

## Technical Data

Product: TURBOVAC 90 i - without Integrated Vacuum System Controller  
 Part No.: 810031V1000

Inlet connection:	DN 63 ISO-K	
Outlet connection:	DN 16 ISO-KF	
Pumping speed		
N <sub>2</sub> - Nitrogen:	90 l/s	
Ar - Argon:	83 l/s	
He - Helium:	90 l/s	
H <sub>2</sub> - Hydrogen:	78 l/s	
Gas throughput		
N <sub>2</sub> - Nitrogen:	10 mbar x l/s	
Ar - Argon:	3 mbar x l/s	
He - Helium:	11 mbar x l/s	
H <sub>2</sub> - Hydrogen:	11 mbar x l/s	
Compression ratio		
N <sub>2</sub> - Nitrogen:	1.0 x 10 <sup>11</sup>	
Ar - Argon:	1.0 x 10 <sup>11</sup>	
He - Helium:	-	
H <sub>2</sub> - Hydrogen:	5.0 x 10 <sup>7</sup>	
Ultimate pressure:	< 8.0 x 10 <sup>-8</sup> mbar	< 6.0 x 10 <sup>-8</sup> Torr
Max. foreline pressure for N <sub>2</sub> :	14.0 mbar	10.5 Torr
Nominal rotation speed:	72000 min <sup>-1</sup>	72000 rpm
Rotational speed adaptation:	62 - 100 %	
Run -up time:	≈ 1.5 min	
Admissible ambient temperature:	+5 to +45°C	+41 to +113°F
Standard cooling:	Convection	
Optional cooling:	Air / Water	
Cooling water connection:	plug connection for 6x1 hose alternative G 1/8" screw in thread	
Cooling water consumption:	30 - 60 l/h	
Permissible cooling water pressure:	3 - 6 bar	
Permissible cooling water temperature:	+15 to +35°C	+59 to +95°F
Noise level **::	≤ 41 db(A)	
Dimensions:	see dimension sheet	
Weight:	≈ 3.1 kg	≈ 6.8 lbs

\*\* with convection cooling

Technical data are subject to change

## Technical Data

### Technical data for integrated drive electronics

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Integrated vacuum system controller:	no
Mains connection:	24/48 V DC, $\pm 10\%$
Max. current consumption:	10 A at 24 V DC
Max. power consumption:	240 W
Power consumption at ultimate pressure (24V/48V):	7 W / 9.5 W
Interfaces:	RS485, USB+, 15-Pin digital I/O
Protection class:	IP 40

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Recommended Fore Vacuum Pumps:	TRIVAC D 2,5 E TRIVAC D 4 B SCROLLVAC SC 5 D DIVAC 1.4 HV3
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