YK-DD12S24** Series(12Vdc-24Vdc)

DC-DC Converter

User Manual

Part 1: Product Introduce

YK-DD12S24** series is a compact size high reliability power converter offered by YUCOO, It features wide input voltage, low power consumption, high efficiency, high reliability. It can work safely and reliability in -40℃ ~ 80℃. It widely used in industrial, automotive,instruments, telecommunication and civil applications.

Part 2: DC-DC Converter Features

1. 100% full power & stable current output
2. 100% Imported components
3. Wide input voltage from 10-23Vdc
4. 100% waterproof & anti-shock protection, Ultra compact size, light weight
5. Industry grade step-down converter, efficiency up to 92% @12V Input
6. Waterproof level: IP68
7. According CE / RoHS design
8. Die-cast aluminum shell, epoxy potting, Cooling by free air convection,
9. Short circuit, Over load, and Over temperature protections
10. Applications: Electromotor Telecommunications, Logging Vehicles Forklifts and on.
11. Non-Isolated Module
12. 1 year warranty

Part 3: DC-DC Converter Application

1. Electric motors, Electric fans , Trucks, Golf Carts ,Forklifts
2. Navigation, surveillance, Air conditioning
3. LED car display, DVD, LED lights, Audio
4. Wind Power System, Solar Power System, Photo voltaic energy
5. Electrical appliances, industrial equipment, telecommunications and so on.

Part 4: Working schematic

Part 5: Customize range

Model/ Series	DC-DC Conversion	Output Current (Be option)
Boost DC-DC Converter		
YK-DD12S13.8**	12v to 13.8v	1/2/3/5/8/10/18A
YK-DD12S15**	12v to 15v	1/2/3/5/8/10/15A
YK-DD12S19**	12v to 19v	5/8/10/15/20A
YK-DD12S24**	12v to 24v	1/2/3/5/8/10/15/20/25/30/40/50A
YK-DD12S28**	12v to 28v	3/5/8/10/15/20/25/30/40A
YK-DD12S32/36**	12v to 32v/36v	1/2/3/5/6/10/12/15/20/30/40A
YK-DD12S48**	12v to 48v	1/2/3/4/5/8/10/15/20A
YK-DD24S48**	24v to 48v	3/5/10/20/32/42A
Buck DC-DC Converter		

Model	Input/Output	Output Current
YK-DD1224S3.3-9**	12v/24v to 3.3-9v	1/2/3/5/10/15/20/30/50/60A
YK-DD24S12**	24v to 12v	1/2/3/5/8/10/15/20/30/40/50/60/85A
YK-DD3648S5**	36v/48v to 5v	5/10/15/20A
YK-DD3648S12**	36v/48v to 12vdc	5/10/15/20/25/30/50/60A
YK-DD3648S24**	36v/48v to 24v	8/10/15/18/21/30/40/50A
YK-DD48S36**	48v to36v	5/10A
YK-DD60S5**	60v to5v	5/10/15/20A
YK-DD60S12**	60v to12v	5/10/15A
YK-DD60S24**	60v to24v	5/10/15A
YK-DD60S36	60v to 36v	5/8A
Auto Buck and Boost DC-DC Converter		
YK-DD12S12	12v to 12v	1/2/3/4/6/8/10/12/15/20/25A
YK-DD12S13.8	12v to 13.8v	3/5/10/15/20/25A
YK-DD24S24	24v to 24v	1/2/3/5/8/10/15A
Isolated DC-DC Converter		
YK-DD48S12	35-100v to 12v	8A/10A
YK-DD48S5	36-75v to 5v	15A/20A
YK-DD48S24	36-75v to 24v	5A

Note:

A. **Output current be option only but not constant adjustable**

B. **Other Specification can customize base on user request. Please contact with YUCOO Sale team**

C. Non-Isolated and Isolated design

D. Constant voltage design

E. Waterproof

F. High efficiency

Part 6: Model definition

Model：YK-DD [VV] S [vvaa]
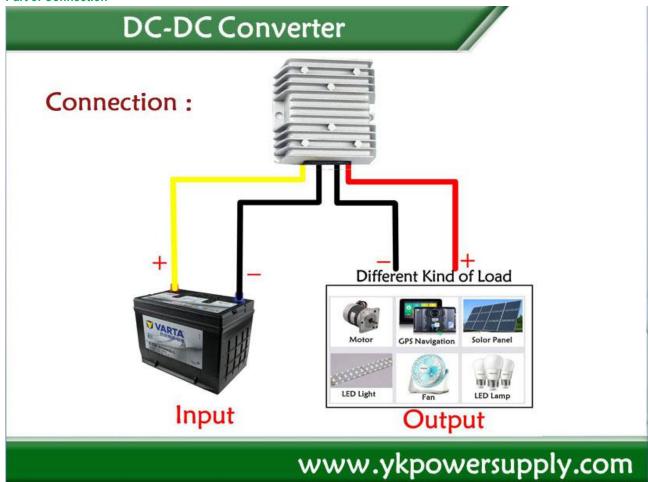
★ YK-----YUCOO (YOUKE) BRAND

★ DD-----DC to DC

★ VV- ----Rated DC input voltage；S-Conversion；

★ vv- ----Rated DC Output Voltage，aa -----Rated DC Output Current；

Part 7: Specification

Model	YK-DD12S2410	YK-DD12S2420
Input		
Rate voltage	12Vdc	
Input voltage	9~23Vdc	10~23Vdc
Output		
Rate voltage	24vdc±0.25vdc	
Rate current	10A	20A
Rate power	240W	480w
Efficiency(type)	92% @ 12V input	95% @ 12V input
Voltage regulation(%)	±1	±1
Load regulation(%)	2	2
No load loss(mA)	28 @12V input	60
Ripple & Noise(mV)	160	150
Environment		
Working temperature(℃）	-40 ~ +80	-40 ~ +80
Working Humidity(RH)	10% ~ 90%	20% ~ 100%
Storage temperature(℃）	-40 ~ +100	-40 ~ +125
Function		
Protection	Over-current ,Over-temperature , Over-voltage	Over-current ,Over-temperature , Over-voltage
Waterproof	IP68	
Dimension		
Weight(g)	280	500
Size(mm)	74*74*32	100*80*39
Other		
Cooling	Free air convection	
Packaging	Carton Box	

1. Input positive and negative CAN NOT be reversed

2. The voltage range of input power source(such battery bank/Switching power supply) cannot exceed the voltage range that the converter can withstand

3. The power of input power source(such battery bank/switching power supply) must be more than the power required by the appliance

4. Positive and negative output CANNOT be reversed

5. How much voltage is needed for the appliance then you should be configure the same voltage DC-DC Converter

6. Load power CANNOT be greater than the converter can withstand

Notice:

1. 12V battery bank in full charger, max voltage can reach to 16V

2. 24V battery bank in full charger, max voltage can reach to 31V

3. 48V battery bank in full charger, max voltage can reach to 60V

4. Inductive load Instantaneous start-up current is generally 3-5 times the rated current.

5. The positive input suggest be protected by a fuse

Part 9. Guarantee

After the day of buying the equipment, non man-made failure, there is 1 year warranty

If there is failure please contact with the sellers

The following no included in the warranty:

* Man-made failure or out of guarantee period or disassemble the cabinet or cover of converter without permission

* The failure or broken cause by Force Majeure or external reason

* Misapplication, accident, neglect, amendment or repair without permission

* Use goes beyond the limit

* Break the operation instruction

Guarantee Card				
Product name		Product NO.		
Product model		Purchase time		
Remark ：				
Purchase company				
Contact person		Telephone		
Distributor				
Maintain Record				
Date	Maintain type	Summery	Maintenance man signature	User signature