



HiPace[®] 80

Compact yet powerful turbopumps with
pumping speeds of up to 71 l/s for N₂

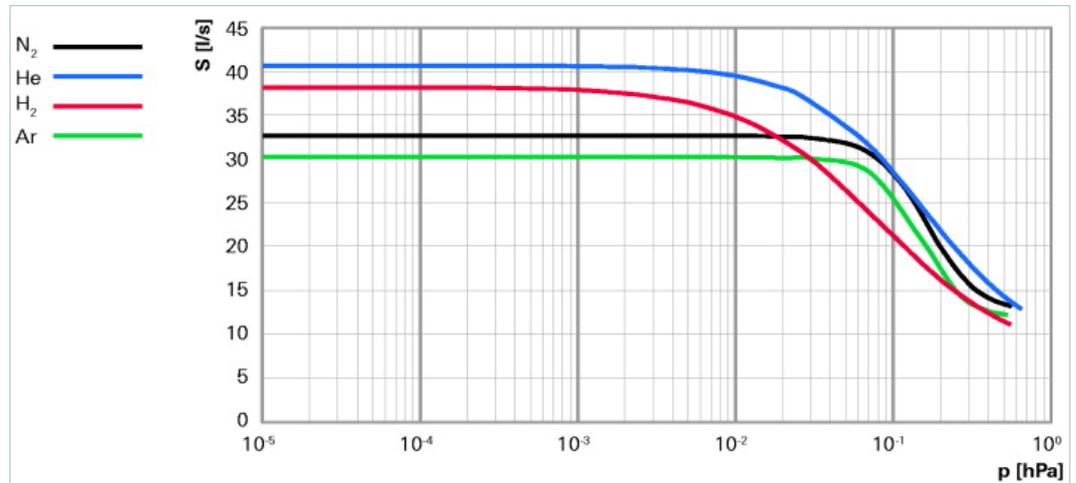




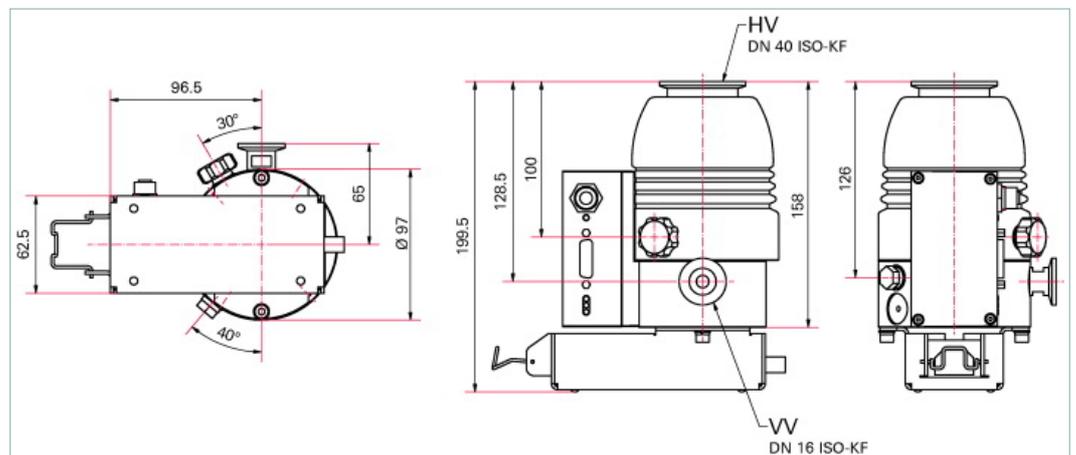
Similar Image

HiPace® 80 with TC 110 and power supply OPS 70, DN 40 ISO-KF

- Small yet powerful turbopump with a pumping speed of up to 67 l/s for N₂
- Maximum vacuum performance with minimum power consumption
- DN 40 ISO-KF flange
- Drive electronics TC 110 and power supply OPS 70 integrated
- For installation in any orientation
- Ideal for dependable systems integration
- Extensive accessories expand the range of applications



Dimensions



Technical Data

HiPace® 80 with TC 110 and power supply OPS 70, DN 40 ISO-KF

| | |
|--------------------------------------|--------------------------------|
| Bearing | Hybrid |
| Compression ratio for Ar | $> 1 \cdot 10^{11}$ |
| Compression ratio for H ₂ | $1.4 \cdot 10^5$ |
| Compression ratio for He | $1.3 \cdot 10^7$ |
| Compression ratio for N ₂ | $> 1 \cdot 10^{11}$ |
| Cooling method, optional | Air |
| Cooling method, standard | Convection |
| Cooling water consumption | 75 l/h |
| Cooling water temperature | 5-25 °C 41-77 °F 278-298 K |
| Electronic drive unit | with TC 110 |
| Flange (in) | DN 40 ISO-KF |

| Technical Data | HiPace® 80 with TC 110 and power supply OPS 70, DN 40 ISO-KF |
|--|--|
| Flange (out) | DN 16 ISO-KF / G 1/4" |
| Fore-vacuum max. for N ₂ | 19 hPa 14.25 Torr 19 mbar |
| Gas throughput at full rotational speed for Ar | 0.37 hPa l/s 0.28 Torr l/s 0.37 mbar l/s |
| Gas throughput at full rotational speed for H ₂ | 8.9 hPa l/s 6.67 Torr l/s 8.9 mbar l/s |
| Gas throughput at full rotational speed for He | 2.3 hPa l/s 1.73 Torr l/s 2.3 mbar l/s |
| Gas throughput at full rotational speed for N ₂ | 0.7 hPa l/s 0.53 Torr l/s 0.7 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. | 3.3 mT |
| Protection category | IP 30 |
| Pumping speed for Ar | 30 l/s |
| Pumping speed for H ₂ | 38 l/s |
| Pumping speed for He | 41 l/s |
| Pumping speed for N ₂ | 35 l/s |
| Rotation speed ± 2 % | 90,000 min ⁻¹ |
| Rotation speed variable | 50-100 % |
| Run-up time | 1.9 min |
| Sound pressure level | 48 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 | 2.87 kg 6.33 lb |

| Order number | |
|--------------|------------|
| HiPace® 80 | PM P04 265 |

| Accessories | |
|---|---------------|
| Accessory for TC 110 | |
| 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 |
| Adapter and control cables | |
| Control cable for valve | PM 061 687 -T |
| HiPace - ACP connection cable | PM 071 142 -X |
| Air cooling | |
| Air cooling for HiPace 60/80, SplitFlow 50/80, 230 V | PM Z01 343 |
| Air cooling for HiPace 60 P, HiPace 80 and SplitFlow 50/80 with TC 110/120 | PM Z01 300 |
| Air cooling for HiPace 60 P and 80, SplitFlow 50/80, 115 V | PM Z01 344 |
| 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 |
| DN ISO-K, Mounting kit, bracket screws | |
| Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring, protection screen and bracket screws | PM 016 362 -T |
| DN ISO-KF, mounting kit | |
| Mounting kit for HiPace 60/80, DN 40 ISO-KF, including centering ring and clamping ring | PM 016 625 -T |
| Mounting kit for HiPace 60/80, DN 40 ISO-KF, splinter shield, clamping ring | PM 016 626-T |
| DN ISO-KF, sealings, splinter shields, protection screens | |
| Centering ring, FPM/aluminum, DN 40 ISO-KF | PF 110 140 -T |
| Centering ring with integrated mesh screen, DN 40 ISO-KF | PF 113 240 -T |
| 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 | |
| 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) | |
| Shielded power failure venting unit, 24 V DC, G 1/8", for connection to TC 110/120 | PM Z01 330 |
| Relay boxes | |
| 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 |

| Accessories | |
|--|----------------------|
| 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 60/80 | PM Z01 316 |
| Sealing gas valve, shielded for HiPace 60/80 with TC 110 | PM Z01 310 |
| 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 connection to TC 110/120 | PM Z01 290 |
| Vibration damper | |
| Vibration damper for HiPace 60/80, DN 40 ISO-K | PM 006 799 -X |