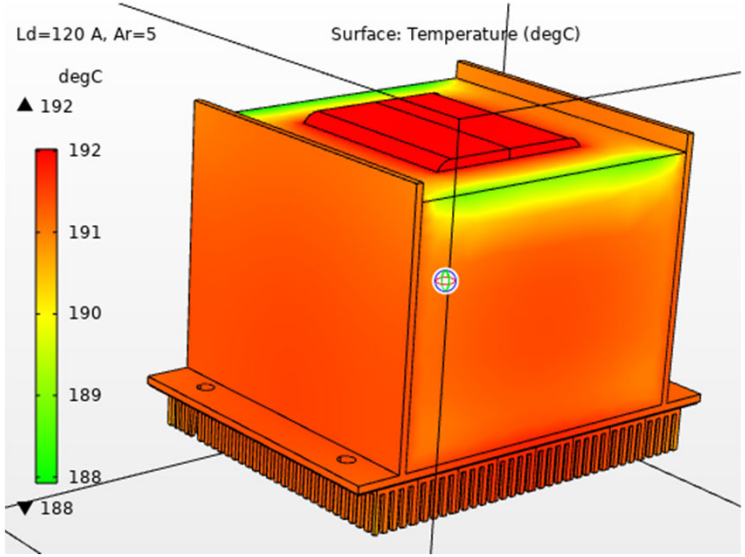
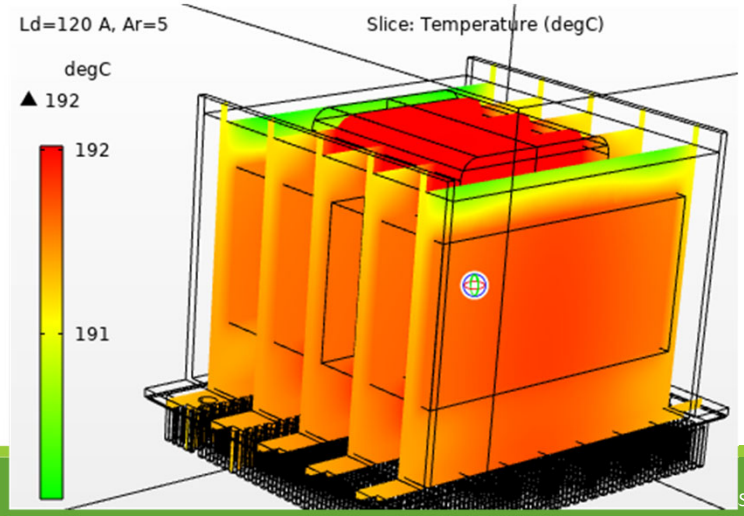
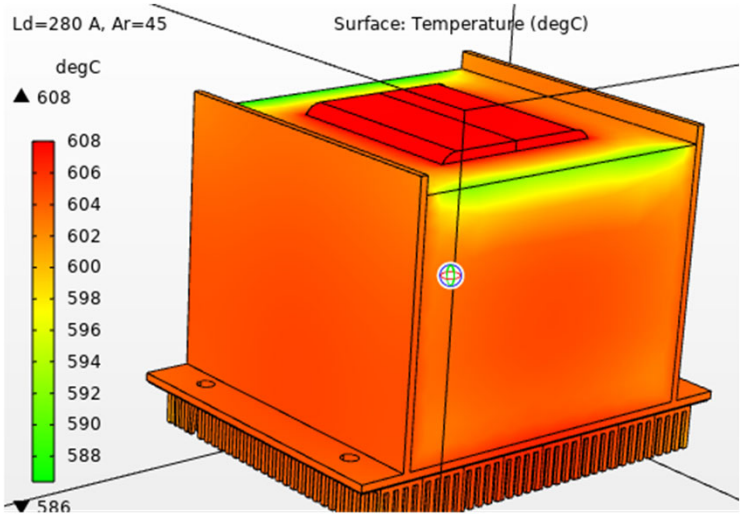
Thermal and Electromagnetics simulation – Part # ELCEK38A22-200A-400A– Current rated 400A @ 10kHz

Current 30% (120)
No Airflow
Natural convection

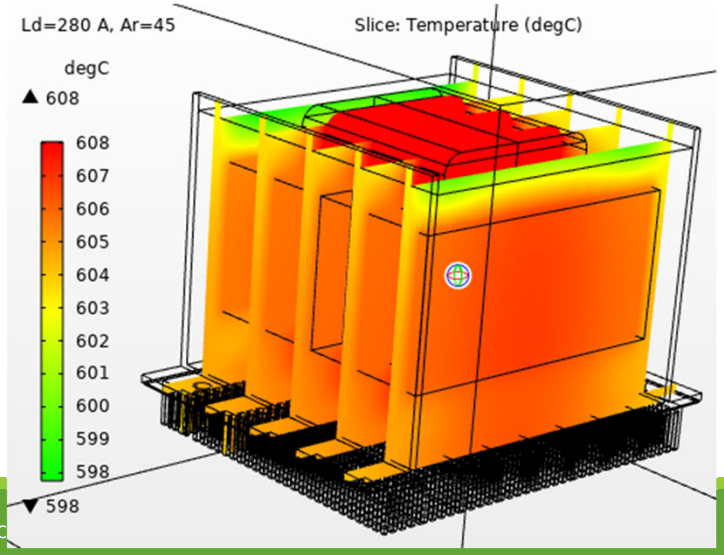




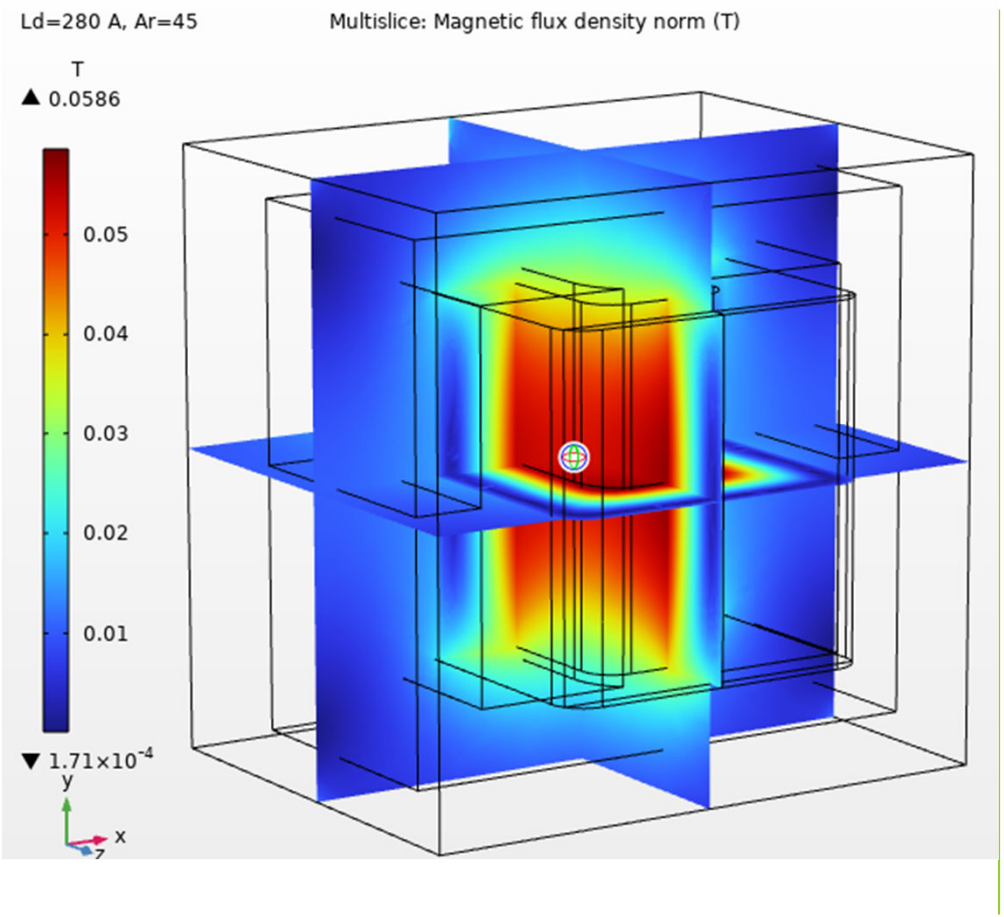
Current 70% (280A)
40 W/ (m^2K) or 15 m/s
air flow.

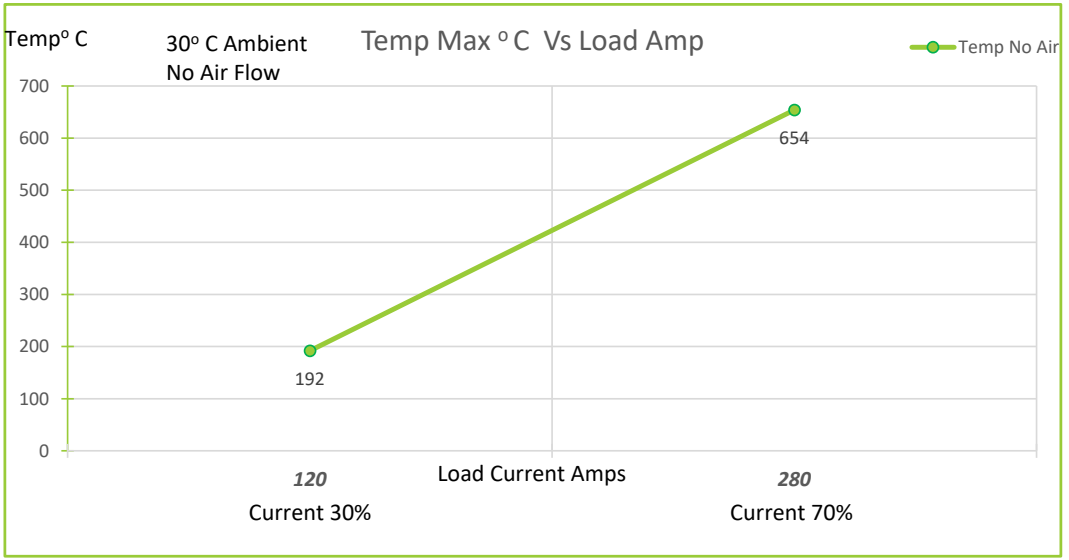


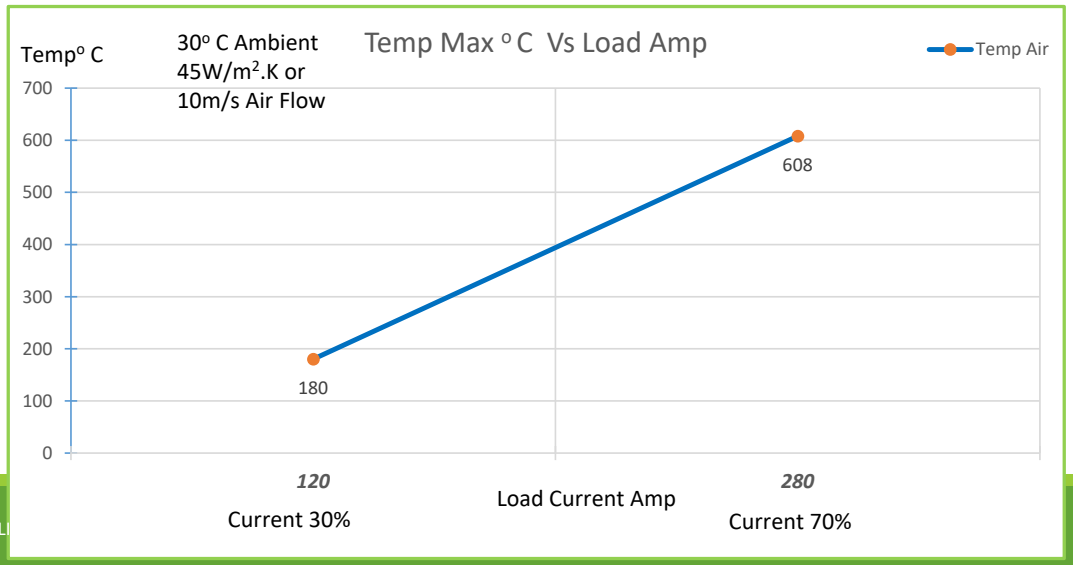
Additional Thermal Heat sink needed



Thermal and Electromagnetics simulation – Part # ELCEK38A22-200A-400A– Current rated 400A @ 10kHz

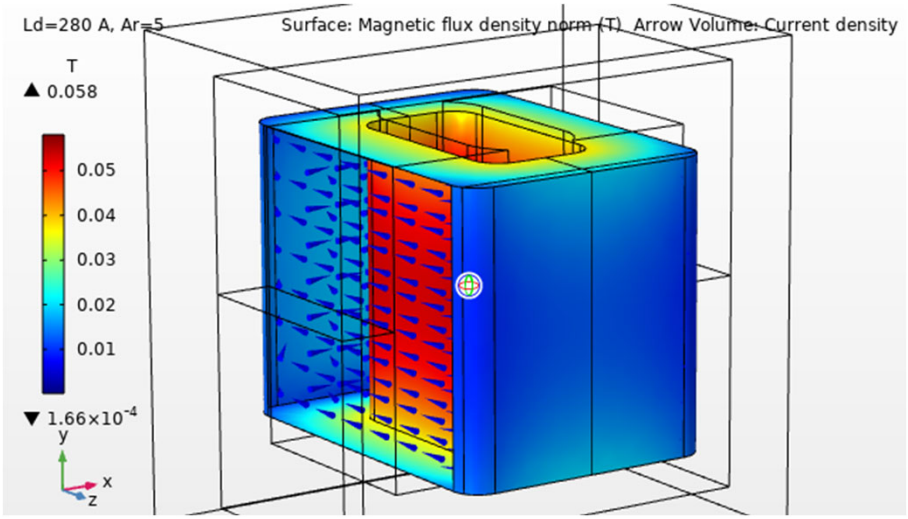




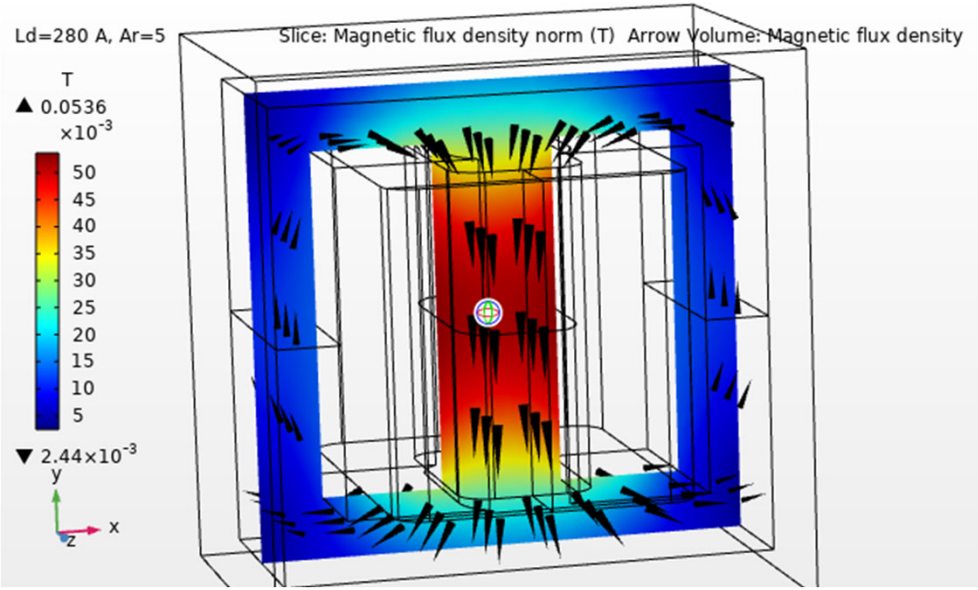


Thermal and Electromagnetics simulation – Part # ELCEK38A22-200A-400A– Current rated 400A @ 10kHz

COIL FLUX



CORE FLUX



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.