



YK-DD24S12 Series(24Vdc-12Vdc) DC-DC Converter User Manual**

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Part 1: Product Introduce

YK-DD24S12** 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 -35°C ~ 80°C. 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 18-36Vdc
4. 100% waterproof & anti-shock protection, Ultra compact size, light weight
5. Industry grade step-down converter, efficiency up to 96%
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		
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 to 36v	5/10A
YK-DD60S5**	60v to 5v	5/10/15/20A
YK-DD60S12**	60v to 12v	5/10/15A
YK-DD60S24**	60v to 24v	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]

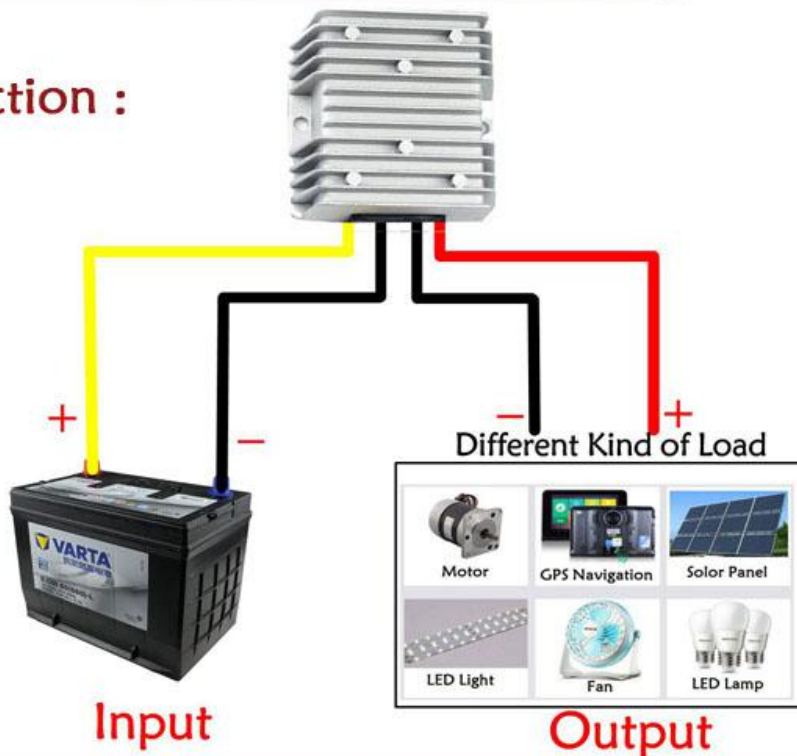
- YK-----YUCOO (YOUKE) BRAND
- DD-----DC to DC
- VV- ----Rated DC input voltage; S-Conversion;
- vv- ----Rated DC Output Voltage, aa -----Rated DC Output Current;

Part 7: Specification

Model	YK-DD24S1210	YK-DD24S1220	YK-DD24S1230	YK-DD24S1240
Input				
Rate voltage	24Vdc			
Input voltage	18~36Vdc			
Output				
Rate voltage	12vdc±0.25vdc			
Rate current	10A	20A	30A	40A
Rate power	120W	240W	360W	480w
Efficiency(type)	97% @ 24V input	97% @ 24V input	96% @ 24V input	96% @ 24V input
Voltage regulation(%)	±1	±1	±1	±1
Load regulation(%)	2	2	2	2
No load loss(mA)	50	60	70	70
Ripple & Noise(mV)	100	130	160	160
Environment				
Working temperature(℃)	-35 ~ +80	-40 ~ +80	-35 ~ +80	-35 ~ +80
Working Humidity(RH)	10% ~ 90%	10% ~ 90%	10% ~ 90%	10% ~ 90%
Storage temperature(℃)	-40 ~ +85	-55 ~ +125	-40 ~ +85	-40 ~ +85
Function				
Protection	Over-current ,Over-temperature , Over-load, Over-voltage,Short-circuit	Over-current ,Over-temperature , Short-circuit	Over-temperature , Over-load, Over-voltage,Short-circuit	Over-temperature , Over-load, Over-voltage,Short-circuit
Waterproof	IP68			
Dimension				
Weight(g)	240	260	500	540
Size(mm)	74*74*32	74*74*32	100*80*39	100*80*39
Other				
Cooling	Free air convection			
Packaging	Carton Box			

DC-DC Converter

Connection :



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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. 49V 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 inverter 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

[illegible]