

Superbute™ Instrument Transformers

Substation Class Dry-Type Instrument Transformers



From the arctic cold, to the desert heat, to the salty coastal air. Through lightning, snow storms, and hail. Since 1965, Superbute dry-type transformers have given utilities superior performance and reliability in even the harshest of operating conditions. GE's Superbute products offer the following unique features:

Maximum Reliability

Unique design features such as GE's lattice wound primary coil and HyBute60™ insulating material provide for reliable operation and long service life. Proven field experience with field studies showing of 40 to 60 year life expectancy and observed field failure rates 3X better than traditional oil-filled transformers.

Improved Safety

GE's resilient butyl rubber insulation allows for a failure mode that is typically passive & self-contained, eliminating risks such as porcelain or metal projectiles, oil spills, or fire hazard, all which can accompany an oil-filled unit failure.

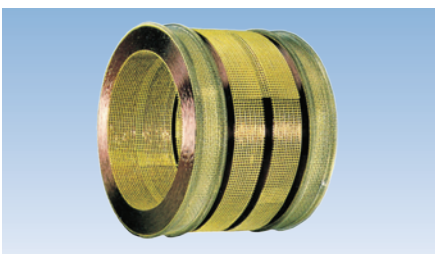
Mounting Convenience and Minimum Maintenance

Dry-type construction ends oil leakage problems. Tough butyl rubber will not easily chip or crack. Corrosion resistant construction defies moisture and oxidation. Smaller footprint, less height and less weight, high cantilever strength and no oil all allow for convenient installation onto existing structures.

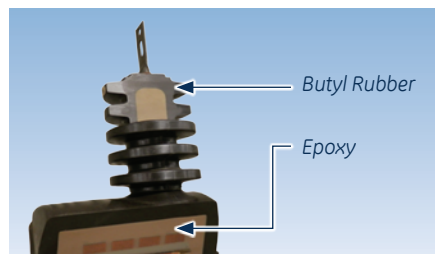
Extra Creep

Superbutes can be used in environmentally severe and high altitude applications, thanks to extra creep distance which exceeds that of any leading oil-filled design.

Advanced Rugged Design

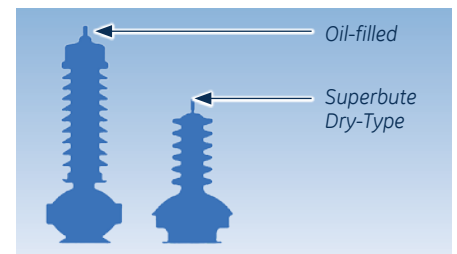


The primary coil is the most critical component of any voltage transformer. GE's lattice wound primary coil, patented in 1967, is the secret to the legendary durability of GE Superbute product.



Outer shell is HyBute60 butyl rubber; a hydrophobic, non-arc tracking material proven to be superior in handling mechanical and environmental extremes.

Internally filled with epoxy for high dielectric strength and mounting flexibility.



Even with their nice, compact size (up to 30% lower profile), Superbutes have more creep distance than oil-filled designs. This is an important factor in providing superior performance in coastal installations and other extreme environments.



Voltage Transformers

| MODEL | BIL (KV) | RATED PRIMARY VOLTAGE | NOMINAL SYSTEM VOLTAGE | RATIO (PRI:SEC) ¹ | THERMAL RATING 30°C AMB | CREEP DISTANCE | APPROX. WEIGHT (LB.) | | AVAILABLE IEEE METERING CLASSES AND BURDENS, 60HZ | |
|---|----------|-----------------------|------------------------|------------------------------|-------------------------|----------------|----------------------|-------|---|------------------------|
| | | | | | | | (SHIP) | (NET) | STANDARD | HIGH ACC. ² |
| Single Bushing (for line to ground connection, only) | | | | | | | | | | |
| JVS-150 | 150 | 14400 | 24000 | 120/200 & 120/200:1 | 3000VA | 27" | 270 | 230 | 0.3 ZZ | 0.15 Z |
| JVS-200 | 200 | 20125 | 34500 | 175/300 & 175/300:1 | 3000VA | 36" | 280 | 240 | 0.3 ZZ | 0.15 Z |
| JVS-250 | 250 | 27600 | 46000 | 240/400 & 240/400:1 | 5000VA ³ | 50" | 480 | 420 | 0.3 ZZ | 0.15 Z |
| JVS-350 | 350 | 40250 | 69000 | 350/600 & 350/600:1 | 5000VA ³ | 64" | 490 | 430 | 0.3 ZZ | 0.15 Z |
| Two Bushing (for line to line connection) | | | | | | | | | | |
| JVT-150 | 150 | 24000 | 24000 | 200 & 200:1 | 3000VA ³ | 26" | 265 | 225 | 0.3 ZZ | 0.15 Z |
| JVT-200 | 200 | 34500 | 34500 | 300 & 300:1 | 3000VA ³ | 36" | 275 | 235 | 0.3 ZZ | 0.15 Z |
| JVT-250 | 250 | 46000 | 46000 | 400:1 | 4500VA | 52" | 580 | 520 | 0.3 ZZ | 0.15 Z |
| JVT-350 | 350 | 69000 | 69000 | 600:1 | 4500VA | 66" | 620 | 560 | 0.3 ZZ | 0.15 Z |

- To achieve 5000VA when using a 67.08 volt tap, loading must not exceed 3000VA on the 67.08 volt tap. If all load is on one 67.08 volt tap, thermal rating is 4000VA.
- With both secondary windings in parallel. When windings are used separately, the rating is 1500VA per winding. If only one winding is used separately, the rating is 2000VA.

JVS-200



JVT-200

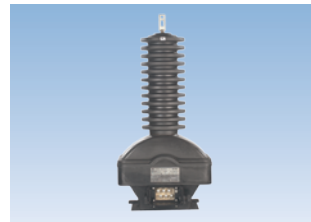


Current Transformers

| MODEL | BIL (KV) | NOMINAL SYSTEM VOLTAGE | RATIO (PRI:SEC) ¹ | CREEP | APPROX. WEIGHT (LB.) | | AVAILABLE IEEE METERING CLASSES AND BURDENS, 60HZ | |
|---------|----------|------------------------|--|-------|----------------------|-------|---|--|
| | | | | | (SHIP) | (NET) | STANDARD | HIGH ACC. ² |
| JKW-150 | 150 | 24000 | 25/50:5 50/100:5 75/150:5 100/200:5 | 26" | 378 | 323 | 0.3 B1.8 (both ratios) | 0.15S B0.5 (high ratio ³) |
| JKW-200 | 200 | 34500 | 150/300:5 200/400:5 300/600:5 | 35" | 403 | 348 | | |
| JKW-250 | 250 | 46000 | 400/800:5 500/1000:5 600/1200:5 | 48" | 633 | 543 | | |
| JKW-350 | 350 | 69000 | 800/1600:5 1000/2000:5 1500/3000:5 | 64" | 683 | 593 | | |

- Also available as single ratio, upon request.
- Contact factory for availability of "Extended Range", 0.15% accuracy from 1% of rated primary current thru rating factor.
- Low ratio (tap) is rated 0.15 B0.5 if primary current is less than 600A, otherwise 0.15S B0.5.

JVS-350



JVT-350



JKW-200



JKW-350



Current Transformer Relay Class (60Hz), Thermal & Mechanical Ratings

| CONNECTION | RATED PRIMARY AMPS | RELAY CLASS | RATING FACTOR, 30°C AMBIENT | ONE SECOND THERMAL LIMIT AMPS | MECHANICAL LIMIT AMPS |
|------------|--------------------|-------------|-----------------------------|-------------------------------|-----------------------|
| High Ratio | 50A thru 2000A | T400 | 1.5 | 75 x Rated | 85 x Rated |
| (X1-X3) | 3000A | T800 | 1.33 | 75 x Rated | 85 x Rated |
| Low Ratio | 25A thru 1000A | T200 | 2 | 75 x Rated | 170 x Rated |
| (X2-X3) | 1500A | T400 | 1.5 | 75 x Rated | 170 x Rated |

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