

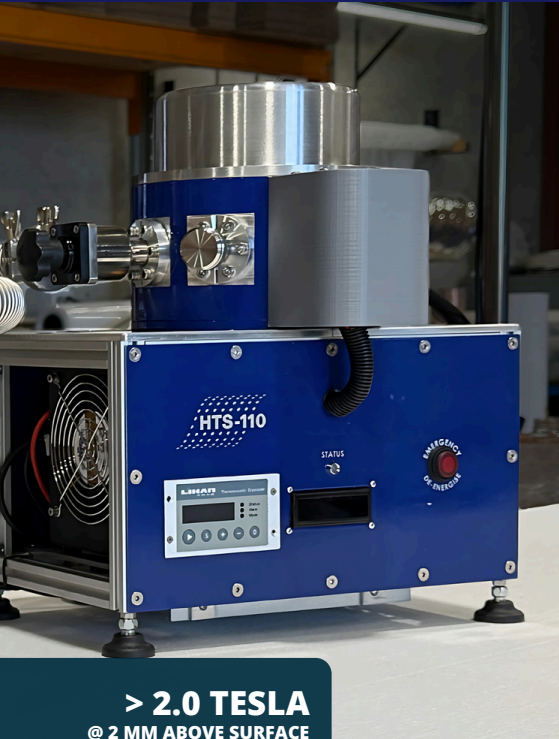
2 TESLA PROJECTED FIELD HTS ELECTROMAGNET



MODEL: **PF-2G**

STATUS: **READY TO ORDER**

DELIVERY: **0-6 MONTHS**



HTS-110's PF-2G delivers 2 T leveraging ReBCO conductors with an integrated cryocooler needing only a standard single-phase power supply. By projecting the field above the pole tip on the top surface of the magnet, the PF-2G offers complete hemispherical access with minimal vibration—ideal for labs needing fast ramps, low noise, and high field strength.

- **Projected Field Design:** Hemispherical access to the sample area directly above the pole for easy instrumentation
- **Integrated Stirling-Type Cryocooler:** Reduces complexity and eliminates external cryogen lines - easy to site
- **Rapid Up/Down Field Ramp:** Enables faster experimental cycling
- **Active Protection Electronics:** Real-time voltage and temperature monitoring, plus an energy dump circuit for magnet safety
- **Versatile Orientation:** Operates horizontally or vertically to suit diverse setups

Generated fields are suited to:

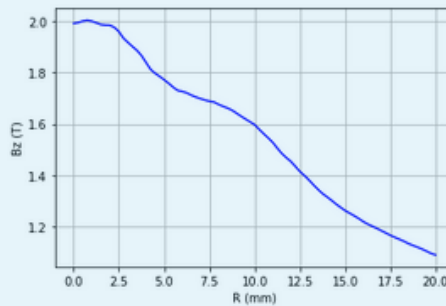
- Magnetic Probing Systems, SPM, STM, AFM, MFM
- Magneto-Optic Experiments (e.g., MOKE)
- Hall Effect & Electronic Transport Measurements
- MRAM & Spintronic Device Characterization

> 2.0 TESLA
@ 2 MM ABOVE SURFACE

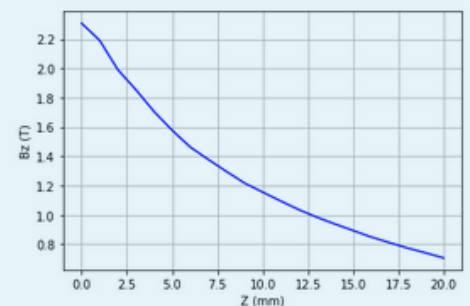
< 1 MIN RAMP

SINGLE PHASE
< 400 W POWER USAGE

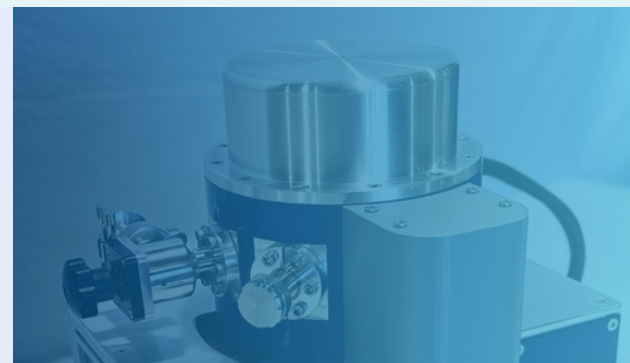
CRYOGEN-FREE
NO LIQUID HELIUM



Field profile at 2 mm above the top surface in the radial direction



Field profile above the top surface in the axial direction



HTS-110's global client base includes tier-one data storage companies; manufacturers; universities; and national research institutes including ALBA, ANL, ANSTO, BNL, CAS, FZJ, HZB, ILL, IMRE, JAXA, LNL, MSL (NZ), NIST, NUS (SLS), PAL, RAL, RTRI, TATA, TPS, and TUM (FRMII).

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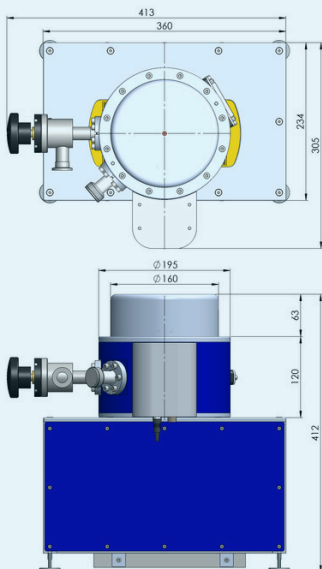
2 TESLA PROJECTED FIELD HTS ELECTROMAGNET

MODEL: PF-2G

2025 PRODUCT LAUNCH - COMMERCIAL REBCO HTS

SPECIFICATIONS

Peak field	> 2.0 T
Magnet Type	ReBCO (2nd-generation HTS coils)
Cooling System	Cryogen-free integrated cryo-cooler
Ramping time	< 1 minute
Maximum current	70 A
Maximum inductance	0.2 H
Power Requirements	< 400 W (110-240 V AC single-phase)
Dimensions (L x W x H)	412 x 234 x 360 mm
Mass	26 kg



TURNKEY SYSTEM

- **Magnet Sub-System.** Fully integrated HTS magnet with miniature cryocooler assembly.
- **Power Supply.** High-stability power supply designed for ramping, field maintenance, and quench protection.
- **Control Electronics.** Monitoring real-time coil temperatures and voltages; active protection circuitry is built in to safeguard the magnet.
- **Warranty & Support:** 1-year standard warranty on all magnet sub-systems.

OPTIONAL:

- Automation & software integration.
- Extended service agreements available, including remote diagnostics and next-day shipping on critical spares.

SITE AND OPERATING ENVIRONMENT

- Magnet power supply and monitoring electronics can be sited remotely (10 m from magnet).
- Cryogen-free operation; no helium or nitrogen handling or level monitoring.
- No cooling water.
- No specialist training required to operate.



ENQUIRY AND DELIVERY PROCESS: READY TO ORDER (TURNKEY)

Initial Consultation

Discuss your needs to confirm a turnkey solution is a good fit.

Application and Options Assessment

Verify specs and supply a firm quote with lead time, and reserve stock or capacity.

Production & Testing

We build, test, and QC the system to rigorous standards.

Delivery & Integration

On-site installation and operational training, plus lifetime support.

FIRST DELIVERY ~ JULY 2025

FUTURE: 0-6 MONTH DELIVERY

EST \$130,000 USD

ADD-ONS & OPTIONS DEPENDENT



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