



### VDA300 Series

### 300 Watts



**300W SINGLE OUTPUT**  
**2:1 HIGH VOLTAGE INPUT**  
**ISOLATED & REGULATED**  
**SIX SIDE SHIELD**  
**HIGH EFFICIENCY**  
**HIGH DENSITY**  
**DIP PACKAGE STYLE**

- 2:1 Input Nominal  
 96VDC: 65~150VDC  
 110VDC: 82~180VDC  
 280VDC: 200~400VDC

- Efficiency up to 87%
- High Voltage Input
- Operating Temperature:  
 -45°C~+85°C (\*T)
- 500VDC & 1500VAC Isolation
- Over Voltage & Current Protection
- Remote ON/OFF Control
- Industry Standard Pin out
- RoHS

### Product Program

Part Number	Input		Output		Efficiency (% Typ)
	Voltage (VDC)		Voltage (VDC)	Current (mA)	
	Nominal	Range			
VDA300-96S12	96	65~150	12	25000	86
VDA300-96S15	96	65~150	15	20000	86
VDA300-96S24	96	65~150	24	12500	87
VDA300-96S28	96	65~150	28	10700	87
VDA300-96S48	96	65~150	48	6250	86
VDA300-110S12	110	82~180	12	25000	86
VDA300-110S15	110	82~180	15	20000	86
VDA300-110S24	110	82~180	24	12500	87
VDA300-110S28	110	82~180	28	10700	87
VDA300-110S48	110	82~180	48	6250	86
VDA300-280S12	280	200~400	12	25000	86
VDA300-280S15	280	200~400	15	20000	86
VDA300-280S24	280	200~400	24	12500	87
VDA300-280S28	280	200~400	28	10700	87
VDA300-280S48	280	200~400	48	6250	86

## ISOLATION SPECIFICATIONS

Item	Min	Units
Isolation voltage	500	VDC
	1500	VAC
Isolation resistance	$10^9$	$\Omega$
Isolation capacitance	300	pF

## COMMON SPECIFICATION

Efficiency	See product program table	
Switching frequency	300KHz	
Approvals and standard	IEC60950-1, UL60950-1, EN60950-1	
Case material	Non-conductive plastic	
Base material	Aluminum base plate	
Potting material	Epoxy (UL94-V0)	
Dimensions	86 X 83X 14.7 mm (3.39 X 3.27 X 0.58Inch)	
Weight	115g (4.06oz)	
MTBF	MIL – HDBK-217F2	$5 \times 10^5$ hrs

## OUTPUT SPECIFICATION

Output power	300 Watts	
Voltage accuracy	Full load and nominal Vin	$\pm 1\%$
Voltage adjustability	10%	
Line regulation	LL to HL at Full Load	$\pm 0.5\%$
Load regulation	10% to 100% FL	$\pm 1\%$
Cross regulation	Asymmetrical load 25% / 100% FL	$\pm 5\%$
Ripple and noise	20MHz bandwidth	1%
Temperature coefficient	$\pm 0.02\% / ^\circ\text{C}$ , max	
Transient response recovery time	25% load step change	400uS
Over current protection	120%	
Output Voltage Adjustment	10%	
Over load protection	% of FL at nominal input	120%,max
Short circuit protection	Hiccup, automatics recovery	

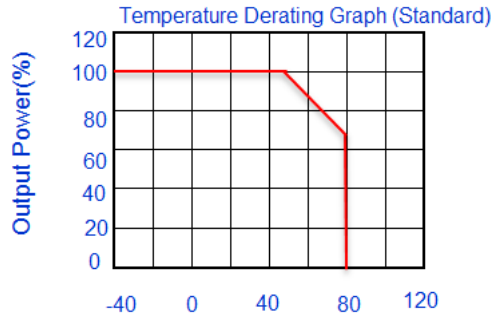
## INPUT SPECIFICATION

Input voltage range	2:1	96V	65~150 VDC
		110V	82~180 VDC
		280V	200~400 VDC
Startup time	Nominal Vin and	Power up	20mS typ
Remote control ON/OFF	On	Contact -Vin	
	Off	No contact (Or 12V-40V)	

## ENVIRONMENTAL SPECIFICATIONS

Operating temperature range	Standard	-25°C ~ +55°C	
	T	-45°C ~ +85°C (with derating)	
Maximum case temperature	Standard	+85°C	
	T	+105°C	
Storage temperature range	Standard	-40°C ~ +105°C	
	T	-50°C ~ +105°C	
Vibration			10~55Hz, 5G,
Relative humidity			5% to 90% RH

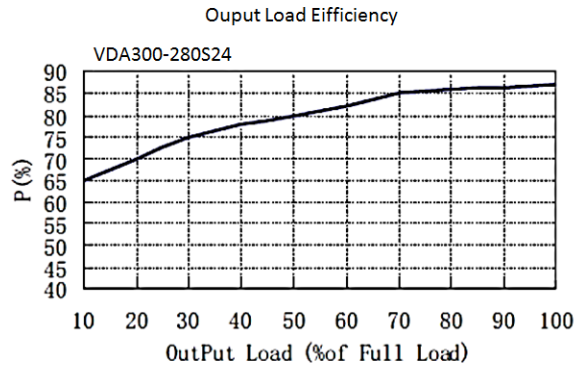
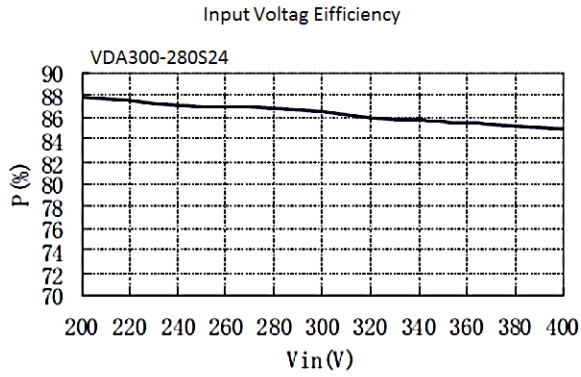
## TYPICAL CHARECTERISTICS



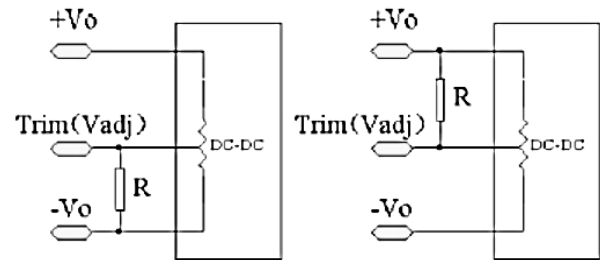
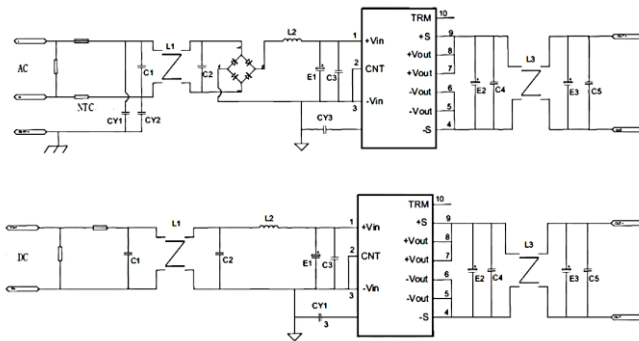
## FOOTPRINT DETAILS

PIN	1	2	3	4	5	6	7	8	9	10
SINGLE	CTL	-Vin	+Vin	+S	+Vout	+Vout	-Vout	-Vout	-S	TRIM

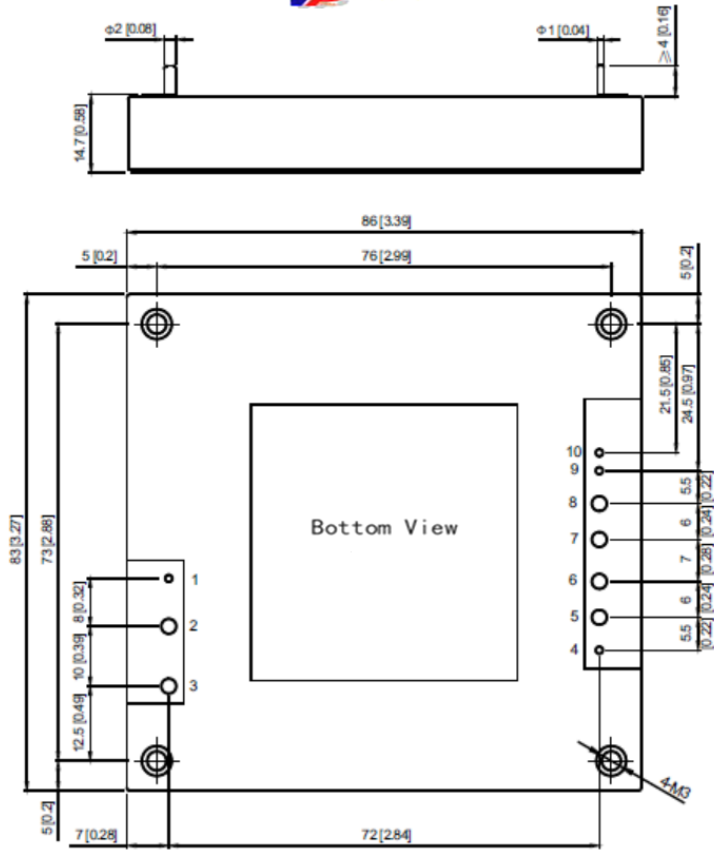
## EFFICIENCY AND OUTPUT



## Recommended Circuit



# OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT



Dimensions: mm[inch]  
 Tolerances:  $\pm 0.2$ mm  
 [ $\pm 0.008$ inch]