

Problem info

Problem type: AC Magnetics , frequency: 50 Hz,

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *Perio2.pbm*
- Geometry: *Perio2.mod*
- Material Data: *Perio2.dhe*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

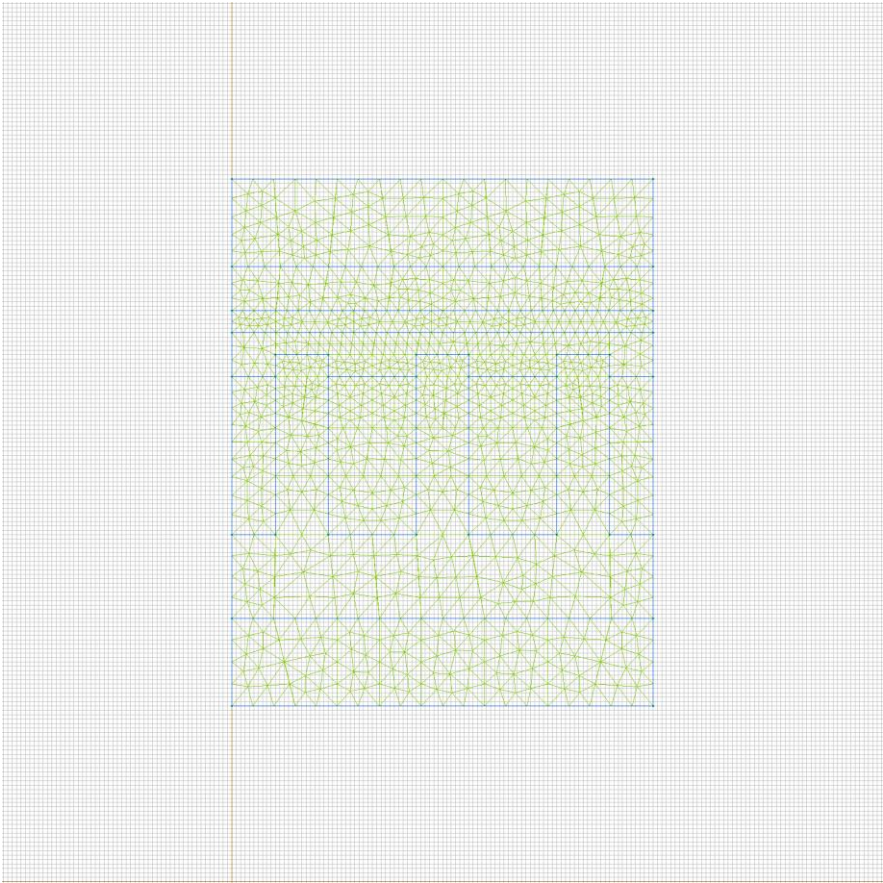


Table 1. Geometry model statistics

	With Label	Total
Blocks	8	10
Edges	2	43
Vertices	0	34

Number of nodes: 1154.

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:

- [Phase 120](#)
- [Phase 0](#)
- [Phase 180](#)
- [Phase 60](#)
- [Core 1](#)
- [Air](#)
- [Core 2](#)
- [Conductor](#)
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Edges:

- [Periodic](#)
- [Outer Boundary](#)
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Vertices:

Detailed information about each label is listed below.

Labelled objects: block "Phase 120"

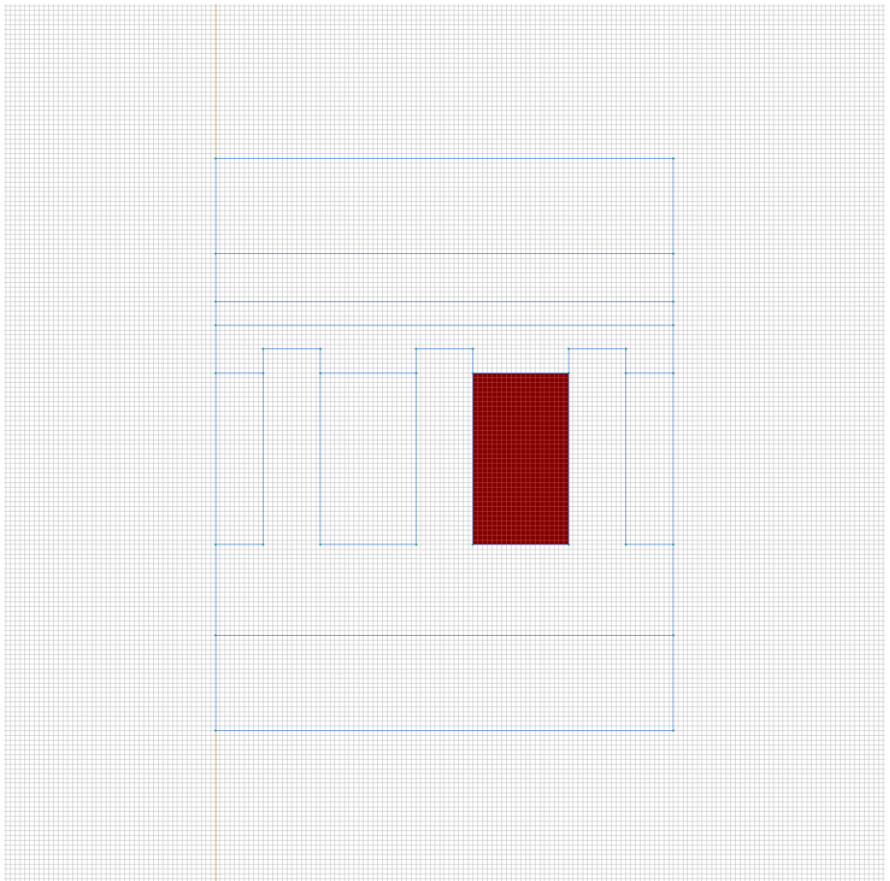
There are (1) objects with this label

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

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

Total current: $I=2608$ [A], phase 120 [deg]

Conductor's connection: in parallel



Labelled objects: block "Phase 0"

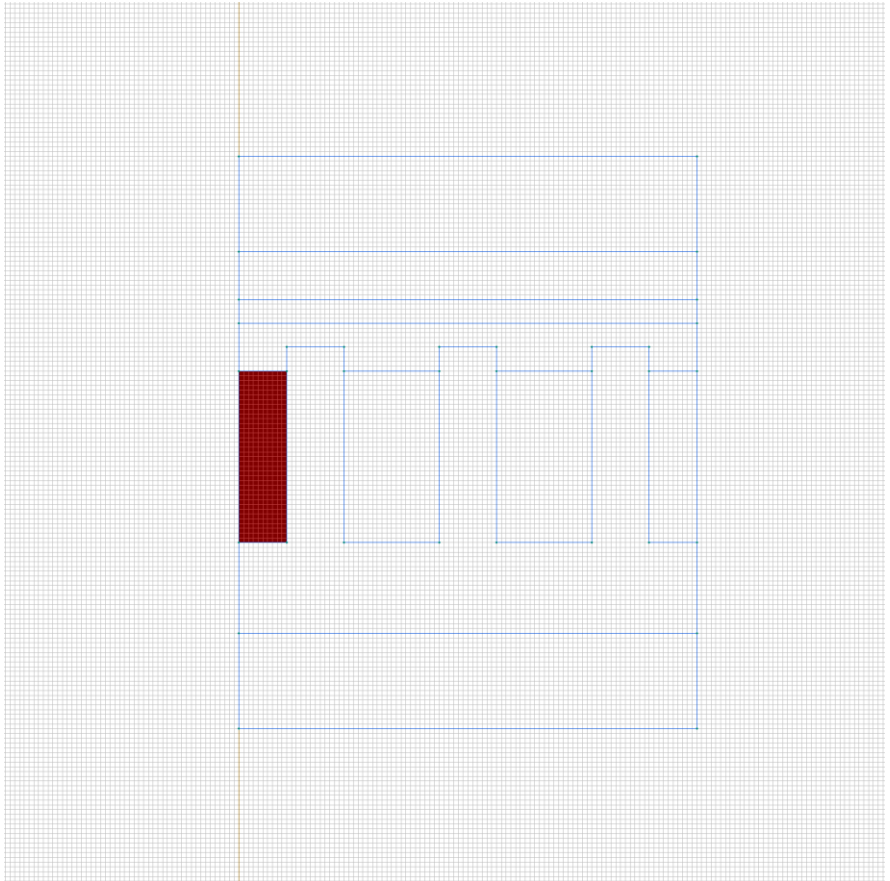
There are (1) objects with this label

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

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

Total current: $I=2608/2$ [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "Phase 180"

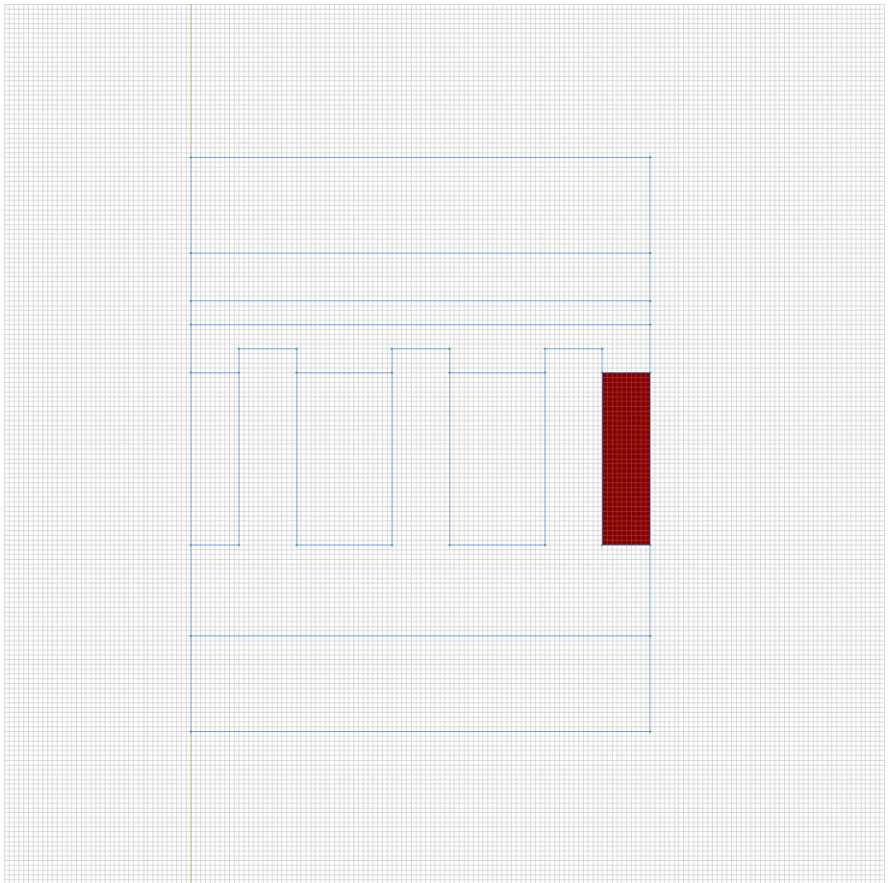
There are (1) objects with this label

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

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

Total current: $I=2608$ [A], phase 180 [deg]

Conductor's connection: in parallel



Labelled objects: block "Phase 60"

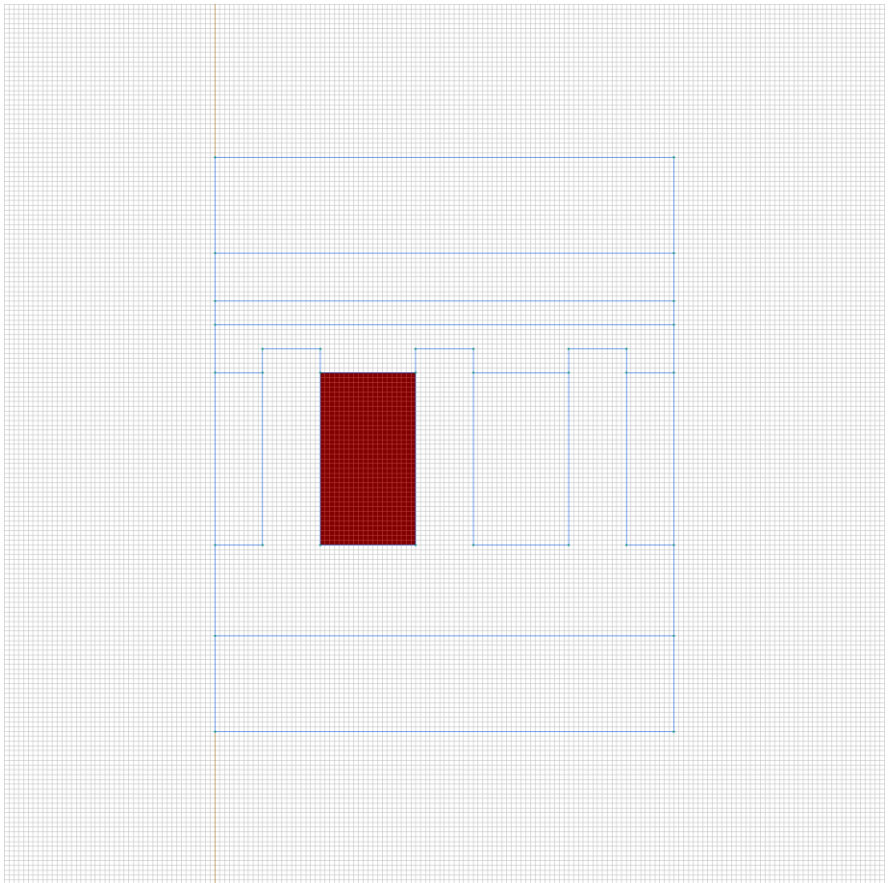
There are (1) objects with this label

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

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

Total current: $I=2608/2$ [A], phase 60 [deg]

Conductor's connection: in parallel



Labelled objects: block "Core 1"

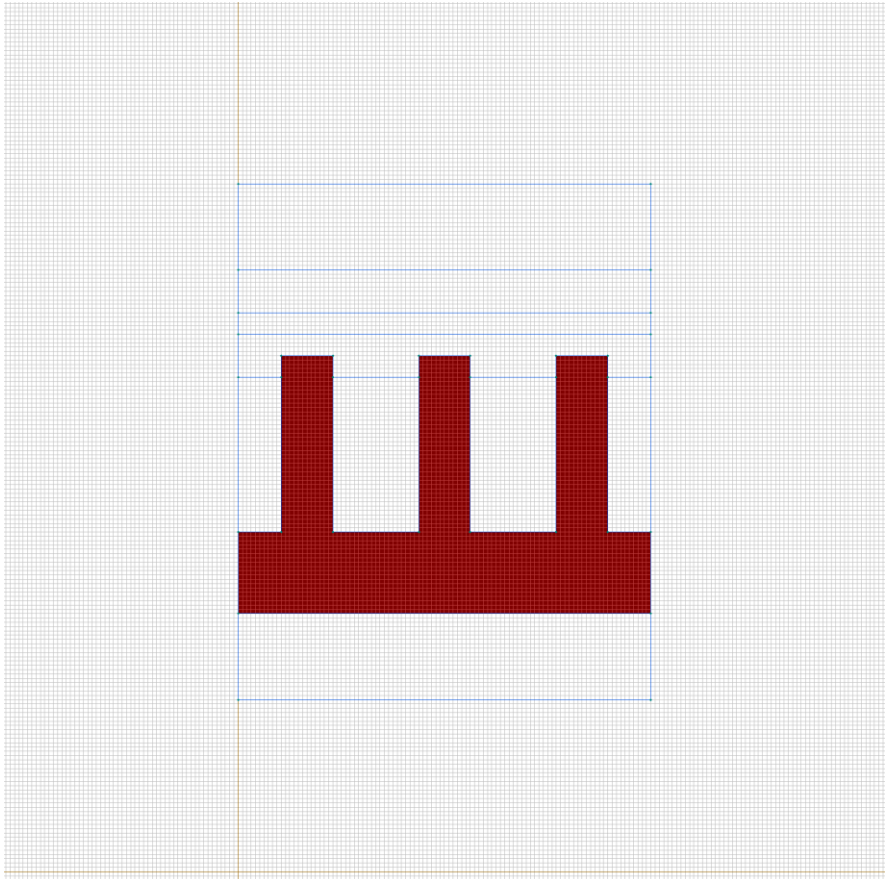
There are (1) objects with this label

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

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

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

Conductor's connection: in parallel



Labelled objects: block "Air"

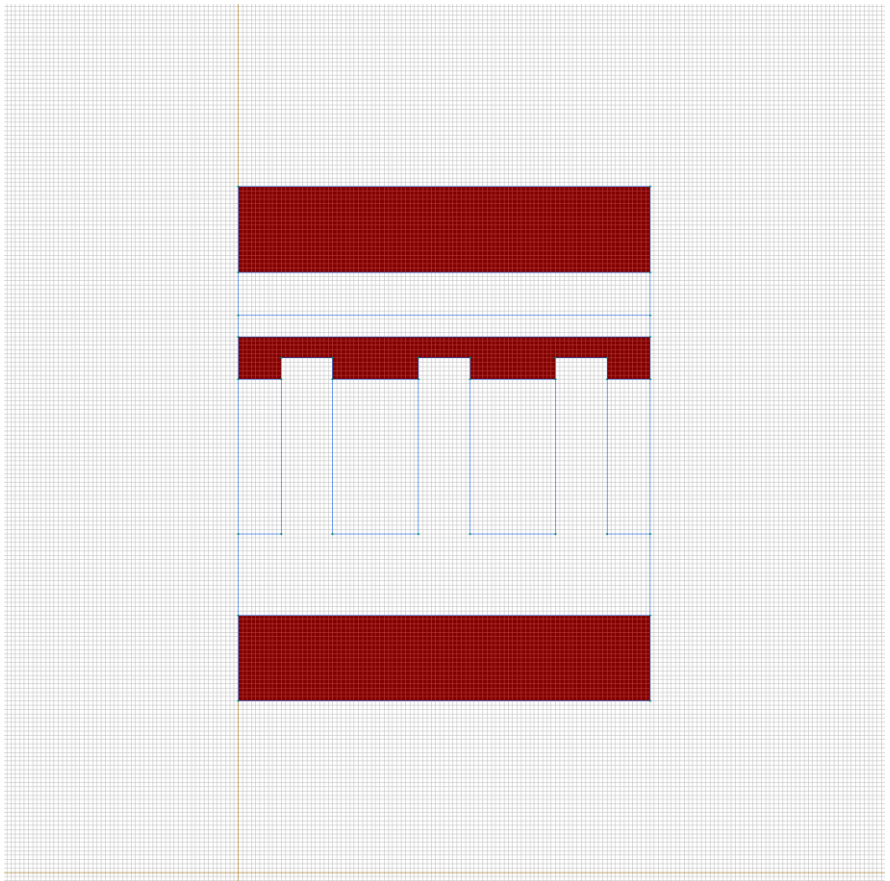
There are (3) objects with this label

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 "Core 2"

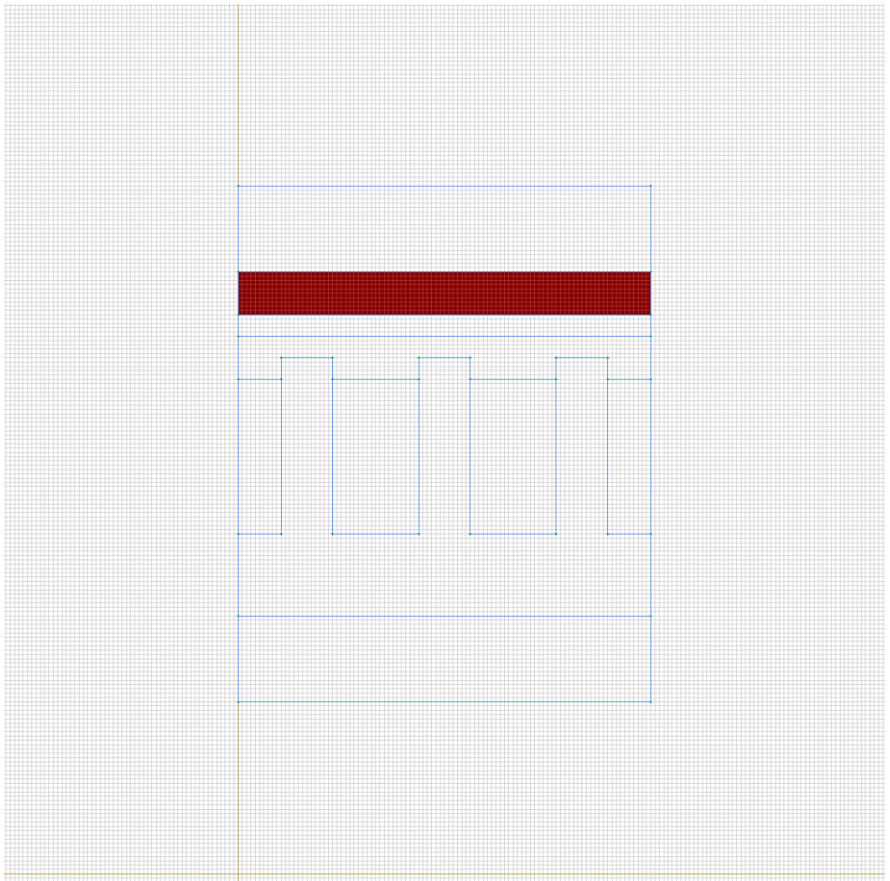
There are (1) objects with this label

Relative magnetic permeability: $\mu_x=10$, $\mu_y=10$

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

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

Conductor's connection: in parallel



Labelled objects: block "Conductor"

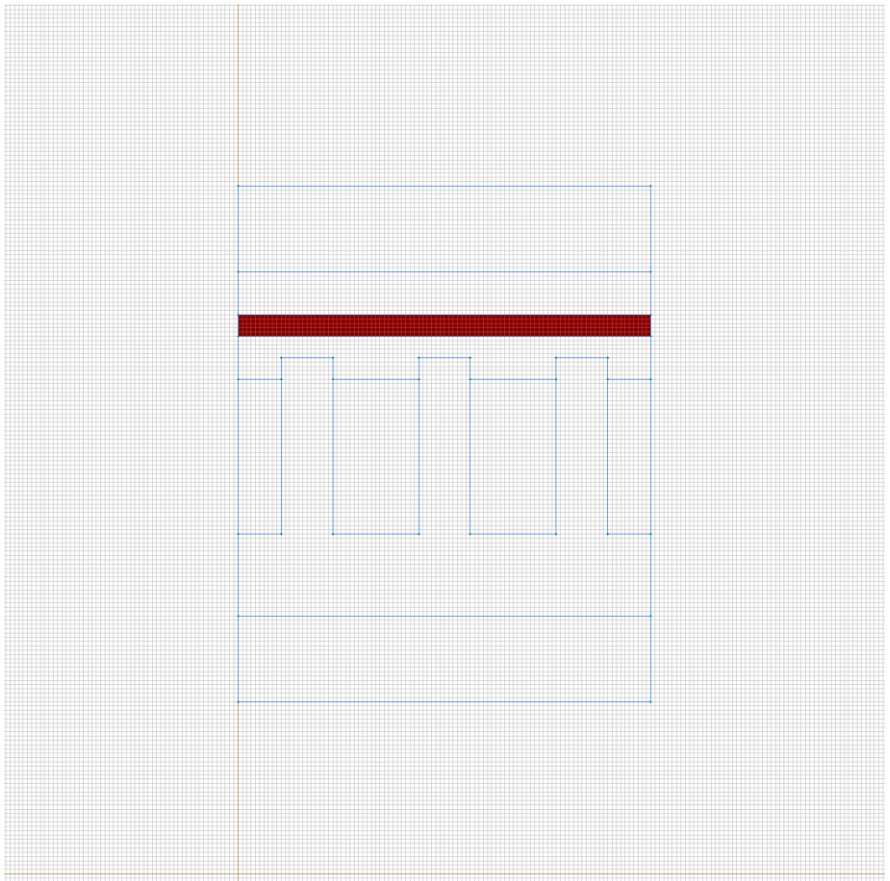
There are (1) objects with this label

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

Electric conductivity: $\sigma=33000000$ [S/m]

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

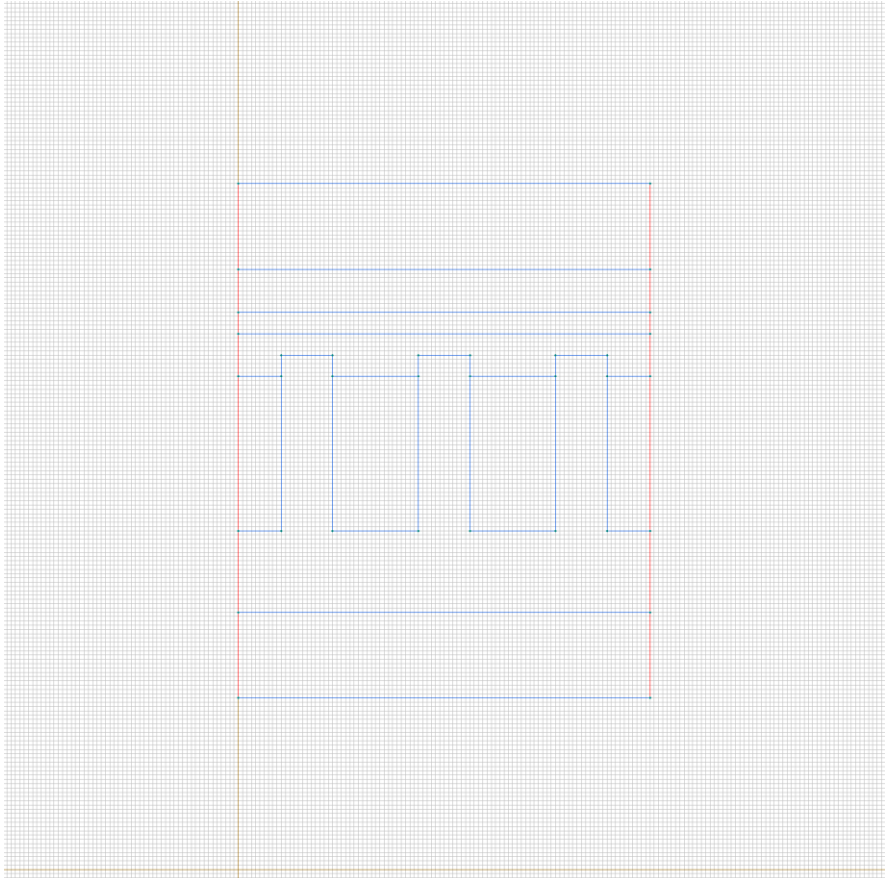
Conductor's connection: in parallel



Labelled objects: edge "Periodic"

There are (14) objects with this label

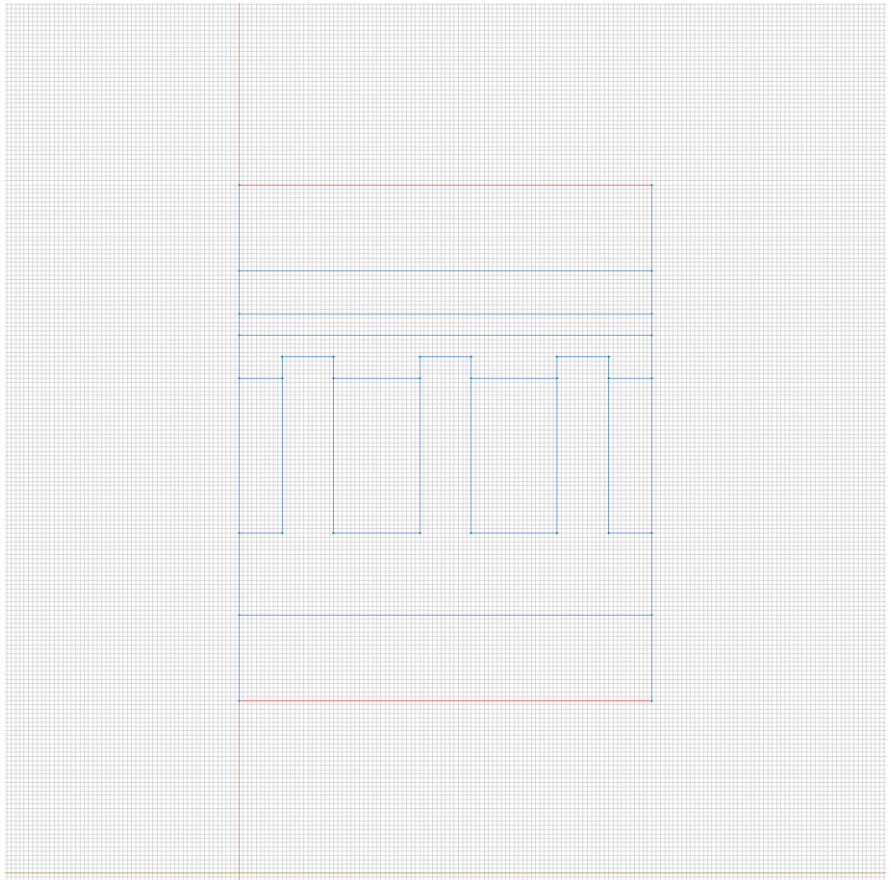
Odd periodic: $A1=-A2$



Labelled objects: edge "Outer Boundary"

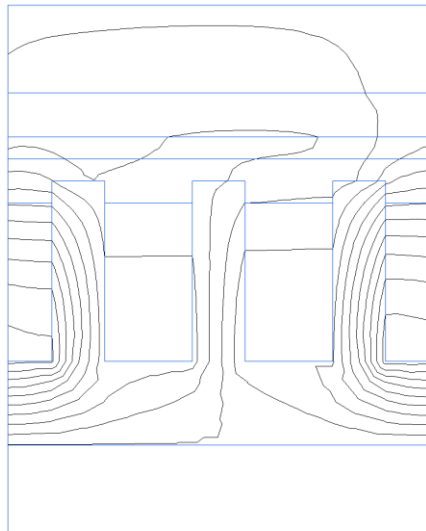
There are (2) objects with this label

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



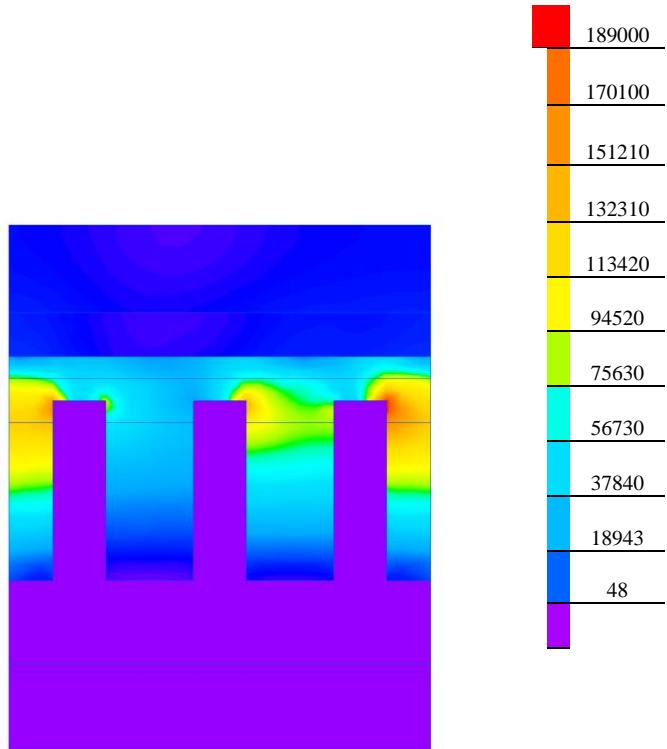
Results

Field lines



Results

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



Nonlinear dependencies

No non-linear dependencies are used in this problem data