

管做参考，能得到更好的调整率和输出电压容差，由于偏置电流低 (1mA)，能提供更好的空载性能。

可选元件D4、C11和R7实现软启动以限制开机过冲。电阻R7在关机时给软启动电容放电。

设计要点

- 使用90 V到120 V的反射电压。
- D3、C6和C7的紧凑布板能提高效率，以确保C6和C7有相同的次级环路面积以平衡各自的纹波电流。
- 箝位：要实现成本最低则用RCD箝位，用功率电阻代替齐纳管VR1。要获得最好的空载特性，使用如图所示的齐纳管。
- 参考电压：要实现成本最低，用低电流的齐纳管做次级参考，偏置电流5 mA。如图所示用TL431可得到更好的电压精度和空载功耗（因为只有1 mA的偏置电流）。

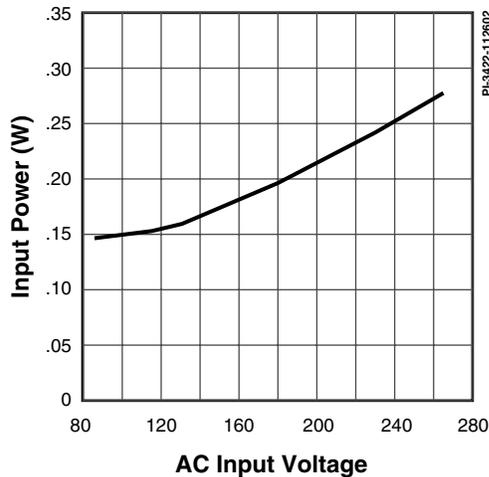


图2. P_{IN} 与 V_{IN} 曲线

变压器参数	
磁芯材料	EF25 Nippon Ceramic NC-2H A_{LG} of 264 nH/T ²
骨架	EF25 10 pin (Miles Platts FE0100 with TBS-601)
绕组细节	Primary: 58T x 26 AWG Bias: 2T x 26 AWG 12 V: 6T 4 x 25 AWG T.I.W. (T.I.W. = Triple Insulated Wire)
绕线顺序 (引脚号)	1/2 Primary, tape, 1/2 primary (1-3), tape, Bias (5-4), tape, 12 V (9-10, 6-7), tape
电感	Primary: 876 μ H 10% at 132 kHz, Leakage: 28 μ H (maximum)
初级谐振频率	570 kHz (minimum)

表1. 变压器结构信息

更多最新信息，请浏览网站www.powerint.com

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