General

FKV-11/12-V2 and FK-11/12-V2 are phase failure relays.FKV-03/14-V2 and FK-03/14-V2 are phase failure relays with phase sequence protection. These relays are designed to protect three phase systems from phase loss, phase sequence error and related power faults.

Usage of Device And Working Principle

Make the connections according to the diagram.

FKV-11/12-V2, FK-11/12-V2

Normal Operation (No Error): When all phase voltages are within the normal range, the relay is activated and the OUT LED is ON.

FKV-03/14-V2, FK-03/14-V2

Normal Operation (No Error): When all phase voltages are within the normal range and the phase sequence is correct, the relay is activated and the OUT LED is ON.

FKV-03/11/12-V2, FK-03/11/12-V2

Phase Imbalance Error: When any phase exceeds the allowed imbalance range, the relay is deactivated and the OUT LED is OFF.

FKV-14-V2, FK-14-V2

Phase Imbalance Error:When any phase exceeds the allowed imbalance range, the ERR LED flashes (2-second interval), the OUT LED is OFF and the relay is deactivated.

FKV-03-V2, FK-03-V2

Phase Sequence Error: When the phase sequence is incorrect, the relay is deactivated and the OUT LED is OFF.

FKV-14-V2, FK-14-V2

Phase Sequence Error: When the phase sequence is incorrect, the ERR LED remains ON, the OUT LED is OFF and the relay is deactivated.

Relay Status

Relay Activated:COM (2) and NO (3) are closed; COM (2) and NC (1) are open.

Relay Deactivated:COM (2) and NC (1) are closed; COM (2) and NO (3) are open.

Maintenance

Disconnect the device from the power supply before maintenance. Clean the device with a dry cloth. Do not use conductive materials or chemical solvents that may damage the device. Ensure proper operation after cleaning.

Warnings

Operate the device only in accordance with this manual.

Do not install or use the device in wet or humid conditions.

Provide a suitable isolating device (switch or circuit breaker) in the installation.

The isolating device must be installed near the equipment and be easily accessible.

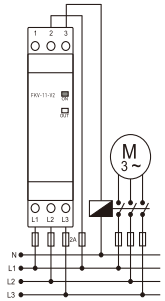
The isolating device shall be clearly identified as the disconnecting means for the equipment.

Disconnect the power supply before installation or maintenance.

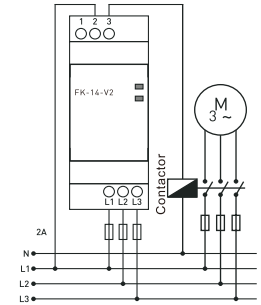
Technical Specifications

Operating Volt.(Un)	: 3 x 380V AC + Neutral
Operating Frequency	: 50/60 Hz.
Operating Power	: <6VA
Operating Temp.	: -20°C.....+55°C
Asymmetry	: ~%40(FKV-03-V2, FK-03-V2)(With phase sequence) ~%30(FKV-11-V2, FK-11-V2) ~%40(FKV-12-V2, FK-12-V2) ~%30(FKV-14-V2, FK-14-V2)(With phase sequence)
Display	:ON & OUT LEDs (FKV-03/11/12-V2) (FK-03/11/12-V2) ERR& OUT LEDs (FKV-14-V2, FK-14-V2)
Connection Type	:Terminal connection.
Weight	:Max.110gr.
Contact	:5A/250V AC (Resistive Load)
Mounting	:Assembled on the din rail.
OperatingAltitude	:<2000m.
Cable Diameter	:1.5mm²

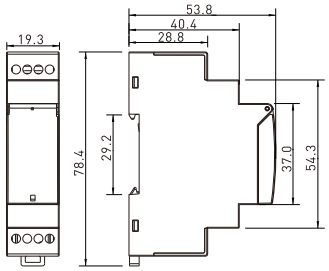
FKV-03/11/12/14-V2 Connection Diagram



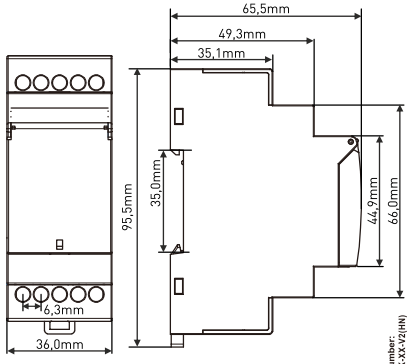
FK-03/11/12/14-V2 Connection Diagram



FKV-03/11/12/14-V2 Dimensions



FK-03/11/12/14-V2 Dimensions



Document Number: FKV-XX-V2,FK-XX-V2(HN)

PHASE SEQUENCE PHASE FAILURE RELAY FKV-03/11/12/14-V2,FK-03/11/12/14-V2 ENG

General

FKV-11/12-V2 and FK-11/12-V2 are phase failure relays.FKV-03/14-V2 and FK-03/14-V2 are phase failure relays with phase sequence protection. These relays are designed to protect three phase systems from phase loss, phase sequence error and related power faults.

Usage of Device And Working Principle

Make the connections according to the diagram.

FKV-11/12-V2, FK-11/12-V2

Normal Operation (No Error): When all phase voltages are within the normal range, the relay is activated and the OUT LED is ON.

FKV-03/14-V2, FK-03/14-V2

Normal Operation (No Error): When all phase voltages are within the normal range and the phase sequence is correct, the relay is activated and the OUT LED is ON.

FKV-03/11/12-V2, FK-03/11/12-V2

Phase Imbalance Error: When any phase exceeds the allowed imbalance range, the relay is deactivated and the OUT LED is OFF.

FKV-14-V2, FK-14-V2

Phase Imbalance Error:When any phase exceeds the allowed imbalance range, the ERR LED flashes (2-second interval), the OUT LED is OFF and the relay is deactivated.

FKV-03-V2, FK-03-V2

Phase Sequence Error: When the phase sequence is incorrect, the relay is deactivated and the OUT LED is OFF.

FKV-14-V2, FK-14-V2

Phase Sequence Error: When the phase sequence is incorrect, the ERR LED remains ON, the OUT LED is OFF and the relay is deactivated.

Relay Status

Relay Activated:COM (2) and NO (3) are closed; COM (2) and NC (1) are open.

Relay Deactivated:COM (2) and NC (1) are closed; COM (2) and NO (3) are open.

Maintenance

Disconnect the device from the power supply before maintenance. Clean the device with a dry cloth. Do not use conductive materials or chemical solvents that may damage the device. Ensure proper operation after cleaning.

Warnings

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The isolating device must be installed near the equipment and be easily accessible.

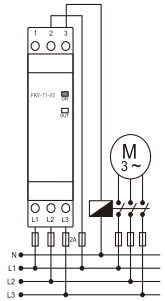
The isolating device shall be clearly identified as the disconnecting means for the equipment.

Disconnect the power supply before installation or maintenance.

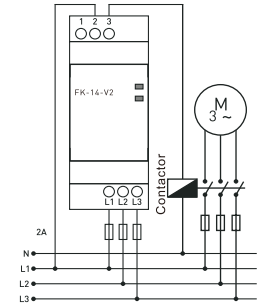
Technical Specifications

Operating Volt.(Un)	: 3 x 380V AC + Neutral
Operating Frequency	: 50/60 Hz.
Operating Power	: <6VA
Operating Temp.	: -20°C.....+55°C
Asymmetry	: ~%40(FKV-03-V2, FK-03-V2)(With phase sequence) ~%30(FKV-11-V2, FK-11-V2) ~%40(FKV-12-V2, FK-12-V2) ~%30(FKV-14-V2, FK-14-V2)(With phase sequence)
Display	:ON & OUT LEDs (FKV-03/11/12-V2) (FK-03/11/12-V2) ERR& OUT LEDs (FKV-14-V2, FK-14-V2)
Connection Type	:Terminal connection.
Weight	:Max.110gr.
Contact	:5A/250V AC (Resistive Load)
Mounting	:Assembled on the din rail.
OperatingAltitude	:<2000m.
Cable Diameter	:1.5mm²

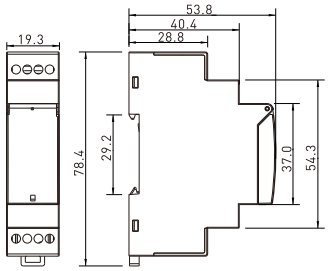
FKV-03/11/12/14-V2 Connection Diagram



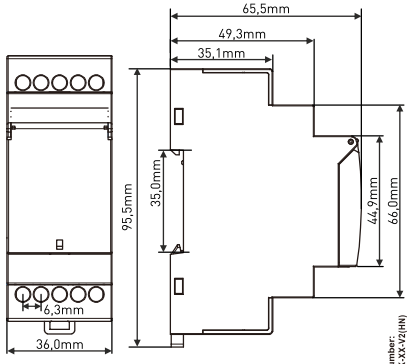
FK-03/11/12/14-V2 Connection Diagram



FKV-03/11/12/14-V2 Dimensions



FK-03/11/12/14-V2 Dimensions



Document Number: FKV-XX-V2,FK-XX-V2(HN)