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ACPD Series Insulation Monitoring Coupler

Installation and Operation Manual V1.1

Acrel Co., Ltd.

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Modified Records

No.	Time	Versions	Reasons for revision
1	2018.06.18	V1.0	First version
2	2022.06.30	V1.1	Modify the format, add English manual
Note:			

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ACPD Series Insulation Monitoring Coupler

1 Introduction

ACPD series insulation monitoring coupler is used to cooperate with AIM-T500 insulation monitor, which can extend the use of AIM-T500 system voltage, mainly suitable for the system voltage is higher than 690V AC, DC 800V ac 2-phase, 3-phase or DC ungrounded system.

ACPD series insulation monitoring coupler mainly includes ACPD100 and ACPD200, among which ACPD100 and AIM-T500 are suitable for 2-phase AC 0~1150V, DC 0~1760V ungrounded system insulation monitoring. ACPD200 and AIM-T500 are used for insulation monitoring of 0~1650V AC 3-phase, or AC 0~1300V ungrounded system with DC components.

2 Functional characteristics

■ Cooperate with AIM-T500 insulation monitor;

■ Extended AIM-T500 insulation monitor for system voltage.

3 Model Introduction



Instructions: ACPD for Acrel insulation monitoring coupler

Design numbers include 100, 200

4 Technical Parameters

Item	Technical parameter	
	ACPD100	ACPD200
System	2-phase AC ungrounded system; DC ungrounded system	3-phase AC ungrounded system; 3-phase & DC ungrounded system
System voltage	2-phase AC: 0~1150V; DC: 0~1760V	3-phase AC: 0~1650V; 3-phase AC & DC: 0~1300V
Dc Resistance	≥160kΩ	AK1≥225kΩ
Working Temperature	-10~+65℃	
Storage Temperature	-20~+70℃	
Relative Humidity	<95%, without condensation	
Altitude	≤2500m	

5 Reference standards

■ IEC 61557-8 *Electrical safety in low voltage distribution systems up to 1000V a.c. and 1500V d.c. - Equipment for testing, measuring or monitoring of protective measures - Part 8: Insulation monitoring devices for IT systems.*

■ IEC 61326-2-4 *Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-4: Particular requirements - Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC 61557-8 and for equipment*

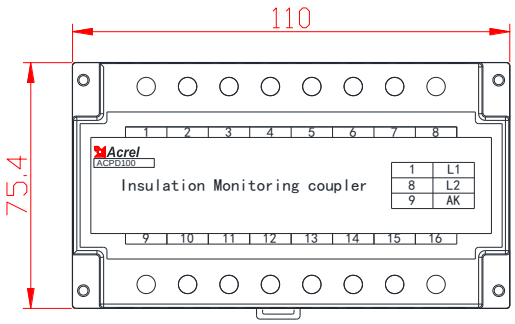
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for insulation fault location according to IEC 61557-9.

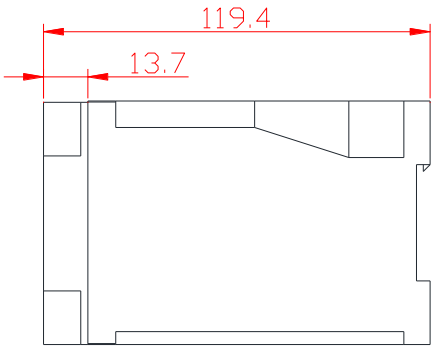
6 Installation and connection

6.1 Shape and Size

ACPD100 and ACPD200 have the same shell. The front and side view of the product are shown below.



ACPD100 front view



ACPD100 side view

Note: ACPD200 front and side view is same as APCP100.

6.2 Method of Installation

ACPD series insulation monitoring coupler is installed with standard 35mm guide rail.

6.3 Wiring Method

6.3.1 ACPD100 Terminal Wiring Description

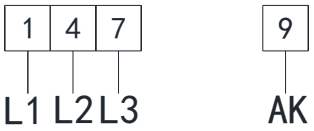
Terminals 1 and 8 of ACPD100 insulation monitoring coupler are respectively connected to the two wires of the 2-phase AC IT system being monitored or to the positive and negative poles of the DC system (note: L1 is connected to the positive pole, L2 to the negative pole). Terminal 9 is connected to AK terminal of AIM-T500 insulation monitor. The terminal wiring diagram is shown as follows.



2-phase IT system AK of AIM-T500

6.3.2 ACPD200 Terminal Wiring Description

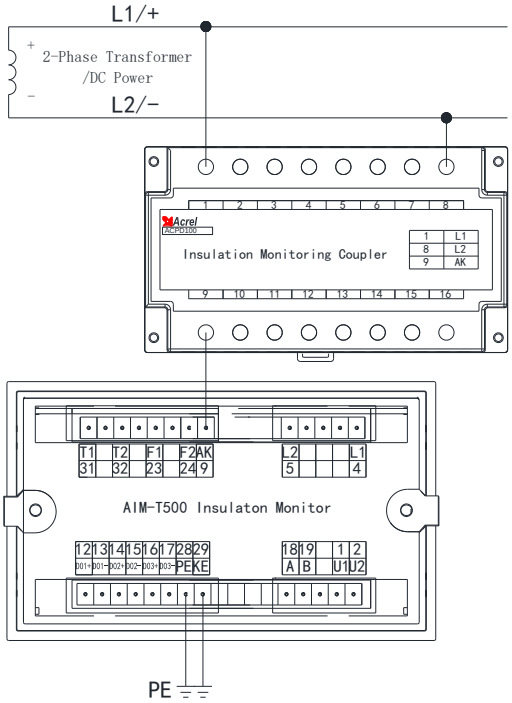
Terminals 1, 4 and 7 of the ACPD200 insulation monitoring coupler are respectively connected to the three phase lines of the monitored AC 3-phase IT system. Terminal 9 is connected to AK terminal of AIM-T500 insulation monitor. The terminal wiring diagram is shown as follows.



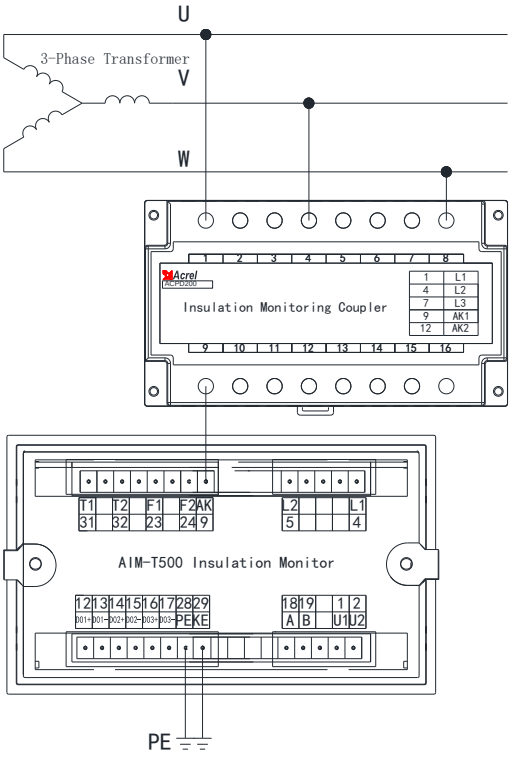
3-phase IT system AK of AIM-T500

6.3.3 Wiring diagram of AIM-T500 insulation monitor and insulation monitoring coupler

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Wiring Diagram of ACPD100 & AIM-T500



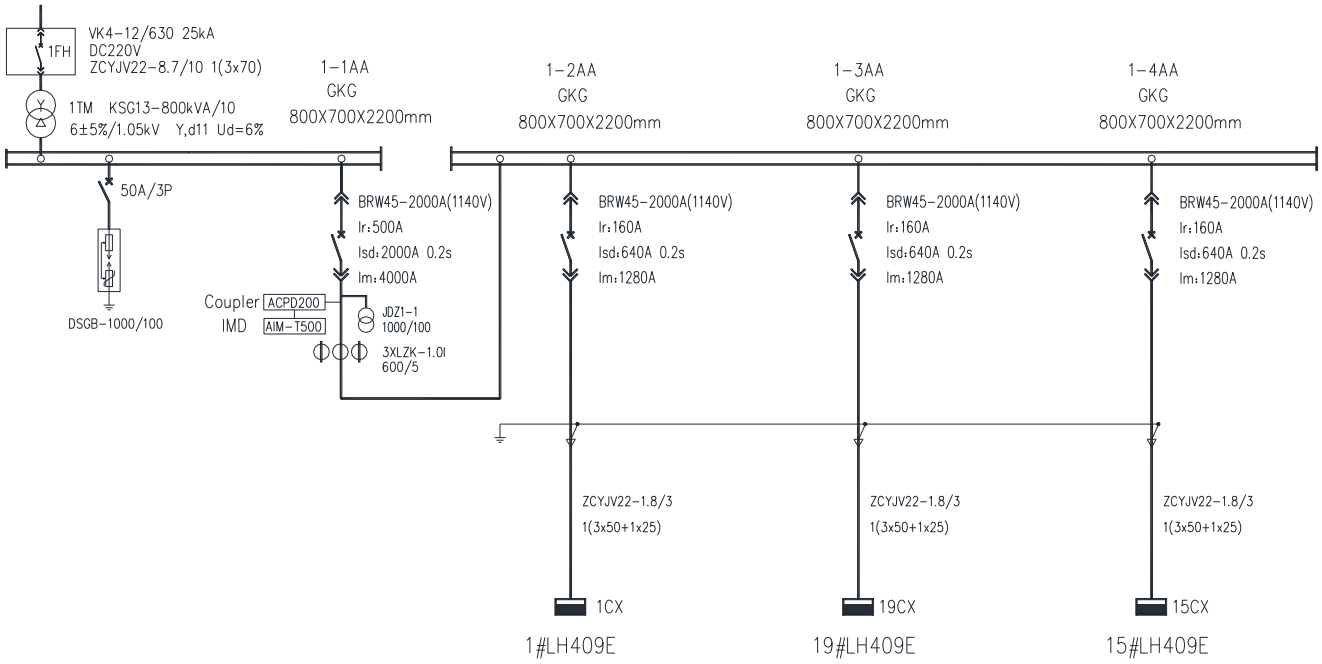
Wiring Diagram of ACPD200 & AIM-T500

7 Matters needing attention

(1) ACPD series insulation monitoring coupler is installed with standard 35mm guide rail. The guide rail should be of good quality.

(2) The wiring should be connected according to the wiring diagram. The cable should be pressured with a needle cold terminal, then insert the corresponding wiring terminal of the coupler and tighten the screw to avoid abnormal operation of the instrument due to poor contact.

8 Typical applications



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