 Solid Insulated Vacuum Recloser
for power distribution system
thru 15.5kV, 27kV and 38kV

General features

ENTECH Single/Three Phase Solid Insulated Recloser (EPRIS/EPR-1, EPR-2 and EPR-3) have proven its advance technology as reliable and maintenance-free product designed for using on overhead lines as well as substation application for all voltage up to 15.5kV, 27kV and 38kV.

Main mechanism of solid recloser is magnetic actuator, and bushing material is made of HCEP (Hydrophobic Cycloaliphatic Epoxy Resin). It is fully encapsulated with vacuum interrupters.

Recloser is protected with Stainless-Steel Material Enclosure and able to be used where tropical, moderate and severe humidity area with corrosion resistance. ENTECH control consists of RTU(Remote Terminal Unit)in one control cubicle with space for modem.

Also, ENTECH Recloser have been fully type-tested at the accredited laboratory such as KEMA, CESI or KERI according to International Standard ANSI 37.60 and IEEE 62271-111.

HECP (Hydrophobic Cycloaliphatic Epoxy)

- Advanced Outdoor Solid Dielectric Material
- Proven Performance in heavily polluted area
- Environment-Friendly, Oil/SF₆ Gas Free
- Reliable and Enhanced Life Expectancy
- Superior Surface Arc Tracking Resistance
- UV Protection, Resistant to Vandalism
- Complied with ANSI standard requirement for contamination Requirements for creepage / leakage distance

Installation Environment

- Pole Mounting/Substation Available
- All accessories included such as Control Power cable, Mounting bracket etc
- Operating Temperature: -40°C to 80°C
- Altitude : up to 3000M

※ Remarks: Altitude above 1000m should be corrected in accordance with ANSI C37.60 – 2012.

Magnetic Actuator

- Guarantee 10,000 operation time
- Eliminate mechanical latches
- Minimized moving components and reliable maintenance free
- Reduced Installation and Operating Cost

Other Technical Features

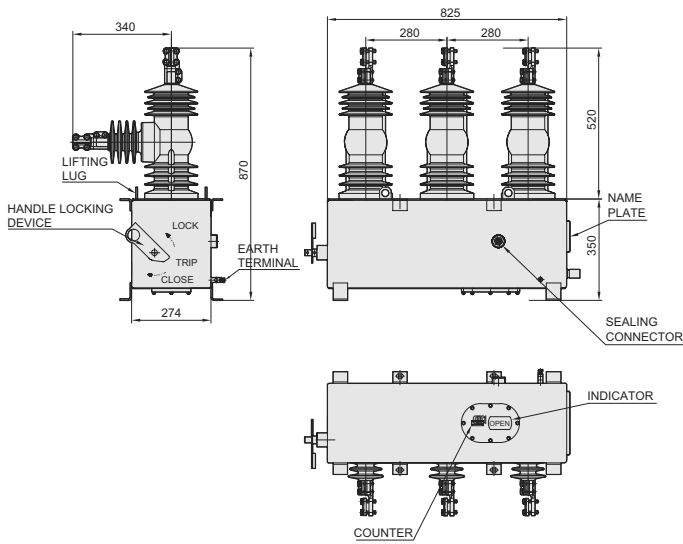
- RVD: Resistive Voltage Sensor(1%)
CVD: Capacitive Voltage Sensor(2.5%)
- Manual Trip Operation Available
- In case of loss of control power, over hundreds of open/close operations with fully charged battery(18AH/30HOURS)
- Various CT Ratio available

Installation Pictures

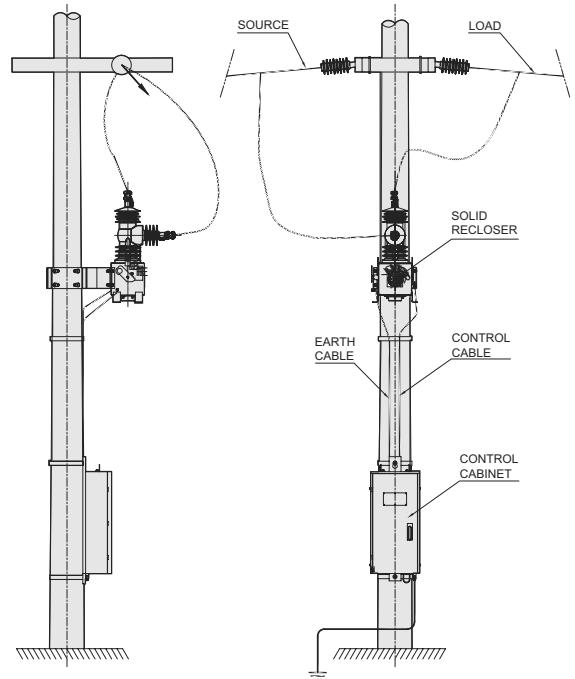
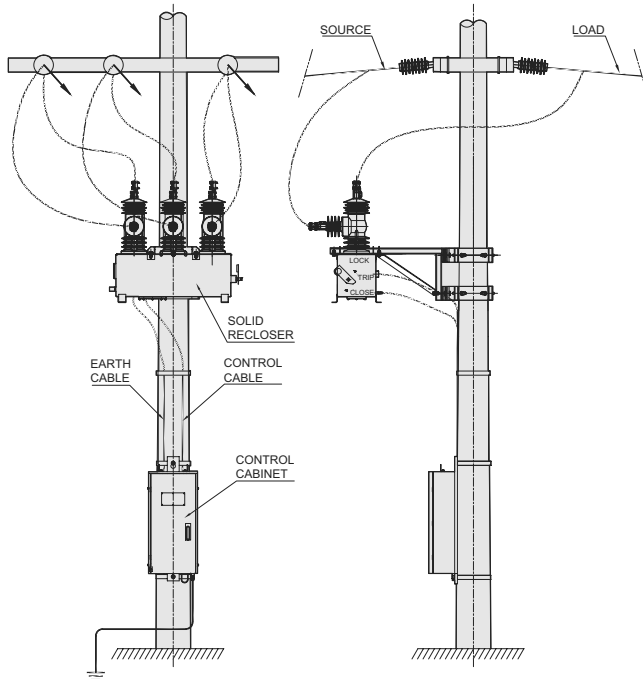
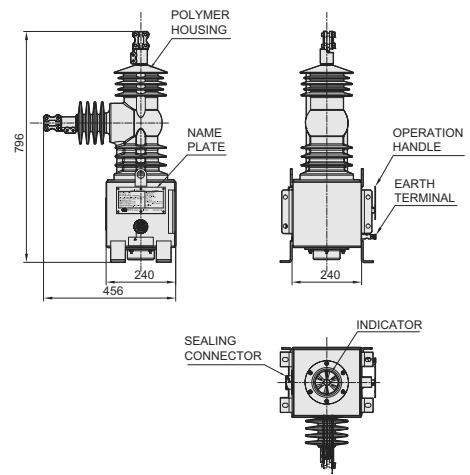


Installation Drawing

Three Phase Solid Recloser



Single Phase Solid Recloser



Microprocessor Based Recloser Control EVRC2A-NT

Features

- Reduced distribution automation costs
- RTU and control mounted in one control cubicle with space for modem
- DNP 3.0, MODBUS, IEC60870-5-101/104 communication protocols and SCADA capability
- 12Vdc ~ 24Vdc auxiliary power available for modem
- Voltage, current and power metering
- Record of operation, fault waveform data for line and load profile data
- Uninterruptable power supply with trip and close
- Inner heat insulation for polyurethane foaming
- Microsoft Windows-based ETIMS interface software
- Monitoring of Power Quality Management (PQM) - Supply Outage, Sag, Swell, Unbalance and Harmonics
- Monitoring of recloser contact maintenance (contact wear & trip count)
- Live Load Blocking

EVRC2A-NT cubicle

Protections

- User TCC construction capability
- Time synchronization and Position Information by time synchronization module (GPS/IRIG) support
- Curve Type: IEEE, IEC, ESB, McGraw-Edison, User Programmable Curve
- Protective settings in nonvolatile memory
- Delay time overcurrent protection(51P, 51G)
- Instantaneous overcurrent protection(50P, 50G)
- Negative sequence overcurrent protection(46)
- SEF protection
- Source and load side synchronism check
- Cold load pickup and sequence coordination
- Under/Over-frequency and load shedding(81)
- Under/Over-voltage, detection and alarm(27,59)
- Directional controls(67)
- Fault Locator
- Hotline Tag
- Loss of phase
- Loop control Function

Measuring

- Current
- Voltage (Source Side & Load Side)
- Measures KW, KWH, power factor, demand Watts, VARs, frequency and Energy
- Load profile data & oscillogram
- Unbalance & Harmonics

Remote Communication

- RS-232 & 485 ports, RJ45(TCP/IP)
- DNP3.0, MODBUS, IEC60870-5-101/104
- Complete remotely access for Operations settings, meterings and data records
- SMS, Bluetooth, Fiber Optic available

Microprocessor Based Recloser Control ETR300-R

ETR300-R includes common features associated with EVRC2A-NT and provides more enhanced functions in protection, monitoring, metering, communication and recording. ETR300-R can also support your power distribution system to be more reliable with power quality management (PQM) function.

Enhanced features

- Analysis of current/voltage normal & negative sequence for power quality monitoring.
- Recording of PQM with fault waveform of 32 events with Max 20 cycles.
- Harmonics analysis of electric data. (THD/TDD content ratio)
- Monitoring of Sag, Swell, Interruption, Over & Under voltage, Unbalance, Over & Under Frequency, Harmonics and etc.
- Improvement of fault detection algorithm
- Improved measuring accuracy
- Multi-Protocol support. (DNP3.0, MODBUS, IEC60870-5-101/104 & IEC61850)
- User programmable logic(PLC) support
- Alarm Current Monitoring.
- Loop control

ETR 300-R cubicle

Analogue Value

Status and Controls

System Setting View

Setting Change

Monitoring Elements

System Event



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