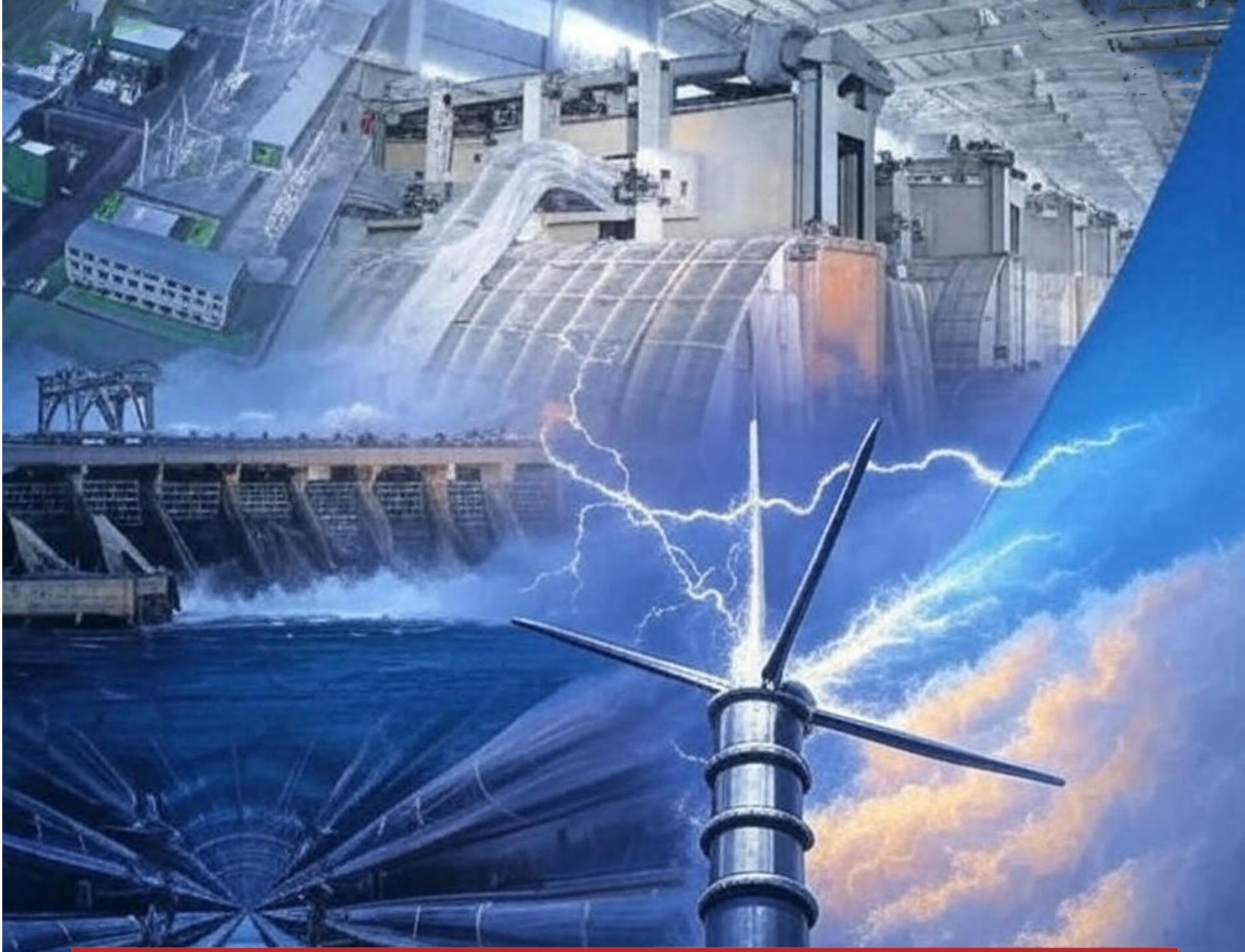


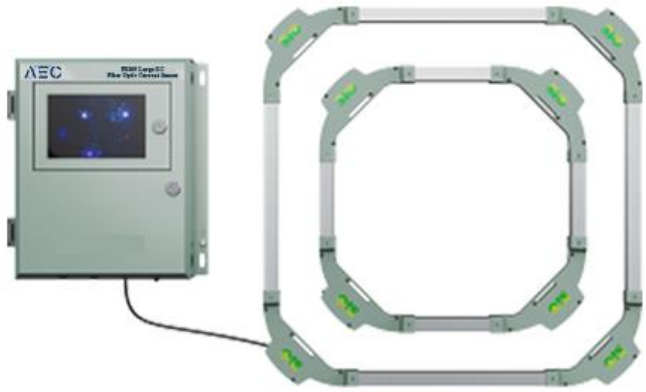
Product Description

Fiber Optic Current Sensor Series

FS205 Large DC Fiber Optic Current Sensor

ATRAK ENERGY GOSTAR ARAS

FS205 Large DC Fiber Optic Current Sensor



Introduction

The FS205 is a high precision DC high current measurement device based on the Faraday Magneto-optical Effect and the Ampere Loop Theorem. The sensing optical fiber is fixedly mounted on the high current busbar through a skeleton and forms a closed optical fiber loop. The magnetic field generated by the high current in the busbar causes the phase shift of two light waves in the optical fiber, and the current value is measured by demodulating the phase shift of the light waves.

Key Features

Resistant to interference from stray magnetic fields, easy installation and commissioning, display and recording of operating status, designed for harsh environments.

Application area

Suitable for a variety of large current measurement, especially metal smelting, electrochemistry and other fields of industrial large current accurate measurement and control.

Technical Indicators	
Rated current(Ir)	20/30/45/60/100/200/300/400/500/600/700kA
Maximum range	120%Ir
Measurement accuracy (10%~120% Ir) (Sensing ring temperature -10℃~+60℃)	0.1%
Measurement accuracy (10%~120% Ir) (Sensing ring temperature ~40℃~+70℃)	0.2%
Bandwidth (analog output)	0~3kHz
Response time (analog output)	≤300us
Environmental Conditions	
Sensing ring operating temperature	-40℃~+70℃
Collector operating temperature	-25℃~+55℃
Storage temperature	-40℃~+70℃
Protection grade	IP54
Humidity	5%~90%
Power Supply	
Operating power	AC 100V~240(50Hz/60Hz) or DC 120V~360V
Power consumption	＜40W
Physical Size	
Collector size (W×H×D)	410mm×450mm×135mm
Collector weight	12.6kg
Sensing ring size	9 standard and customized sizes
Sensing ring weight	＜15kg
Sensor fiber length	15/20/30/45/70/100m