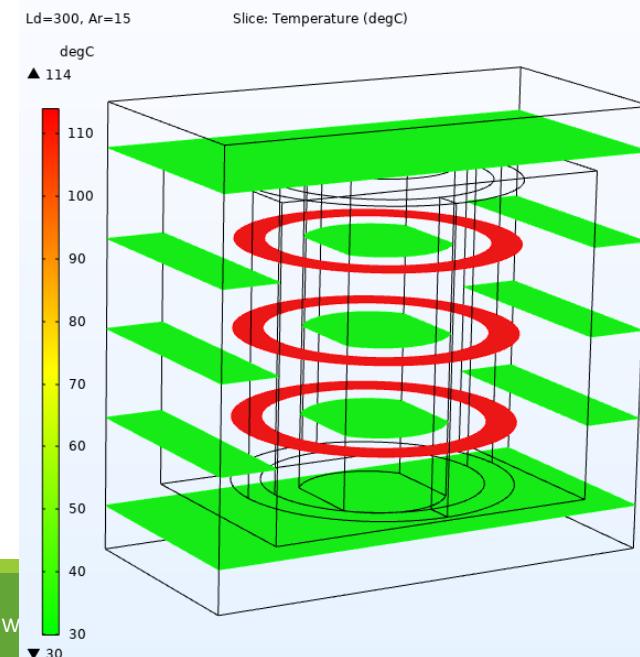
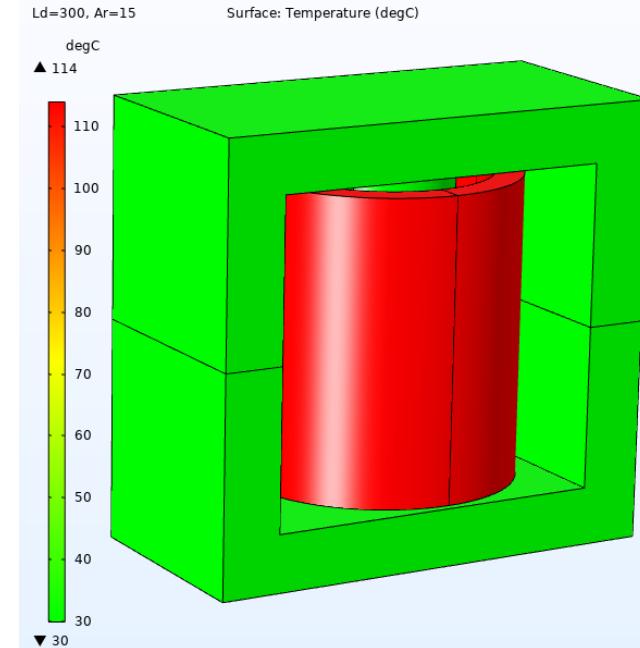
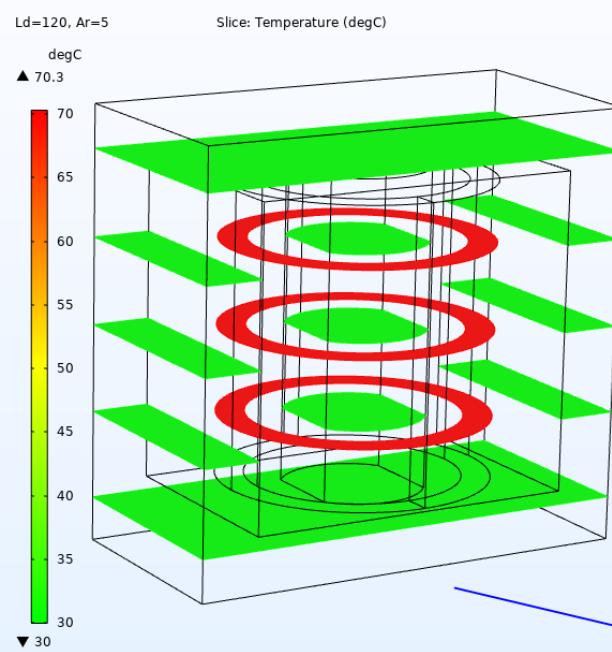
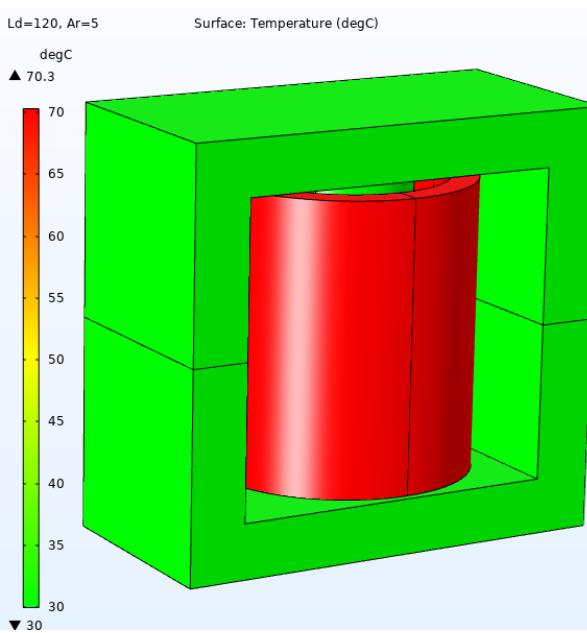


Thermal and Electromagnetics simulation – Part # LCES38A62-500M-400AH – Current rated 400A @ 10kHz

Current 30% (120A)
No Airflow
Natural convection



Current 75% (300A)
15 W/ (m²K) or 3 m/s
air flow.

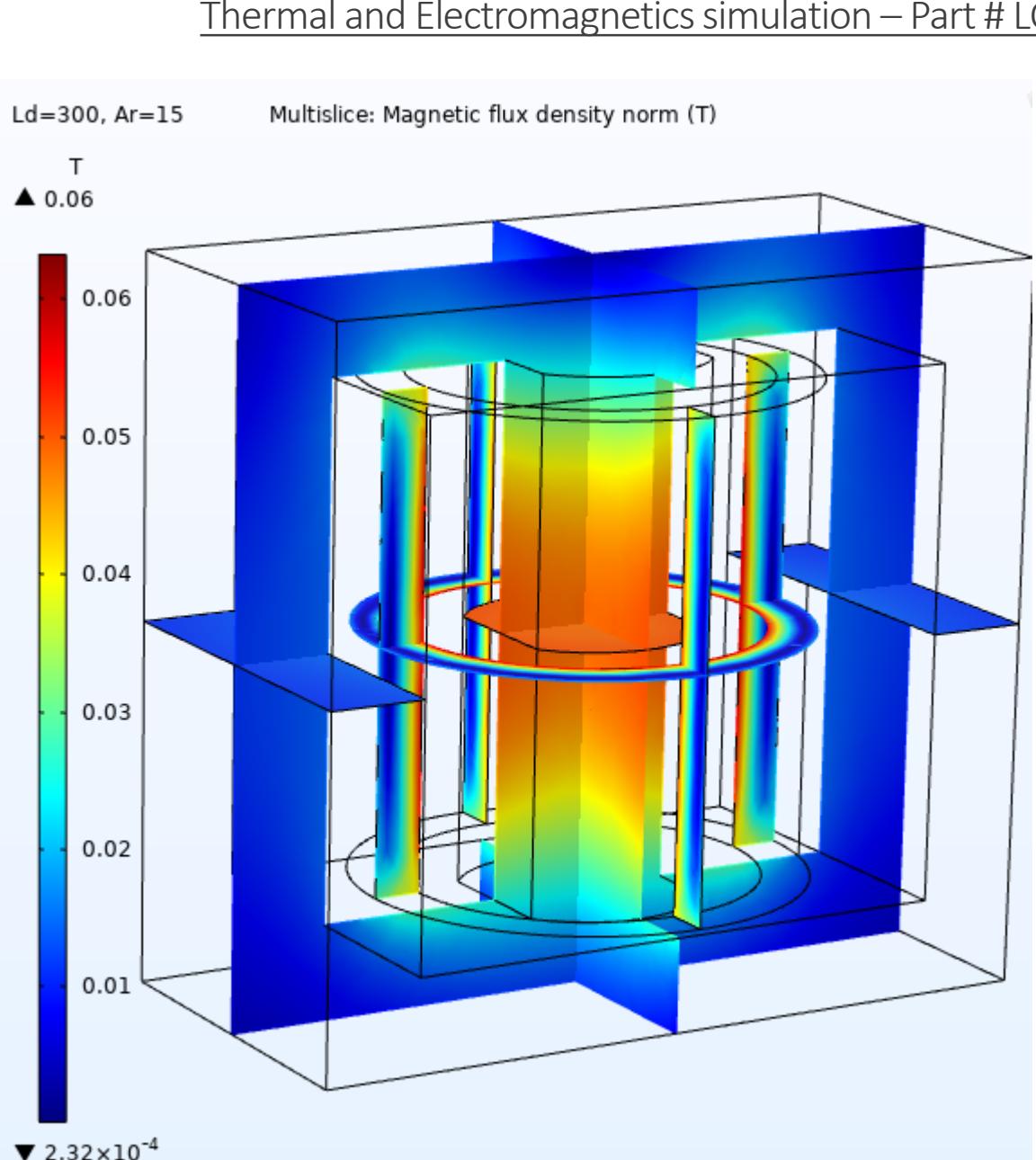
Thermal and Electromagnetics simulation – Part # LCES38A62-500M-400AH – Current rated 400A @ 10kHz

Ld=300, Ar=15

Multislice: Magnetic flux density norm (T)

T
▲ 0.06
▼ 0.01

0.06
0.05
0.04
0.03
0.02
0.01
▼ 2.32×10^{-4}



Temp °C

30° C Ambient
No Air Flow

Temp Max °C Vs Load Amp

Temp No Air

300
250
200
150
100
50
0

120 Current 30%
300 Current 75%

Load Current Amps

70.3

282

Temp °C

30° C Ambient
15W/m².K or
3m/s Air Flow

Temp Max °C Vs Load Amp

Temp Air

120
100
80
60
40
20
0

120 Current 30%
300 Current 75%

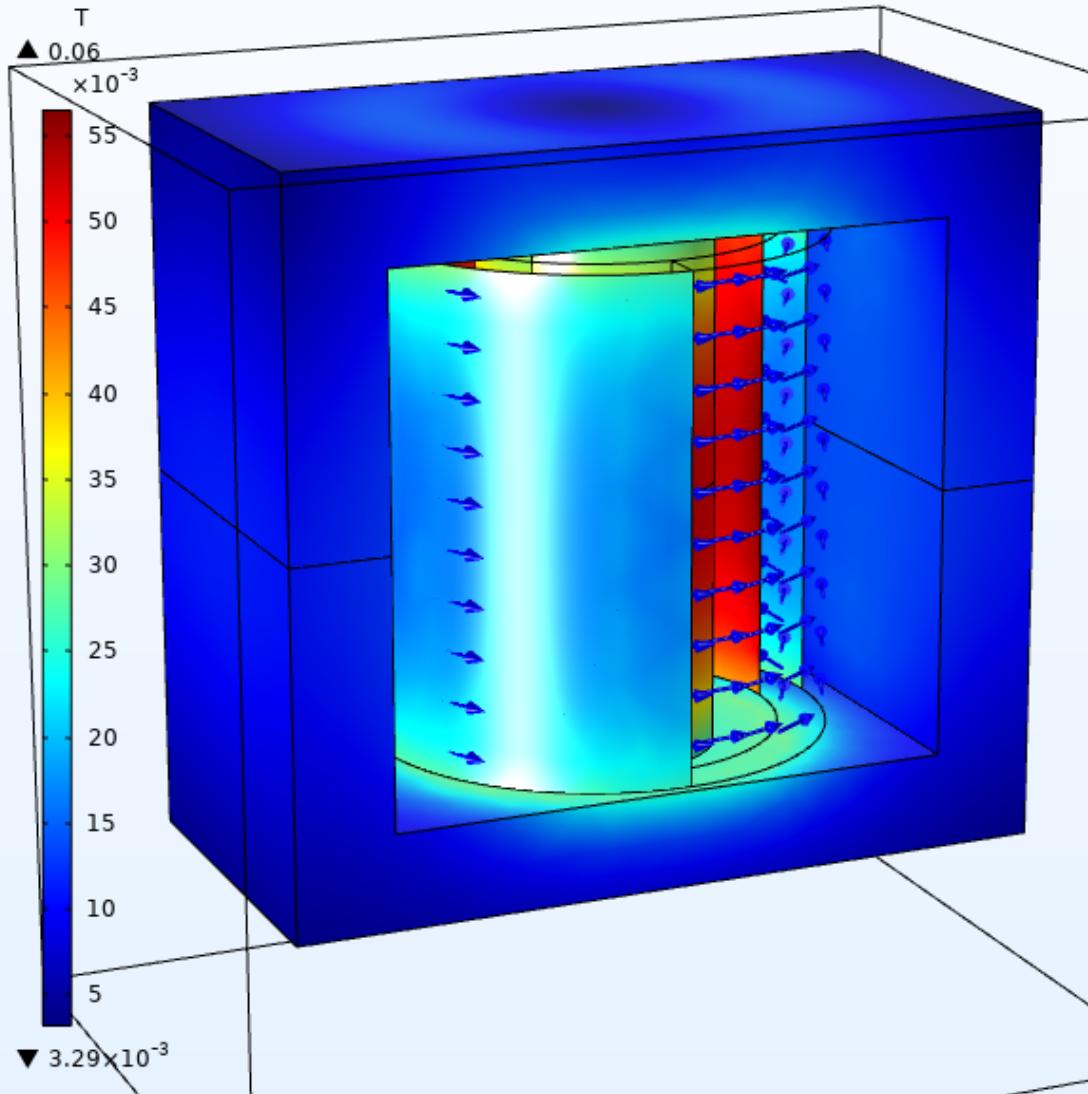
Load Current Amp

43.5

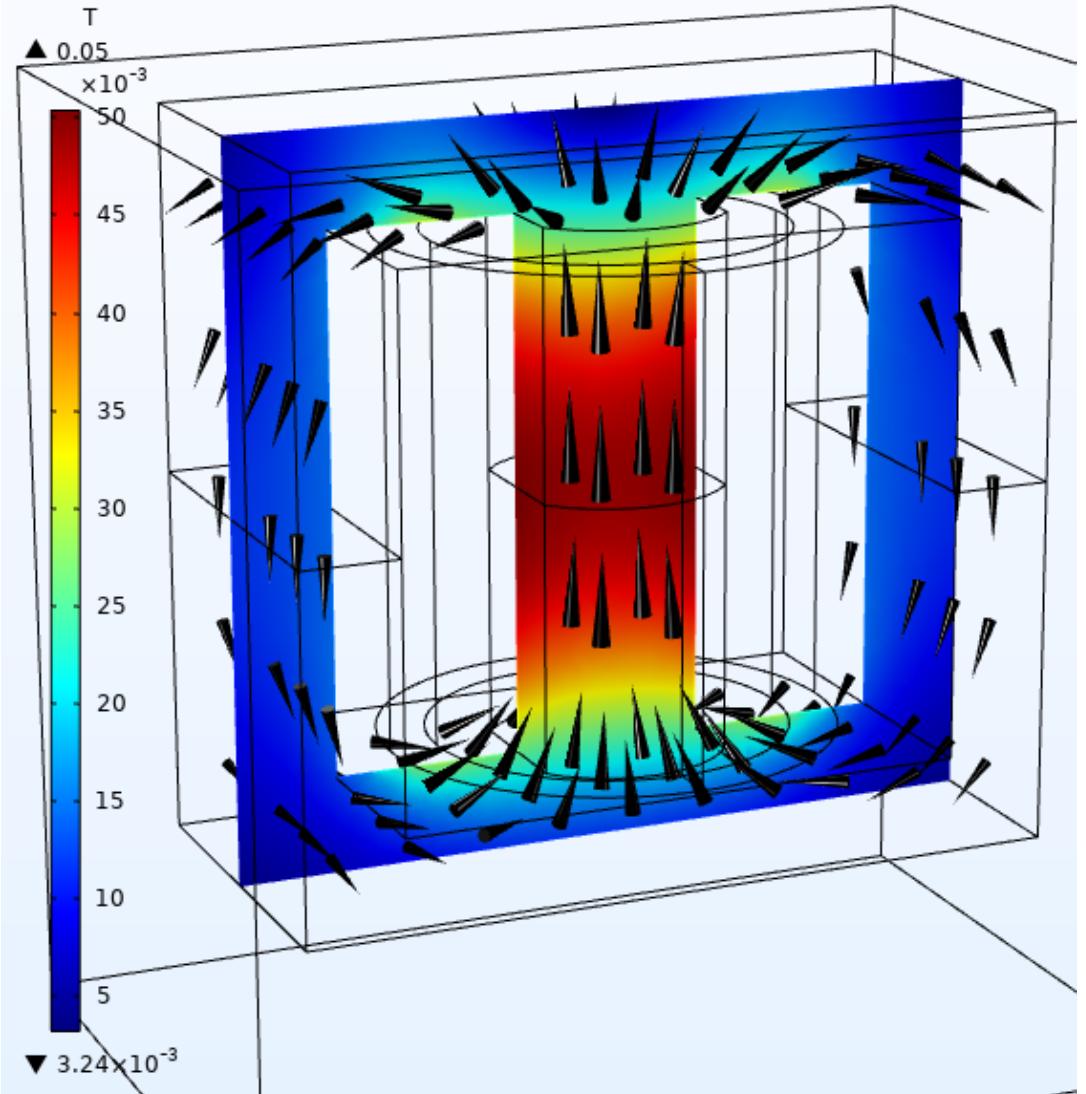
114

Thermal and Electromagnetics simulation – Part # LCES38A62-500M-400AH – Current rated 400A @ 10kHz

Ld=300, Ar=15 Surface: Magnetic flux density norm (T) Arrow Volume: Current density



Ld=300, Ar=15 Slice: Magnetic flux density norm (T) Arrow Volume: Magnetic flux densit



Abbreviations

Ld	: Current rated Amps
Ar	: Airflow
W/m ² .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

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.