

DT1-72.5

Dead Tank Circuit Breakers for 72.5 kV

The DT1-72.5 is suitable for applications up to nameplate ratings, including definite purpose ratings, and is uniquely qualified under the latest IEEE/ANSI and IEC standards as C2 class for capacitance switching including back-to-back (very low restrike probability) and reactor switching applications. Extensive mechanical operation design testing ensures trouble-free operation for the lifetime of the circuit breaker. Intensive production leak testing ensures superior in-service SF₆ performance.

Gas Tightness Guarantee

Grid Solutions' at GE Vernova is an industry leader in SF₆ gas tightness testing technology including seals, castings, and plumbing systems. Each breaker is factory tested using our proprietary gas tightness testing system which provides measurable, quantifiable test results on the breaker in its fully assembled, as-shipped condition.

Certified Quality

Grid Solutions designs, manufactures, tests, and delivers its dead tank circuit breakers in accordance with the latest IEEE/ANSI and IEC standards, maintaining a quality assurance system according to ISO-9001 and ISO 14001 certifications. The center of excellence for dead tank circuit breakers is located in Charleroi, PA (USA).

Flexibility for New and Retrofit Applications

The compact DT1-72.5 design can be used in new or retrofit applications. The three-pole circuit breaker forms a complete, fully assembled, factory-tested, transportable unit. The on-site installation requires only a few simple steps. For installations where truck shipment is impossible, the DT1-72.5 can be readied for standard container shipment as a fully assembled unit.

Enhanced Installation and Maintenance

The DT1-72.5 is factory tested and adjusted. It does not need any special tools for the installation. With a self-contained adjustable support structure, it is recognized worldwide as an easy to install circuit breaker. Due to the low-energy mechanism and lifetime lubricants, the DT series is virtually maintenance-free.



Main Characteristics

- Advanced self-blast interrupters
- Leak-resistant cast aluminum enclosures
- Durable low energy spring-operated mechanisms
- More than 100,000 circuit breakers with self-blast interrupters and FK spring-operated mechanisms in service since 1989

Key Benefits

- Proven reliability
- High performance
- ISO quality systems
- Near-zero maintenance
- Over 20 years of service experience and over 10,500 units in service worldwide

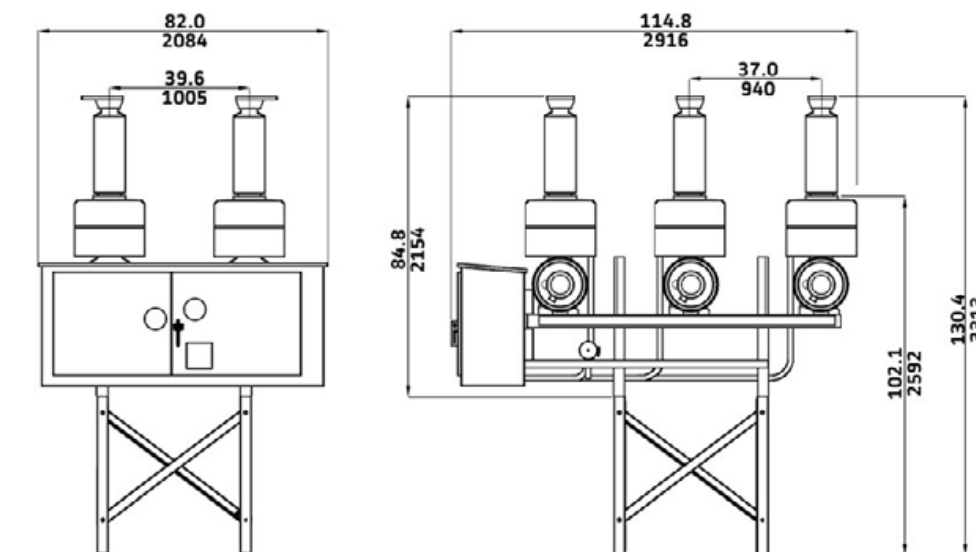
Soon SF₆-free

- As part of GRiDEA, our portfolio of solutions to decarbonize the electrical grids, we develop a SF₆-free version of the DT1-72.5 circuit-breaker



GE VERNOVA

Dimensions



Technical Data

	VALUE	UNITS
SF ₆ pressure	67/0.46	psing/MPa
Motor	1,600	watts
Close coil/Trip coil	440/440	watts
Ambient temperature range*	-40 to +50	°C
Seismic capability*	High Seismic per IEEE 693	
Weight (without current transformers)	2,700/1,227	lb/kg
Weight of SF ₆	29/13	lb/kg

*Optional values available upon request.

Ratings

IEEE/ANSI	IEC	VALUE	UNITS
Rated maximum voltage	Rated voltage	72.5	kV
Rated power frequency	Rated frequency	50/60	Hz
Rated dielectric withstand capability: • dry withstand • wet withstand	Rated insulation level • at power frequency, dry • at power frequency, wet	160 140	kV kV
Rated lightning impulse withstand voltage	• at lightning impulse	350	kV
Rated chopped wave impulse voltage 2us/3us		452/402	kV
Rated continuous current	Rated normal current	1,200/2,000/3,000	A
Rated short-circuit current	Rated short-circuit making current	40	kA
Rated closing, latching and short time carrying current		108	kA
	Rated short-circuit making current	100	kA
Rated interrupting time		3	cycles
	Rated break time	50	ms
Rated standard operating duty	Rated operating sequence	O-CO-15s-CO O-0.3s-CO-180s-CO	

*Standard values: further data is available upon request. **Please contact Grid Solutions for special purpose, high TRV, high X/R or other rating requirements.

Gas Data

The functioning of this equipment relies upon SF₆, a fluorinated greenhouse gas.

	SF ₆
Average mass of gas/mixture in the equipment (kg)*	13.9
GWP ₁₀₀ of gas/mixture (CO ₂ -equivalent)	24,300
CO ₂ -eq of gas/mixture in the equipment (t _{co2-eq})*	337.8

* For information purposes only. It varies depending on the equipment considered.

For more information, visit
gevernova.com/grid-solutions

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