

Problem info

Problem type: AC Magnetics , frequency: 50 Hz,

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *TRANSFORMER SHIELD Fe + Alu.pbm*
- Geometry: *Transformer shield fe + alu.mod*
- Material Data: *Transformer shield fe + alu.dhe*
- Material Data 2 (library): *Transformer shield fe + alu.dhe*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

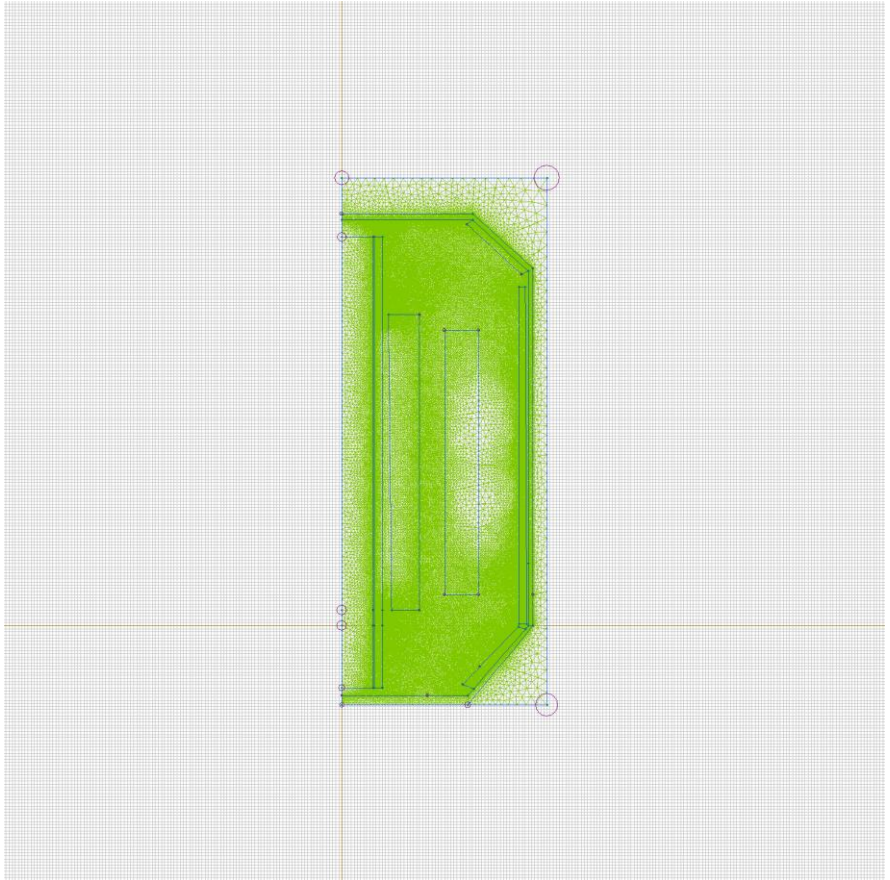


Table 1. Geometry model statistics

	With Label	Total
Blocks	8	11
Edges	1	60
Vertices	0	54

Number of nodes: 94442.

Labelled objects

There are following labelled objects in the geometry model (Material Data file could contain more labels, but only those labels that assigned to geometric objects are listed)

Blocks:

- [cassa](#)
- [aria](#)
- [ferro magnetico](#)
- [SHIELD](#)
- [BT](#)
- [AT](#)
- [olio](#)
- [Alu Shield](#)
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Edges:

- [limite](#)
-

Vertices:

Detailed information about each label is listed below.

Labelled objects: block "cassa"

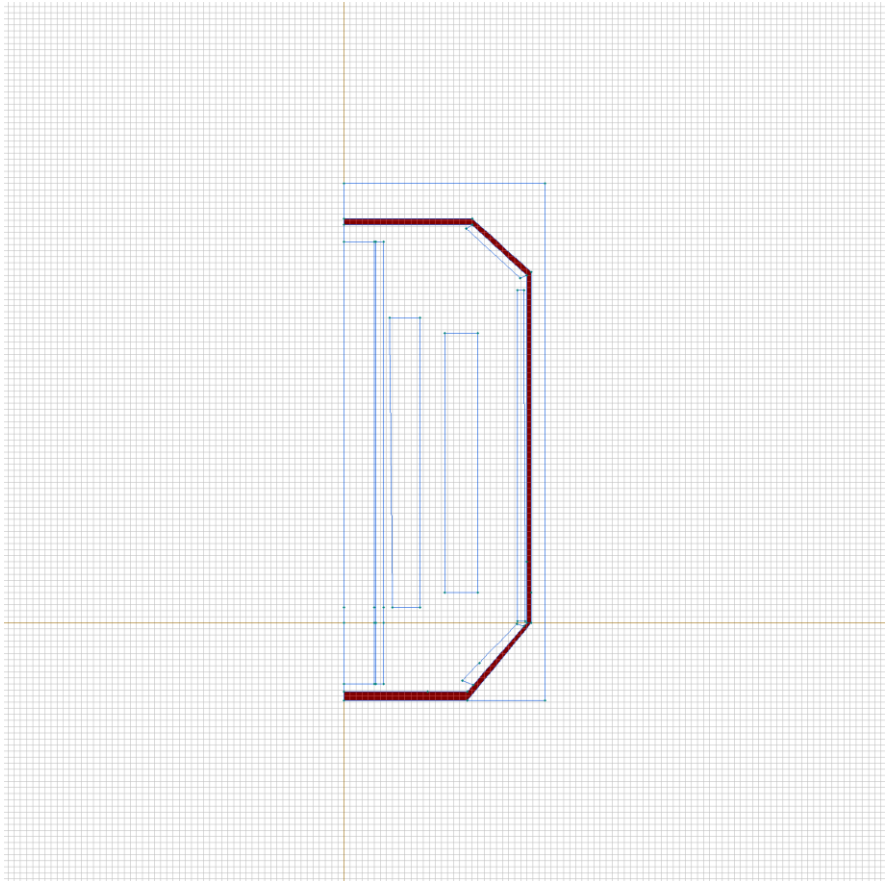
There are (2) objects with this label

Relative magnetic permeability: $\mu_x=1000$, $\mu_y=1000$

Electric conductivity: $\sigma=100000$ [S/m]

Total current: $I=0$ [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "aria"

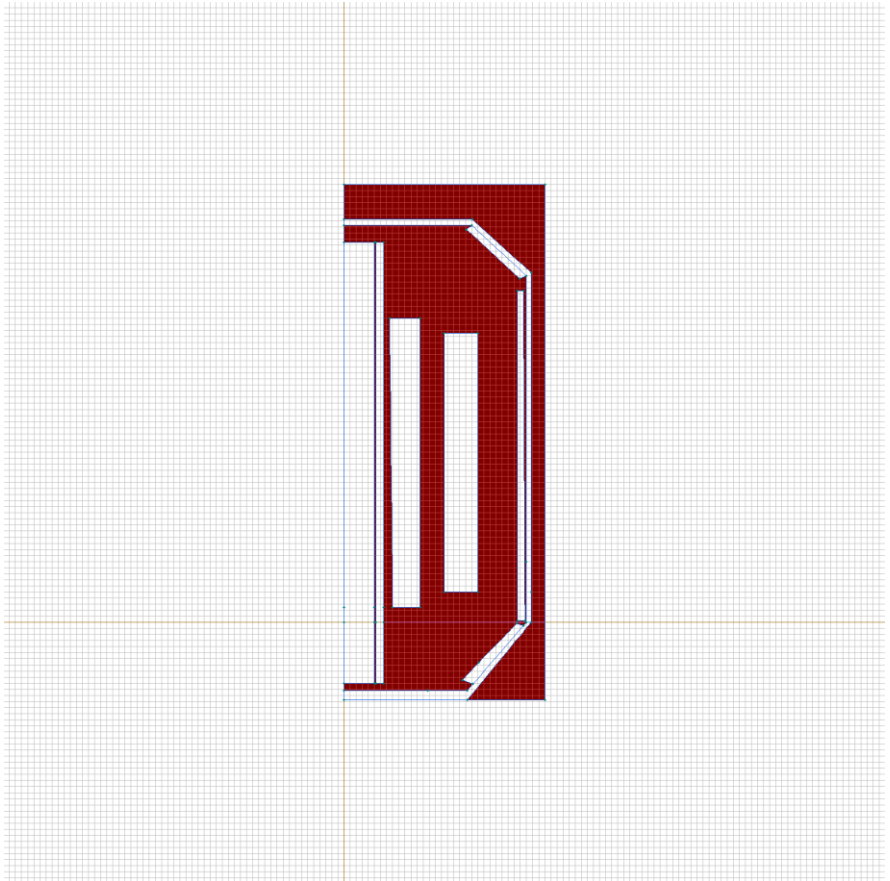
There are (2) objects with this label

Relative magnetic permeability: $\mu_x=1$, $\mu_y=1$

Electric conductivity: $\sigma=0$ [S/m]

Current density: $j=0$ [A/m²], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "ferro magnetico"

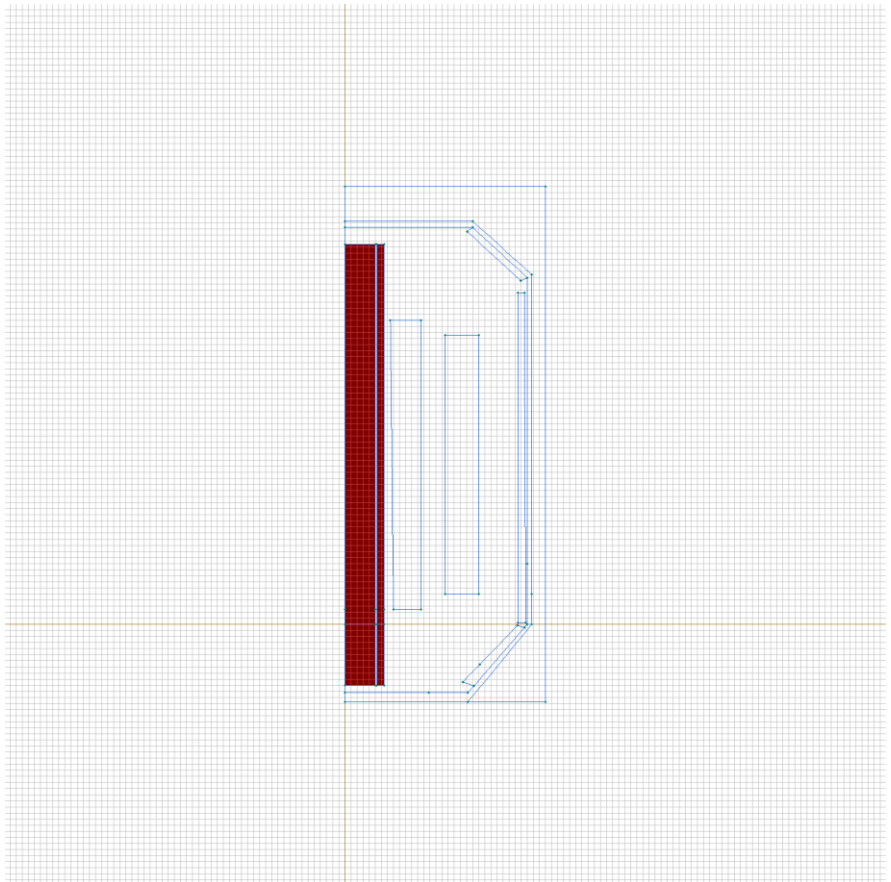
There are (2) objects with this label

Relative magnetic permeability: $\mu_x=20000$,
 $\mu_y=20000$

Electric conductivity: $\sigma=0$ [S/m]

Total current: $I=0$ [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "SHIELD"

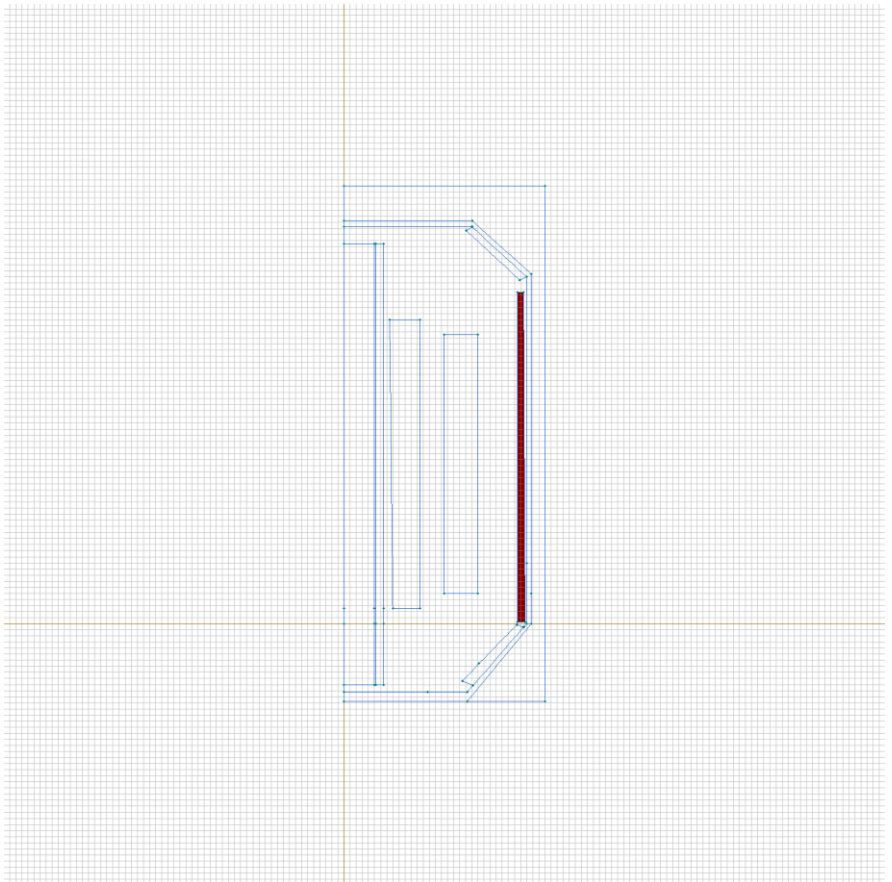
There are (1) objects with this label

Relative magnetic permeability: $\mu_x=20000$,
 $\mu_y=20000$

Electric conductivity: $\sigma=10000$ [S/m]

Total current: $I=0$ [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "BT"

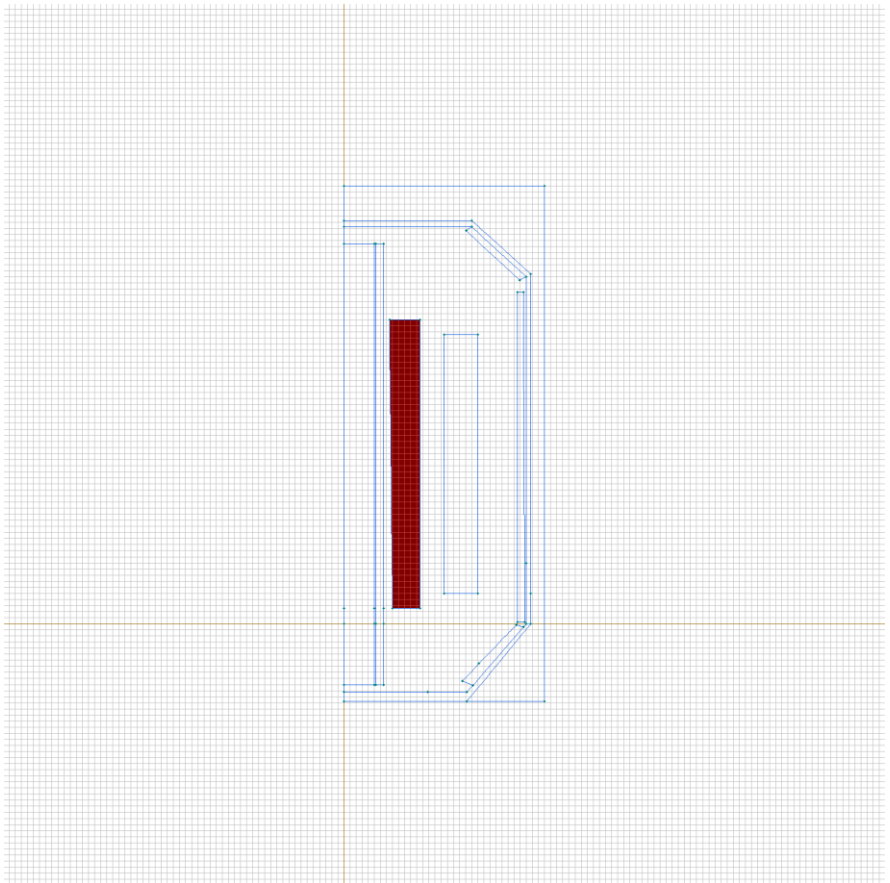
There are (1) objects with this label

Relative magnetic permeability: $\mu_x=1$, $\mu_y=1$

Electric conductivity: $\sigma=58000000$ [S/m]

Total current: $I=300000$ [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "AT"

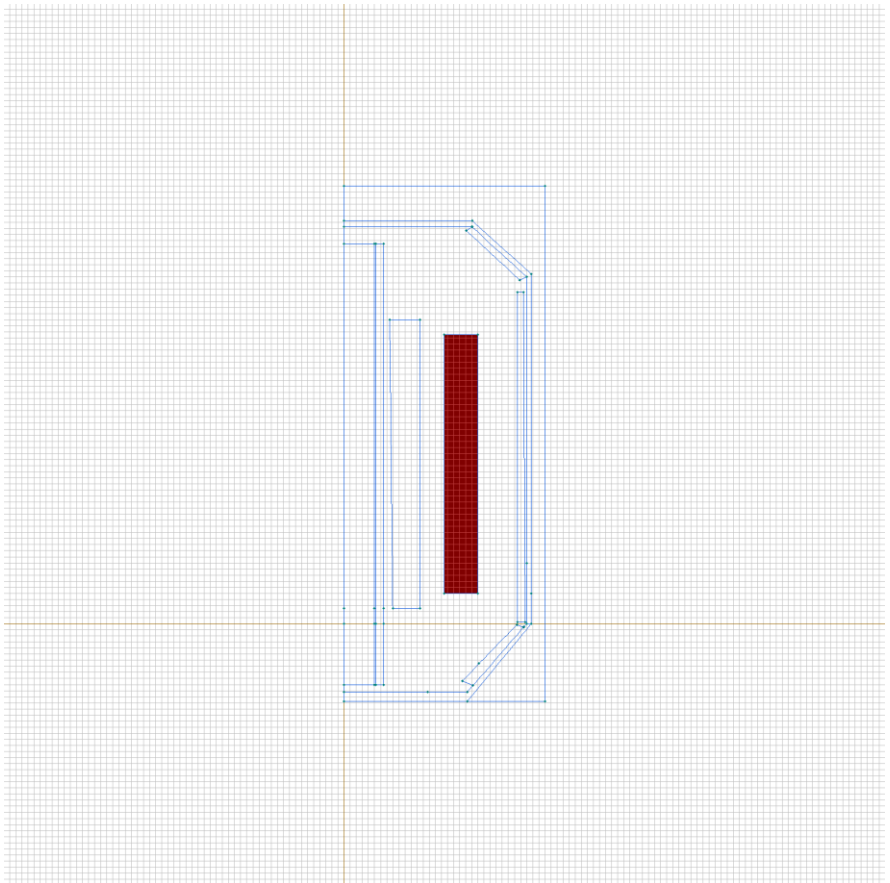
There are (1) objects with this label

Relative magnetic permeability: $\mu_x=1$, $\mu_y=1$

Electric conductivity: $\sigma=58000000$ [S/m]

Total current: $I=300000$ [A], phase 180 [deg]

Conductor's connection: in parallel



Labelled objects: block "olio"

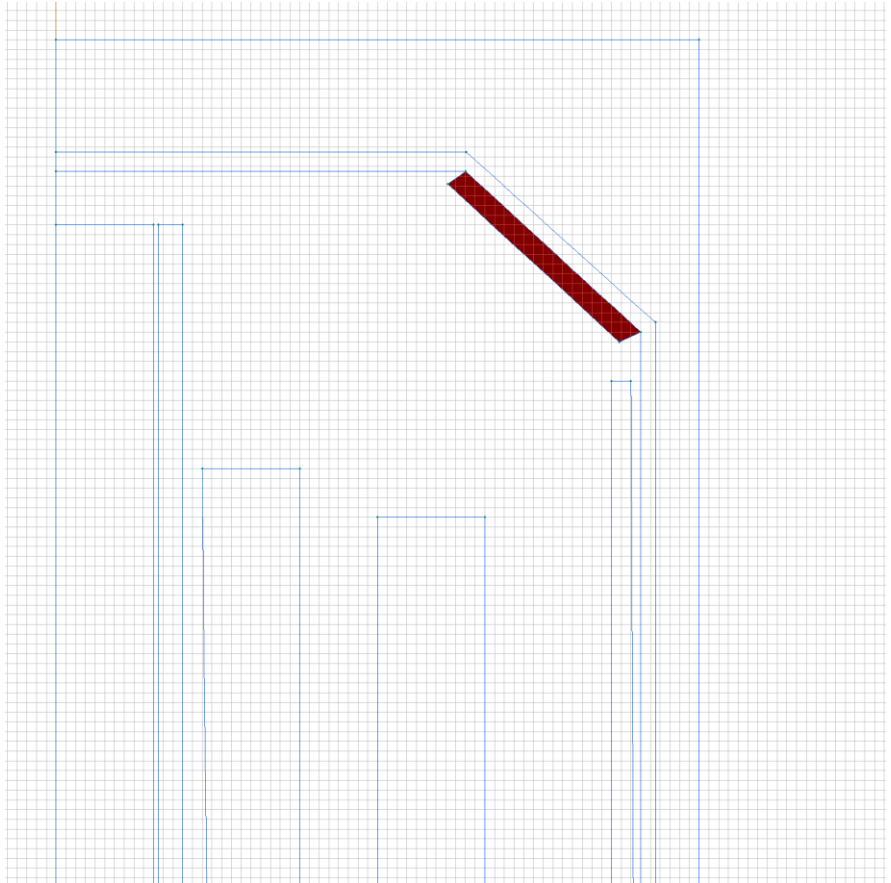
There are (1) objects with this label

Relative magnetic permeability: $\mu_x=1$, $\mu_y=1$

Electric conductivity: $\sigma=0$ [S/m]

Total current: $I=0$ [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "Alu Shield"

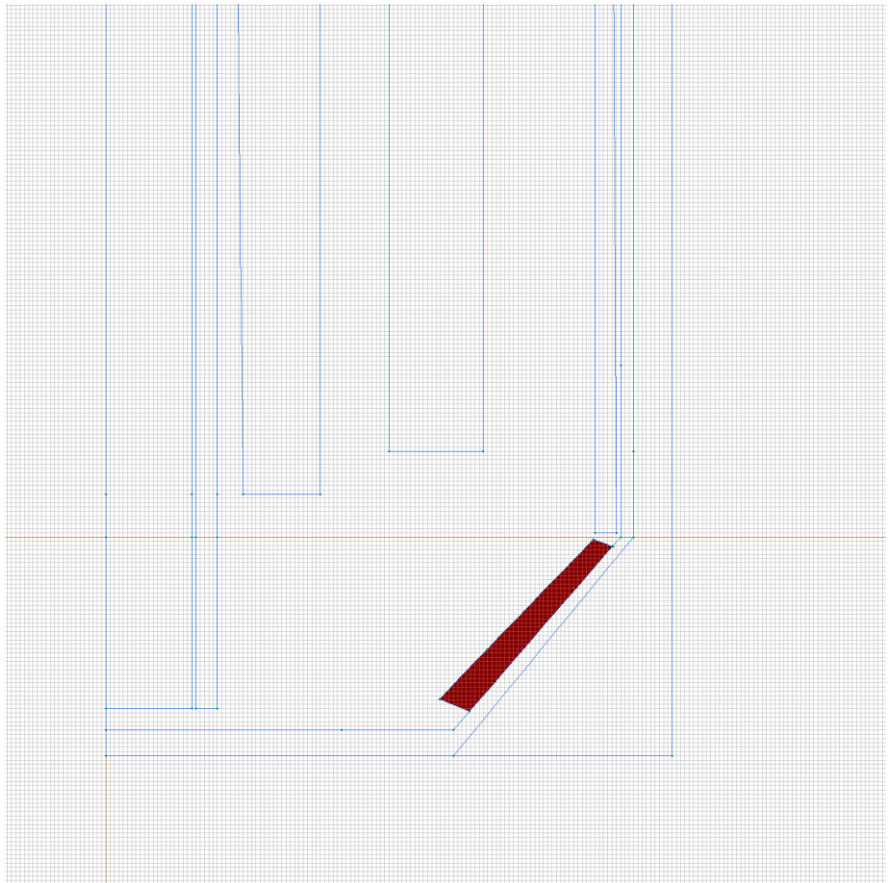
There are (1) objects with this label

Relative magnetic permeability: $\mu_x=1$, $\mu_y=1$

Electric conductivity: $\sigma=27000000$ [S/m]

Total current: $I=0$ [A], phase 0 [deg]

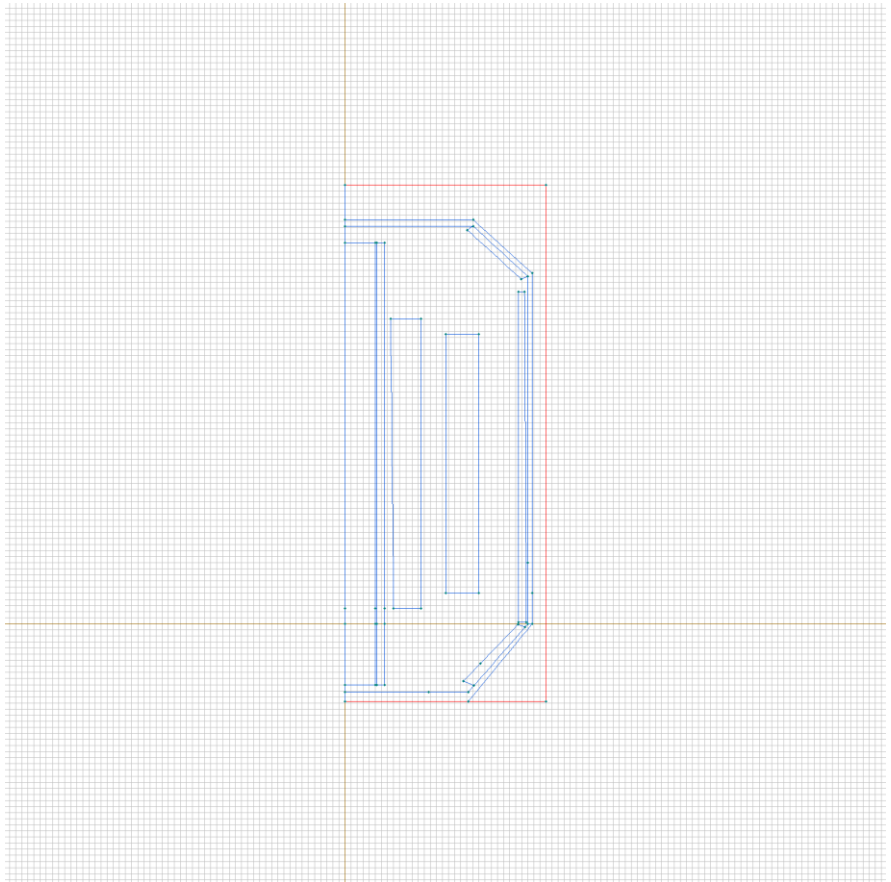
Conductor's connection: in parallel



Labelled objects: edge "limite"

There are (4) objects with this label

Magnetic potential: $A=0$ [Wb/m], phase 0 [deg]



[Problem info](#)

[Geometry model](#)

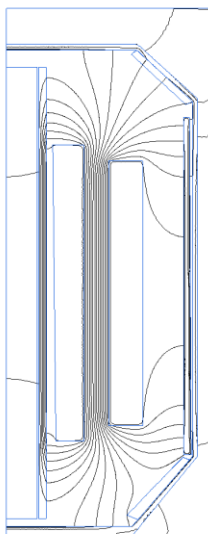
[Labelled Objects](#)

[Results](#)

[Nonlinear dependencies](#)

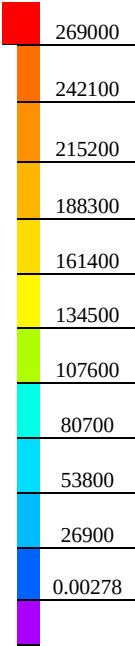
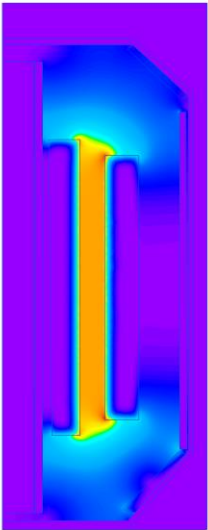
Results

Field lines



Results

Color map of Strength $|H|$ [A/m]



Nonlinear dependencies

No non-linear dependencies are used in this problem data