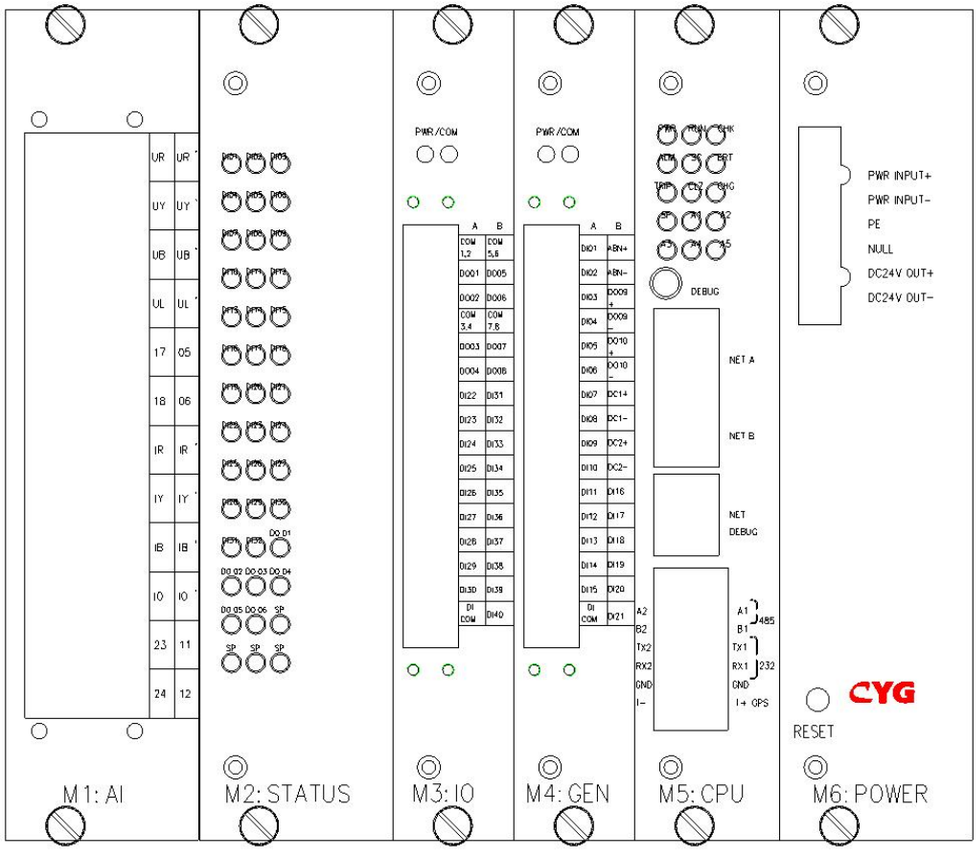
PRS-3351-FRTU

General Application

The feeder remote terminal unit of distribution automation is an important component of distribution automation system, with functions of data acquisition, fault detection, fault isolation and power recovery of non-fault area, reception & execution of control commands, etc.

PRS-3351 feeder remote terminal unit is applicable to pole-top sectional switch, feeder local breaker switch and distribution transformer, where distribution automation management is required.



Feature

Item	Parameter
Hardware	The plug-in structure is adopted for the hardware platform
Communication	various communication ports, communication port and protocol are easy to expand
Time Synchronization	SNTP and IRIG-B
Self-healing	locate the fault, remove the fault section and restore power supply for the non-fault section through GOOSE information interaction among terminal units
Protection	three-stage overcurrent protection and zero-sequence protection and can accurately remove the fault section in case of lines in open and closed loop running
Record	various protection trips, input switching record, self-test and unit error record, operation record, measurement out-of-limit record and measurement extreme a record
Monitor & Control	BI, BO, measurement and control

Functions

Item	Description
Measurement, signal and control	information acquisition and control of the controlled object
Parameter setting	including the system parameter, telemetry parameter, signal parameter, control parameter, communication parameter, protection setting and parameter etc
Terminal self-inspection	include terminal parameter error, RAM fault, ROM fault, power failure and CPU fault
Time synchronization	supports various timing modes for master station, B code and SNTP
Data storage	including sequence of events (SOE), change of signal (COS), remote and local operating record, unit error record and measurement historical data record.
Communication	1 standard Ethernet ports 2 standard serial communication ports
Debugging	Ethernet port or serial port is set as maintenance protocol
Relay protection	Continuous Fault Detect, Direction Element, Phase Overcurrent Protection Ground Overcurrent Protection, Broken Conductor Negative sequence overvoltage, Automatic Transfer Switch (ATS)
Data transfer	It can be upward connected with each master station and slave station and downward connected with each electric meter as well as other terminals and equipment without remote transmission function

Technical Specifications

Measurement Range and Accuracy

Metering Item	Range	Accuracy
Phase range	0° ~ 360°	≤ 0.5% or ±1°
Frequency	35.00Hz ~ 70.00Hz	≤ 0.01Hz
Current (three phase 3Ip)	0.05In<I<4.00In	±0.5%In, 0.05In~1.00In ±0.5%I, 1.00In~4.00In
Voltage (Phase 3Up, Phase-to-Phase 3Upp)	0.05Un<U<1.50Un	±0.5%Un, 0.05Un~1.00Un ±0.5%U, 1.00Un~1.50Un

Auxiliary Power Supply

Reference	IEC 60255-1, IEC 60255-26
Rated voltage	110/220VAC
Variation	80% ~ 120%
Frequency	50/60Hz, ± 5Hz
Output power for switch operation	450W in short time (within 3~5s for on-load tap switch)

Signal input

Signal input mode	electrical independent contact Optoelectronic isolation is adopted for the input circuit
Contact voltage	DC24V
SOE resolution	< 2 ms
Time for signal switching transmission in case of accident	< 1s
Software debouncing time	0-60000 ms is configurable

Binary output

Output mode	Normally open contact of relay
Contact capacity	DC24V 10A or AC220V 10A
Control duration	Control pulse width of each control contact can be set separately

Technical Specifications

AC sampling

Precision of AC voltage/current sampling	Grade 0.2
Precision of DC voltage sampling	Grade 0.2
Frequency sampling precision	0.01Hz
Precision of active power, reactive power and power factor sampling	Grade 0.5