

DC-DC CONVERTER

300 VDC OUTPUT, 15 WATT

1.98" × 1.58" × 1.25" PACKAGE
MODEL: PR45-24S300



FEATURES

- 85% Efficiency @ Full Load
- 300 Vdc Output
- Operation to No Load
- Remote ON/OFF
- 15 Watts Output Power
- 1.98" × 1.58" × 1.25" (50.3 × 40.1 × 31.6mm)
- -40°C to +70°C Operating Temperature
- Fixed Switching Frequency
- Output Trim to 50Vdc
- Output Over Current Protection
- Output Short Circuit Protection
- 100% Burn In
- Designed to meet UL 60950-1, EN60950-1 and IEC 60950-1

SELECTION GUIDE All specifications are typical at nominal input, full load and 25°C, unless otherwise noted.

Input Voltage Range Vdc	Output Voltage Vdc	Efficiency %	Model Number
21.5 - 26.5	300	85%	PR45-24S300

Input Specifications

Operating voltage range, Vdc	21.5 Min., 24 Typ., 26.5 Max.	
UVLO turn on at, Vdc	17 Min., 20 Max.	
UVLO turn off at, Vdc	11 Min., 15 Max.	
Input Current, A	0.75 Typ., 0.81 Max.	Nominal Vin, Io=50 mA
	1.1 Typ.	Nominal Vin, Io=75 mA
No load input current, mA	35 Typ.	No load
Input current under "Remote Off", mA	1 Typ.	
Efficiency, %	85 Typ.	Io=50 mA
Remote ON/OFF	0.25 Max.	Remote ON, Positive logic, TTL low
	5 Min.	Remote OFF, Positive logic, TTL high or open circuit

Output Specifications

Voltage set point, Vdc	297-1% Min., 300 Typ., 303+1% Max.	Io at 50 mA
Voltage trim (down), Vdc ²	50 Typ.	
Load regulation, %	0.5 Max.	
Line regulation, %	0.5 Max.	
Ripple, mVp-p	500 Max.	
Current, mA	50 Typ., 75 Max.	
Current limit, mA	150 Typ.	
Short circuit protection	Continuous	
Dynamic load response	2 V Typ.	ΔV / Load step, 10 mA - 30 mA
	5 mS Typ.	Recovery time, recovery to within 1% nominal Vout

PR45-24S300

General Specifications

Switching frequency, kHz		340 Min.	350 Typ.	360 Max.
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Environmental Specifications

Ambient, °C		-40 Min.	25 Typ.	70 Max.
Storage temperature, °C	Ambient	-55 Min.		125 Max.

Physical Specifications

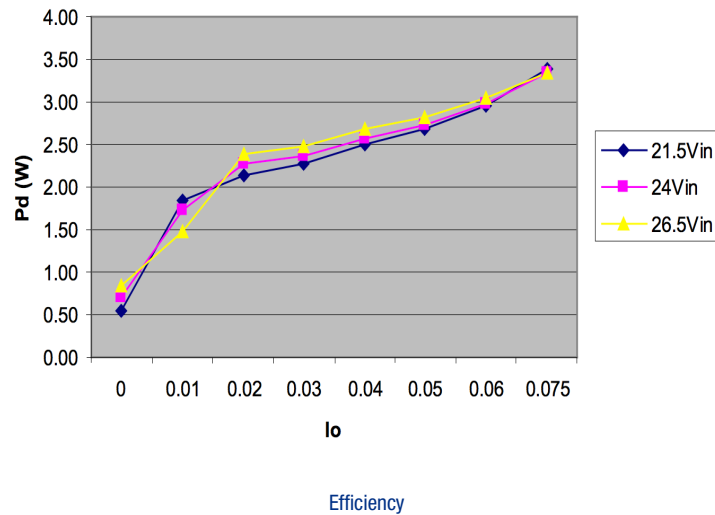
Design meet safety standard	UL 60950-1, EN60950-1 and IEC 60950-1
MBTF	Calculated using Bellcore TR-332 Method 1 Case 3
Weight, oz	4.2
Dimensions, in (mm)	1.98" × 1.58" × 1.25" (50.3 × 40.1 × 31.6mm)

Note:

- For further information, please contact Polytron Devices.
- Short pin 6 to pin 2 or an external resistor can be used between pin 6 and pin 2 to reduce the output voltage.

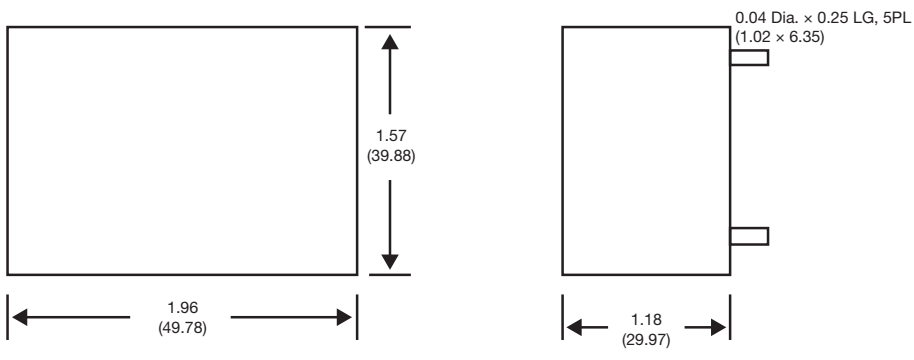
CAUTION: This power module is not internally fused. An input line fuse must always be used.

Characteristic Curve



PR45-24S300

Mechanical Drawing



PIN CONNECTION

PIN	SINGLE
1	Shutdown
2	Output +300Vdc
3	NC
4	Input +24Vdc
5	Common
6	Output Adjust

1. All dimensions in inches (mm)

