

SmartGen

MAKING CONTROL SMARTER

DCP152408

DC/DC HIGH VOLTAGE SWITCHING POWER

USER MANUAL



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Table 1 Software Version

Date	Version	Content
2024-03-15	1.0	Original release.

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1 OVERVIEW

DCP152408 is a kind of DC/DC isolated power with high voltage and multiple protections, which is suitable for equipment requiring DC24V isolated power. Its rated output current is 8A and it can be widely applied for PV generation, energy storage system and other occasions.

2 PERFORMANCE AND CHARACTERISTICS

- Applying switching power supply structure, wide range of DC voltage input, small size, light weight and high efficiency;
- Isolated input and output design, isolated voltage is AC 4kV;
- With multiple protections;
- With power status indication;
- With natural cooling
- Applying horizontal screw installation, which is easy and convenient.

3 TECHNICAL PARAMETERS

Table 2 Technical Parameter

Category	Item	Parameter
Input Characteristic	Input Voltage Range	DC (450~1500)V
	Max. Input Power	230W
	Max. Input Current	0.5A
	Max. Efficiency	91% (DC700V input)
	Derating	Use after derating when input voltage is below DC550V
	Recommended Value for External Fuse	4A/1500Vdc
Output Characteristic	Rated Output Voltage	DC 24V
	Rated Output Current	8A
	Rated Output Power	192W
Short Circuit Protection	Input Under Voltage	√
	Input Reverse Connection	√
	Output Over Voltage	Recover after auto rebooting when there is no output voltage and load
	Output Overcurrent	
Short Circuit Protection		
Safety Requirement & EMC	Safety Requirement	EN 62477-1:2012/A12:2021
	Withstand Voltage	Input and output, input and shell: AC4kV 50Hz 1min Leakage current: $I_L \leq 10\text{mA}$
		Output and shell: AC1kV 50Hz 1min Leakage current: $I_L \leq 3.5\text{mA}$
	Insulation Resistance	Input and output, input and shell: DC 0.5kV 1min Insulation resistance: $R_L \geq 50\text{M}\Omega$
	EMC Emission	Meet IEC/EN61000-2
EMS	Meet IEC/EN61000-4	
Working Environment	Working Temperature	(-30~+55)°C
	Working Humidity	20%RH~93%RH (no condensation)
	Vibration Resistance	Frequency range: (8~500)Hz, a=2g
Storage Environment	Storage Temperature	(-40~+85)°C

Category	Item	Parameter
Overall Structure	Weight	0.8kg
	Dimension	142mm×156mm×55mm (L × W × H)
	Installation Dimension	132mm×80mm (L x W)

4 DERATING CURVE AND EFFICIENCY CURVE

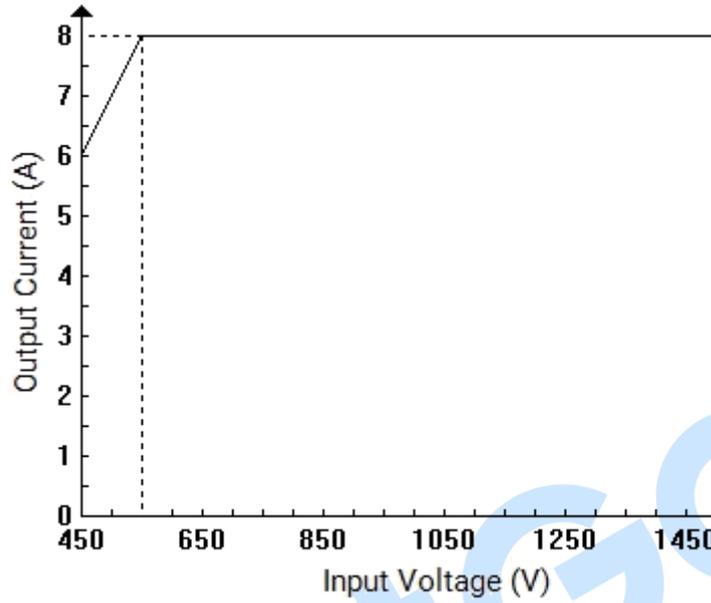


Fig.1 Derating Curve

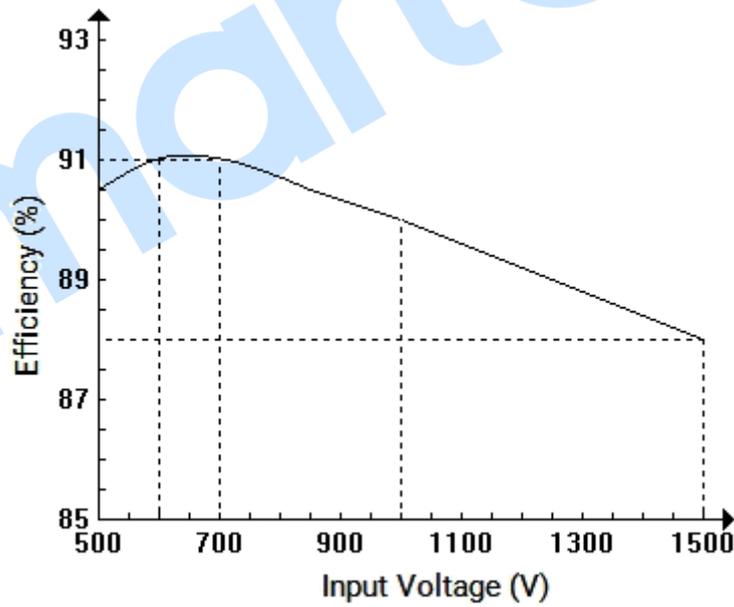


Fig.2 Efficiency Curve

5 OPERATION



Fig.3 DCP152408 Mask

Table 3 Wiring Description

Sign	Function	Description
Vi+	DC input terminal	Connect terminal Vi+ and Vi- to DC (450-1500)V; 0.3mm ² multi-strand copper line is recommended.
Vi-		
NC	Hanging	/
Vo-	DC output terminal	Connect load, 2.5mm ² multi-strand copper line is recommended.
Vo+		

6 OVERALL AND INSTALLATION DIMENSIONS

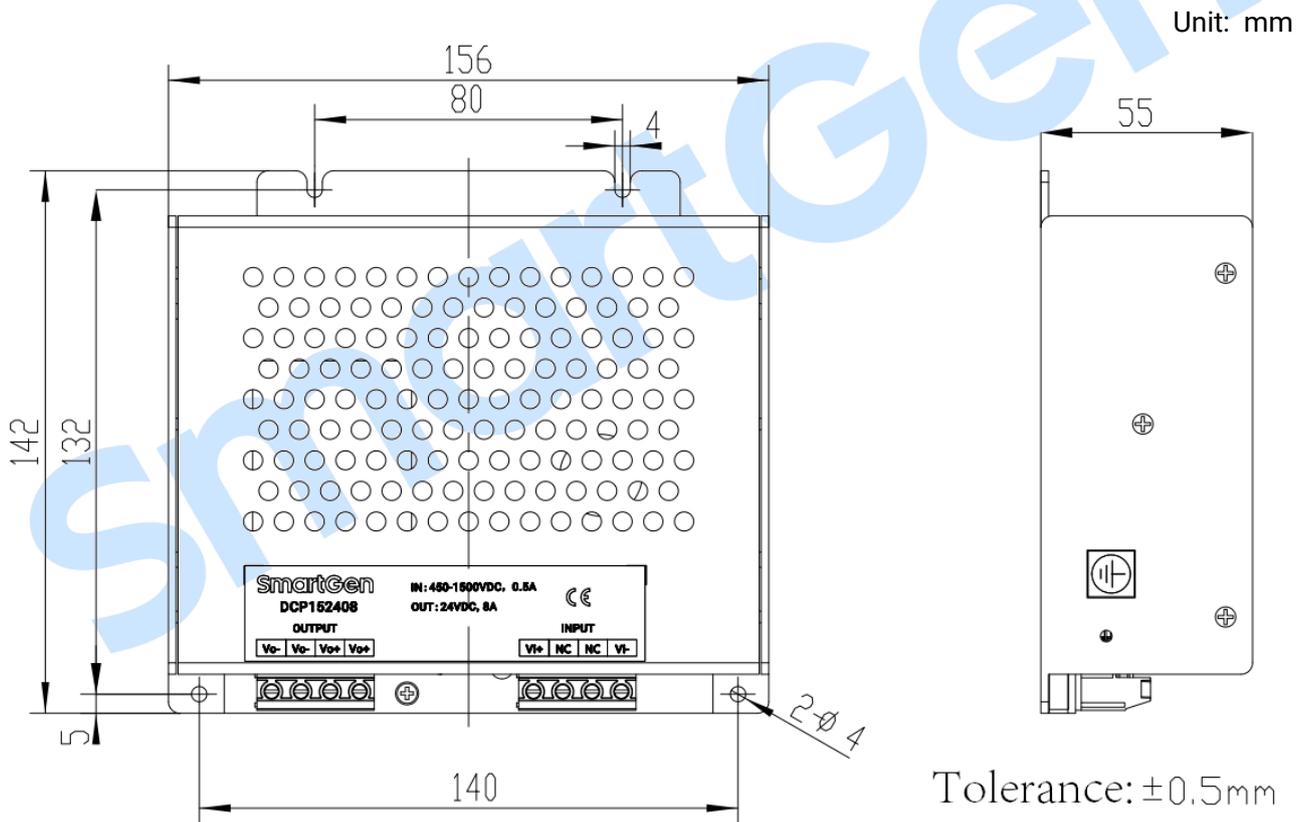


Fig.4 DCP152408 Dimensions