



# HiPace®; 300

Compact yet powerful turbopumps with pumping speeds of up to 260 l/s for N<sub>2</sub>



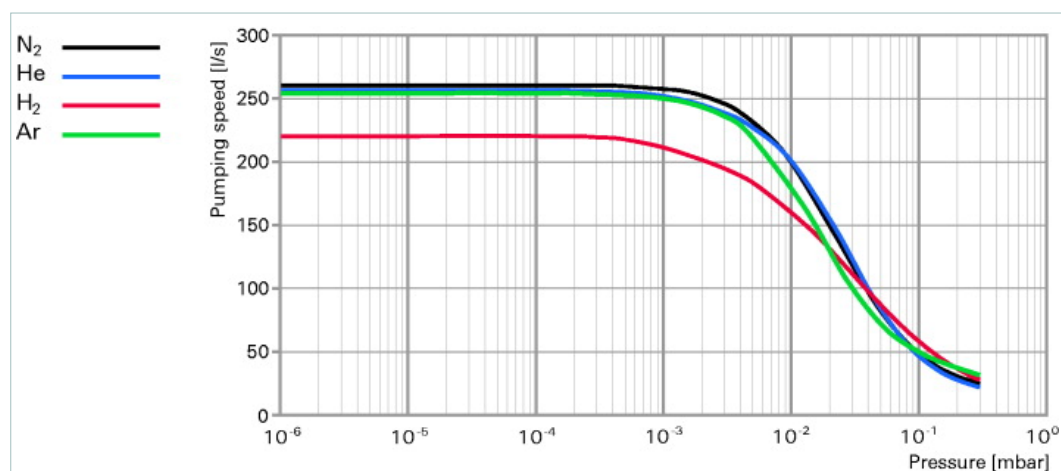


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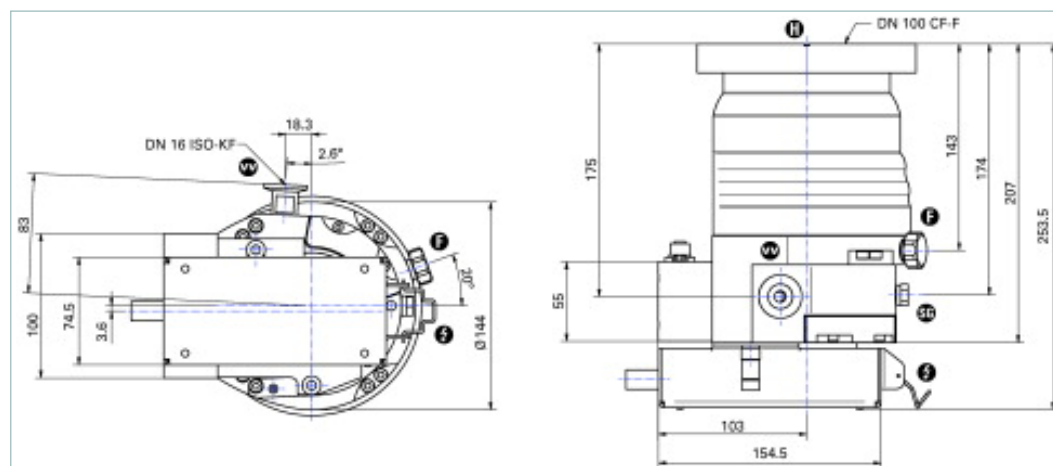
## HiPace® 300 with TC 110 and power supply OPS 100, DN 100 CF-F

- Rugged, powerful turbopump with a pumping speed of up to 260 l/s for N<sub>2</sub>
- DN 100 CF-F flange for demanding UHV applications
- Drive electronics TC 110 and power supply OPS 100 integrated
- Ideal for UHV applications
- For installation in any orientation
- Extensive accessories expand the range of applications

C=Corrosive gas version



### Dimensions



### Technical Data

### HiPace® 300 with TC 110 and power supply OPS 100, DN 100 CF-F

Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H <sub>2</sub>	$9 \cdot 10^5$
Compression ratio for He	$> 1 \cdot 10^8$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^{11}$
Cooling method, standard	Air
Electronic drive unit	with TC 110
Flange (in)	DN 100 CF-F
Flange (out)	DN 16 ISO-KF / G 1/4"

Technical Data		HiPace® 300 with TC 110 and power supply OPS 100, DN 100 CF-F	
Fore-vacuum max. for N <sub>2</sub>		11 hPa   8.25 Torr   11 mbar	
Gas throughput at full rotational speed for Ar		0.5 hPa l/s   0.38 Torr l/s   0.5 mbar l/s	
Gas throughput at full rotational speed for H <sub>2</sub>		5 hPa l/s   3.75 Torr l/s   5 mbar l/s	
Gas throughput at full rotational speed for He		1.8 hPa l/s   1.35 Torr l/s   1.8 mbar l/s	
Gas throughput at full rotational speed for N <sub>2</sub>		0.9 hPa l/s   0.68 Torr l/s   0.9 mbar l/s	
Integrated power supply		yes	
Interfaces		RS-485, Remote	
Mounting orientation		in any orientation	
Operating voltage		24 (± 5 %) V DC	
Permissible magnetic field max.		5.5 mT	
Protection category		IP30	
Pumping speed for Ar		255 l/s	
Pumping speed for H <sub>2</sub>		220 l/s	
Pumping speed for He		255 l/s	
Pumping speed for N <sub>2</sub>		260 l/s	
Rotation speed ± 2 %		60000 min <sup>-1</sup>	
Rotation speed variable		35-100 %	
Run-up time		4 min	
Sound pressure level		≤ 50 dB (A)	
Ultimate pressure according to PNEUROP		< 5 · 10 <sup>-10</sup> hPa   < 3.75 · 10 <sup>-10</sup> Torr   < 5 · 10 <sup>-10</sup> mbar	
Venting connection		G 1/8"	
Weight		8.9 kg   19.62 lb	
Order number			
HiPace® 300		PM P04 331	

Accessories	
<b>Accessory for TC 110</b>	
TCS 11, adapter for TC 110/120 with RS-485 interface	PM 061 636 -U
TCS 12, adapter for TC 110/120 with interface RS-485, 4 accessory ports and coupling set	PM 061 638 -U
TCS 13, adapter for TC 110/120 with interface RS-485, 2 accessory ports and coupling set	PM 061 856 -U
<b>Adapter and control cables</b>	
Control cable for valve	PM 061 687 -T
HiPace - ACP connection cable	PM 071 142 -X
<b>Air cooling</b>	
Air cooling for HiPace 300/450, 115 V	PM Z01 308
Air cooling for HiPace 300/450, 230 V	PM Z01 309
Air cooling for HiPace 300/450 with TC 110/120	PM Z01 301
<b>CF-F, Mounting kit</b>	
Set of hexagon screws for through hole, DN 100 CF-F	PM 016 690 -T
Set of stud screws for tapped hole, DN 100 CF-F	PM 016 692 -T
Set of stud screws for through hole, DN 100 CF-F	PM 016 734 -T
<b>CF-F, Sealings, splinter shields, protection screens</b>	
Protection screen for DN 100 CF-F	PM 016 336
Splinter shield for turbopumps, DN 100 CF-F	PM 016 315
<b>Control and display units</b>	
Accessories package for HPU 001/PC	PM 061 005 -T
DCU 002, Display Control Unit	PM 061 348 -T
HPU 001, Handheld Programming Unit	PM 051 510 -T
RJ 45 interface cable on M12 for HiPace	PM 051 726 -T
<b>Fore-vacuum safety valves</b>	
TVV 001 fore-vacuum safety valve, 115 V AC	PM Z01 206
TVV 001 fore-vacuum safety valve, 230 V AC	PM Z01 205
<b>Interface and extension cables</b>	
Interface cable, M12 m straight/ M12 m angled 0.7 m	PM 061 791 -T
Interface cable, M12 m straight / M12 m straight, 3 m	PM 061 283 -T
<b>Mains cables</b>	
Mains cable 115 V AC, NEMA 5-15 to C13, 3 m	P 4564 309 ZE
Mains cable 208 V AC, NEMA 6-15 to C13, 3 m	P 4564 309 ZF
Mains cable 230 V AC, CEE 7/7 to C13, 3 m	P 4564 309 ZA
<b>Power failure venting units (normally open)</b>	
Shielded power failure venting unit, 24 V DC, G 1/8", for connection to TC 110/120	PM Z01 330
<b>Relay boxes</b>	
Relay box, shielded, for backing pumps, 1-phase 7A for TC 110/120 and TCP 350, plug M8	PM 071 282 -X
Relay box for backing pump, single phase 20 A for TC 110/120 and TCP 350, M8 plug	PM 061 373 -T
<b>RS-485</b>	
Connector M12 to RS-485	PM 061 270 -X
Power separator for RS-485	PT 348 132 -T
Termination resistor for RS-485	PT 348 105 -T
USB converter to RS-485 interface	PM 061 207 -T
Y-Connector M12 to RS-485	P 4723 010

<b>Accessories</b>	
<b>Sealing gas</b>	
Sealing gas throttle for HiPace 300 - 800	<b>PM Z01 317</b>
Sealing gas valve, shielded for HiPace 300/450 with TC 110/120	<b>PM Z01 311</b>
<b>Venting accessory with small flange, G 1/8", hoses, air drier</b>	
Banjo fitting	<b>PM 016 787 -T</b>
Banjo fitting, small	<b>PM 143 877 -T</b>
Hose nozzle for 9 mm hose, G 1/8"	<b>PM 016 783 -T</b>
Push-in fitting for 6 mm hose, G 1/8"	<b>PM 016 781 -T</b>
Push-in fitting for 8 mm hose, G 1/8"	<b>PM 016 782 -T</b>
Screw-in flange, DN 10 ISO-KF, G 1/8"	<b>PM 033 737 -T</b>
Screw-on flange, DN 16 ISO-KF, G 1/8"	<b>PM 016 780 -T</b>
TTV 001, dryer for venting turbopumps	<b>PM Z00 121</b>
<b>Venting valve (normally closed)</b>	
Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 110/120	<b>PM Z01 290</b>
<b>Vibration damper</b>	
Vibration damper for HiPace 300/400, DN 100 CF-F	<b>PM 006 488 -X</b>