

Problem info

Problem type: AC Magnetics , frequency: 50 Hz,

Geometry model class: Plane-Parallel

Problem database file names:

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

Results taken from other problems:

- *none*

Geometry model

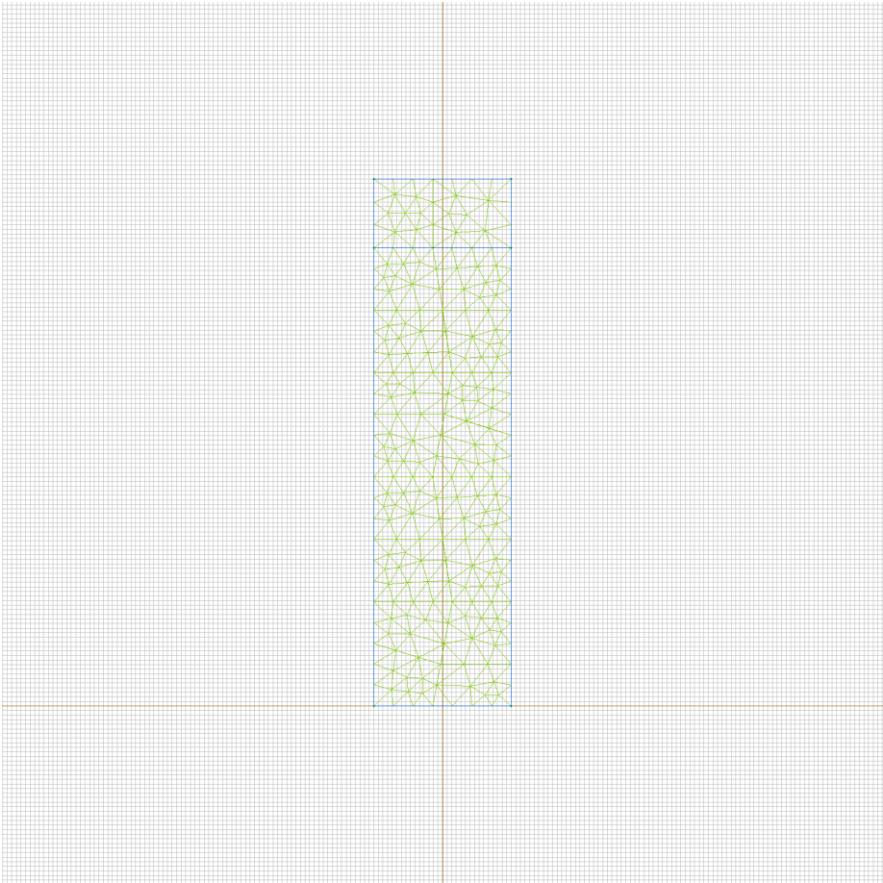


Table 1. Geometry model statistics

	With Label	Total
Blocks	2	2
Edges	2	7
Vertices	0	6

Number of nodes: 241.

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:

- [Copper Bar](#)
- [Air](#)
-

Edges:

- [top](#)
- [stator](#)
-

Vertices:

Detailed information about each label is listed below.

Labelled objects: block "Copper Bar"

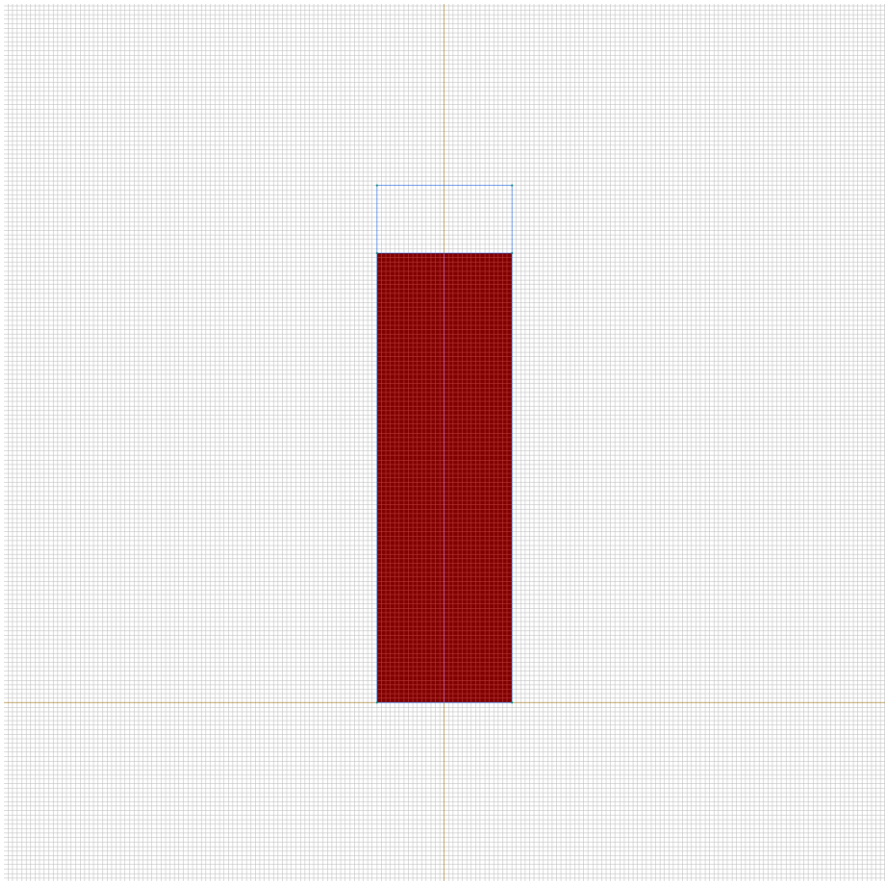
There are (1) objects with this label

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

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

Total current: $I=500$ [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "Air"

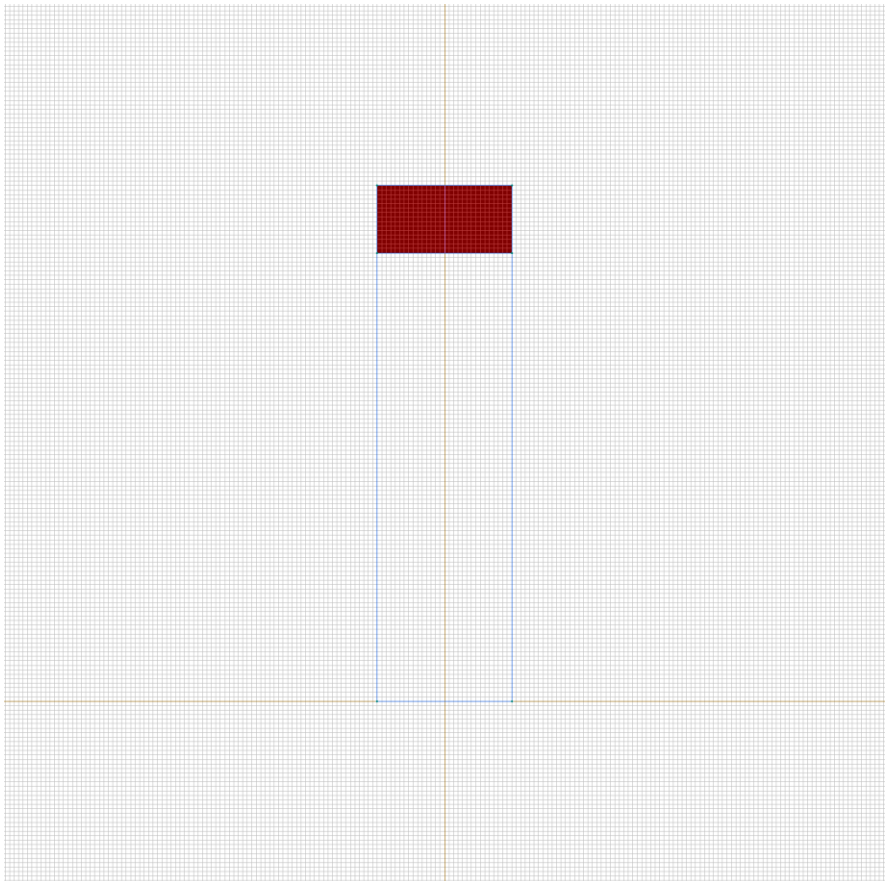
There are (1) objects with this label

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

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

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

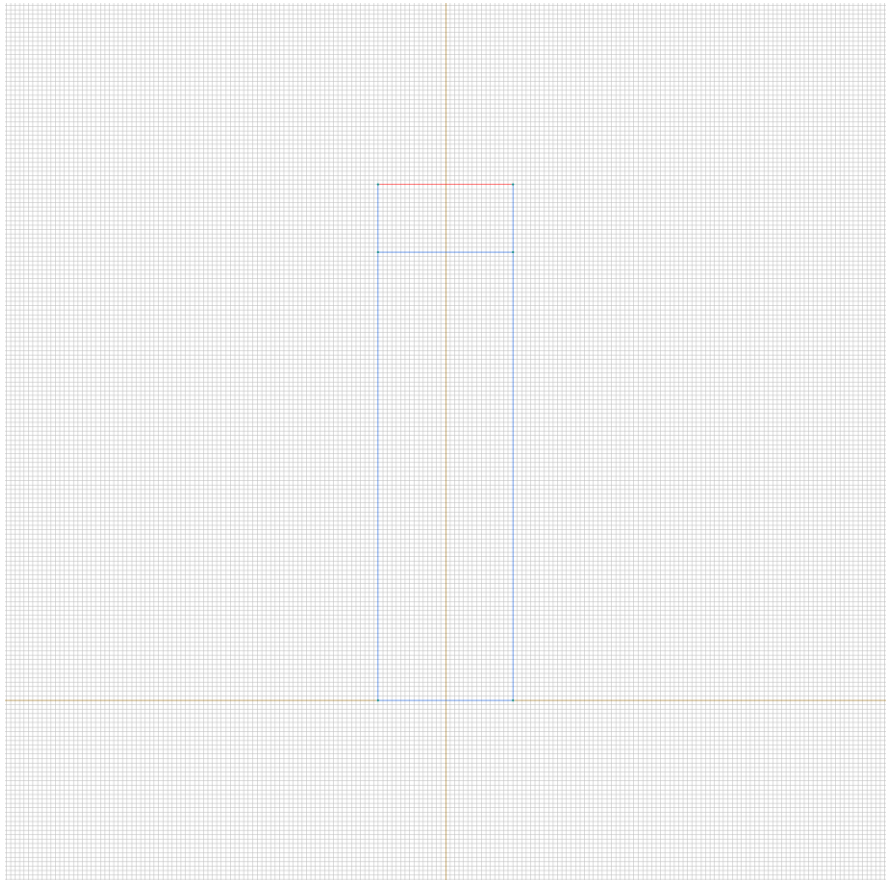
Conductor's connection: in parallel



Labelled objects: edge "top"

There are (1) objects with this label

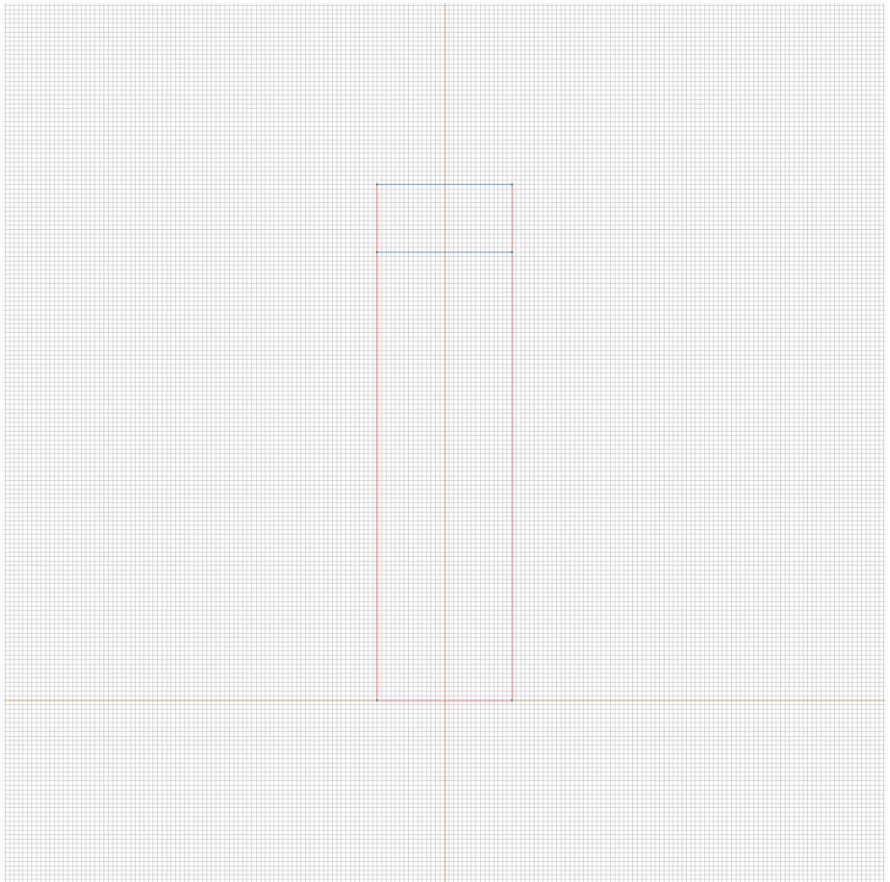
Magnetic potential: $A=0$ [Wb/m], phase 0 [deg]



Labelled objects: edge "stator"

There are (5) objects with this label

Tangential field: $H_t=0$ [A/m], phase 0 [deg]



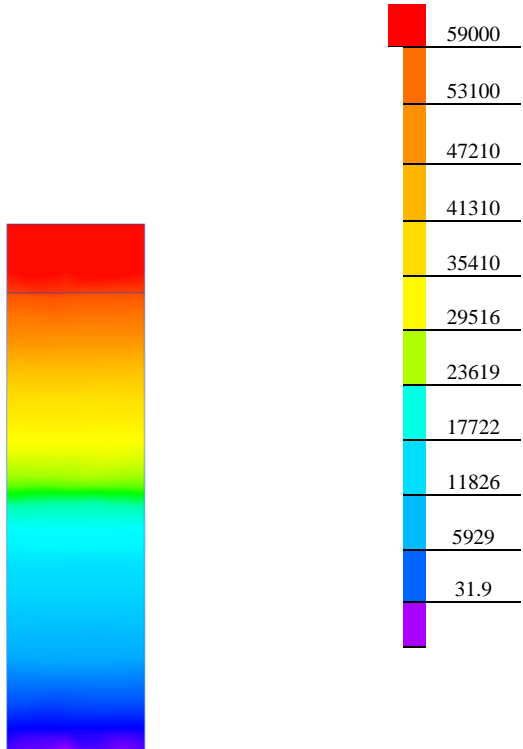
Results

Field lines



Results

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



Nonlinear dependencies

No non-linear dependencies are used in this problem data