### Question

• I need to evaluate the size of the dewar needed for the magnet: What is the volume of He liquid needed to cool down the magnet?

What is the volume of liquid to fill the magnet and do you know the daily consumption?

-Total 500L required (and year monthly few 10L?)

Volume of liquid helium required for initial installation (includes magnet cool-down from 77K to 4.2K and volume required to completely fill helium vessel after magnet energization).

Cooling + Filling up

500 L

Liquid helium cryogen details :-

Siphon leg diameter : 12.7 mm

Recommended minimum level of liquid during normal operation:-

•reading on probe : 70 mm

·length of probe : 470 mm

Recommended refill volume during normal : 96 L

operation (nominal)

Normal hold time : Greater than 90 days

Maximum liquid evaporation rate : 45 ml/h (expected) Consumption

1.08L/day

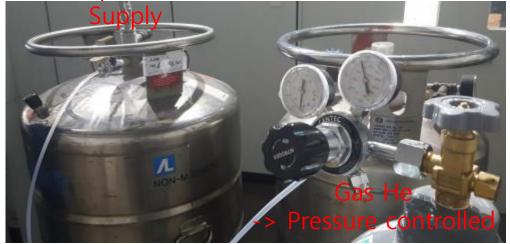
Required(maintain)

-> 96L/3month

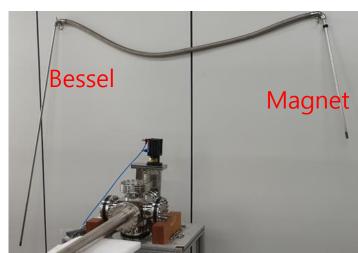
## Question

• On helium supply part, what is the type of connection to supply the magnet in helium ??

Liquid He







### Question

• What electrical power do you need : which voltage ? Three phase or single phase ? Power ?



Magnet power supply

#### 3.6 AC SOURCE REQUIREMENTS

The Genesys<sup>™</sup> series can be operated from a nominal 100V to 240V, single phase, 47~63Hz. The input voltage range and current required for each model is specified in Chapter 2. Ensure that under heavy load, the AC voltage supplied to the power supply does not fall below the specifications described in Chapter 2.

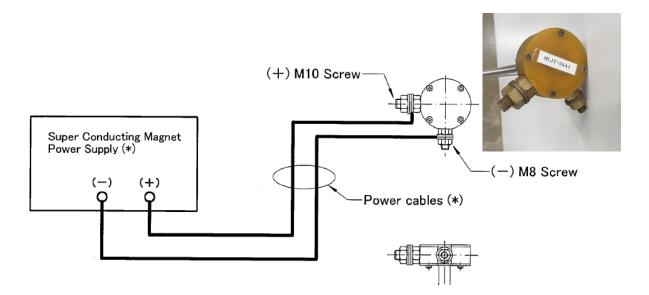
#### 3.7.1 AC Input Connector, 1500W models

The AC input connector is a 3-Terminal wire clamp located on the rear panel:

Phoenix Contact P/N: FRONT4-H-7.62/3

Use suitable wires and tightening torque as follows:

- 1. Wire diameter: 12AWG or 10AWG.
- 2. Tightening torque: 4.4-5.3Lb-inch. (0.5-0.6Nm).



- < Requirement for Power Supply >
- (1) Outout Current ≥ 90 (A)
- (2) Output Voltage ≥ ± 4 (V)
- (3) Sweep Rate : 0.2 ~ 12 (A/min)

#### Note)

(\*) Power supply and power cables are prepared by the customer.

### **Power Supply**

# **NDT1470**

4 Ch Reversible 8 kV/3 mA (8 W) NIM/Desktop HV Power Supply Module (USB/Ethernet/T.screen)



### **Features**

- 4 channels in 2U NIM module
- 220 V/110 V AC plug for desktop operation
- 8 kV / 3mA output ranges
- Max output power:
  - 9 W (<3 kV output)</p>
  - 8 W (>3 kV output)
- Channels with individually selectable positive or negative polarity
- SHV coaxial output connectors
- Common floating return
- Max Ripple smaller than < 30mVpp</p>

안녕하세요. 박사님

CAEN의 한국 대리점인 ㈜피에스케이테크놀로지 강태욱 입니다. CAEN의 제품에 관심을 가져 주신 점 대단히 감사합니다. ND1470의 가격은 EUR4,610이며, 납기는 6~12주 사이 입니다.

오전에 연락 드리겠습니다.

감사합니다. 강태욱 드림



14 000 000

SHR 40 60r_SHV	14,000,000	1	14,000,000
4 channel Desk-Top HV PS SHR STANDARD			
Vnom, Inom and Polarity switchable electronically			
Mode 1: Vnom= 6 kV; Inom= 2 mA			
Mode 2: Vnom= 4 kV; Inom= 3 mA			
Mode 3: Vnom= 2 kV; Inom= 4 mA			
Front panel control, 4.3" TFT, capacitive touch display			
USB and Ethernet interfaces			
Resolution of voltage setting/measurement: 12 mV			
Resolution of current setting/measurement: 8 nA			
Ripple & noise: < 10 mV (f > 10 Hz)			
HV output: SHV connector			
HV cable with SHV connector one-sided, 5m / 4EA			
THQ 2-channel basic unit DPS with EPU	6,500,000	1	6,500,000
AC/DC converter (100 up to 240 V-AC)	100 00		
or two HV modules DPS with EPU series (without DPSmini)			
polarity switchable with front panel switch at Vout= 0			
oltage and current control with potentiometer,			
analog I/O (0 to 5V) or USB interface			
oltage and current display (LCD / 4 digit)			
HV-output with SHV on the rear			
OPr 60 155 24 5_SHV-THQ (Vout = 0 to 6 kV / Joutnom = 1,5 mA)			
HV cable with SHV connector one-sided, 5m / 2EA			