

DCP DC Power Supply

Overview

DCP DC power supply adopts high-frequency switching power electronic conversion technology, which is designed and manufactured to meet the needs of high current DC power supply for aviation and marine electronic and electrical equipment. It can be used for power supply of ship, airborne equipment, radar, navigation and other electronic equipment, as well as other occasions that high current DC power supply is required.

Product features

- IGBT high frequency switching technology: it has the advantages of small size, light weight and high reliability.
- High frequency soft switching technology: it has the advantages of high efficiency and small output ripple.
- Digital control technology: it achieves excellent steady-state performance and dynamic performance.
- Various protection and alarm functions and rich communication interfaces.
- Input and output electrical isolation: high anti-interference and security.
- Modular design: high reliability and convenient maintenance.
- Cooling channel: the improved air duct can maximize the potential of the air cooling system, which makes the internal heat release quickly and ensure the long-term reliable operation of the whole machine.

Product function

- The power supply is stable and reliable. It can supply large current DC power continuously and has short time overload capacity.
- Sound and light alarm and mute function: including input over / under voltage / phase loss alarm, output over / under voltage alarm, overload alarm and over temperature alarm.
- Protection functions: including input over / under voltage / phase loss protection, output over / under voltage protection, overload protection, over temperature protection and short circuit protection.
- It has compensation function for output voltage drop to ensure accurate terminal voltage of airborne equipment.
- It has the ability to start airborne equipment continuously.

Product composition

DCP DC power supply device mainly consists of EMI filter, rectifier, smoothing filter, DC/DC transform circuit, high frequency LC filter circuit, detection alarm and control system, etc.

When matching with airborne equipment, JK DC interface device can be selected, including DC fast interface device, DC power cable assembly (including plug) and cable reel.

Technical Index

Type		DCP		
Input characteristic	Voltage	3P3W AC380V±10%		
	Frequency	50Hz±5%		
Output characteristic	Voltage	DC28.5V		
	Current	350A	400A	500A
	Overload capacity	2min(525A), 5s(700A), 2s(800A)	2min(600A), 5s(800A), 2s(1200A)	2min(750A), 5s(1000A), 2s(1400A)
	Voltage ripple coefficient	≤1%		
	Efficiency	≥90%		
Start ability		Can start the helicopter continuously		
Cooling way		Forced air cooling		
Ambient temperature		-10 ~ 50℃		
Noise		≤60dB		
IP grade		IP23, IP44		
Installation		Floor type		

► Standard sizes

Type	Outline dimensions (mm)			Remarks
	Width	High	Depth	
DCP-28/350	600	1200	500	Fig.1
DCP-28/400				
DCP-28/500				

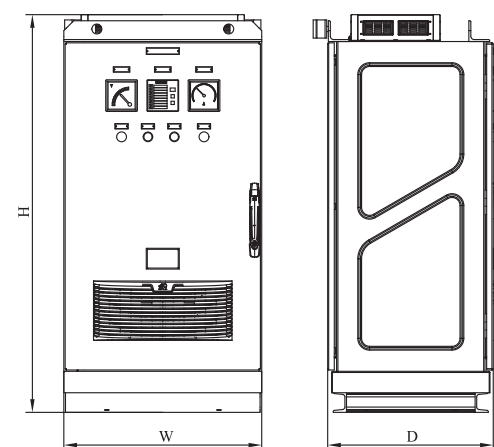


Fig.1
DCP DC power supply

Type	Outline dimensions (mm)			Remarks
	Width	High	Depth	
JK-I	400	450	250	Fig.2

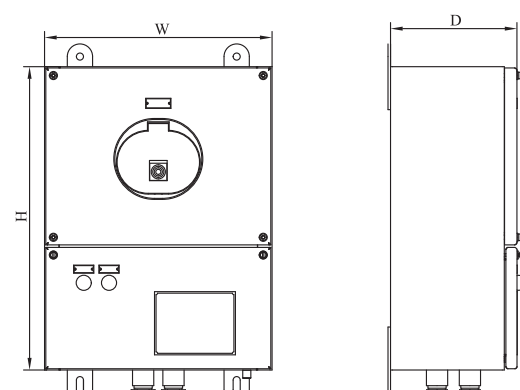


Fig.2
JK-I interface device

Type	Outline dimensions (mm)			Remarks
	Width	High	Depth	
JP	800	1000	360	Fig.3

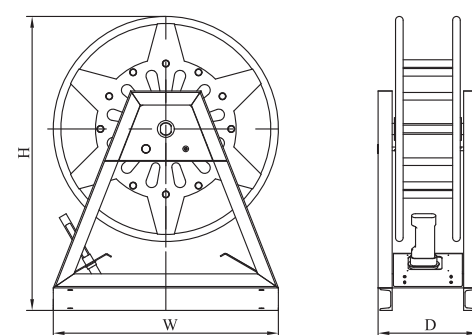


Fig.3
JP cable reel

► Model naming

DC power supply	DCP-	28	/ □
Output voltage :	DC28.5V		
Output current :	350/400/500A		

Interface device	JK-	□
Type:	I: DC II: Medium Frequency III: DC/Medium Frequency	

► Selection description

For example: DCP-28/500

It means that the output power of DCP DC power supply is DC28.5V; the rated output current is 500A, and the cooling mode is air cooling.

For example: JK-I

It means that the device is JK DC interface device.

► Functional block diagram

