

LBFK Series Low-voltage Compound Switch

Overview

LBFK series low-voltage compound switch refers to connecting SCR and magnetic latching relay in a parallel way, adopting internal single chip for controlling, making SCR undertakes zero-passing switching at the moment of switching, i.e. switching on when the voltage passes zero and switching off when the current passes zero; the conducting time of SCR is very short (doesn't generate heat), and then, the magnetic latching relay will be connected for running. Therefore, it has advantage of SCR switch that there is no inrush current in case of passing zero, and the advantage that there is no power loss when the AC contractor is running. In this case, defects including heating during the running of SCR and spark in case of contactor switching are avoided. It is a kind of relatively ideal switch. Especially because that there is no inrush current or spark when the magnetic latching relay is on or off, the service life of its electrical apparatus is longer than the design service life, and its mechanical service life reaches millions of times, which may guarantee long-term running.



Naming Meaning

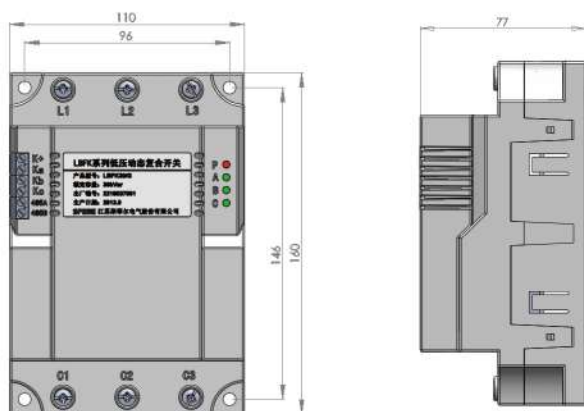
LBFK 40 / G



Technical Parameters

Item	Parameter
Rated voltage	AC wire voltage 380V±20%
Rated frequency	50Hz
Harmonic distortion	≤ 5.0%
Control voltage	5~40kvar
Power consumption of the machine	DC12V±10%/10mA
Consumption	≤ 4VA
Contact resistance	≤ 2mΩ
Environment temperature	-25~+55°C
Switching times	1.20 million times
Altitude	≤ 2000m

External Dimension



External dimension: 110×77×160 mm (width × depth × height)

Installation dimension: 96×146 mm (width × height); the screw adopts M5*20.

Wiring Method

	Port	Description
Main circuit	L1,L2,L3	Wire incoming end;
	C1,C2,C3	Connected to the capacitor (or series reactor) end
Modbus	485A	Communication interface A
	485B	Communication interface B
Control circuit (G type)	K+ end	The positive end of control voltage is connected with COM end of the controller.
	Ka+ end	The negative end of control voltage is connected with output end of each circuit of the controller.
	Kb+ end	Empty
	Kc+ end	Empty
Control circuit (F type)	K+end	Positive end of control voltage
	Ka+end	Phase-A control end
	Kb+end	Phase-B control end
	Kc+end	Phase-C control end

Note: The indicator P refers to power source lamp; when the main circuit is energized, the indicator will be on; otherwise, it will be off.

When G type is switched on, indicators A, B and C refer to switching indication. In case of switching on, the indicators will be on; otherwise, the indicators will be off.

When F type is switched on, indicators A, B and C respectively refer to three-phase switching indication. In case of switching on, the indicators will be on; otherwise, the indicators will be off.