

CT-1053-Ne

Highly compact, high-speed, electrically driven radial turbo compressor with gas bearing for the circulation and compression of neon (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: Neon, 1.1 bar abs., 15 °C)	
Model	CT-1053-Ne
Maximum pressure ratio	1.75
Maximum mass flow	25 g/s
Maximum isentropic overall efficiency ¹	60 %
Maximum speed	220,000 rpm
Maximum compressor input power	2 kW
Weight (excl. cable)	4.6 kg
Cooling	Liquid Cooling (water/glycol, 10-20 °C, >2 l/min)

Compressor map: overpressure operation Pressure ratio versus mass flow Compressor input power versus mass flow Inlet volume flow (I/min) Inlet volume flow (I/min) 324 648 972 1296 1620 1944 324 648 972 1296 1620 1944 2.5 1.8 1.7 2 Compressor input power (kW) 1.6 Pressure ratio (-) 1.5 1.5 1.4 1 1.3 1.2 0.5 1.1 0-5 10 15 25 30 5 10 15 20 25 30 Mass flow (g/s) Mass flow (g/s)

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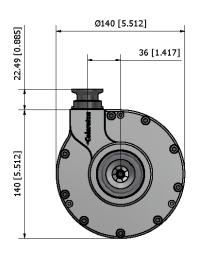
¹ Isentropic overall efficiency including aerodynamic, motor and bearing efficiency

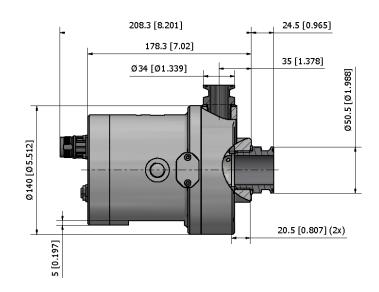


Order codes: CT-1053-Ne

Ordering information	Article number
CT-1053-Ne	4010047
CT-1053-Ne with CC-230-3500	4100347

Drawing in mm [inch] 2,3







The specifications and compressor maps in this document refer to neon at the inlet of the compressor: temperature: $T=15\,^{\circ}C$, absolute pressure: $p_{in}=1.1\ bar$.



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.

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 $^{^2}$ CF flange CL-MA32DIN505G114-4L for inlet, optional. G 1 % without CF flange

³ CF flange CL-MA20DIN34G34-4L for outlet, optional. G ¾ without CF flange