GE Network Transformers - Guide Form Specifications

Rating
Three phase – Self-cooled – 60 Hertz
Oil-immersed; R’Temp; Silicone
55/65C Rise 65C Rise

Select one
300kVA  1000kVA  2500kVA
500kVA  1500kVA  *3000kVA
750kVA  2000kVA  *step only

Select one
Vault Type [above ground – dry vaults]…………
Subway Type [below or above ground] ……….

Select one [primary voltage – max 34.4kV - 200BIL] - specify voltage -
Connected: Delta______________________________
Wye______________________________

Select one [tap changer for de-energized operation only]
Primary taps: None……………………………………
Four 2 1/2 % below……………………………………
Two 2 ½ % above & below…………………………
Specify______________________________

Select one [secondary voltage – max step BIL is 95kV]
216GrdY/125 volts……………………………………
208GrdY/120 volts……………………………………
480GrdY/277 volts……………………………………
Specify______________________________

Select one [neutral connection]
Standard solidly grounded low-voltage neutral blade ……
Insulated low-voltage neutral bushing……………………

Select one [primary disconnect and grounding switch-3 pole, 3 position, electrically interlocked-closed/open/grd. feeder]
Dead Break……………………………………
Mag-Break [break magnetizing current only]……
No Primary Switch………………………………

Select one [primary cable entrance--specify cable size]
Esna 200A wells, K1601, with hold down bracket.. …w/o.
Esna 600A bush, K600T1…………………………
Esna [specify]…………………………
Wipe sleeve – 3 single-conductor…. …(1) 3 conductor……
Stuffing box – 3 single-conductor…. …(1) 3 conductor……
Pothead – 3 single-conductor……… … (1) 3 conductor……

Options
Low voltage bushings bolted not welded……………………
Primary entrance bolted not welded……………………
Primary entrance on tank cover not terminal chamber……
Primary entrance on front not top of chamber…………
Hand Hole welded (ANSI) not bolted……………………
Ship can of terminal chamber compound with unit…………
Provide phasing probe openings…………………………
Provide viewing window for primary switch………………
Provide special interlock scheme [specification required]…..
Provide low voltage junction box [specify terminations]……
Provide thermometer with alarm contacts [specify]…………
Provide Qualitrol Relief [208-60, 10psi] on cover…………

Network Transformers:
Network Transformers are designed in accordance with ANSI C57.12.40 and constructed with the corrosion resistance equivalent of copper-bearing steel:
Cover and Base 0.50in thick
Tank wall and housings 0.312in thick
GE uses a special Network Transformer paint system for added corrosion resistance. Welded main cover, subbase, bushings, and liquid level gage are standard. Other valves, plugs, thermometer, etc are sealed threads. External hardware is austenitic stainless steel, silicon bronze or the functional equivalent. The finish is black and conforms to C57.12.32.
All characteristics, definitions, terminology, and voltage designations and tests, except as otherwise specified herein, shall be in accordance with the latest revisions of the following American National Standard Terminology, and Test Code for Distribution, Power, and Regulating Transformers:
General Requirements C57.12.00 (IEEE Std 462)
Terminology, C57.12.80
Test Code, C57.12.90
Loading, C57.92.19
Separable Connectors, IEEE Std 386
Terminal Markings and Connections, C57.12.70
Finish, C57.12.32
Subway Type Network Transformers are designed for frequent/continuous submersion and use flat panel radiators with the corrosion equivalence of 0.312 copper-bearing steel. Typical application is grid-type secondary network systems to serve high density load areas of cities. The Subway Type Network Transformer may also be used in dry vault applications if desired.
Vault Type Network Transformers are designed for dry vaults with occasional submersion using lighter weight panel radiators with the corrosion equivalence of 0.093 copper-bearing steel. Typical applications are skyscrapers, high rise apartments, large office or manufacturing facilities where the reliability of a Network System is required.
Standard Accessories

1. TERMINAL CHAMBER (with clamp terminals for No. 2-250 MCM conductor connection to switch)
2. H-V wipe sleeve(s), stuffing box(s), or bushings
3. Vent and level plug (1/4 – inch brass at 25 C level)
4. Filling plug (1-inch brass NPT)
5. Drain nipple (1-inch brass NPT)
6. Diagrammatic nameplate
7. H-V SWITCH
8. Switch handle
9. Filling plug (1-inch brass NPT)
10. Welded-on magnetic liquid-level indicator
11. Liquid sampler and air test (two 1/2 – inch NPT openings at 85 C and 10 C level with two 1/2 – inch Belknap No. 994 valves in air test opening)
12. Drain Valve and pipe plug (1 – inch NPT)
13. TRANSFORMER TANK (wall – 5/16 – inch thick; cover and base 1/2 – inch thick)
14. Thermometer with sealed tube (dial type without alarm contacts)
15. Welded – on magnetic liquid - level indicator
16. Liquid sampler and air test (two 1/2 – inch NPT openings at 85 C and 10 C level with two 1/2 – inch Belknap No. 994 valves in air test opening)
17. Drain and bottom filter valve (1 – inch NPT)
18. Grounding pad (5/8 – inch – 11 tap by 1 – inch deep)
19. Subbase (two 1 1/2 - inch high bars welded parallel to long axis)
20. Jacking provision (3 – inch clear space, 1 1/2 - inch high); jacking under 3/16 – inch subway panels is permissible
21. Lifting lugs (with hole for attaching 1 – inch clevis)
22. Panel radiators (subway type 5/16 – inch thick; vault type are stainless steel equivalent corrosion resistance of 3/32 – inch copper-bearing steel)
23. Tap changer (operating knob under 2 – inch NPT brass plug for operation with standard 1 1/8 – inch T – type hexagonal socket wrench)
25. Handhole (10 x 14 – inch) for access to L-V neutral connection. Gasketed cover unless otherwise specified. Note: ANSI is welded
26. L-V neutral (welded to tank, blade with 9/16 – inch holes on 1 3/4 - inch centers)
27. L-V flanged throat (for connection to protector)
28. L-V bushing terminals with flexible connectors
29. L-V bushing shipping guard
30. Support lugs for protector
31. Loops for lifting transformer cover