290

ACPD series Insulation Monitoring Coupler

Installation and Operation Manual V1.3

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
3	2023.07.20	V1.2	Modify the mistake of wiring
4	2025.01.15	V1.3	Updated Overview, Function, Wiring, Typical Applications, Added Installation, Updated bottom
Note:			

Contents

ACPD Series Insulation Monitoring Coupler

1 Introduction

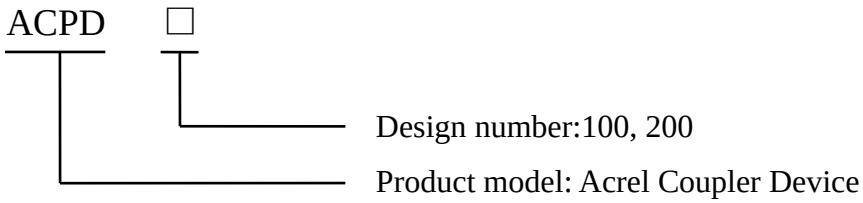
ACPD series insulation monitoring coupler are used to cooperate with AIM-T500 insulation monitor, which can extend the use of AIM-T500 system voltage, mainly suitable for the system voltage is higher than AC690V, or DC800V ungrounded (IT) system.

ACPD series insulation monitoring couplers includesACPD100 and ACPD200, ACPD100 is suitable for insulation monitoring in single-phase and DC scenarios, and the ACPD200 is suitable for insulation monitoring in three-phase, or three-phase with DC component scenarios.

2 Functional characteristics

- Conjunction with AIM-T500 insulation monitor to extend the applicable system voltage;
- The module does not require power supply, no LCD display, no indicator light display.

3 Model Introduction



4 Technical Parameters

Item	Technical parameter	
	ACPD100	ACPD200
System	AC single-phase IT system; DC IT system	AC three-phase IT system; AC three-phase with DC IT system
System voltage	AC: 0~1150V; DC: 0~1760V	3AC: 0~1650V; 3AC with 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

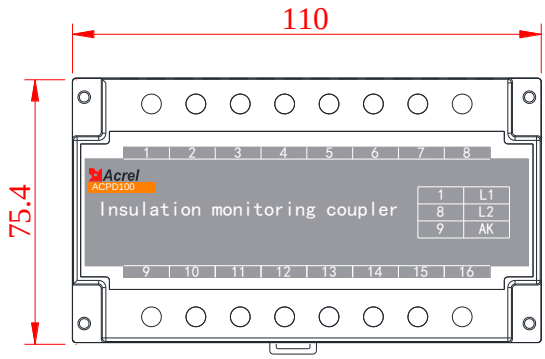
■ IEC 61557-8 *Electrical safety in low voltage distribution systems up to 1000V a.c. and 1500V d.c. - Equipment for testing, measuring or monitoring of protective measures - Part 8: Insulation monitoring devices for IT systems*

■ 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 for insulation fault location according to IEC 61557-9*

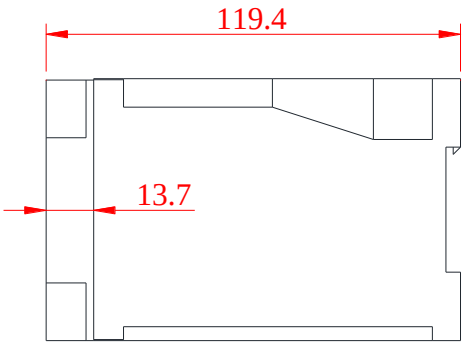
6 Installation and connection

6.1 Shape and Size

ACPD100 and ACPD200 have the same shell. The front and side view are shown below. (Unit:mm)



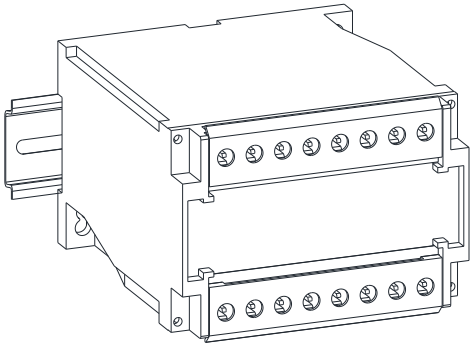
ACPD100 front view



ACPD100 side view

6.2 Method of Installation

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



6.3 Wiring Method

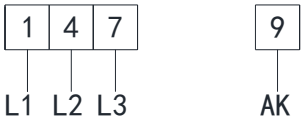
6.3.1 ACPD100 Terminal Wiring Description

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.

Single-phase IT system AK of AIM-T500

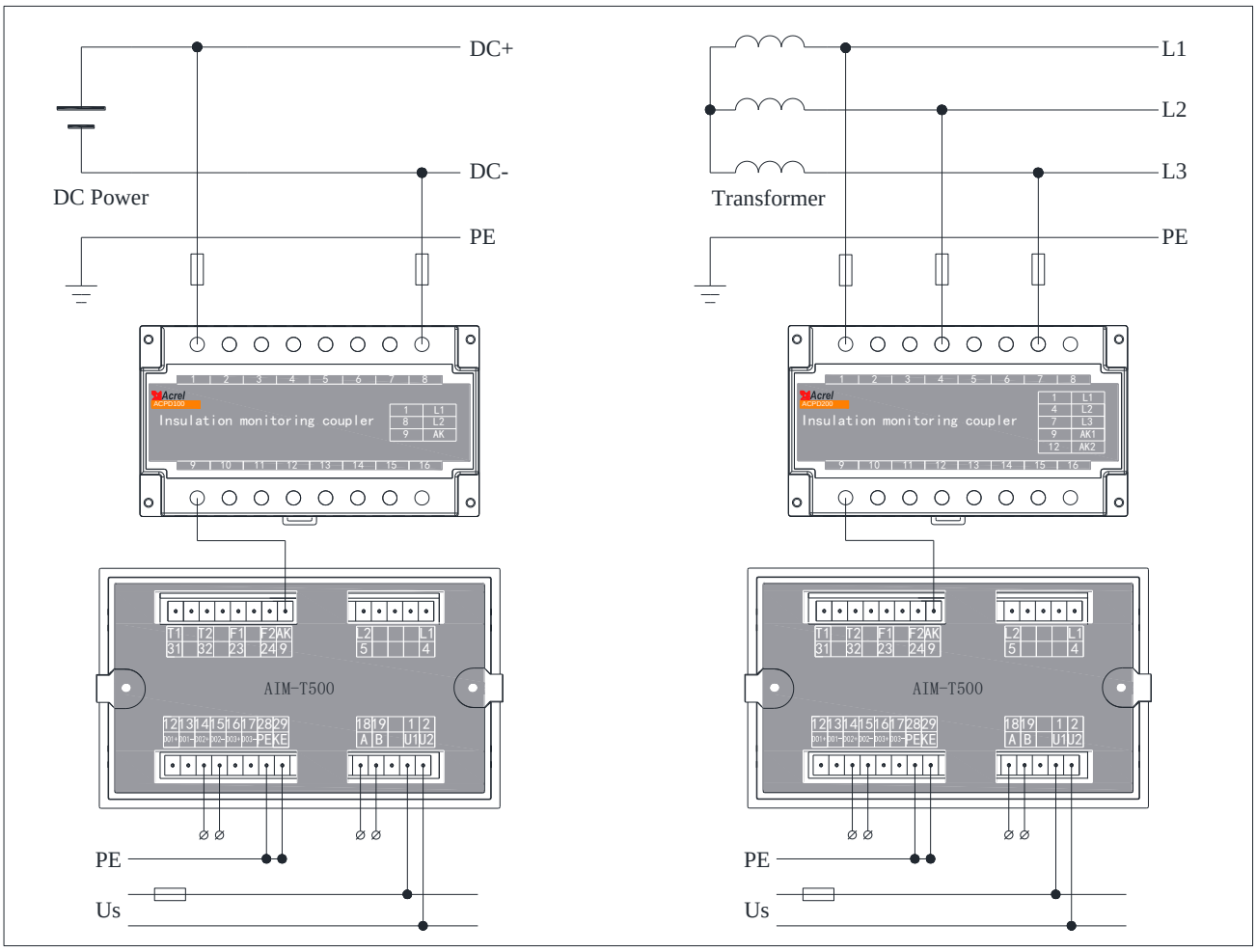
6.3.2 ACPD200 Terminal Wiring Description

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.



Three-phase IT system AK of AIM-T500

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



Wiring Diagram of ACPD100 & AIM-T500

Wiring Diagram of ACPD200 & AIM-T500

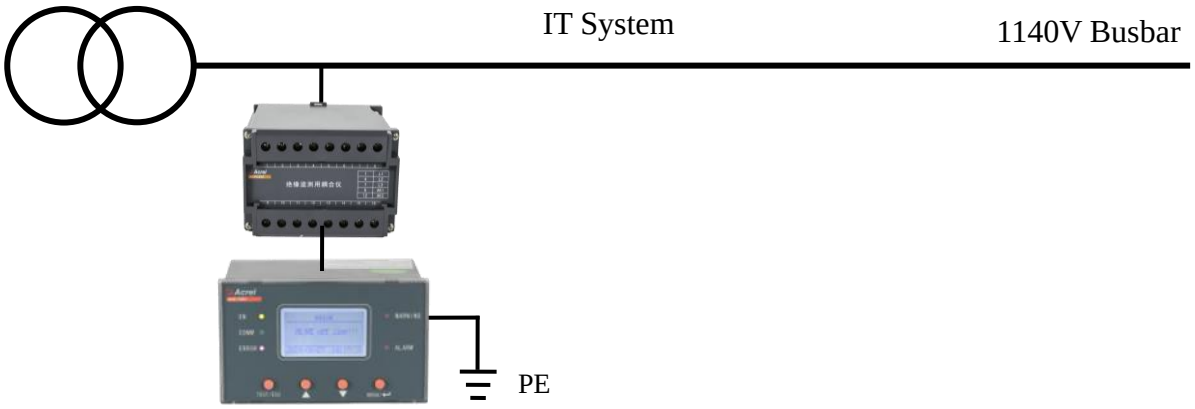
7 Matters needing attention

(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

A typical application for a single busbar is shown below.



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