



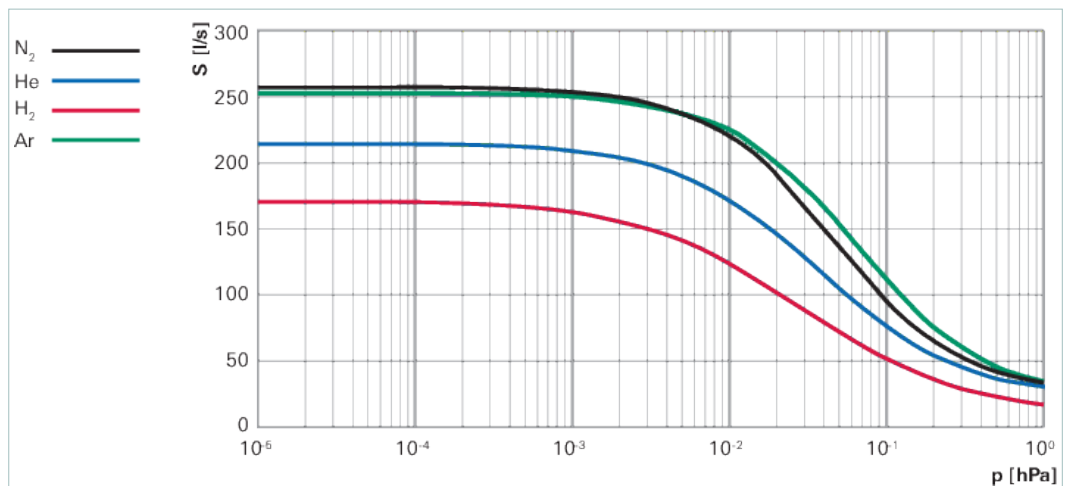
HiPace[®] 300 M with TC 700, DeviceNet, DN 100 ISO-F



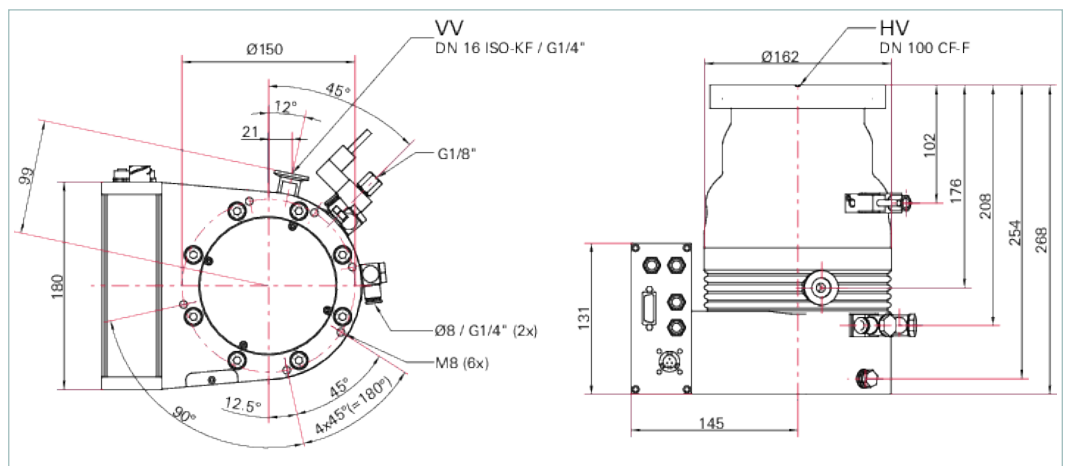
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HiPace® 300 M with TC 700, DeviceNet, DN 100 ISO-F

- 5-axis magnetically levitated turbopump with a pumping speed of 255 l/s for N₂
- Integrated digital magnetic bearing controller TM 700
- Installation in any orientation; flexible through connectivity of up to 4 accessory parts
- With integrated water cooling for maximum gas throughput
- Interface: DeviceNet and Remote
- The turbopump features extremely low vibration and is oil-free
- With In-field sensor calibration
- Including venting valve for pulsed venting
- Protection Class: IP 54
- Extensive accessories expand the range of applications



Dimensions



Technical Data

HiPace® 300 M with TC 700, DeviceNet, DN 100 ISO-F

Bearing	Magnetically
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H ₂	$5 \cdot 10^5$
Compression ratio for He	$> 1 \cdot 10^8$
Compression ratio for N ₂	$> 1 \cdot 10^{11}$
Cooling method, optional	Air/convection
Cooling method, standard	Water

Technical Data	HiPace® 300 M with TC 700, DeviceNet, DN 100 ISO-F
Cooling water flow	80 l/h
Cooling water flow, max	80 l/h
Cooling water flow, min	80 l/h
Cooling water temperature	15-35 °C 59-95 °F 288-308 K
Electronic drive unit	TM 700
Flange (in)	DN 100 CF-F
Flange (out)	DN 16 ISO-KF
Fore-vacuum max. for N ₂	20 hPa 15 Torr 20 mbar
Gas throughput at 0.1 hPa HV for Ar	11 hPa·l/s
Gas throughput at 0.1 hPa HV for H ₂	5 hPa·l/s
Gas throughput at 0.1 hPa HV for He	8 hPa·l/s
Gas throughput at 0.1 hPa HV for N ₂	10 hPa·l/s
Gas throughput at full rotational speed for Ar	13 hPa·l/s
Gas throughput at full rotational speed for N ₂	28 hPa·l/s
I/O interfaces	RS-485, Remote, DeviceNet
Interface, extended	DeviceNet
Low vibrations	YES
Mounting orientation	Any
Operating voltage: V DC	48 (± 5 %) V DC
Permissible magnetic field max.	5 mT
Protection category	IP54
Pumping speed for Ar	250 l/s
Pumping speed for H ₂	170 l/s
Pumping speed for He	215 l/s
Pumping speed for N ₂	255 l/s
Rotation speed ± 2 %	60,000 rpm 60,000 min ⁻¹
Rotation speed variable	20 – 100 %
Run-up time	< 2 min
Sound pressure level	≤ 45 dB(A)
Ultimate pressure according to PNEUROP	< 5 · 10 ⁻¹⁰ hPa < 3.75 · 10 ⁻¹⁰ Torr < 5 · 10 ⁻¹⁰ mbar
Venting connection	G 1/8"
Voltage: Range	90 – 265 V AC
Weight	17.2 kg 37.92 lb

Order number	
HiPace® 300 M	PM P03 958

Accessories	
Adapters (electrical) Profibus	
Remote adapter for RS-485	PM 061 649 -X
Adapters (electrical) PV-Can	
TIC 010, Adapter for two sensors	PT R70 000
Adapters (electrical) Remote	
Supply socket TC 400/TM 700, straight	P 4723 100
Supply bushing, angled, for TC 400/TM 700	P 4723 101
Cables Backing pump control cables	
HiPace – ACP connection cable	PM 071 142 -X
Cables Connection cables	
Connection cable for HiPace with TC 400/TM 700 to power supply pack TPS/DCU 310/311/400/401	PM 061 352 -T
Cables Extension cables	
Extension cable M12 on M12	PM 061 747 -T
Cables Mains cables / Power cords	
Mains cable 208 V AC, NEMA 6-15 to C13, 3 m	P 4564 309 ZF
Control Devices Backing pump	
Relay box, shielded, for backing pumps, 1-phase 20 A for TC 400/1200, TM 700 and TCP 350, M12	PM 071 285 -X
Control Devices Power supplies and control displays	
Accessories package for HPU 001/PC	PM 061 005 -T
TPS 400, power supply pack 48 V DC, for wall/standard rail fitting	PM 061 343 -T
TPS 401, power supply pack 48 V DC, 19" partial plug-in 3HU	PM 061 347 -T
Front panel kit for TPS 401	PM 061 396 -T
DCU 400, Display control unit incl. power supply pack 19"	PM C01 823
Control Units without Power supply	
HPU 001, Handheld programming unit	PM 051 510 -T
DCU 002, Display Control Unit	PM 061 348 -T
Cooling Air cooling	
Air cooling, shielded, for HiPace 300 with TC 400 PB	PM Z01 362
FKM cut from sheet material	
Elastomer seal, FKM, DN 100 CF	402DFL100-S2
FKM with centering lip; heat-molded	
Elastomer seal, FKM, DN 100 CF	402DFL100-Z
Heating Heating jackets	
Heating jacket, shielded, for HiPace 300 with TC 400 PB/TM 700, 230 V AC, with safety plug	PM 071 266 -T
Heating jacket shielded, for HiPace 300 with TC 400 PB/TM 700, 208 V AC, UL plug	PM 071 267 -T
Heating jacket shielded, for HiPace 300 with TC 400 PB/TM 700, 115 V AC, UL plug	PM 071 268 -T
Monitoring Pressure Sensors	
RPT 010, Digital Piezo/Pirani Sensor	PT R71 100
IKT 010, Digital cold cathode sensor, low current	PT R72 100
IKT 011, Digital cold cathode sensor, high current	PT R73 100
Monitoring Sealing gas monitoring units	
Sealing gas monitoring unit G 1/8"	PM 016 911 -U

Accessories	
Mounting CF-F, Mounting kits	
Hexagon Screw Set for Flanges with Through-Holes, DN 100 CF-F	PM 016 690 -T
Set of stud screws for flanges with a threaded hole, DN 100 CF-F	PM 016 692 -T
Set of stud screws for flanges with through-hole, DN 100 CF-F	PM 016 734 -T
OFHC Copper (Oxygen Free)	
Copper Gasket, OFHC-copper, DN 100 CF	490DFL100-S10
OFHC Copper (Oxygen Free), Silver-plated	
Copper Gasket, Silver-Plated, DN 100 CF	490DFL100-S-S5
OFHC Copper (Oxygen Free), Silver-plated, Vacuum-annealed	
Copper Gasket, Silver-plated, Vacuum-Annealed, DN 100 CF	490DFL100-S-G-S5
OFHC Copper (Oxygen Free), Vacuum-annealed	
Copper Gasket, Vacuum-annealed, DN 100 CF	490DFL100-G-S5
Protection CF-F, splinter shields, protection screens	
Splinter shield for turbopumps, DN 100 CF-F	PM 016 315
Protection screen for DN 100 CF-F	PM 016 336
Protection Sealing gas throttles	
Sealing gas throttle for HiPace 300	PM Z01 317
Turbopumps	
Mains cable 230 V AC, CEE 7/7 to C13, 3 m	P 4564 309 ZA
Mains cable 115 V AC, NEMA 5-15 to C13, 3 m	P 4564 309 ZE
Y-Connector M12 to RS-485	P 4723 010
USB converter to RS-485 interface	PM 061 207 -T
Turbopumps/Measurement	
Interface cable, M12 m straight/M12 m straight, 3 m	PM 061 283 -T
Valves Fore-vacuum safety valves	
TVV 001, fore-vacuum safety valve, 230 V AC	PM Z01 205
TVV 001, fore-vacuum safety valve, 115 V AC	PM Z01 206
Valves Sealing gas valves, shielded (normally closed)	
Sealing gas valve, shielded for HiPace 300 with TC 400 and TM 700, TCP 350	PM Z01 312
Venting Power failure venting units (normally open)	
Power failure venting valve, shielded, 24 V DC, G 1/8" for connection to TC 400, TM 700 and TC 1200	PM Z01 331
Venting Venting accessories	
Banjo fitting	PM 016 787 -T
Banjo fitting, small	PM 143 877 -T
TTV 001, Drier for Venting Turbopumps	PM Z00 121
Venting Venting valves (normally closed)	
Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 400/1200 and TM 700	PM Z01 291
Vibration Reduction Vibration dampers	
Vibration damper for HiPace 300/400, DN 100 CF-F	PM 006 488 -X

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