



HiPace[®] 300

Compact yet powerful turbopumps with
pumping speeds of up to 260 l/s for N₂



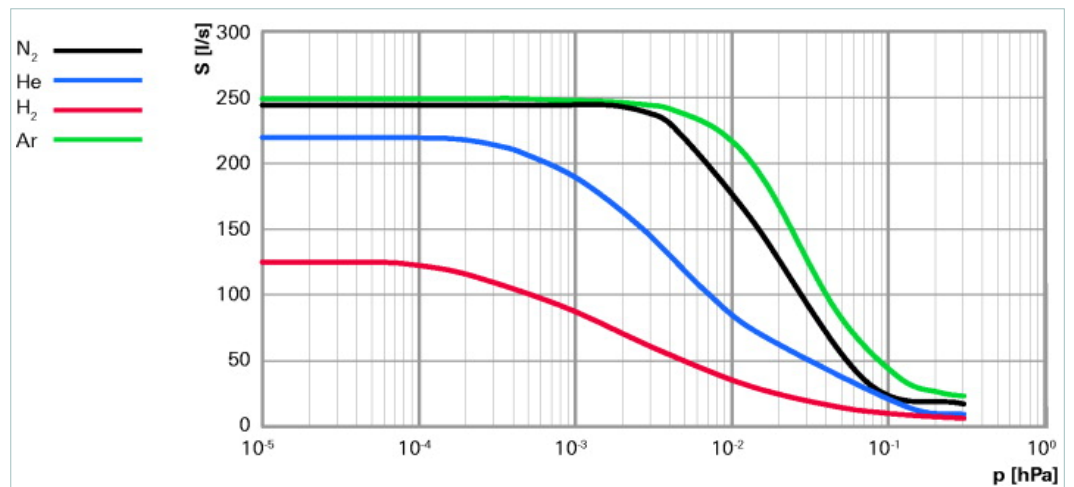


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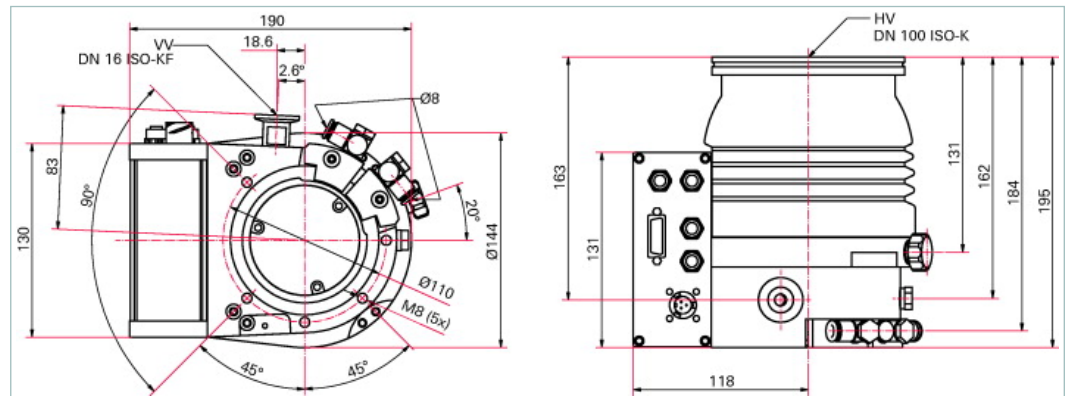
HiPace® 300 C with TC 400, DN 100 ISO-K

- Rugged, powerful turbopump with a pumping speed of up to 245 l/s for N₂
- Integrated TC 400 drive electronics
- Ideal for coating and semiconductor applications
- With integrated water cooling for maximum gas throughput
- Flexible through the ability to employ up to 4 accessories
- Ideal for fast cycles
- Extensive accessories expand the range of applications
- Corrosive gas version

C=Corrosive gas version



Dimensions



| Technical Data | HiPace® 300 C with TC 400, DN 100 ISO-K |
|--------------------------------------|---|
| Bearing | Hybrid |
| Compression ratio for Ar | $> 1 \cdot 10^7$ |
| Compression ratio for H ₂ | $3 \cdot 10^2$ |
| Compression ratio for He | $2.2 \cdot 10^3$ |
| Compression ratio for N ₂ | $> 1 \cdot 10^6$ |
| Cooling method, optional | Air |
| Cooling method, standard | Water |
| Cooling water consumption | 50 l/h |
| Cooling water temperature | 15-35 °C 59-95 °F 288-308 K |
| Corrosive gas version | yes |
| Electronic drive unit | with TC 400 |
| Flange (in) | DN 100 ISO-K |

| Technical Data | HiPace® 300 C with TC 400, DN 100 ISO-K |
|--|--|
| Flange (out) | DN 16 ISO-KF / G 1/4" |
| Fore-vacuum max. for N ₂ | 1 hPa 0.75 Torr 1 mbar |
| Gas throughput at full rotational speed for Ar | 4.4 hPa l/s 3.3 Torr l/s 4.4 mbar l/s |
| Gas throughput at full rotational speed for H ₂ | > 50 hPa l/s > 37.5 Torr l/s > 50 mbar l/s |
| Gas throughput at full rotational speed for He | > 20 hPa l/s > 15 Torr l/s > 20 mbar l/s |
| Gas throughput at full rotational speed for N ₂ | 17 hPa l/s 12.75 Torr l/s 17 mbar l/s |
| Interfaces | RS-485, Remote |
| Mounting orientation | Standard (0°-90°) |
| Operating voltage | 24 (± 5 %) V DC |
| Particulate matter | yes |
| Permissible magnetic field max. | 5.5 mT |
| Protection category | IP54 |
| Pumping speed for Ar | 250 l/s |
| Pumping speed for H ₂ | 125 l/s |
| Pumping speed for He | 220 l/s |
| Pumping speed for N ₂ | 245 l/s |
| Rotation speed ± 2 % | 60000 min ⁻¹ |
| Rotation speed variable | 35-100 % |
| Run-up time | 1.2 min |
| Sound pressure level | ≤ 50 dB (A) |
| Ultimate pressure according to PNEUROP | < 1 · 10 ⁻⁷ hPa < 7.5 · 10 ⁻⁸ Torr < 1 · 10 ⁻⁷ mbar |
| Venting connection | G 1/8" |
| Weight | 6.4 kg 14.11 lb |

| Order number |
|--------------|
| HiPace® 300 |
| PM P03 906 |

| Accessories | |
|--|---------------|
| Accessory for TC 400/1200 and TM 700 | |
| Mains power socket, angled, for TC 400/TM 700 | P 4723 101 |
| Mains power socket TC 400/TM 700, straight | P 4723 100 |
| Y-connector, shielded, M12 for accessories | P 4723 013 |
| Adapter and control cables | |
| Control cable for pumping stations 0.7 m | PM 061 675 AT |
| HiPace - ACP connection cable | PM 071 142 -X |
| Air cooling | |
| 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 with TC 400 | PM Z01 302 |
| Connection cables | |
| Connection cable for HiPace with TC 400/TM 700 to power supply TPS/DCU 310/311/400/401 | PM 061 352 -T |
| Control and display units | |
| 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 |
| DCU with integrated power supply | |
| DCU 310, Display control unit incl. power supply | PM C01 822 |
| DN ISO-K, Mounting kit, bracket screws | |
| Mounting kit for HiPace 300, DN 100 ISO-K, including coated centering ring, protection screen and bracket screws | PM 016 367 -T |
| Mounting kit for HiPace 300, DN 100 ISO-K, including coated centering ring, splinter shield and bracket screws | PM 016 366 -T |
| Mounting kit for HiPace 300 with DN 100 ISO-K, including coated centering ring and bracket screws | PM 016 365 -T |
| DN ISO-K / -F, sealings, splinter shields, protection screens | |
| Centering ring with multifunction coating, DN 100 ISO-K/-F | PM 016 210 -U |
| Centering ring with multifunction coating and integrated protection screen, DN 100 ISO-K/-F | PM 016 212 -U |
| Centering ring with multifunction coating and integrated splinter shield, DN 100 ISO-K/-F | PM 016 211 -U |
| Fore-vacuum safety valves | |
| TVV 001 fore-vacuum safety valve, 115 V AC | PM Z01 206 |
| TVV 001 fore-vacuum safety valve, 230 V AC | PM Z01 205 |
| Interface and extension cables | |
| Extension cable M12 on M12 | PM 061 747 -T |
| 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 |
| Mains cables | |
| 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 |
| 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 |

| Accessories | |
|---|---------------|
| Relay boxes | |
| Backing pump relay box, single phase 20 A, for TC 400 and TCP 350, M12 plug | PM 061 375 -T |
| Relay box, shielded, for backing pumps, 1-phase 7 A for TC 400/1200, TM 700 and TCP 350, M12 | PM 071 284 -X |
| RS-485 | |
| 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 |
| Sealing gas | |
| Sealing gas throttle for HiPace 300 - 800 | PM Z01 317 |
| Sealing gas valve, shielded for HiPace 300/400/700 and 800 with TC 400 and TM 700 | PM Z01 312 |
| TPS-19" rack module | |
| Front panel kit for TPS 311 | PM 061 395 -T |
| TPS 311, mains pack 19" rack module 3HU | PM 061 346 -T |
| TPS wall rail fitting | |
| TPS 310, mains pack for wall/standard rail fitting | PM 061 342 -T |
| Wall rail fitting for TPS 110/180/310/400 | PM 061 392 -T |
| Venting accessory with small flange, G 1/8", hoses, air drier | |
| Banjo fitting | PM 016 787 -T |
| Banjo fitting, small | PM 143 877 -T |
| Hose nozzle for 9 mm hose, G 1/8" | PM 016 783 -T |
| Plug-in fitting for 6 mm hose, G 1/8" | PM 016 781 -T |
| Plug-in fitting for 8 mm hose, G 1/8" | PM 016 782 -T |
| Screw-in flange, DN 10 ISO-KF, G 1/8" | PM 033 737 -T |
| Screw-on flange, DN 16 ISO-KF, G 1/8" | PM 016 780 -T |
| TTV 001, dryer for venting turbopumps | PM Z00 121 |
| Venting valve (normally closed) | |
| Venting valve, 24 V DC, G 1/8" without cable | PM Z01 293 |
| Venting valve, shielded, 24 V DC, G 1/8", for connecting to TC 400,1200 and TM 700 with twisted plug 270° | PM Z01 292 |
| Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 400/1200 and TM 700 | PM Z01 291 |
| Vibration damper | |
| Vibration damper for HiPace 300/400, DN 100 ISO-K/F | PM 006 459 -X |