

Mini-RTU

Overview

3IC Mini-RTU is for non-AGC Power Plants using module type PLC controller. The system collects electricity generation and transmission data and sends the data to NDC (KPX in Korea) Host Computer for non-AGC via Web Server.

Via plug-in I/O modules, Mini-RTU can be installed and operated in different environmental conditions. Such functions as reliable control and hot swapping makes it easy for operators to perform works efficiently and to maintain the system.

Based on the system platform which has been globally acknowledged for its stability and reliability for long time, Mini-RTU is designed and developed to optimally fit to power plants and substations. The system equipped with top performance and reliability shall provide optimal & best service quality.



EMS-RTU is consisted of Main Processing Device (MPD), Field Processing Device (FPD). EMS-RTU shall also incorporate System Management System (SMS) and SRMS Server (Secured RTU Monitoring System- Graphic/Security Server) to the RTU for management and security purpose.

Communication between MPD and FPD is in redundant Optical Ring Topology (100Base-FX, Profibus, Profinet), providing distributed FPD installations and operation management.

MPD (Main Processing Device):

MPD performs core & critical functions of the RTU, performing data communications with Host System, entire system management, and interconnection to SMS / SRMS Servers.

FPD (Field Processing Device):

FPD can be installed either in MPD panel or in remote field site. It is operated in distributed operation mode, providing real-time acquisition of field data and information by connecting directly to the MPD via Industrial Standard TCP/IP or Profibus.

Functions

High Performance & High Reliability

- 0.05 μ sec CPU Processing Speed
- Strong self-diagnosis function
- Enhanced High Availability with Programmable Controllers

Distributed Installation

- Redundant Optical Ring (Industrial Ethernet, Profibus)
- Distributed Installation and Operation
- Connecting to Control Facilities in the field

Remote Management

- Remote integrated management supported
- Human Machine Interface (HMI) supported

Expandability

- I/O modules expandable by shelf
- Each shelf can accommodate up to 8 I/O modules

Features

- TCP/IP communication with Host
- 0.05 μ sec CPU Processing Speed
- 2MB MMC (Micro Memory Card)
- Accommodate max. 1024 Digital points and 256 Analog points
- Reliability secured with Dual Count Rotate Ring
- Secure Tx/Rx Data Integrity via industrial standard Profibus communication (12Mbps)
- Remote Monitoring Function (Digital Input)
 - CB Open/Close Status
 - Relay Operation Status
 - SOE (Sequence of Event)
- Remote Metering (Analog Input)

- Input Current (Ampere)
- Active Power (Watt), Inactive Power (Var), Voltage (Volt)
- Frequency
- Other Analog Data
- TCP/IP based SMS (System Management System)
 - Database Creation, Change, Store, Management
 - Database Download & Upload
 - History Management (Control/Communication/Event/System)
 - Security Management
- Modules, Redundant Power Modules & Shelf Expansion

Configuration

