

Current 30% (54 A)

No Airflow

Natural convection

Thermal and Electromagnetics simulation – Part # EES55244-210M-180A – Current rated 180A @ 10kHz

Ld=54 A, Ar=5

Surface: Temperature (degC)

degC

▲ 94.1

94

93.5

93

92.5

92

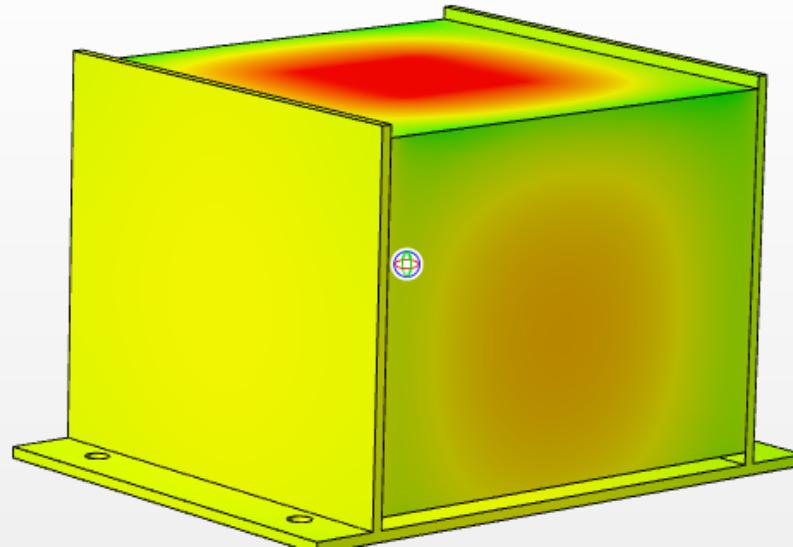
91.5

91

90.5

90

91.3



Ld=135 A, Ar=40

Surface: Temperature (degC)

degC

▲ 315

314

312

310

308

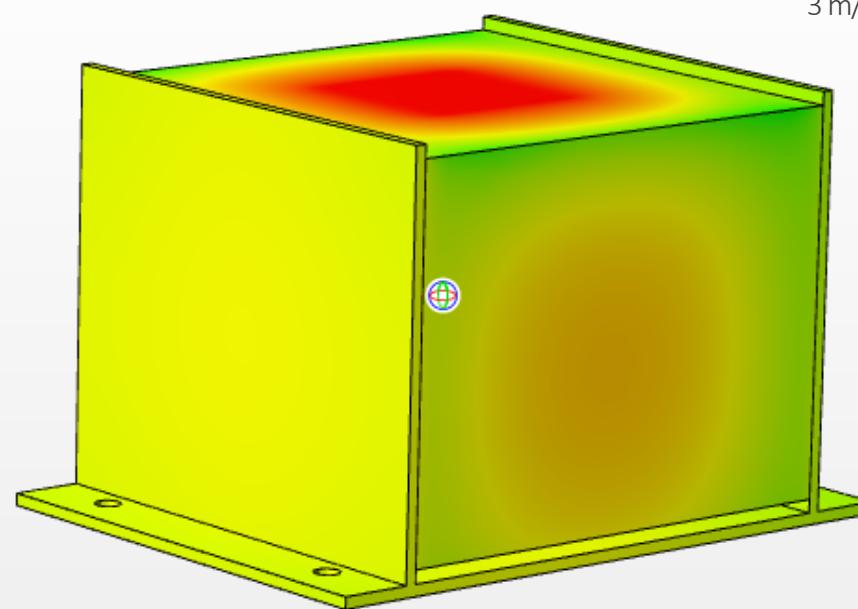
306

304

302

300

299



Ld=54 A, Ar=5

Slice: Temperature (degC)

degC

▲ 94.1

94

93.8

93.6

93.4

93.2

93

92.8

92.6

92.4

92.2

92

91.8

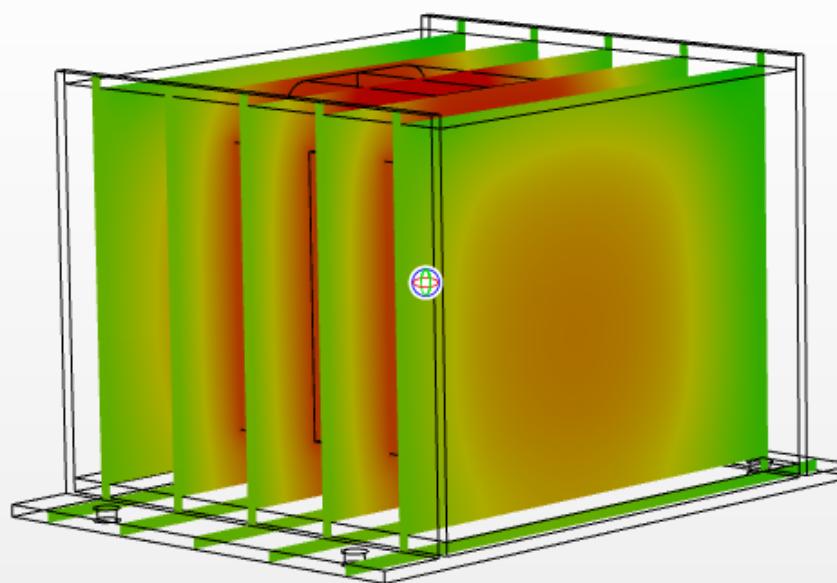
91.6

91.4

91.2

91

90.8



degC

▲ 315

314

312

310

308

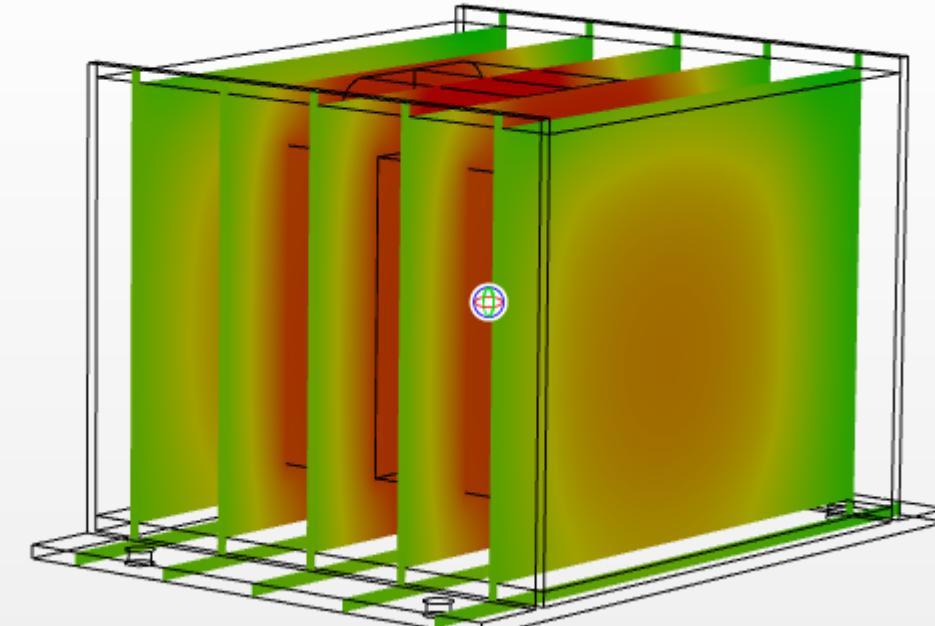
306

304

302

300

299



Current 75% (135A)

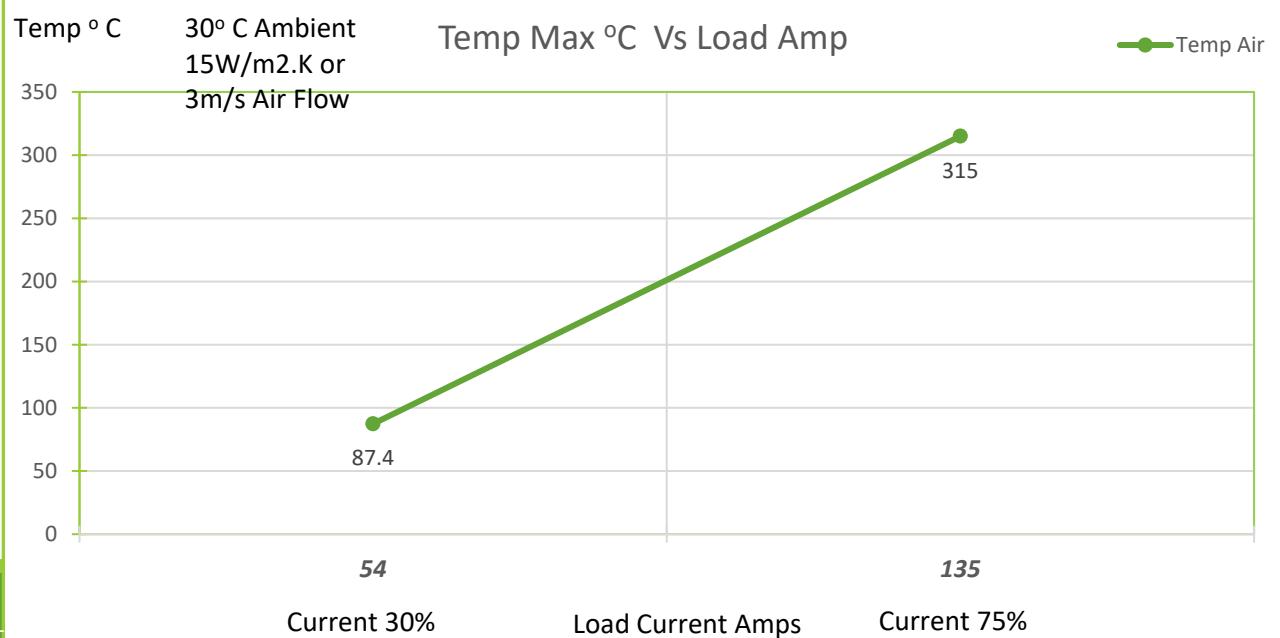
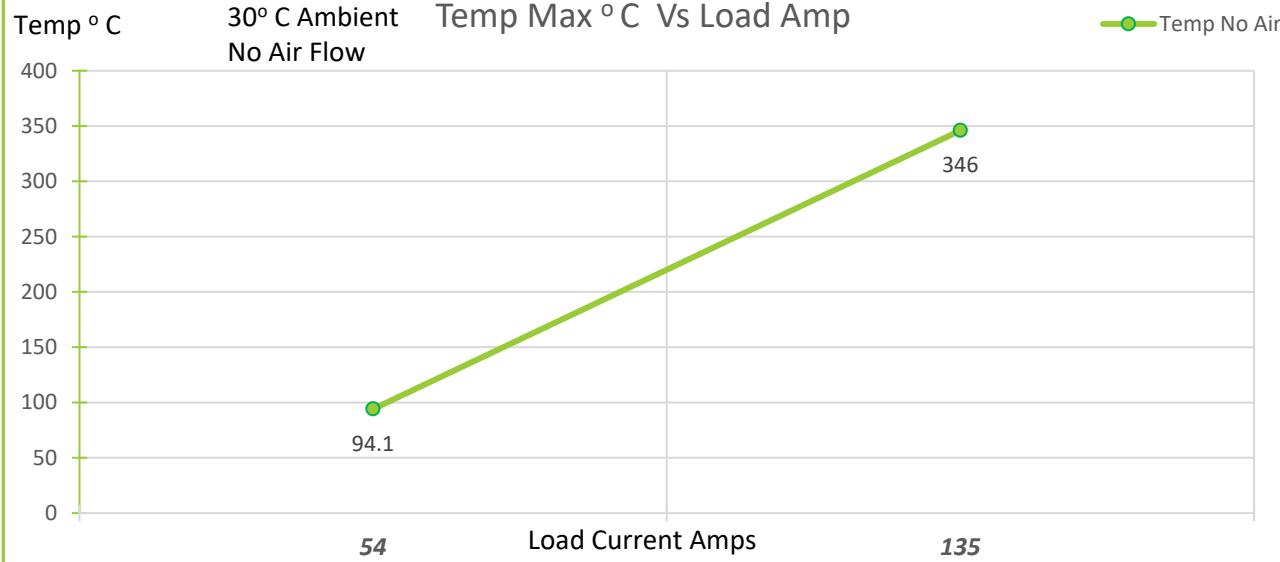
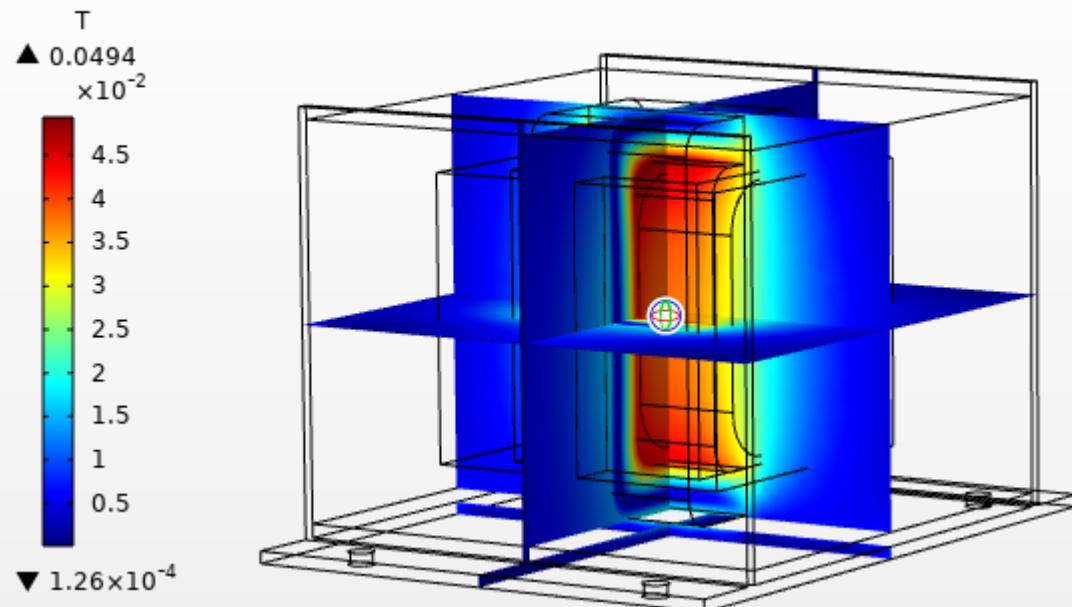
15 W/ (m²K) or

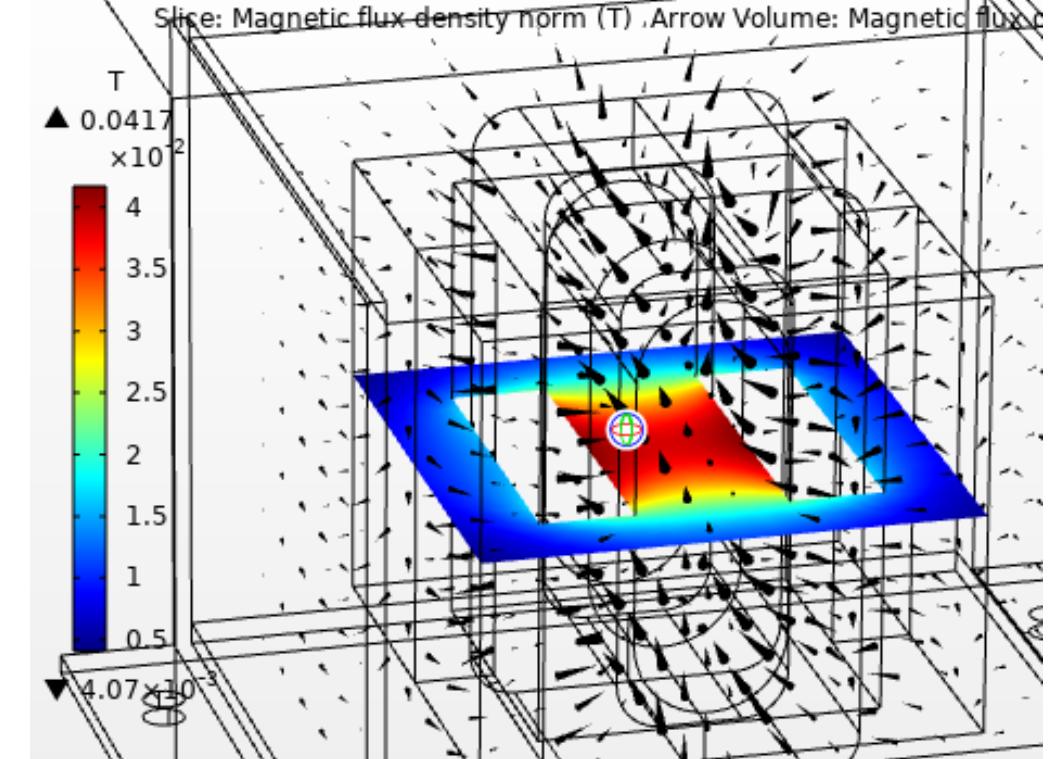
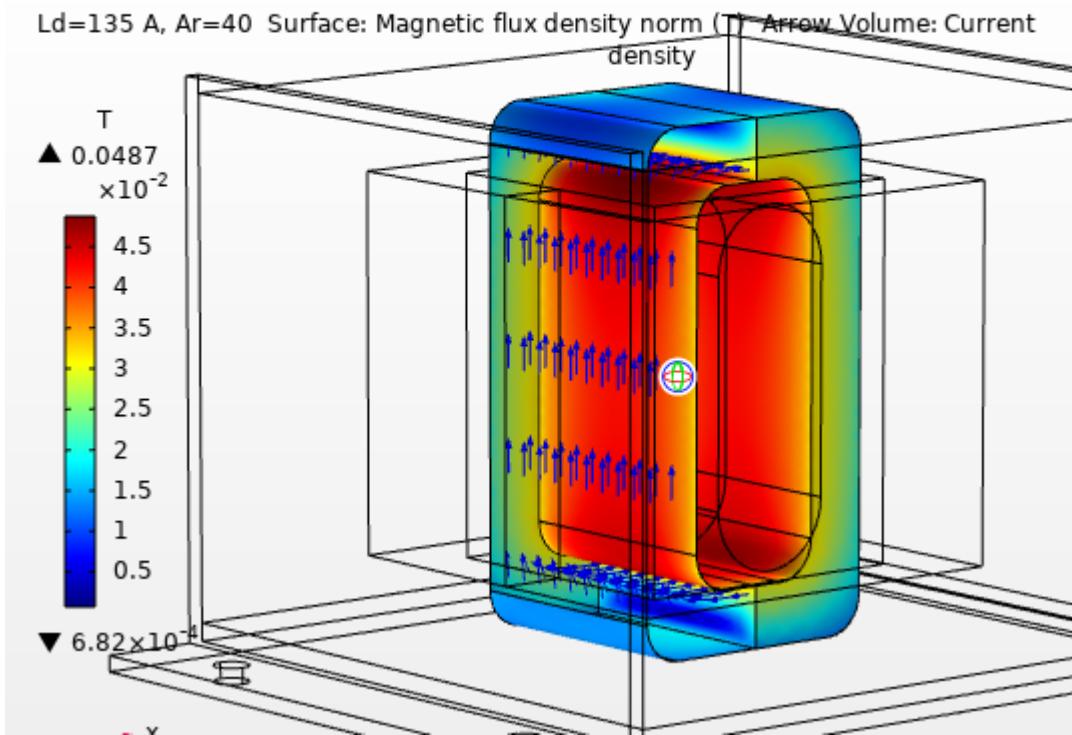
3 m/s air flow.

Thermal and Electromagnetics simulation – Part # EES55244-210M-180A – Current rated 180A @ 10kHz

Ld=135 A, Ar=40

Multislice: Magnetic flux density norm (T)





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.