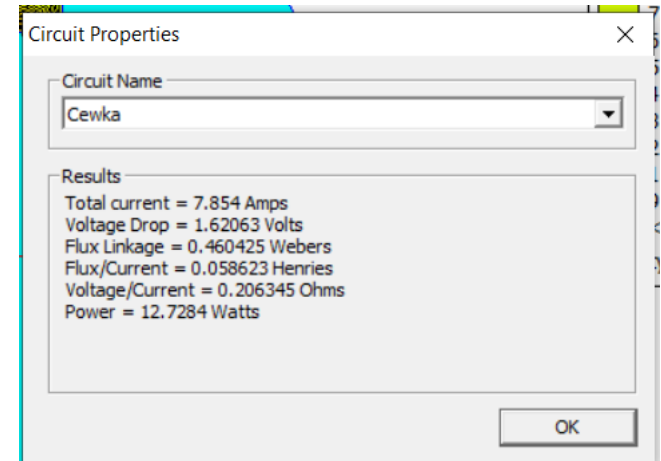
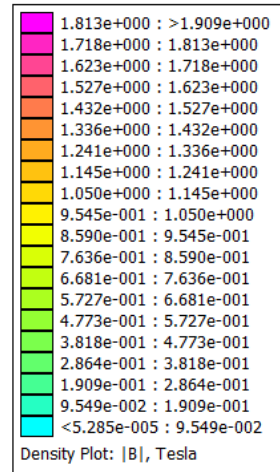
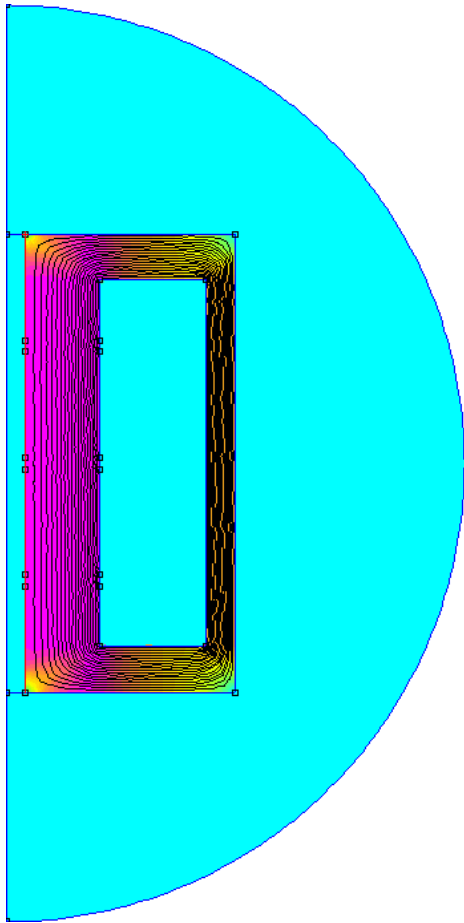


# Pot core – first model

## 1) Pure iron core



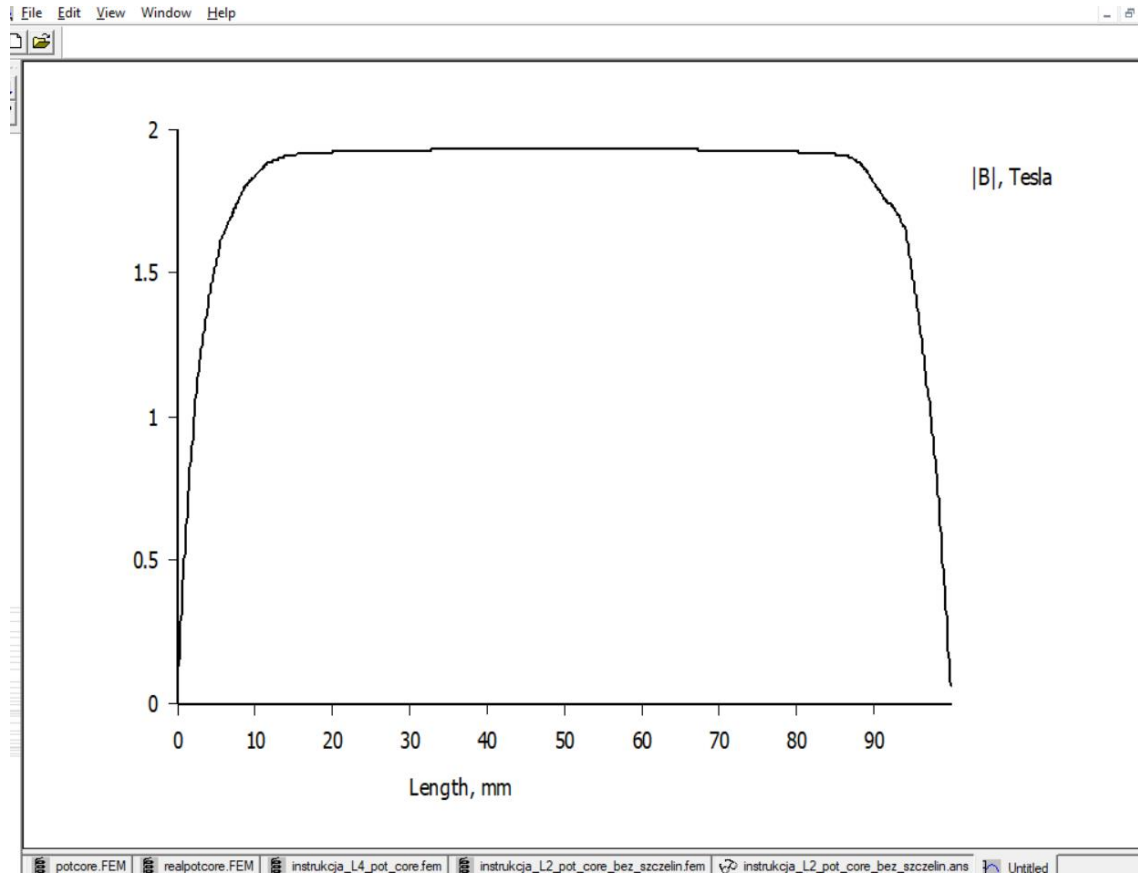
Current: 7.854 A

Coil: 187 turns

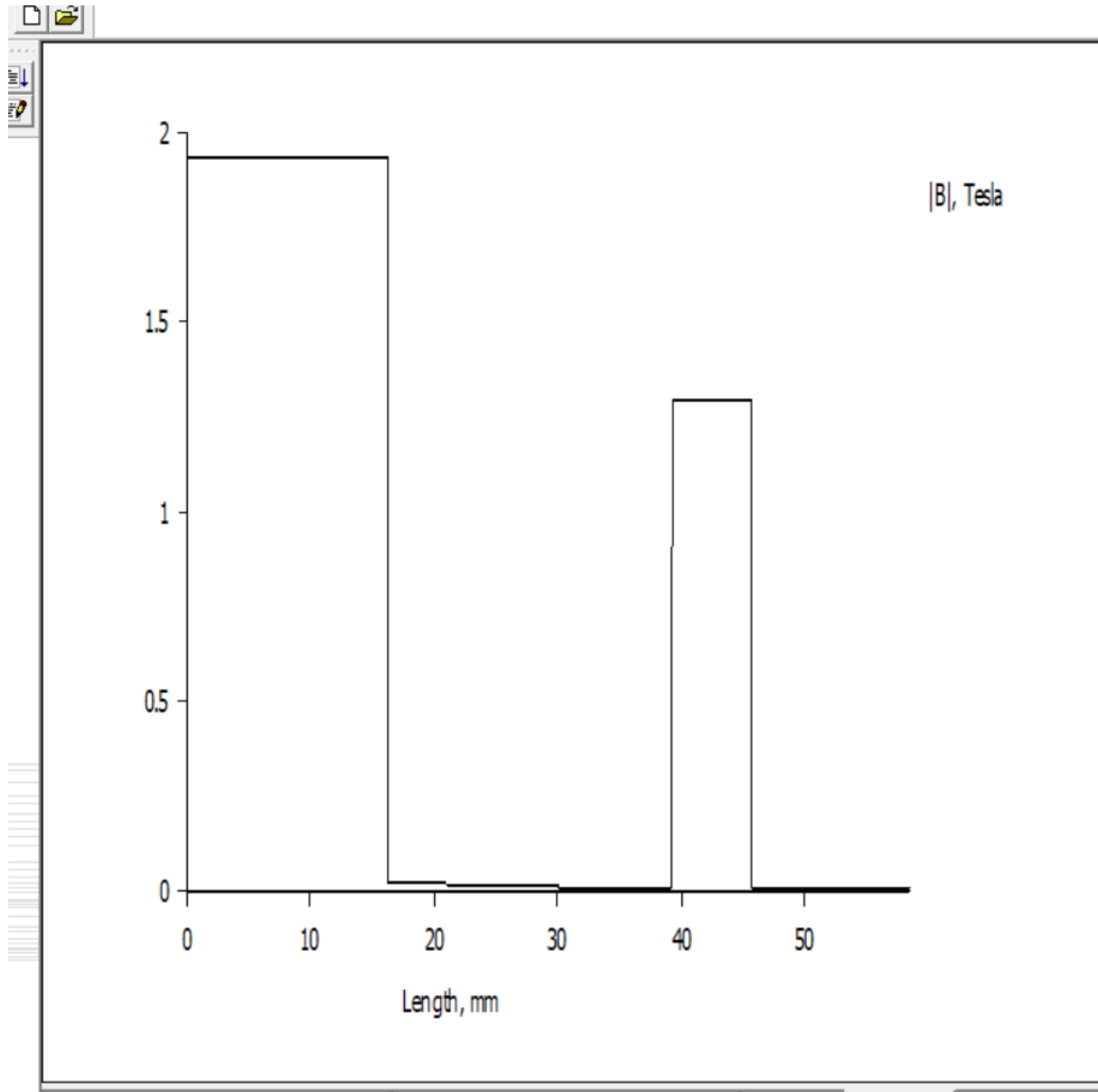
Diameter: 2mm

Inductance = Flux/current = 58 mH

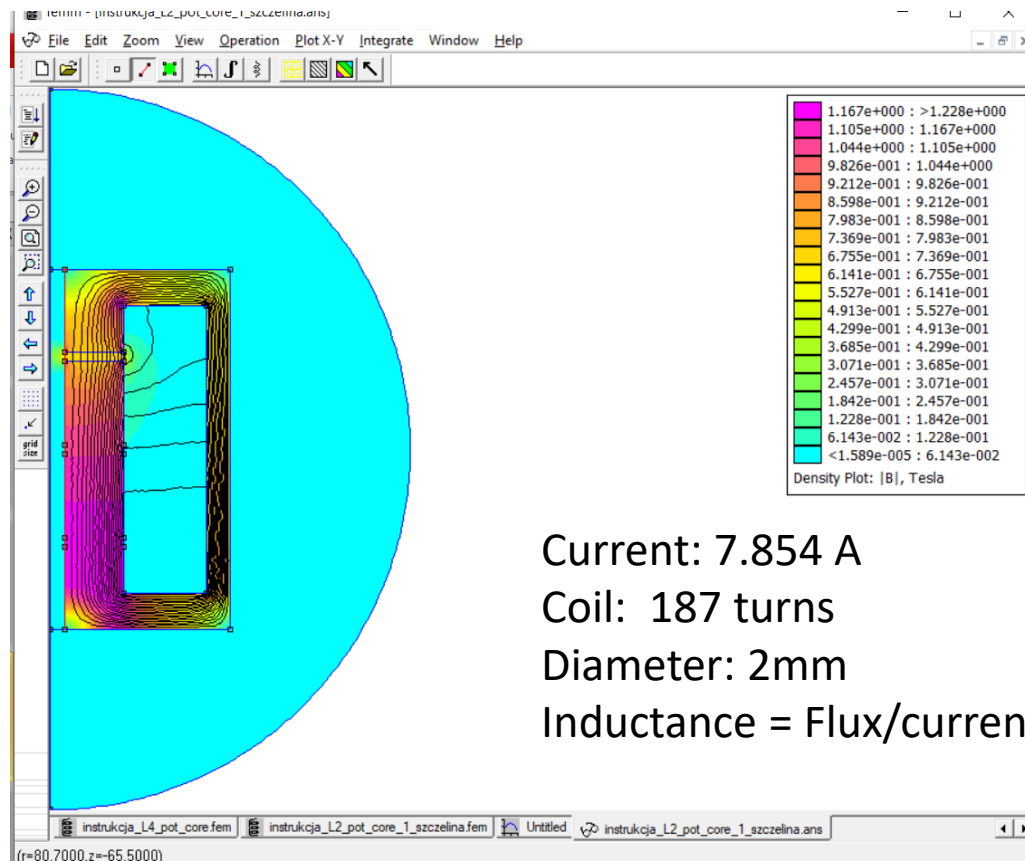
# Flux density [T] – vertical cross-section of the center column



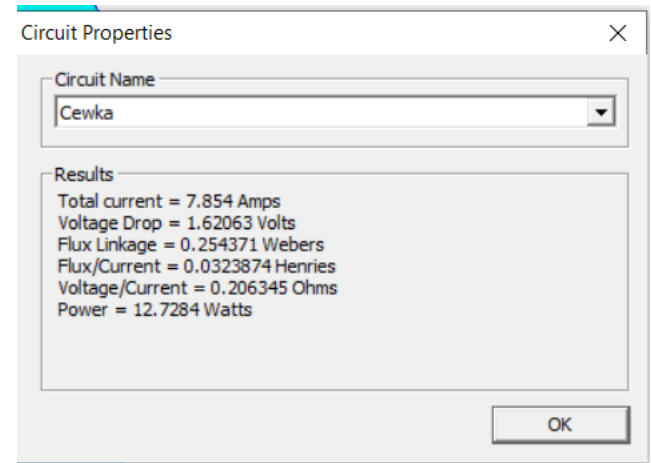
# Flux density [T] – horizontal cross-section of the core



# Pot core – second model 1 air gap

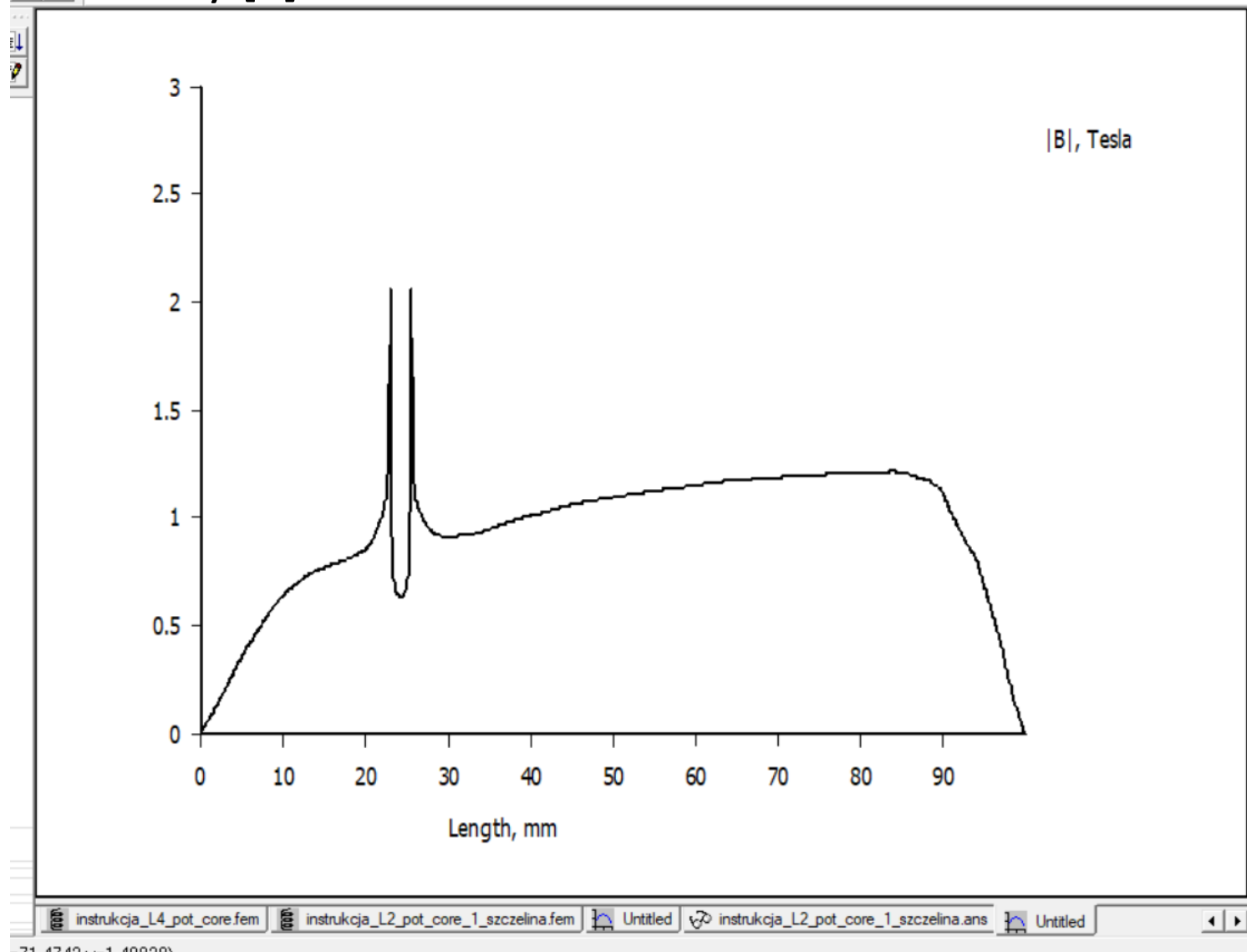


Current: 7.854 A  
Coil: 187 turns  
Diameter: 2mm  
Inductance = Flux/current = 32 mH



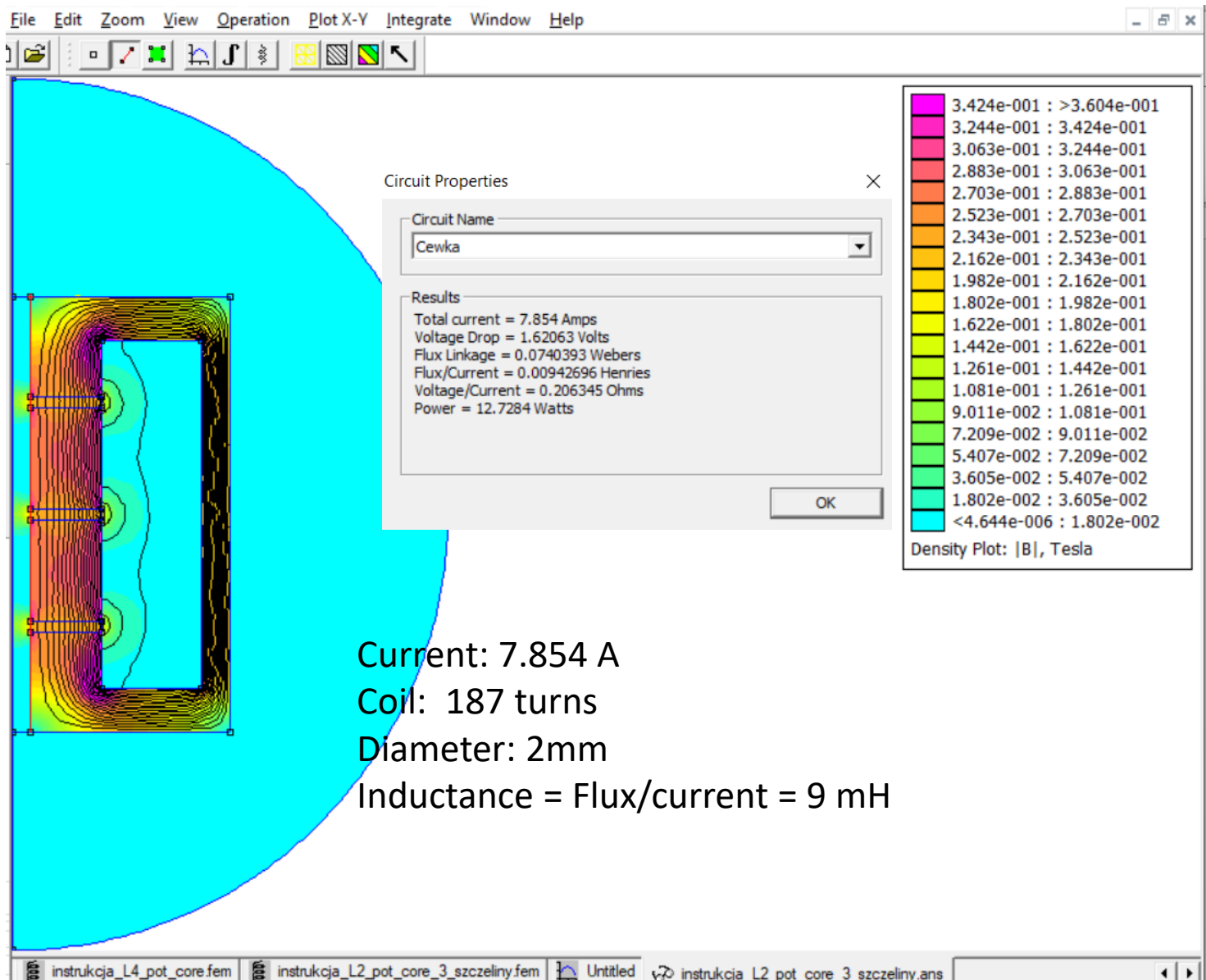
Pot core – Pure Iron – single air gap

Flux density [T] – vertical cross-section of the center column



# Pot core – second model

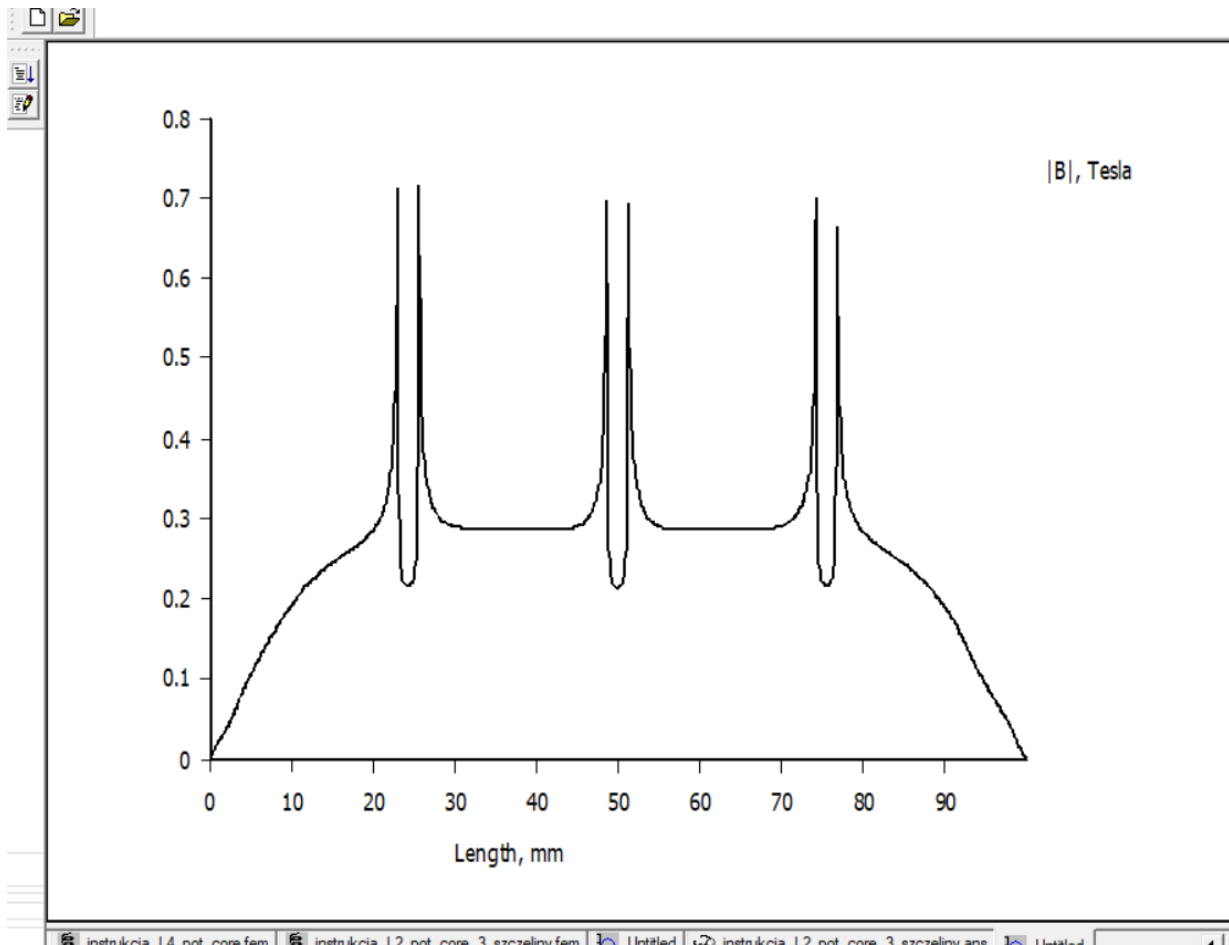
## 3 air gaps



Current: 7.854 A  
Coil: 187 turns  
Diameter: 2mm  
Inductance = Flux/current = 9 mH

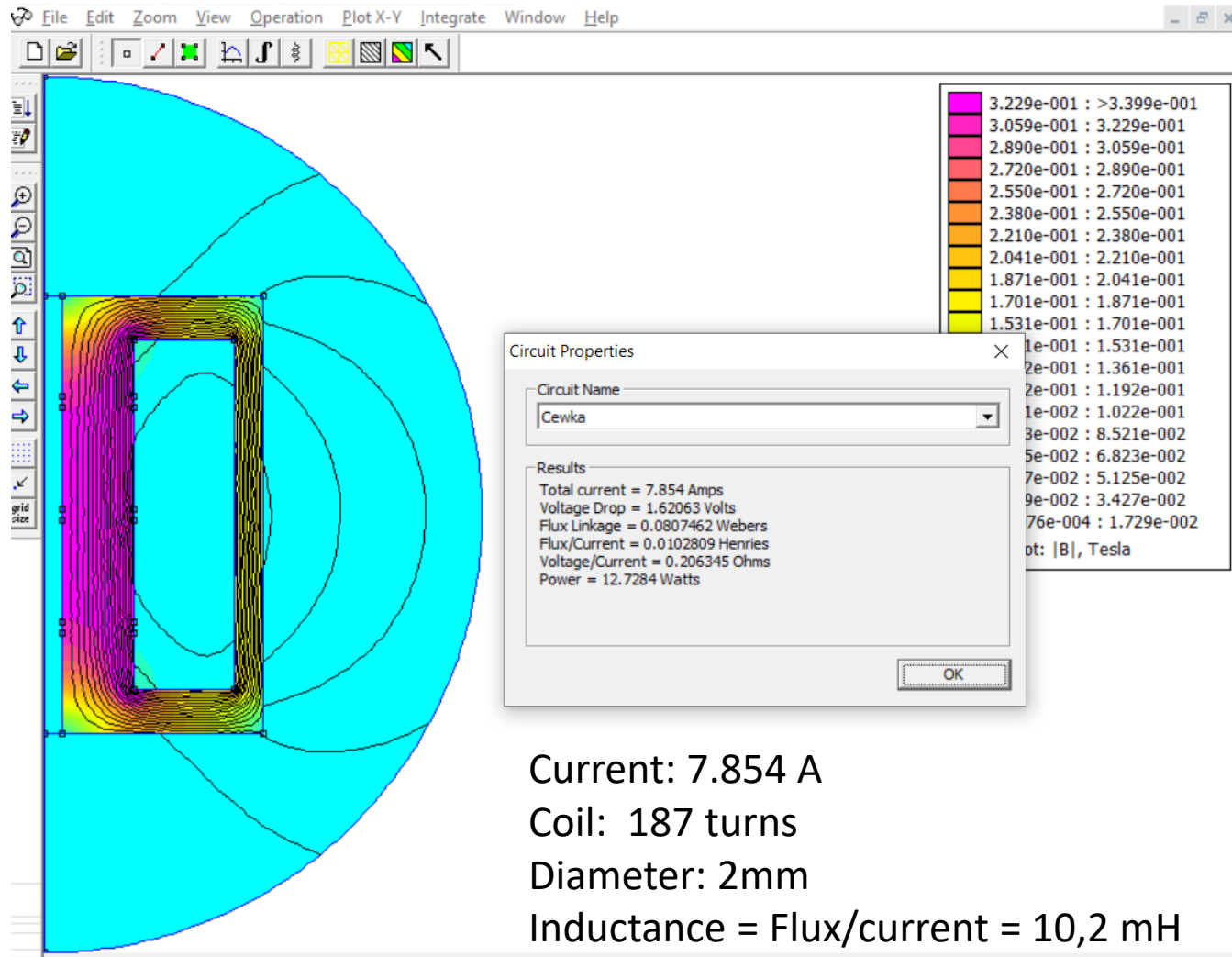
Pot core – Pure Iron – triple air gap

Flux density [T] – vertical cross-section of the center column

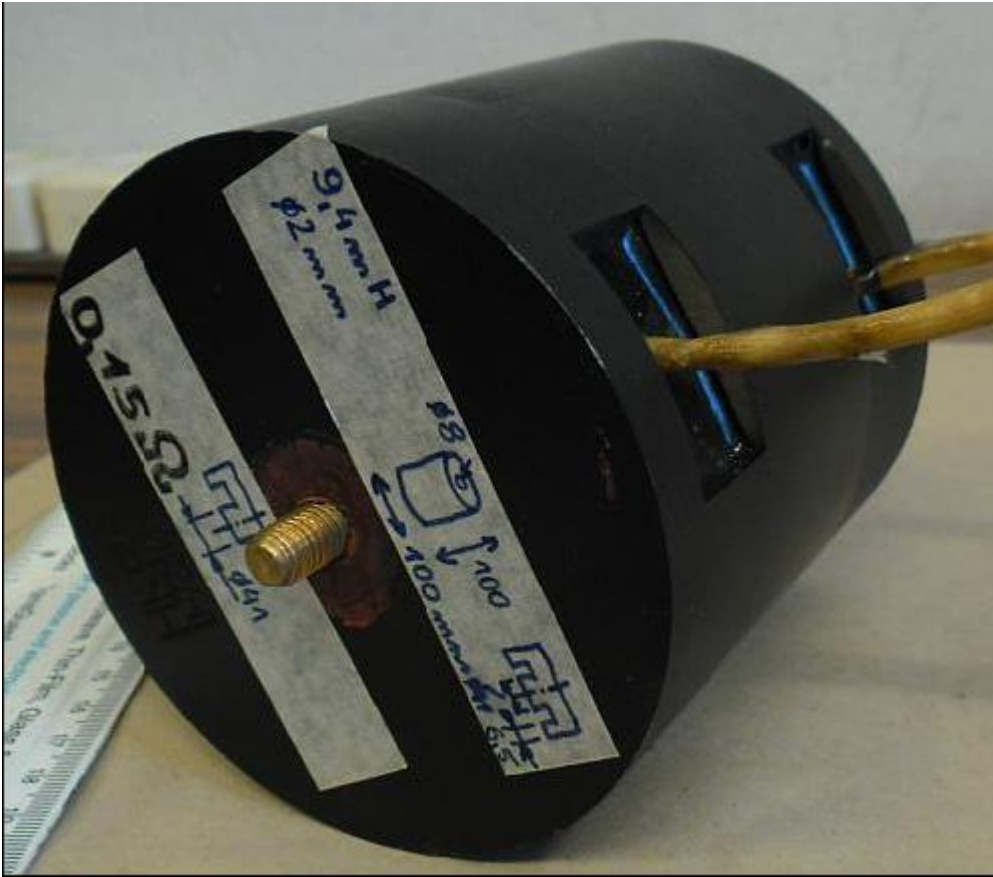


# Pot core – third model

Core: PA2 magnetic material from HKR

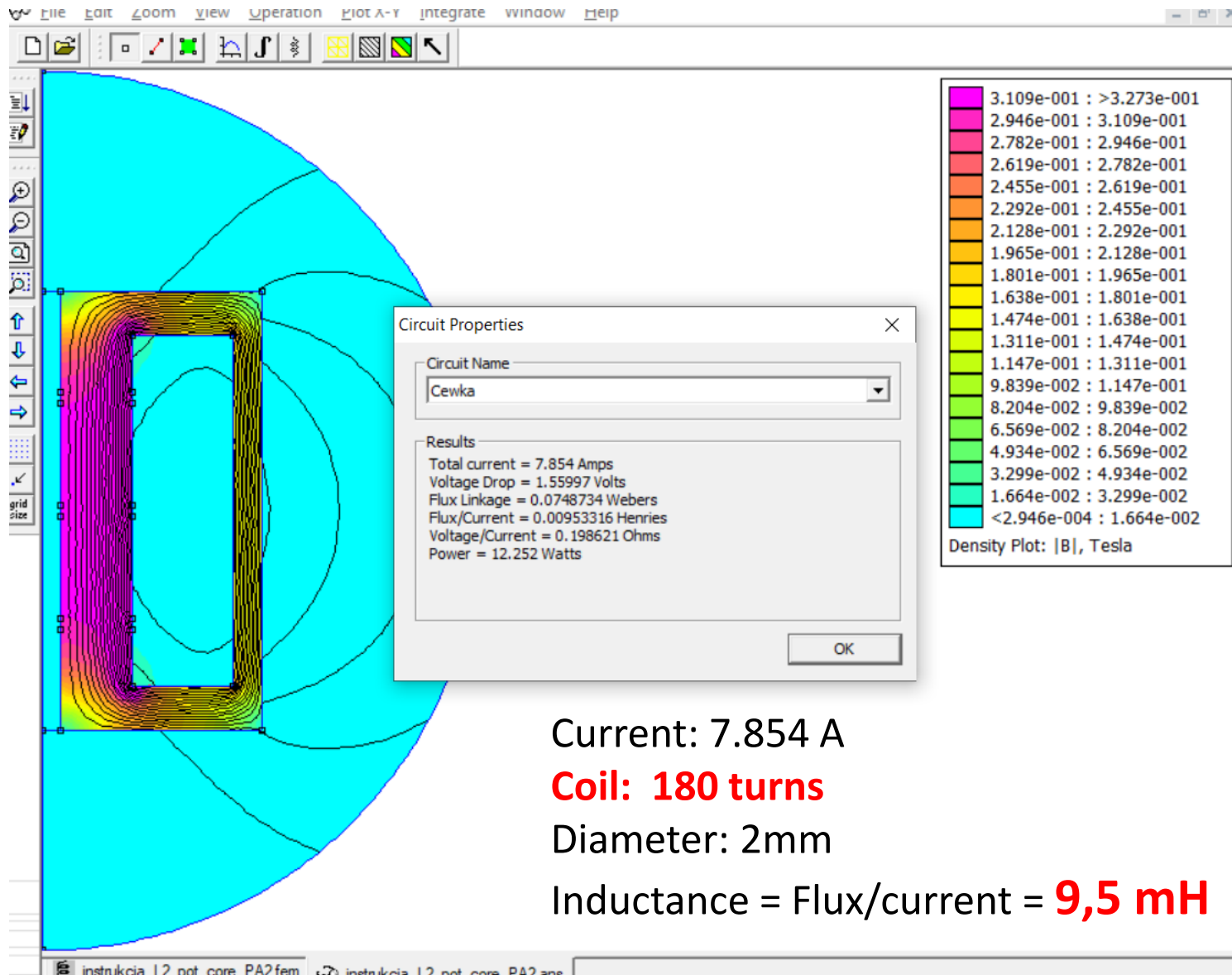






$L=9,4 \text{ mH}$

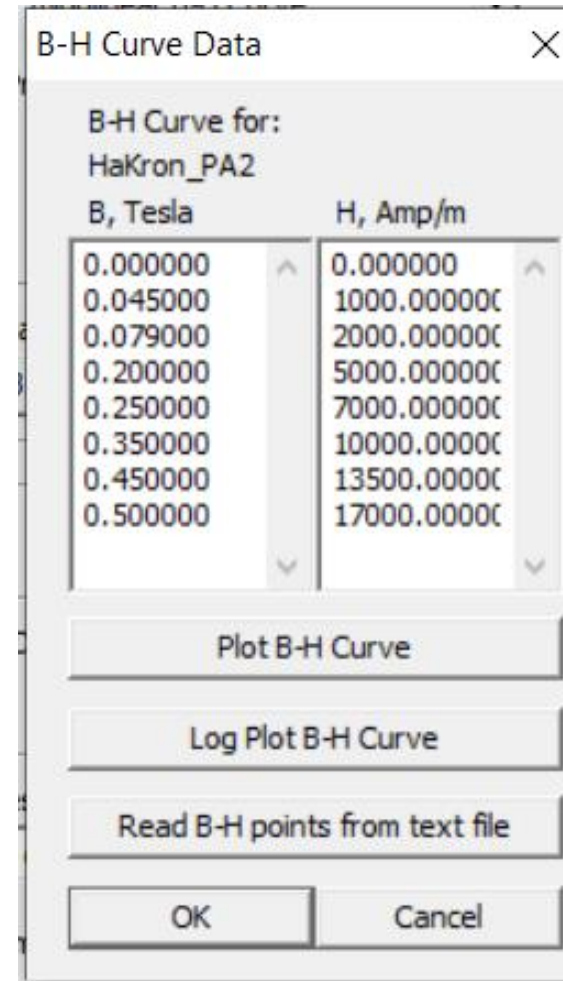
# Decrease number of turn from 187 to 180 turns



# Femm software

B [T]

H [A/m]

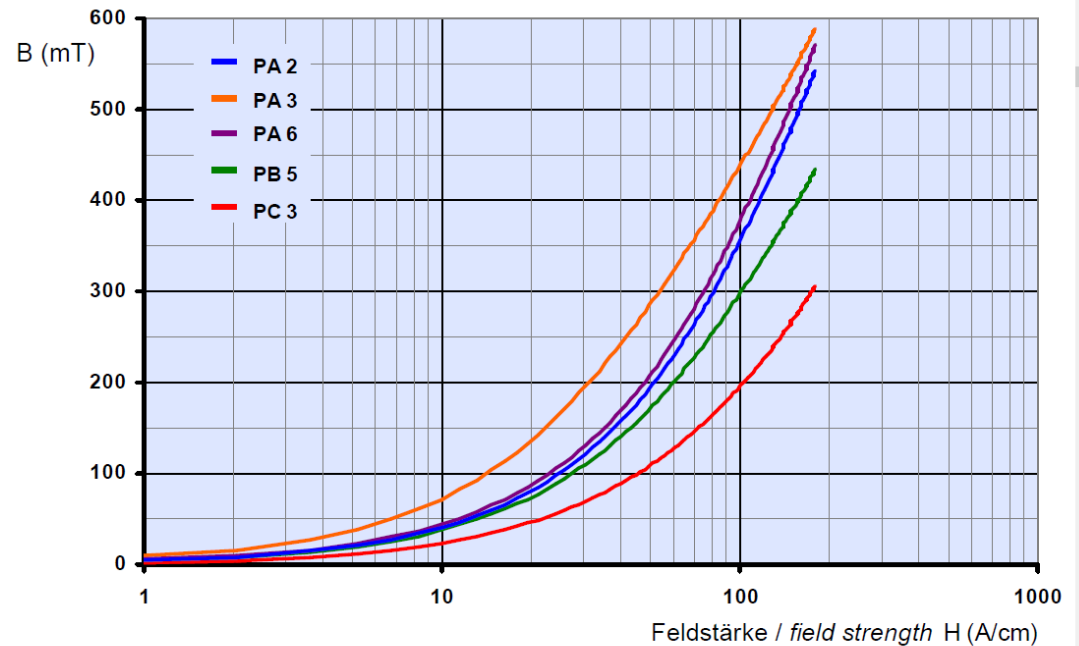


# HKR manufacturer

Technical data:

B [mT]

H [A/cm]



**Hard to read B-H curve points (!)**

# B-H curve written to FEMM software

