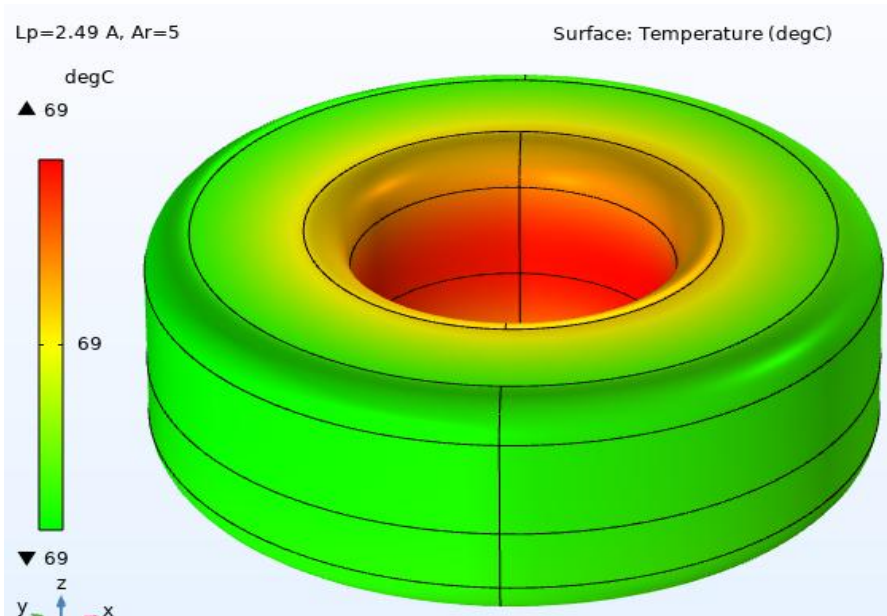
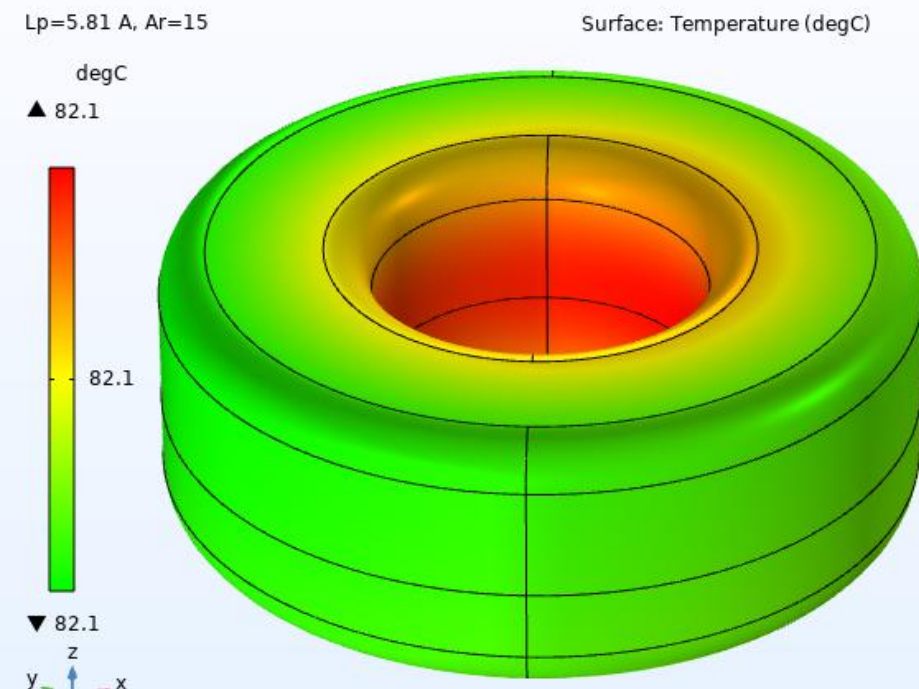
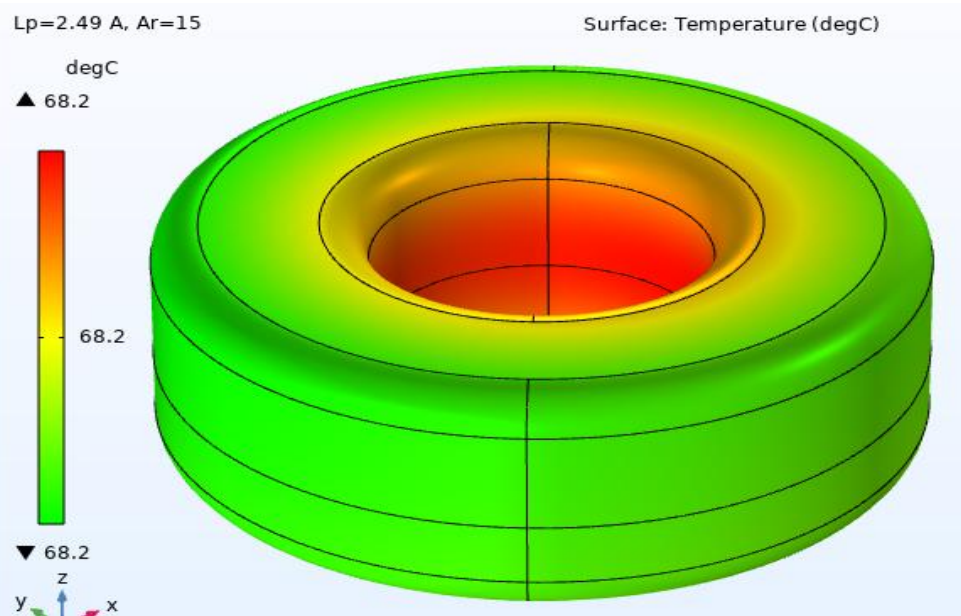
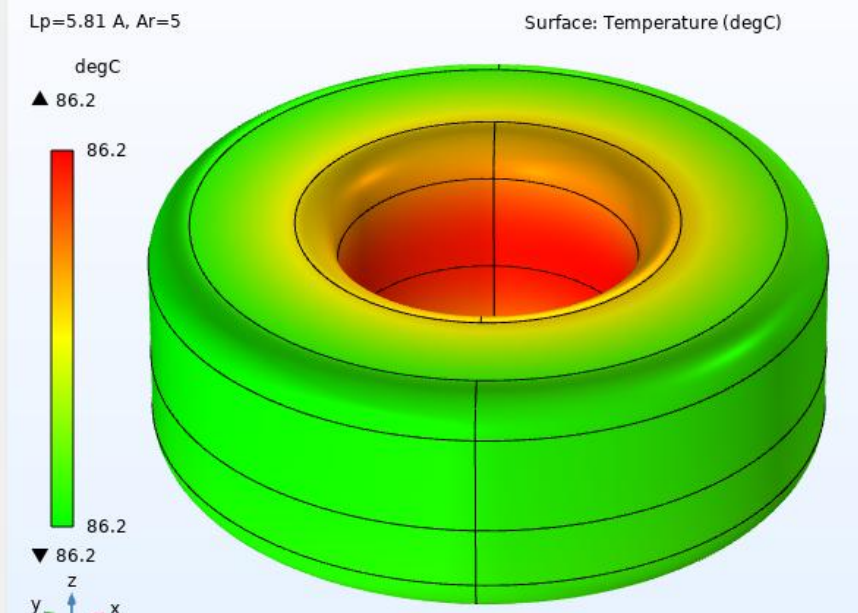


# Thermal and Electromagnetics simulation – Part # HF229-500M-8.3AH – Current rated 8.3A @ 10kHz

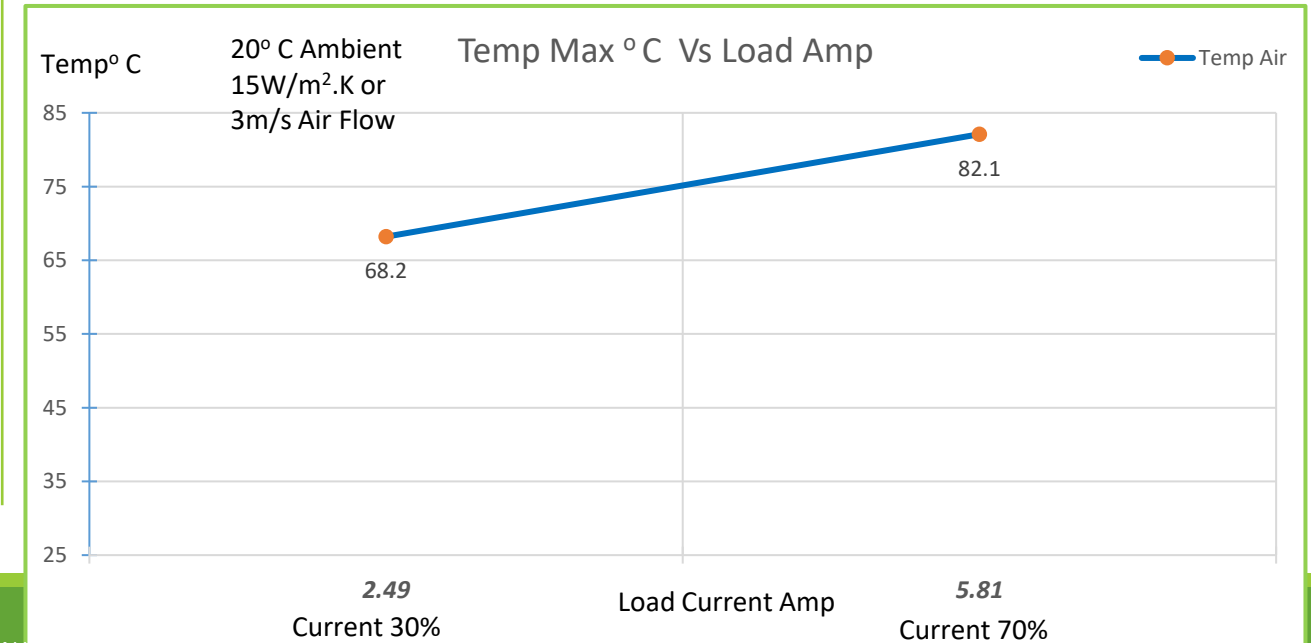
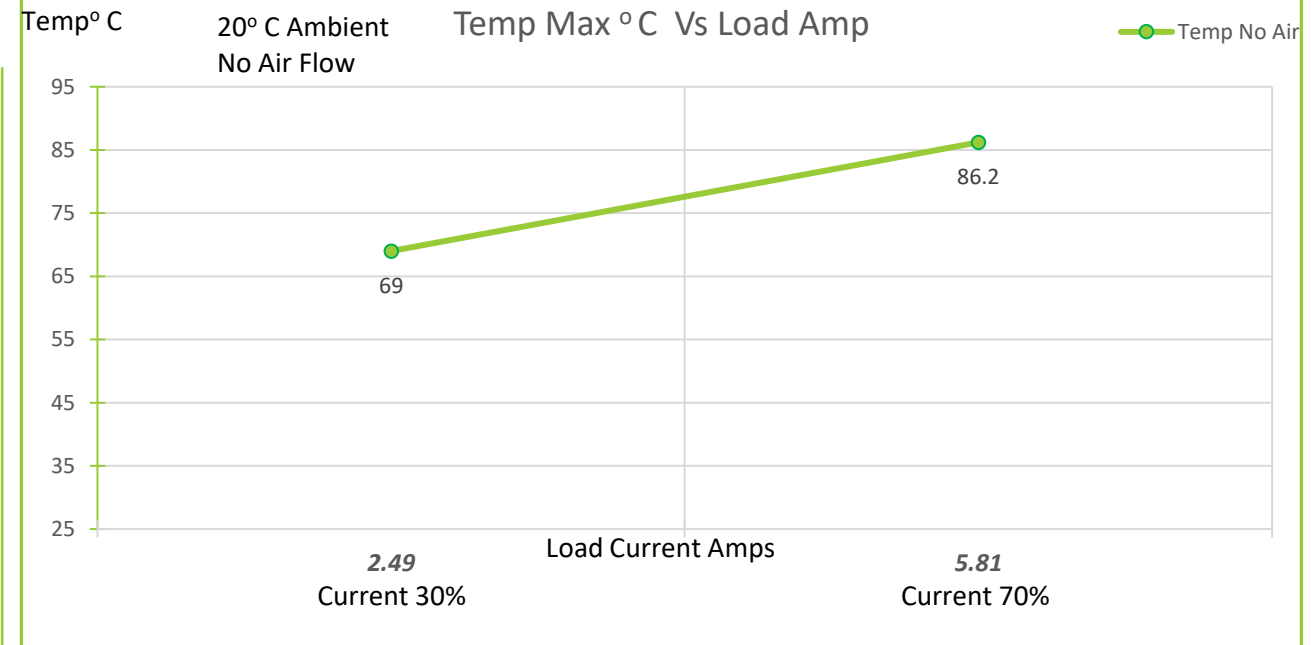
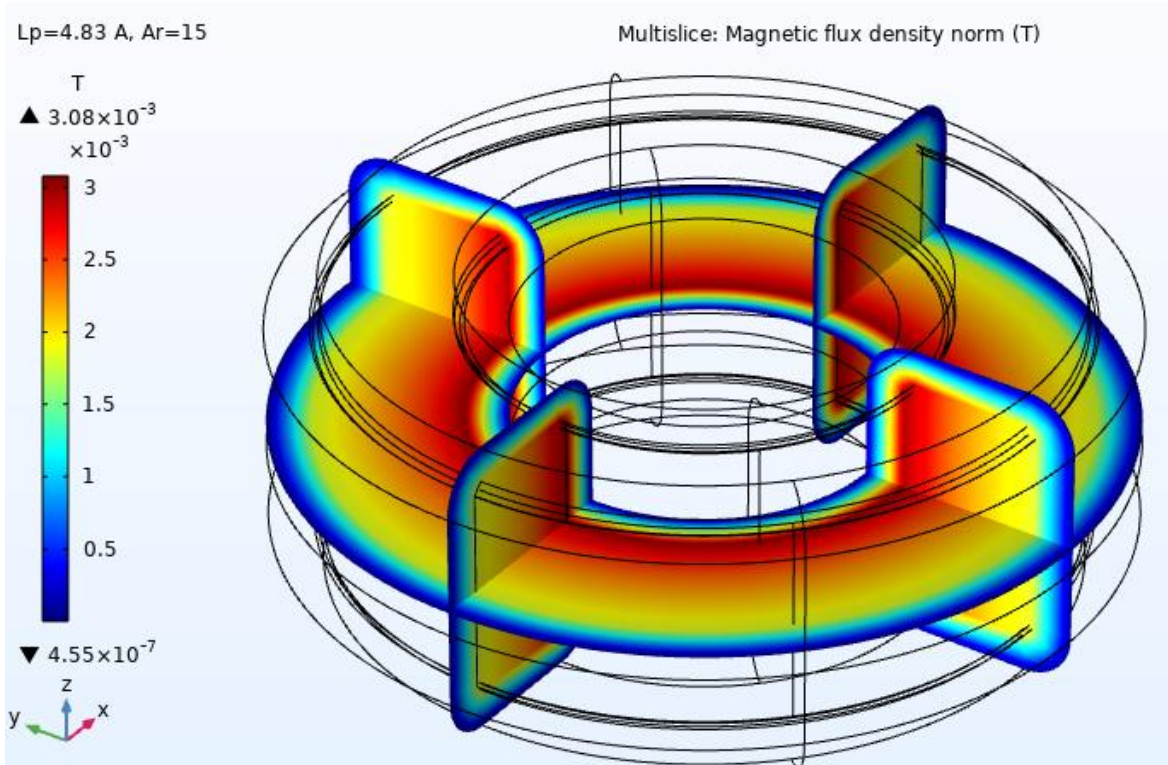
Current 30% (2.49A)  
No Airflow  
Natural convection



Current 70% (5.81A)  
15 W/ (m²K) or 3 m/s  
air flow.

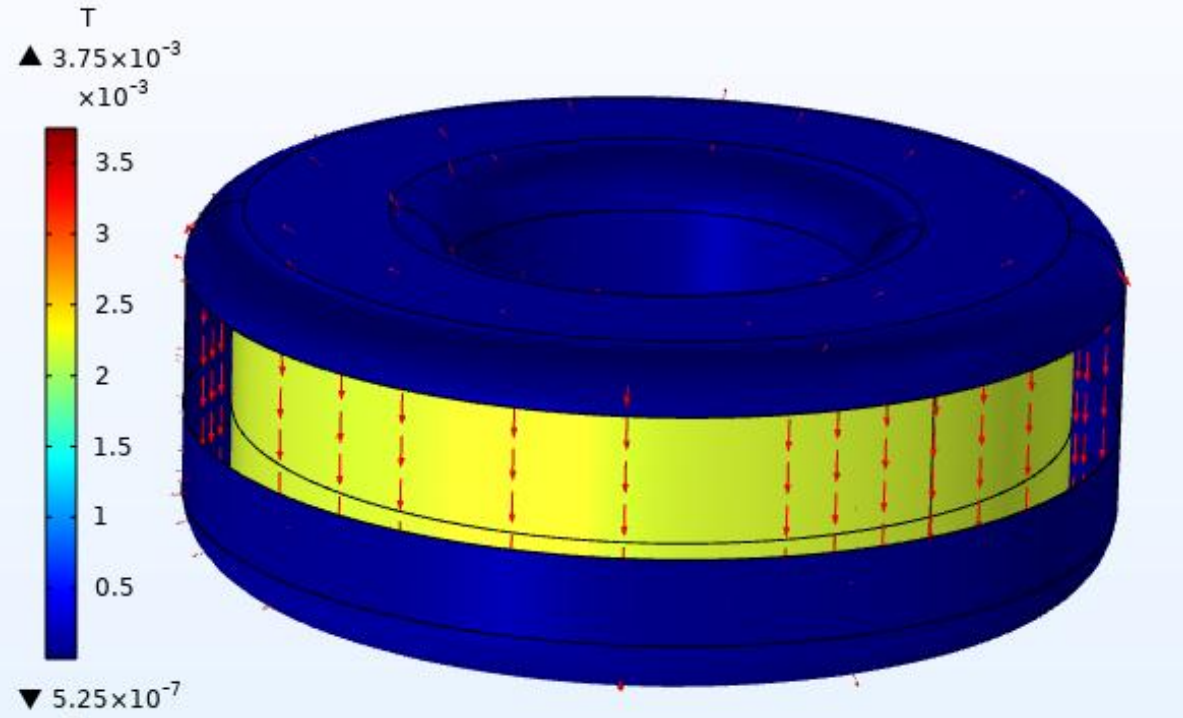


# Thermal and Electromagnetics simulation - Part # HF229-500M-8.3AH – Current rated 8.3A @ 10kHz



## Magnetics Flux in Coil

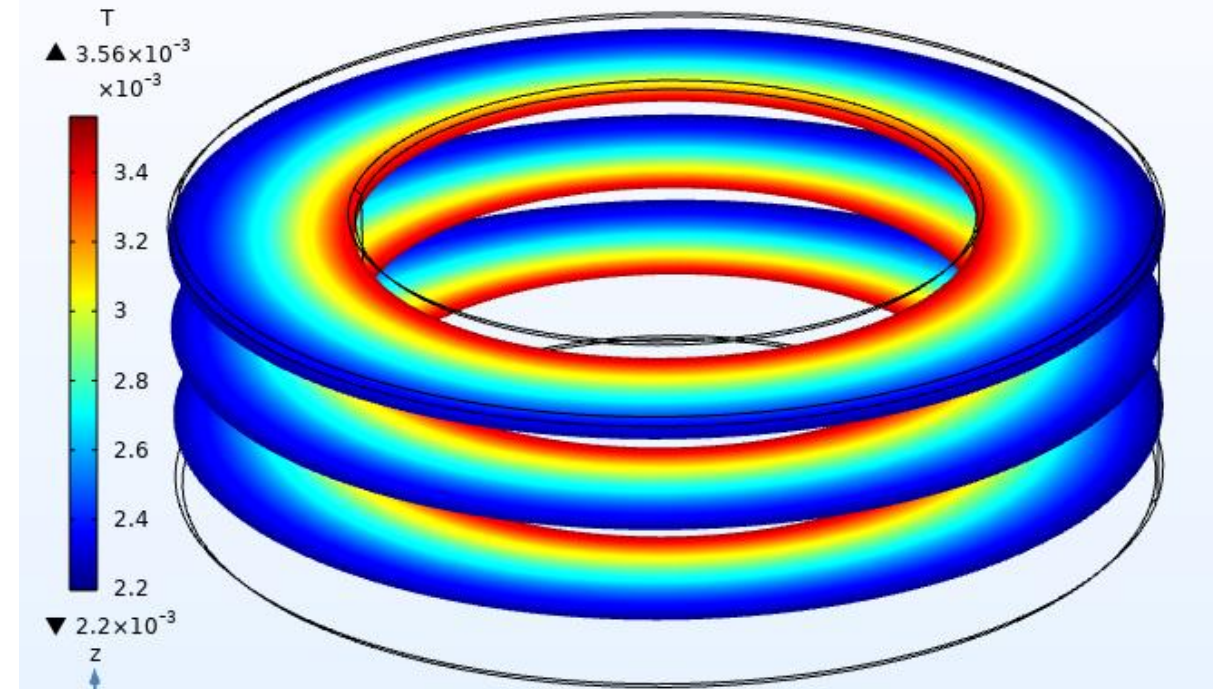
Lp=5.81 A, Ar=15 Surface: Magnetic flux density norm (T) Arrow Volume: Current density Arr



## Magnetic Flux in Core

Lp=5.81 A, Ar=15

Slice: Magnetic flux density norm (T)



# Abbreviations

|                     |                                                   |
|---------------------|---------------------------------------------------|
| Ld                  | : Current rated Amps                              |
| Ar                  | : Airflow                                         |
| W/m <sup>2</sup> .K | : Watts / Sq meter .Kelvin – Heat Convection rate |
| m/s                 | : Meter/ Second - Airflow                         |
| degC                | : Temperature in Deg C                            |
| T                   | : Tesla – Magnetic Flux density                   |
| Temp                | : Temperature                                     |
| Temp max:           | Temperature Maximum                               |
| Amb                 | : Ambient Temperature                             |
| Amps                | : Ampere Load current.                            |
| Slice               | : Sectional view                                  |

Note : For the modeling purpose the winding is considered as homogenous multilayer winding .

Disclaimer :

- Simulation MODEL is an effective tool for evaluating product performance by simulation; however, it does not simulate product performance in all test environments and is not intended to be a replacement for testing of the actual device by means of a test board or otherwise.
- Simulation results are for reference purposes only; CUSTOMER shall perform thorough testing using the actual device.