# Thermal and Electromagnetics simulation – Part # EES55246-341M-40AH – Current rated 40A @ 10kHz

Current 30% (12 A)
No Airflow
Natural convection
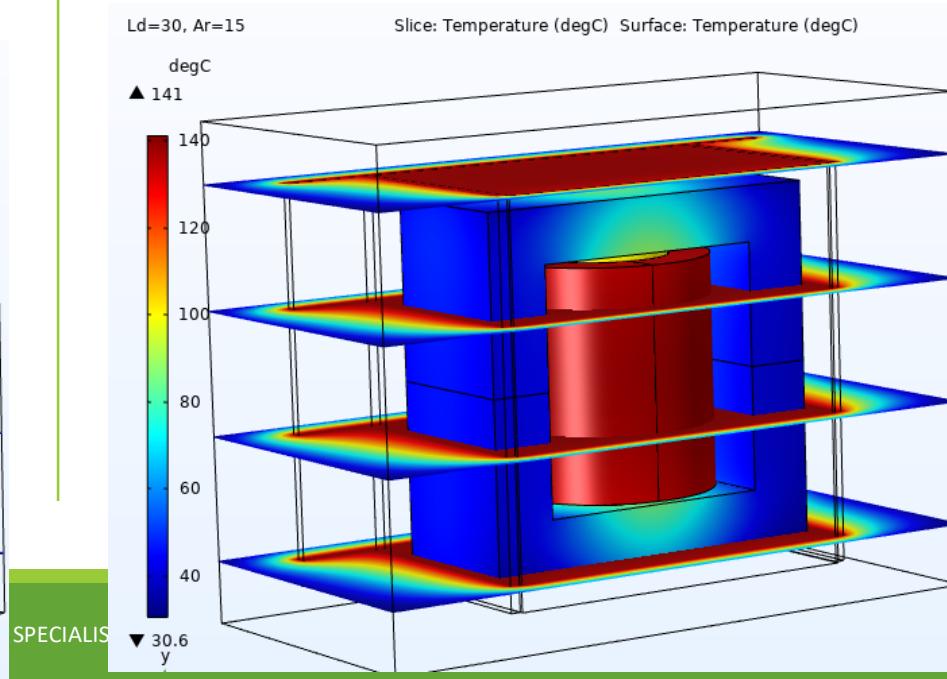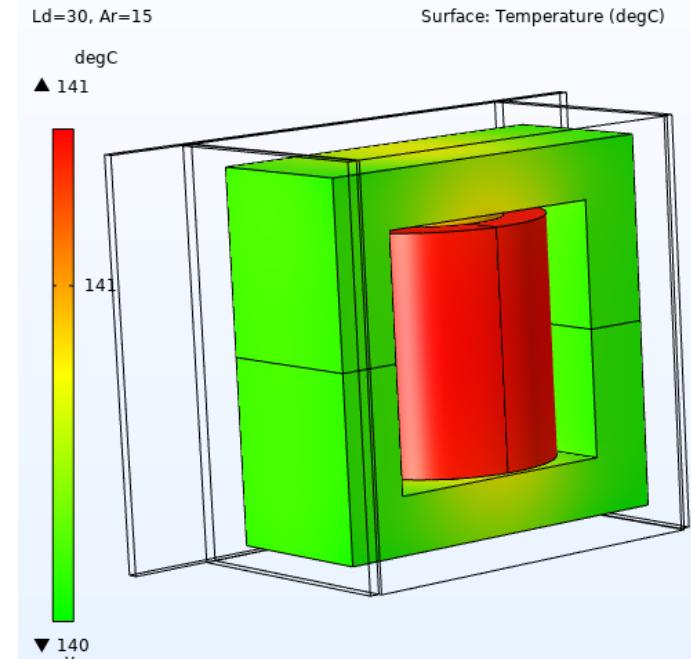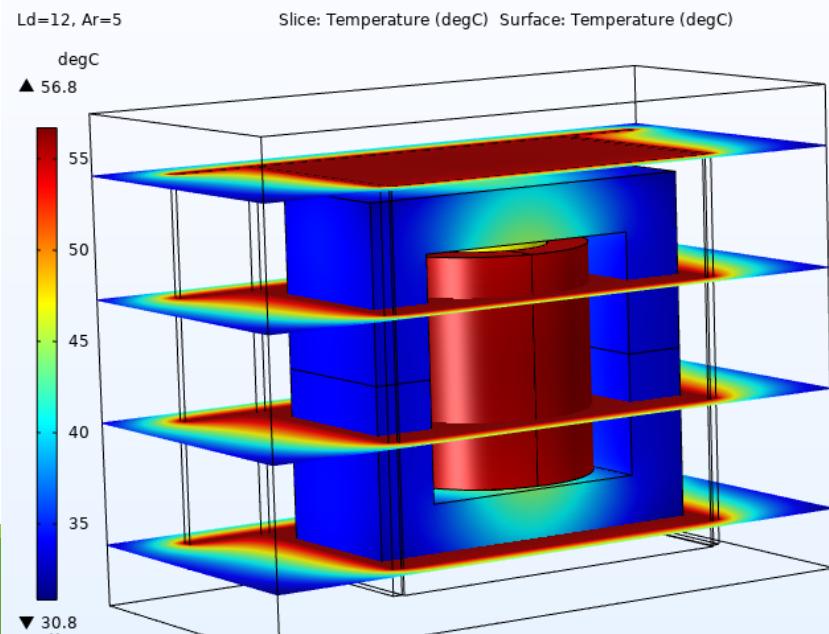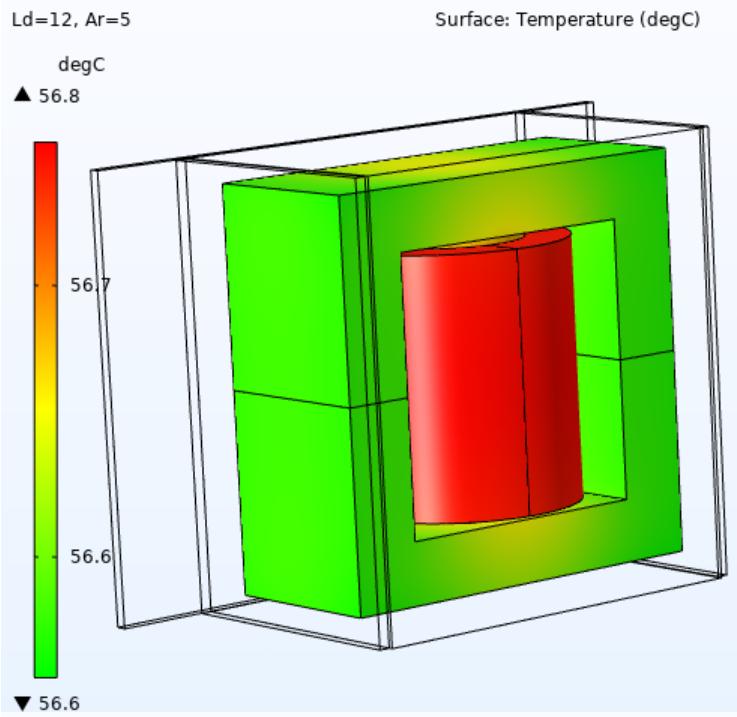
Current 75% (30 A)
15 W/ (m²K) or 3 m/s air flow.

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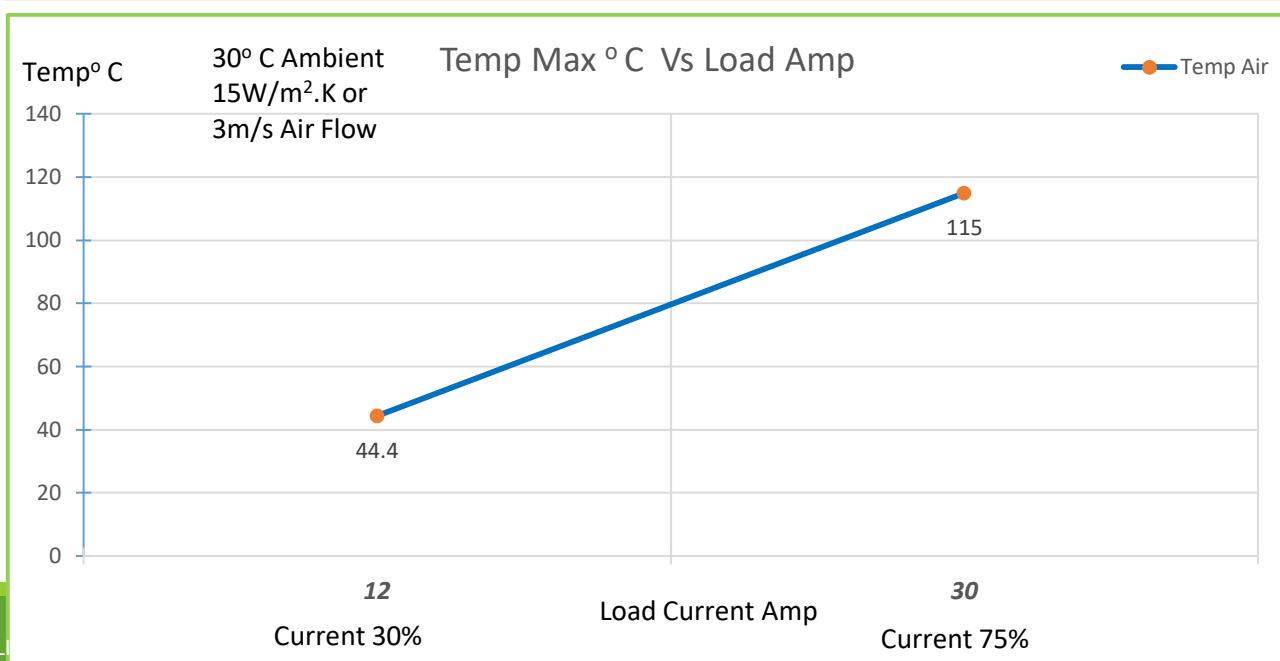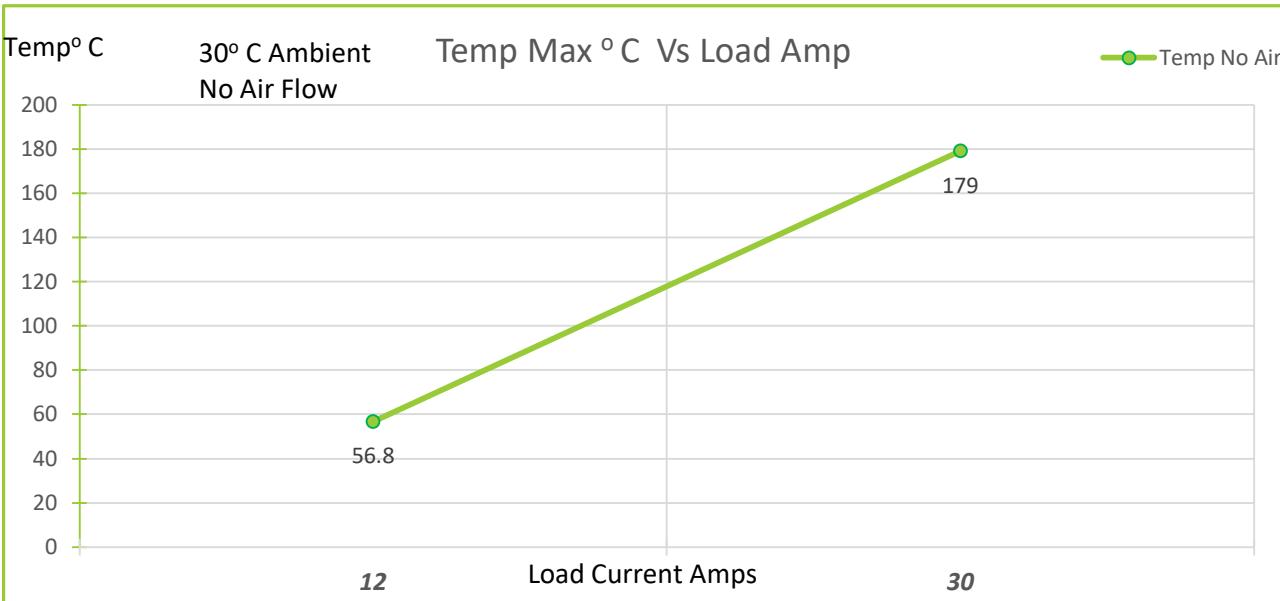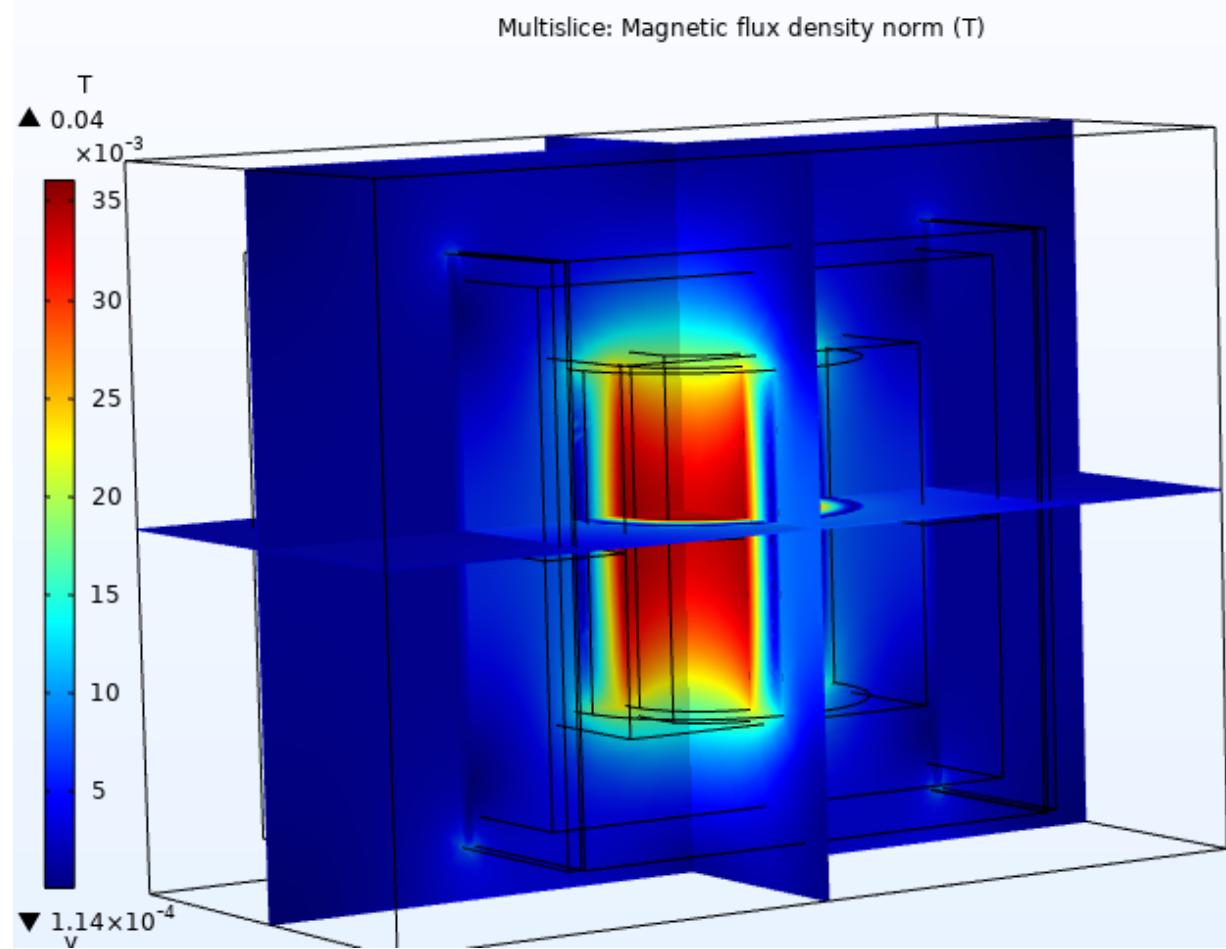
Multislice: Magnetic flux density norm (T)

Temp° C — 30° C Ambient No Air Flow — Temp Max ° C Vs Load Amp — ● Temp No Air

179
56.8
Load Current Amps
12 — Current 30%
30 — Current 75%

Temp° C — 30° C Ambient 15W/m².K or 3m/s Air Flow — Temp Max ° C Vs Load Amp — ● Temp Air

115
44.4
Load Current Amp
12 — Current 30%
30 — Current 75%

COIL WINDING SPECIALI

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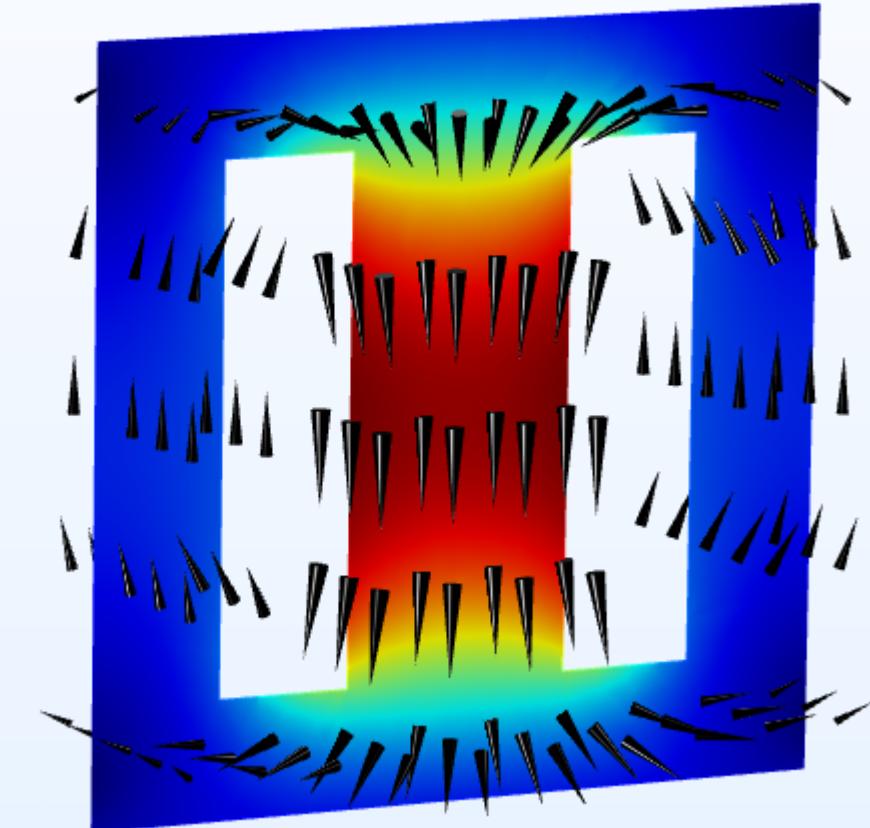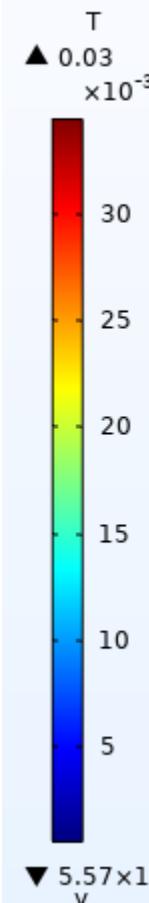
Abbreviations

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