21. Thermal Curves

VI-200 Family Thermal Curves

Note: Use as a design guide only. Verify final design by actual temperature measurement.

Legend: ■ FREE AIR □ 200 LFM ♦ 400 LFM — 600 LFM ■ 800 LFM ♣ 1000 LFM

Figure 21.1 — VI-200 family baseplate-to-air (no heat sink)
5V output

Figure 21.2 — VI-200 family baseplate-to-air (no heat sink)
12 – 48V output

Figure 21.3 — VI-200 family, part #30089 heat sink
5V output

Figure 21.4 — VI-200 family, part #30089 heat sink
12 – 48V output

Figure 21.5 — VI-200 family, part #30194 heat sink
5V output

Figure 21.6 — VI-200 family, part #30194 heat sink
12 – 48V output
VI-200 Family Thermal Curves (Cont.)

Note: Use as a design guide only. Verify final design by actual temperature measurement.

Legend: ■ FREE AIR  □ 200 LFM □ 400 LFM □ 600 LFM □ 800 LFM □ 1000 LFM

**Figure 21.7** — VI-200 family, part #30090 heat sink
5V output

**Figure 21.8** — VI-200 family, part #30090 heat sink
12 – 48V output

**Figure 21.9** — VI-200 family, part #30775 heat sink
5V output

**Figure 21.10** — VI-200 family, part #30775 heat sink
12 – 48V output
21. Thermal Curves

VI-J00 Family Thermal Curves

Note: Use as a design guide only. Verify final design by actual temperature measurement.

Legend:
- Free Air, H
- Free Air, V
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

![Graph](image1.png)

**Figure 21.11** — VI-J00 family baseplate-to-air (no heat sink) 5V output

![Graph](image2.png)

**Figure 21.12** — VI-200 family baseplate-to-air (no heat sink) 12 – 48V output

![Graph](image3.png)

**Figure 21.13** — VI-200 family, part #30191 heat sink 5V output

![Graph](image4.png)

**Figure 21.14** — VI-200 family, part #30191 heat sink 12 – 48V output

![Graph](image5.png)

**Figure 21.15** — VI-200 family, part #30771 heat sink 5V output

![Graph](image6.png)

**Figure 21.16** — VI-200 family, part #30771 heat sink 12 – 48V output
21. Thermal Curves

VI-J00 Family Thermal Curves (Cont.)

Note: Use as a design guide only. Verify final design by actual temperature measurement.

Legend:
- FREE AIR, H
- FREE AIR, V
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

Figure 21.17 — VI-200 family, part #30140 heat sink
5V output

Figure 21.18 — VI-200 family, part #30140 heat sink
12 – 48V output
21. Thermal Curves

FinMod™ VI-200 Family Thermal Curves

Note: Use as a design guide only. Verify final design by actual temperature measurement.

Legend:  
- FREE AIR  
- 200 LFM  
- 400 LFM  
- 600 LFM  
- 800 LFM  
- 1000 LFM

Figure 21.19 — FinMod VI-200 family F1/F3 configuration  
5V output

Figure 21.20 — FinMod VI-200 family F1/F3 configuration  
12 – 48V output

Figure 21.21 — FinMod VI-200 family F2/F4 configuration  
5V output

Figure 21.22 — FinMod VI-200 family F2/F4 configuration  
12 – 48V output
21. Thermal Curves

**FinMod™ VI-J00 Family Thermal Curves**

*Note:* Use as a design guide only. Verify final design by actual temperature measurement.

**Legend:**
- FREE AIR, H
- FREE AIR, V
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

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**Figure 21.23** — FinMod VI-J00 family F1/F3 configuration

5V output

**Figure 21.24** — FinMod VI-J00 family F1/F3 configuration

12 – 48V output

**Figure 21.25** — FinMod VI-J00 family F2/F4 configuration

5V output

**Figure 21.26** — FinMod VI-J00 family F2/F4 configuration

12 – 48V output
21. Thermal Curves

**SlimMod™ VI-200 Family Thermal Curves**

*Note:* Use as a design guide only. Verify final design by actual temperature measurement.

**Legend:**
- FREE AIR
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

![Thermal Curves VI-200](image)

**Figure 21.27** — SlimMod VI-200 family

*5V output*

**Figure 21.28** — SlimMod VI-200 family

*12 – 48V output*

**SlimMod™ VI-J00 Family Thermal Curves**

*Note:* Use as a design guide only. Verify final design by actual temperature measurement.

**Legend:**
- FREE AIR, H
- FREE AIR, V
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

![Thermal Curves VI-J00](image)

**Figure 21.29** — SlimMod VI-J00 family

*5V output*

**Figure 21.30** — SlimMod VI-J00 family

*12 – 48V output*
21. Thermal Curves

**ComPAC™ Family Thermal Curves**

*Note: Use as a design guide only. Verify final design by actual temperature measurement.*

**Legend:**

- FREE AIR, H
- FREE AIR, V
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

**Figure 21.31** — 1-up ComPAC
5V output

**Figure 21.32** — 1-up ComPAC
12 – 48V output

**Figure 21.33** — 2-up ComPAC
5V output

**Figure 21.34** — 2-up ComPAC
12 – 48V output

**Figure 21.35** — 3-up ComPAC
5V output

**Figure 21.36** — 3-up ComPAC
12 – 48V output
21. Thermal Curves

FlatPAC™ Family Thermal Curves

Note: Use as a design guide only. Verify final design by actual temperature measurement.

Legend:
- FREE AIR, H
- FREE AIR, V
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

Figure 21.37 — 1-up FlatPAC
5V output

Figure 21.38 — 1-up FlatPAC
12 – 48V output

Figure 21.39 — 2-up FlatPAC
5V output

Figure 21.40 — 2-up FlatPAC
12 – 48V output

Figure 21.41 — 3-up FlatPAC
5V output

Figure 21.42 — 3-up FlatPAC
12 – 48V output
21. Thermal Curves

**PFC FlatPAC™ Family Thermal Curves**

*Note: Use as a design guide only. Verify final design by actual temperature measurement.*

**Legend:**
- FREE AIR
- 200 LFM
- 400 LFM
- 600 LFM
- 800 LFM
- 1000 LFM

**Figure 21.43** — Output power de-rating vs. temperature, $V_{OUT} \geq 12V$

**Figure 21.44** — Output power de-rating vs. temperature, $V_{OUT} = 5V$

**Figure 21.45** — Output power de-rating vs. temperature, $V_{OUT} = 3.3V$