

360W Multipurpose Caesar Series: DC/DC Converter Or AC/DC Power Supply Data Sheet

Description:

This dual 360W Caesar Series can be used as either a constant voltage power supply or a DC/DC converter. It is designed with ultra-high efficiency and has a metal case enclosure. The extraordinary performances of low power dissipation and fan-less design provide high reliability and long lifetime. This series offer solid and safe power conversions for applications such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-machines, etc.

Features:

- AC Input Voltage: 90~264Vac
- DC Input Voltage range from 100~400Vdc
- Output Power: 230~400W
- Isolated Input/ Output design
- Easily parallel for power scalability and redundancy
- High Efficiency: Up to 95.5% @ 220Vac
- All-Around Protections: UVLO, OVP, OCP, SCP, OTP
- Ultra-High Power Density: 27W/inch³
- Wide Working Temperature Tc: -40°C~80°C
- IP60 Ingress Grade
- Power Boost with Additional Heat Sink



Specifications Model # note: If X=A: rectangular shape. If X=B: square shape.

If Y=H: Includes Heatsink

Model*	EVD-250-300-05-XY (PLD360-PDD050)	EVD-250-300-12-XY (PLD360-PDD120)	EVD-250-300-15-XY (PLD360-PDD150)	EVD-250-300-20-XY (PLD360-PDD200)	EVD-250-300-24-XY (PLD360-PDD240)	EVD-250-300-28-XY (PLD360-PDD280)	EVD-250-300-36-XY (PLD360-PDD360)	EVD-250-300-48-XY (PLD360-PDD480)
Output Voltage	5V	12V	15	20V	24V	28V	36V	48V
Max. Output Current	45A	21.5A	17.3A	16A	13.3A	11.4A	8.9A	7.5A
Voltage Accuracy	±3%							
Output Power (DC/DC)	230W @ 200~400Vdc	260W @ 200~400Vdc		320W @ 200~400Vd			360W @ 200~400Vdc	
	168W @ 100~199Vdc	180W @ 100~199Vdc		220W @ 100~199Vdc			240W @ 100~199Vdc	

Output Power (DC/DC) with Added Heat Sink*	260W @ 200~400Vdc	290W @200~400Vdc	360W @200~400Vdc	400W @ 200~400Vdc
	190W @ 100~199Vdc	200W @100~199Vdc	250W @100~199Vdc	270W @ 100~199Vdc
Output Power (AC/DC)	231W @ 180~264Vac	260W @ 180~264Vac	320W @ 180~264Vac	360W @ 180~264Vac
	168W @ 90~179Vac	180W @ 90~179Vac	220W @100~199Vdc	240W @ 90~179Vac
Output Power (AC/DC) with Added Heat Sink*	260W @ 180~264Vac	290W @180~264Vac	360W @180~264Vac	400W @ 180~264Vac
	190W @ 90~179Vac	200W @90~179Vac	250W @90~179Vac	270W @ 90~179Vac
Input Voltage	100~400Vdc or 90~264Vac			
Efficiency	93%	94%	95%	95.5%
Protection	UVLO, OVP, OCP, SCP, OTP			
Working Temperature	Tc=80°C			
Cooling	Natural Cooling			
EMI	EN55032 Class A			
Surge Protection	Line to Line 1kV/ Line to Earth 2kV			
Isolation	Primary to Secondary: 3000Vac/10mA max./60s			
Dimensions (LxWxH)	182 x 48.6 x 27.5 mm (Model with Suffix "-A") 197 x 48.6 x 39 mm (Model with Suffix "-AH") 93 x 98 x 27.5 mm (Model with Suffix "-B") 93 x 115 x 39 mm (Model with Suffix "-BH")			
Weight	540g 660g (With Heat Sink)			

General			
Temperature (Tc)	MIN MAX	-40 +80	°C
Temperature (Storage)	MIN MAX	-40 +80	°C
Relative Humidity (Operating) Relative Humidity (Storage)	20% RH to 90% RH, No condensation. 5% RH to 95%RH. No condensation.		
Weatherproof	IP60		

Protections (All Models)

Short Circuit Protection (SCP)	Latch Mode The power supply shall enter latch mode after protection, and shall return to normal operation after the fault condition is removed and the AC input is powered off and on again.
Over Voltage Protection (OVP)	Enters Auto recovery mode when output voltage triggers over voltage protection. The power supply will return to normal operation when the fault condition is removed.
Over Temperature Protection (OTP)	The power supply shall enter auto-recovery mode during over temperature protection, and return to normal operation after the fault condition is removed.
Over Current Protection (OCP)	When the output current is between 105% to 188% of the rated output current, the power supply shall enter auto-recovery mode, and return to normal operation after the fault condition is removed.
UVLO	When the input voltage falls below 80Vac. The power supply shall shut down, and return to normal operation after the input voltage goes back within the range.

Regulatory

Agency Approval	UL, FCC, CCC, CE, CB
Dielectric Strength (Hi-pot) Production test is 3 seconds	Primary to Secondary: 3000Vac / 10mA Max / 60seconds Primary to Earth: 1500Vac 10mA max./60 seconds Secondary to Earth: 500Vac 10mA max./60 seconds

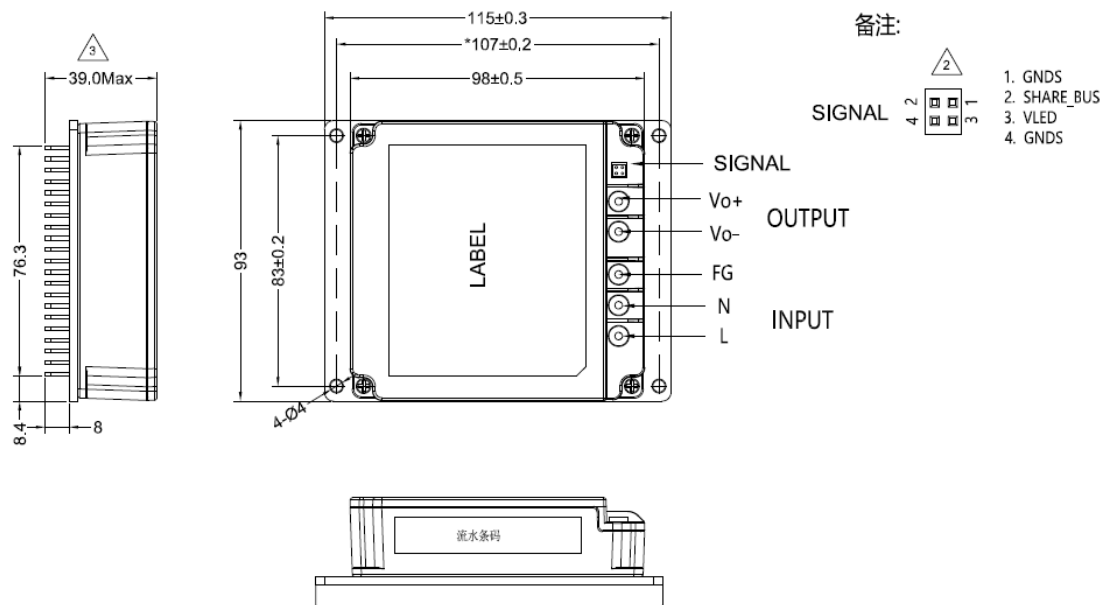
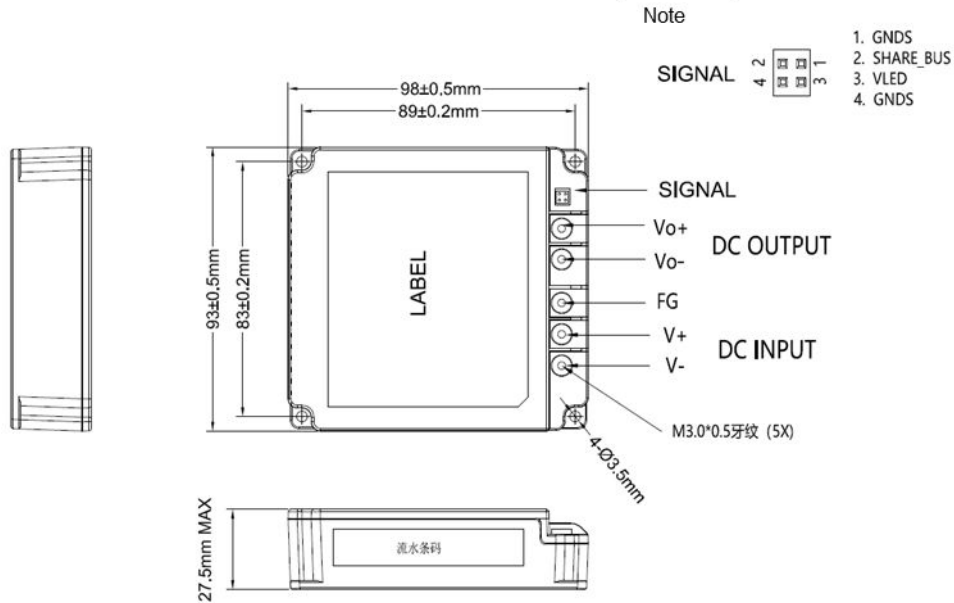
Electromagnetic Compatibility EMI/EMC

EMI, RFI	Comply with EN55032 CLASS A
Immunity:	
EN61000-3-2	Harmonic current emission
EN61000-3-3	Voltage Fluctuations and Flicker
EN61000-4-2	ESD 8kV Air Discharge, 4kV Contact Discharge, Criteria B
CISPR 16-2-1:	Radio-Frequency Electromagnetic Field Susceptibility Test-Rs Level 3, Criteria B
EN61000-4-4	Electrical Fast Transient/Burst-EFT 2KV, Criteria B.
EN61000-4-5	Surge Immunity Test, AC power line: line to line 1kV, line to each 2kV Criteria B
EN61000-4-6	Conducted Radio Frequency Disturbance Test-CS Level 3, Criteria B
EN61000-4-11	Voltage Dips, Criteria B

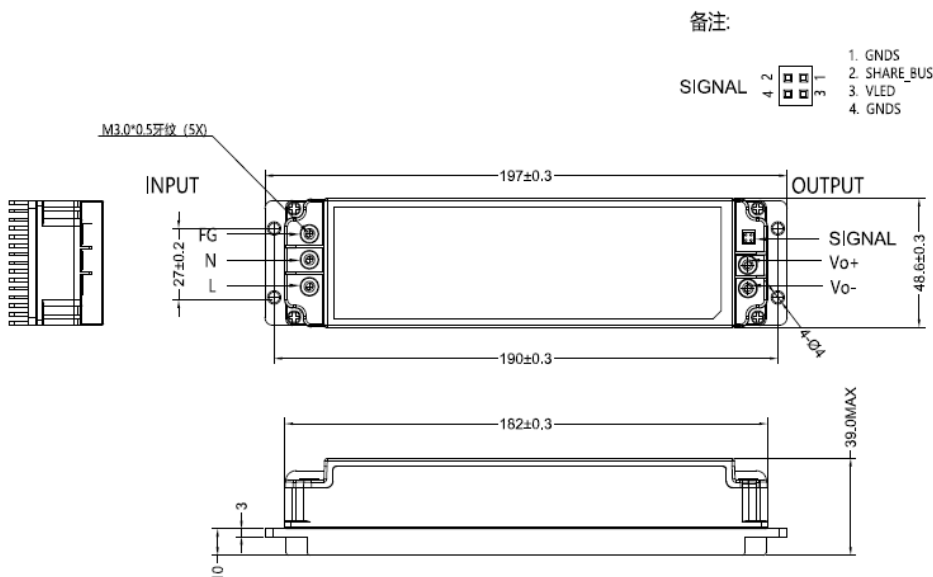
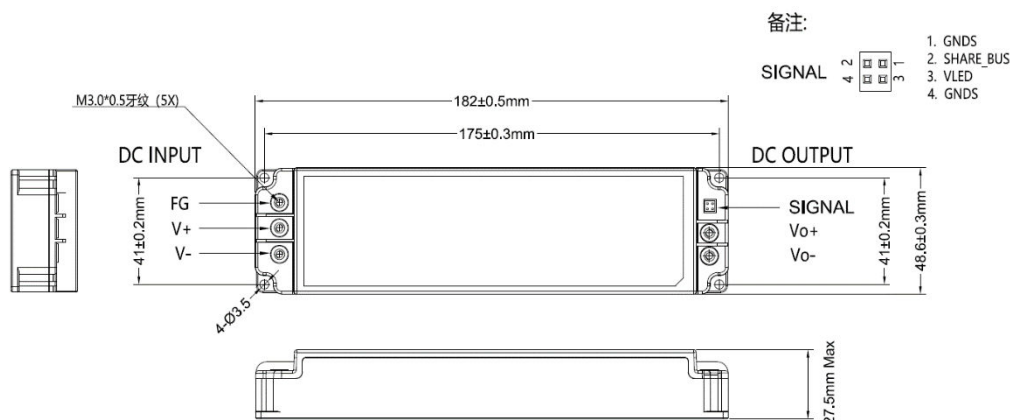
Notes: Specification is subject to change without notice.

MECHANICAL

Dimension and Outline Drawing for "B" Shape



Dimension and Outline Drawing for "A" Shape



PINOUT

PIN	Name	Function
1, 4	GNDS	Signal ground
2	SHARE_BUS	Current-sharing bus signal
3	VLED	High (3~3.5V): When the power supply is good. Low (-0.5~0.5V): When the power supply not good.