

1.0 SCOPE

This specification covers three-phase, pole-mounted distribution line reclosers for use in outdoor applications up to 15 kV.

2.0 APPLICABLE PUBLICATIONS AND STANDARDS

All products provided shall comply with IEEE Standard C37.60-2012, as applicable.

3.0 PRODUCT REQUIREMENTS

3.1. General

Per DOP standards, reclosers supplied under this proposal shall be G&W Electric Viper-ST Solid Dielectric Reclosers (Model VIP378ER-12-1-ST).

3.2. Standard Features

The following standard features shall be included with all reclosers:

- 3.2.1. Three (3) epoxy insulated vacuum interrupter modules
- 3.2.2. One (1) magnetic actuator operator per phase, providing single or three phase operation
- 3.2.3. One (1) manual trip and lockout handle with mechanical block per phase, capable of physically blocking electronic and manual operation
- 3.2.4. Contact position indicator
- 3.2.5. Three (3) 1000:1 current transformers, encapsulated within the solid dielectric insulation, exclusively for use with the recloser control
- 3.2.6. Deadline Operation
- 3.2.7. Lifting provisions

3.3. Additional Features

The following additional features shall be included with all reclosers:

- 3.3.1. "L" style vacuum interrupter modules
- 3.3.2. Six (6) 800 Amp interfaces with screw-on silicone insulators

- 3.3.3. Aerial lugs included: NEMA-compliant two-hole lugs
- 3.3.4. Three (3) capacitively coupled voltage sensors, encapsulated within the solid dielectric insulation, exclusively for use with the recloser control
- 3.3.5. 30 foot control cable, with 32 pin connectors on both ends
- 3.3.6. Aluminum pole mount center bracket, with provisions for surge arrester mounting
- 3.3.7. Six surge arresters, site-ready (installed, wired, and grounded), rated at 12 kV
- 3.3.8. Two (2), oil insulated potential transformers included suitable for primary phase to ground connection at 14,400 Grd Y/8320 V and factory installed for control power (site-ready)
- 3.3.9. No primary potential transformer fusing to be included
- 3.3.10. Junction box for potential transformer connections
- 3.3.11. 30 foot potential transformer secondary cable for connection from the PT junction box to the control
- 3.3.12. Six (6) wildlife protectors

3.4. **Ratings**

The reclosers shall comply with the following ratings:

- a) Maximum design voltage15.5kV
- b) Impulse level (BIL)110kV
- c) Continuous and load break current.....800A
- d) 8 Hr. Overload at 20°C.....960A
- e) 60Hz Withstand, kV rms Dry, 1 min.....50kV
- f) 60Hz Withstand, kV rms Wet, 10 sec45kV
- g) Interrupting Rating RMS (kA)12.5kA
- h) Making Current, RMS, asym, KA.....20kA
- i) Peak, asym (kA)32kA
- j) Short Circuit Current, kA sym, 3 second12.5kA
- k) Mechanical Operations.....10K

3.5. **Recloser Controls**

3.5.1. **General**

Per DOP standards, recloser controls provided under this proposal shall be a custom Schweitzer Engineering Laboratories (SEL) 9163XXXX3605 detailed herein.

3.5.2. **Components**

Recloser controls shall consist of the following components:

- a) Base Control: The base controls shall be a Schweitzer SEL-0651R22D1GA8AE1122EKXX Base Control with 100W heater included.
- b) Security Gateway: The security gateway shall be a Schweitzer SEL-3622 – 3622XDE00XX1 Security Gateway with the following features:
 - 1) Power Supply: 12/24 VDC
 - 2) Rear Ethernet Connections: Two 10/1000 BASE-T
 - 3) Contact Input: 12 VCD Nominal
 - 4) Alarm Contact: Normally Open
 - 5) Conformal Coating: Conformal Coated Circuit Boards
- c) 100 W Heater for Single Door Enclosure (SEL 9250831)
- d) AC Transfer Switch (SEL 9250570)

3.5.3. **Spare Parts**

The option to purchase the following spare parts shall be included under this specification:

- a) G&W Electric VIP378ER-12-1-ST-SPR - Viper-ST Solid Dielectric Recloser – Complete Kit - Part Number D8706PT1LJU0
- b) G&W Electric VIP378ER-12-1-ST-SPR - Viper-ST Solid Dielectric Recloser – Recloser Only - Part Number D8706PT1LJV0
- c) G&W Electric B13415249C00 - Viper 30-foot Control Cable with 32-pin Connectors
- d) G&W Electric PLS128230015 – NEMA 2-Hole Lug
- e) G&W Electric A13413292DU0 – 1-kVA Oil-filled Potential Transformer
- f) G&W Electric A13415176000 - Standard Wildlife Protector
- g) G&W Electric PLS188870007 - 15-kV Insulator Kit
- h) Schweitzer Engineering Laboratories 9163XXXX3309 – Custom Recloser Control
- i) Schweitzer Engineering Laboratories 91500199 - 40 A-hr Replacement Battery Kit

DISTRIBUTION LINE RECLOSERS
Three-Phase, Pole-Mounted, 15 kV Max
Specification

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- j) Schweitzer Engineering Laboratories 3622XDE00XX1 - Security Gateway
- k) G&W Electric B13415261C00 – 30-foot, 8-pin Connectorized PT Cable