1 Startup

Input voltage = 230VDC
Load current = full load (31.53W)
2 Shutdown

Input voltage = 230VDC
Load current = full load (31.53W)
3 Efficiency

![Efficiency Graph for PMP8697](image)

- **PMP8697 Efficiency**
- **Efficiency [%]**
- **Output Power [W]**
- **Vin=230VDC**
- **Vin=127VDC**
- **Vin=375VDC**
4 Control Loop Frequency Response

Output power = full load (31.53W)
Input voltage = 127VDC
Phase margin = 103°
Bandwidth = 0.60kHz

Output power = full load (31.53W)
Input voltage = 230VDC
Phase margin = 96°
Bandwidth = 0.62kHz

Output power = full load (31.53W)
Input voltage = 375VDC
Phase margin = 87°
Bandwidth = 0.55kHz
5 Switch Node

Input voltage  = 375VDC
Load current   = full load (31.53W)
6 Output ripple voltage

6.1 12V output

Input voltage = 230VDC
Load current = full load (31.53W)
6.2 15V output1 (non isolated)
Input voltage = 230VDC
Load current = full load (31.53W)

6.3 15V output2 (isolated)
Input voltage = 230VDC
Load current = full load (31.53W)
7 Load Transients

Input voltage = 230VDC
Load current = 0.9A to 1.9A
8 Thermal Analysis

The image below shows the infrared image taken from the FlexCam after 15min at full load (31.53W).

Input voltage = 375VDC  
Output power = 31.53W  
Ambient temperature = 25°C

<table>
<thead>
<tr>
<th>Name</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transistor T1</td>
<td>99.4°C</td>
</tr>
<tr>
<td>Mosfet Q1</td>
<td>79.1°C</td>
</tr>
<tr>
<td>Diode D7</td>
<td>72.0°C</td>
</tr>
</tbody>
</table>
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