

attoDRY2200

1024138

Technical Specifications

| | |
|--|--|
| General Specifications | |
| technology | ultra-low vibration, pulse-tube based closed-cycle cryostat, designed for scanning probe microscopy applications |
| sample environment | He exchange gas |
| sample space | 49.7 mm diameter probe bore fitting all attocube inserts |
| sample exchange | top loading system for quick access |
| usability | fully automated temp. and mag. field control via integrated touchscreen, web interface or LAN API |
| vibration & acoustic noise damping system | benchmark ultra-low vibration design |
| Performance Data | |
| temperature control | fully automated, including all pumps and valves, touchscreen & remote control via PC |
| temperature range | 1.8 .. 300 K (automated control) |
| base temperature | 1.65 .. 1.8 K (for standard inserts) |
| magnetic field control | via touchscreen, via remote control, via API |
| cool down time of sample | approx. 5 .. 8 h (depending on insert) |
| initial cool down time of system without insert (unattended) | 15 .. 20 h (system without magnet), 25 .. 30 h (incl. 9 T magnet) |
| Compressor | |
| power consumption | max. 9.0 kW, 7.2 kW steady state |
| cooling of compressor | water cooling (requires local infrastructure) |
| Size and Dimensions | |
| cryostat (width x depth x height) | 1450 x 793 x 1360 mm ³ |
| required min. ceiling height | approx. 2.60 m (depending on magnet) |
| optional electronics rack (width x depth x height) | 640 x 640 x 1050 mm ³ |
| weight | 420 .. 520 kg (depending on magnet) |
| Options and Upgrades | |
| superconducting magnet | solenoids: 9 T, vector magnets: 1/1/1 T, 5/1/1 T, 9/1/1 T |
| bipolar magnet power supply | included (with optional magnet) |
| temperature controller | included |
| pumping kit | turbomolecular pump with suitable backing pump for sample space preparation |
| Compatibility | |
| confocal microscopes | attoCFM I, attoCFM IV |
| atomic force microscopes | attoAFM I, AFM upgrade options (MFM, KPFM, PFM, conductive-tip AFM), attoAFM III |
| transport measurements | atto3DR |