

ACE 无线温度电流复合传感器

ACE wireless temperature & current sensor

使用说明 V1.2

Operation Manual V1.2

安科瑞电气股份有限公司

Acrel Co., Ltd.

申 明

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1 安装指南

1 Installation Guide

1.1 产品概述

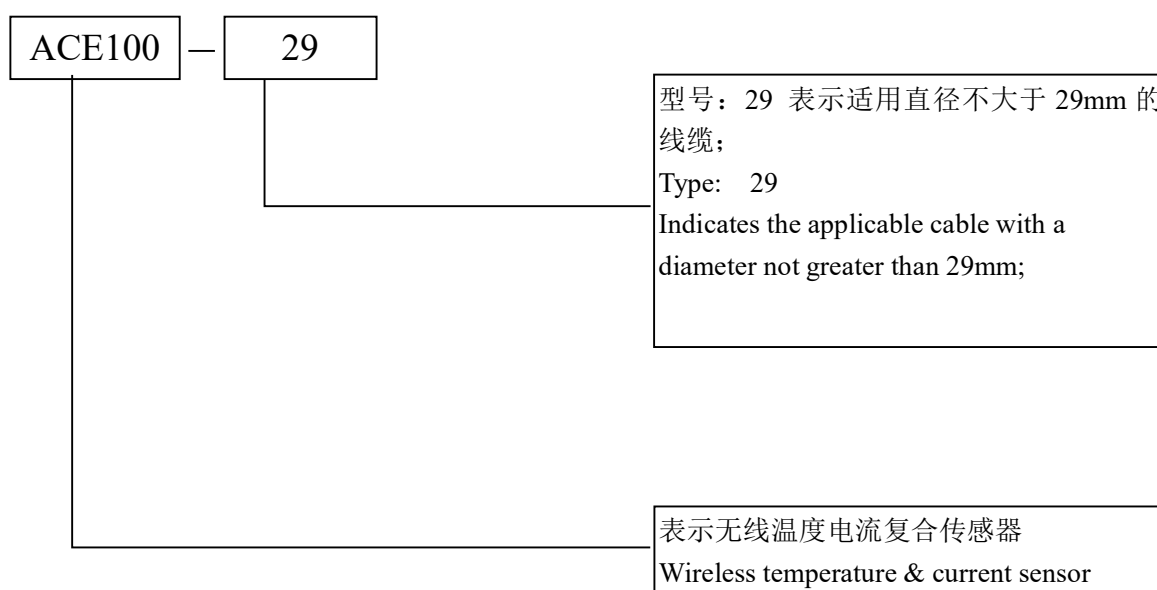
1.1 Product Introduction

ACE100 无线温度电流复合传感器主要用于低压开关柜输电电缆的温度和电流的检测。传感器采用内部电池和电磁取能的双供电方式，快速准确的测量低压电缆的温度及电流数据，通过无线的方式上传至接收装置。产品安装方便，全面检测电缆数据，可帮助用户及早发现线路隐患，保障供电安全，实现配电网智能化。

The ACE100 wireless temperature & current sensor is mainly used to detect the temperature and current of the transmission cable of the low-voltage switchgear. The sensor adopts the dual power supply mode of internal battery and electromagnetic energy extraction to quickly and accurately measure the temperature and current data of low-voltage cables, and upload them to the receiving device via wireless. The product is easy to install and comprehensively detect cable data, which can help users find hidden dangers in the line as early as possible, ensure power supply safety and realize intelligent distribution network.

1.2 型号说明

1.2 Type Introduction



1.3 技术指标

1.3 Technical Features

项目 Items		指标 Features
测量范围 Range	温度 Temperature	-50°C~125°C
	电流 Current	1~400A, AC
精度 Precision	温度 Temperature	±1°C
	电流 Current	1%FS
分辨率 Resolution	温度 Temperature	0.1°C
	电流 Current	0.01A
采集与发射周期 Sampling & Transmission cycle		感应取电: 10~30S; 电池: 3min CT-powered: 10~30S; Battery: 3min
感应取电启动电流 CT-powered, starting current		≥2.5A, AC
电池寿命 Battery life		3年(25°C), 可更换(型号 CR2450) 3 years(25°C), Replaceable(CR2450)
无线频率 Wireless frequency		470Mhz/433Mhz
传输距离 Communication distance		150m(空旷) 150m in open area
使用环境 Environment		-40~+85°C; ≤95% RH
安装方式 Installation		卡扣式安装 Open snap type
安装线缆直径 Cable diameter		6~29mm

1.4 产品安装

1.4 Product Installation

ACE100 无线温度电流复合传感器，采用开口型卡扣式安装方式。安装时将传感器贴紧待测电缆，完全扣紧 CT 卡扣。当电缆电流小于传感器感应取电启动电流时，传感器使用内部电池进行工作，如果电流大于传感器感应取电启动电流，传感器将感应取电工作，节省电池电量。

The ACE100 wireless temperature & current sensor is installed in an open snap type. During installation, the sensor shall be tightly attached to the cable to be tested, and the CT snap shall be fully

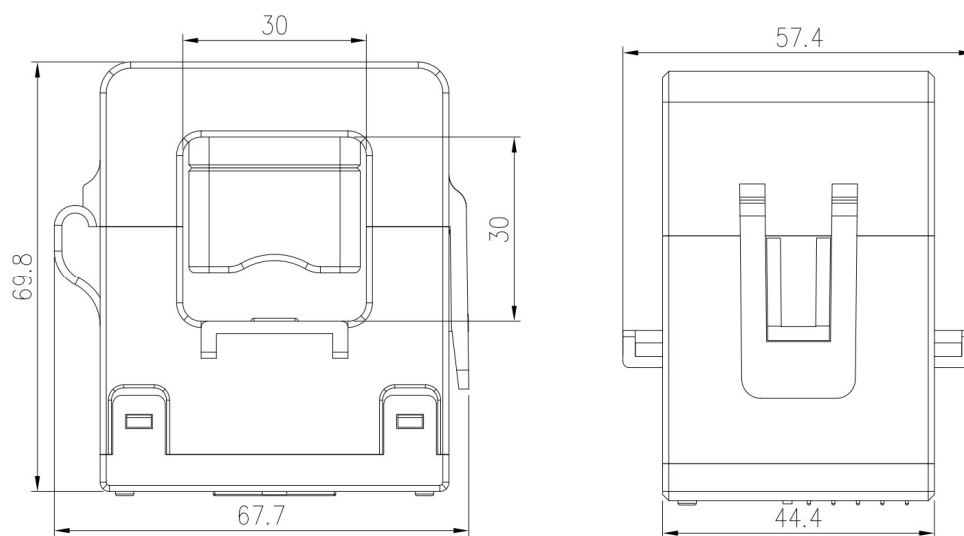
fastened. When the cable current is less than the starting current of the sensor, the sensor uses the internal battery to work. If the current is greater than the starting current of the sensor, the sensor will sense the power to save battery power.



CT 取电, 电流测量	CT power supply, current measurement
夹持机构, 可调节	Clamping mechanism, adjustable
温度探头	Temperature probe
发送数据指示灯	Send Data Indicator
电池舱盖	Battery compartment cover

1.4.1 外形尺寸

1.4.1 Shape Size



1.5 使用方案

1.5 Usage scheme

触摸屏 ATP007/ATP010 搭配 ATC600-C:

HMI ATP007/ATP010 with ATC600-C:



说明：触摸屏通过 RS485 接口连接一只 ATC600-C 实现集中数据显示，1 只 ATC600-C 可接收 240 只 ACE100 无线温度电流复合传感器的数据。

Note: The HMI is connected with an ATC600-C through RS485 interface to realize centralized temperature and current display, and one ATC600-C can receive 240 temperature & current sensors.

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