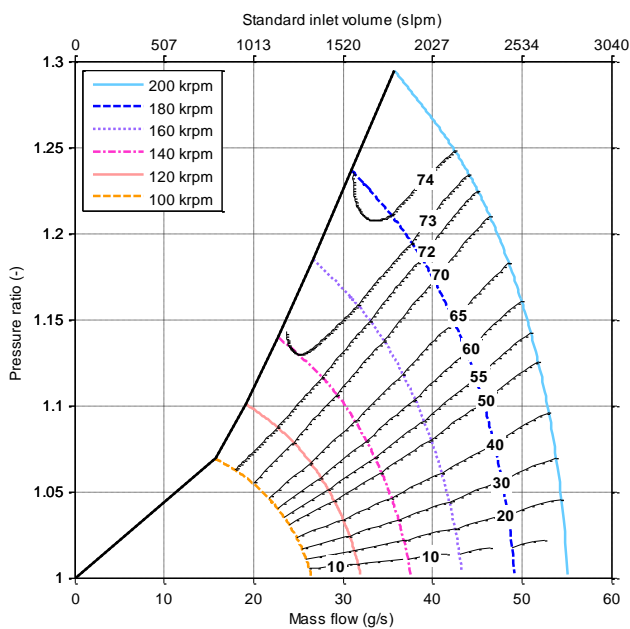
²Losses for other operating points (power/rotational speed) on request

Drawing (in mm)



Compressor maps (air, inlet temperature 25°C, inlet pressure 1 bar)³

Pressure ratio versus mass flow Shaft power versus mass flow



³Characteristics lines for other media and inlet conditions on request

Contact

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