QD73DC Control system applies to brushless motor

1.Preface

Dear user:
Thanks for choosing QUNDA product, QD73DC is a control system applies to brushless motor. It's our best wish to bring you convenience in your daily life. Please read the instruction earnestly which will help you use it correctly.

2.Product function and Summary

2.1 Product function and application

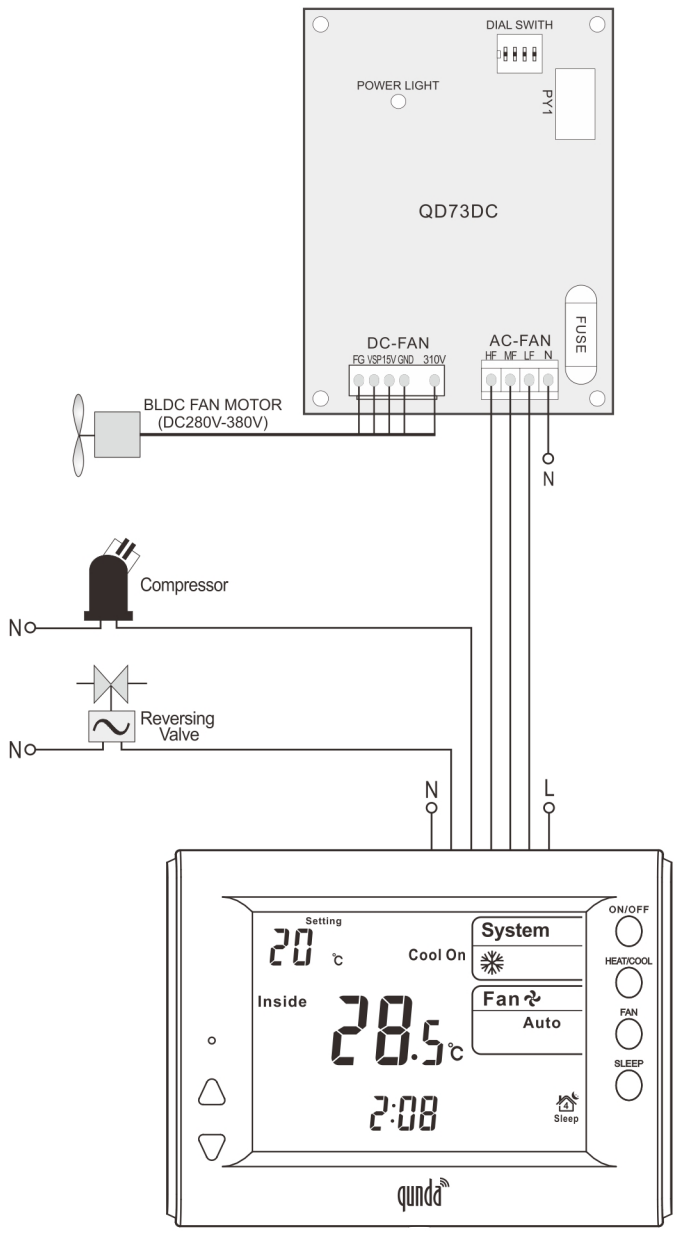
Traditional terminal controller of central air conditioner mostly adopts three fan speed thermostat to govern the AC tap motor speed, through that to adjust indoor cooling and heating. And high, medium, low rotational speeds are depended on motor winding character, that can't be altered optionally. Whereas refitting QD73DC and replacing the original motor by brushless DC motor with PWM drive, you can adjust the three rotational speeds optionally by dialing the control board switch. It makes step speed regulation come true. Due to DC inverter technique, DC brushless motor works with higher efficiency and saves more energy than the common.

2.2 Product features

- Each board controls a 120W DC brushless motor.
- Apply to three fan speed thermostat with 220V output, easy connecting, high universality.
- By dialing the switch to govern three fan speed, and to make step speed regulation come true.
- When control board works normally, high, medium, low speeds only allow one signal input, or the motor stop rotating.
- Adopt PID closed-loop control arithmetic with fast toggling and stable controlling.
- Power light indicates the power supply state.
- Switch power is safer and more reliable.

3.Connect diagram

Traditional central air conditioner thermostat supporting the use of QUNDA QD73DC, can realize controlling the terminal DC fan coil.
We suggest to choose QUNDA thermostat to support the use of QD73DC. We give an example of QD-HVAC09 and QD73DC connecting in the diagram below. Connect three fan speeds wire to the terminal marked “AC-FAN” on the QD73DC.

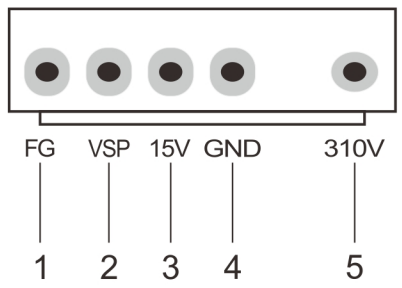


4.DC fan interface explanation


DC brushless motor


DC brushless motor

DC motor interface specification:



Number	Item	Parameter/Specification
1	FG	Fan feedback
2	VSP	Control voltage DC 0~6.5V
3	VCC	DC 15V
4	GND	Fan E-line
5	VM	DC 310V fan power

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5.Switch for governing fan speed

According to the list of high, medium, low three fan rotation speeds, pick one group and dial the switch to the corresponding position in the state of power off. Then power on to realize the rotation speed.(the adjustment is invalid under work state)

Group	(r/min) High	(r/min) Medium	(r/min) Low	Switch	Group	(r/min) High	(r/min) Medium	(r/min) Low	Switch
1	1400	1000	600	ON DIP 1 2 3 4	9	1200	900	600	ON DIP 1 2 3 4
2	1200	1000	800	ON DIP 1 2 3 4	10	860	680	400	ON DIP 1 2 3 4
3	1000	800	600	ON DIP 1 2 3 4	11	960	780	500	ON DIP 1 2 3 4
4	800	600	400	ON DIP 1 2 3 4	12	1060	880	600	ON DIP 1 2 3 4
5	1160	1000	900	ON DIP 1 2 3 4	13	1160	980	700	ON DIP 1 2 3 4
6	1400	1200	1000	ON DIP 1 2 3 4	14	1400	1230	950	ON DIP 1 2 3 4
7	1600	1400	1200	ON DIP 1 2 3 4	15	1560	1380	1100	ON DIP 1 2 3 4
8	1000	700	400	ON DIP 1 2 3 4	16	1340	1160	880	ON DIP 1 2 3 4

6.Parameter

Rated voltage	AC 220V
Maximum output power	120W
BLDC rated voltage	DC280V - DC380V
Fuse specification	AC250V 2A
Rotation option	16
Rotation range	400-1600 r/min

Manufacturer

Name: QUNDA Control Technology (Jiangsu) Co., Ltd.
Address: NO.888 Longqiao road, wujiang economy development area, suzhou, jiangsu, China
Post code: 215200 **Web site:** www.qunda.com

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