YCFK intelligent capacitor switching

General

The YCFK intelligent capacitor switching device uses thyristor switch and magnetic holding switch in parallel operation. It has the advantage of controllable silicon zero-crossing switch at the moment of connection and disconnection, and zero power consumption of the magnetic holding switch during normal connection. This switch has significant advantages such as no impact, low power consumption, and high lifespan, and can replace contactors or thyristor switches. It is widely used in low-voltage reactive power compensation systems.

Selection

YCFK	-	△	-	400	-	45	S

Product name	-	Compensation modes	-	Rated voltage	-	Rated capacity	Reactor reactance rate
YCZN	-	△ :Three-phase Common Compensation	-	400: AC400V	-	5+5:(5+5)Kvar 10+5:(10+5)Kvar 10+10:(10+10)Kvar 20+10:(20+10)Kvar 20+20:(20+20)Kvar 25+25:(25+25)Kvar 30+30:(30+30)Kvar	7% 14%
		Y:Three-phase Individual Compensation		250: AC250V 280: AC280V (with function K)		5:5Kvar 10:10Kvar 15:15Kvar 20:20Kvar 25:25Kvar 30:30Kvar 40:40Kvar	

Note: For Three-phase Individual Compensation (Y), the maximum rated current reaches 63A; the rated current corresponds to the compensation capacitor capacity as shown in the table.

Use environment

Environmental temperature: -20°C to +55°C
Relative humidity: ≤90% at 40°C
Altitude: ≤2500m
Environmental conditions: No harmful gases and vapors, no conductive or explosive dust, no severe mechanical vibrations.

YCFK intelligent capacitor switching

Technical data

Rated working voltage	Common compensation AC380V ±20% / Separate compensation AC220V ±20%
Rated frequency	50Hz
Rated current	45A, 63A, 80A
Control capacitor capacity	Three-phase ≤50Kvar Delta connection; Single-phase ≤30Kvar Y connection
Power consumption	≤1.5VA
Service life	300,000 times
Contact voltage drop	≤100mV
Contact withstand voltage	>1600V
Response time:	1000ms
Time interval between each connection and disconnection	≥5s
Time interval between each connection and disconnection	≥5s
Control signal	DC12V ±20%
Input impedance	≥6.8KΩ
Conduction impedance	≤0.003Ω
Inrush current	<1.5In

YCFK-□S(Standard type)

Compensation method	Model	Control capacity (Kvar)	Control current(A)	Number of poles	Adaptation controller
Three-phase Common Compensation	YCFK-△-400-45S	≤ 20	45	3P	JKWD5
	YCFK-△-400-63S	≤ 30	63	3P	JKWD5
	YCFK-△-400-80S	≤ 40	80	3P	JKWD5
Phase compensation	YCFK-Y-400-45S	≤ 20	45	A+B+C	JKWF
	YCFK-Y-400-63S	≤ 30	63	A+B+C	JKWF

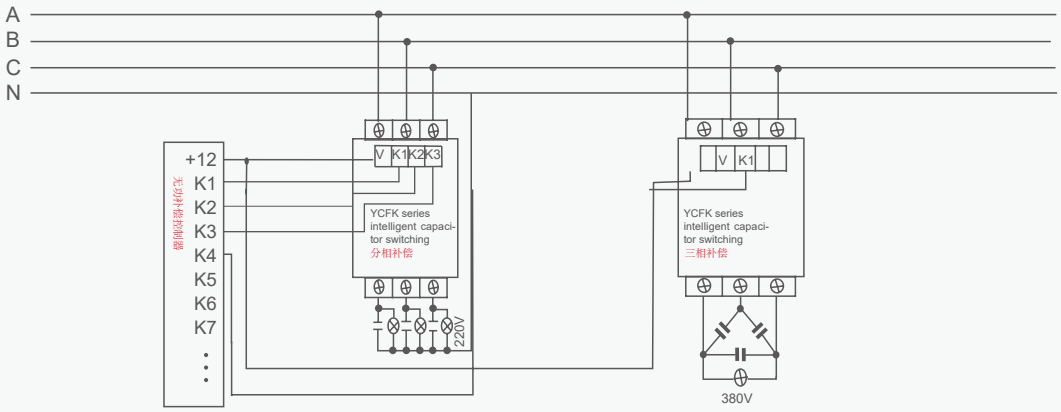
YCFK-□D(with circuit breaker)

Compensation method	Model	Control capacity (Kvar)	Control current(A)	Number of poles	Adaptation controller
Three-phase Common Compensation	YCFK-△-400-45D	≤ 20	45	3P	JKWD5
	YCFK-△-400-63D	≤ 30	63	3P	JKWD5
Phase compensation	YCFK-Y-400-45D	≤ 20	45	A+B+C	JKWF
	YCFK-Y-400-63D	≤ 30	63	A+B+C	JKWF

YCFK intelligent capacitor switching

Wiring diagram

YCFK Hybrid Compensation Wiring Diagram, DC12V Control Method



Precautions:

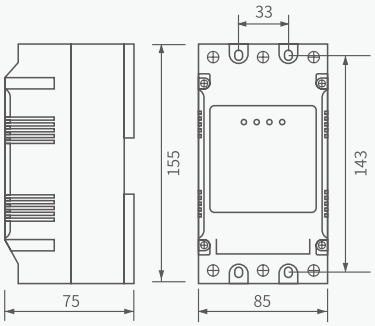
Before use, it is essential to carefully check the terminal screws of the main circuit connection. They must be securely tightened; otherwise, loose screws during operation can easily lead to damage to the switch.

(The incoming and outgoing wire terminals of this product are equipped with anti-loosening self-locking nuts, effectively ensuring that the product does not experience secondary loosening of the connections due to factors such as transportation and vibrations after the connections are securely made.)

F

Overall and mounting dimensions

YCFK-□S



YCFK-□D