



# DT1-245 F3

## Dead Tank Circuit Breaker for 245 kV

Circuit breakers are key to ensuring network reliability and safety in your substation. The DT1-245 F3 is a rugged performer for 50 or 63 kA applications.

### Range

The DT1-245 F3 leverages GE's technology and in-service experience by utilizing interrupter design from the durable T155 gas-insulated switchgear and DT2-550 dead tank circuit breaker. Extensive mechanical operation design testing assures trouble-free operation for the lifetime of the circuit breaker.

The DT1-245 F3 is available for single pole operation (IPO). The standard temperature application for low temperature areas is  $-30\text{ }^{\circ}\text{C}$  without any heating systems. Utilizing either tank heaters or a mixed gas design, the DT1-245 F3 dead tank circuit breaker can be installed in regions with temperatures as low as  $-60\text{ }^{\circ}\text{C}$ .

### Spring-Spring Mechanism

The reduced energy requirements of the breaking chamber allows for the utilization of the world class FK spring-spring mechanism. The combination of the proven FK drive mechanism and interrupter technology results in a significant reduction of reaction forces, thus reducing foundation design requirements.

### Certified Quality

GE designs, manufactures, tests and delivers its 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.

### Installation and Maintenance

The DT1-245 series is factory tested and prepared for shipment with bushings assembled and prefilled with  $\text{SF}_6$  gas, therefore the on-site installation requires only a few simple steps without requiring any special tools.

The DT1-245 circuit breaker range has lower maintenance costs and requirements, thanks to an engineering and design philosophy that has focused on these key needs since the inception of the development process.

## Main Characteristics

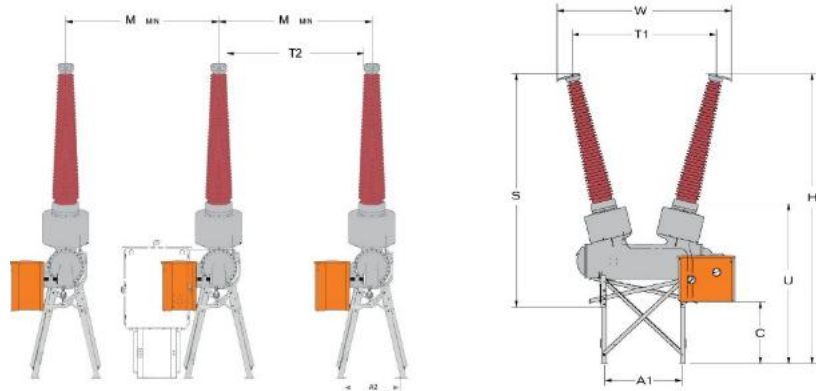
- Advanced self-blast interrupters
- Leak resistant cast aluminum enclosures
- Durable low energy spring-operated mechanisms
- More than 100,000 circuit breakers with self-blast interrupters and FK spring-operated mechanisms in service since 1989

## Key Benefits

- Field-proven reliability
- High performance up to 63 kA
- Fast and easy on-site installation
- Environmentally-friendly solution with reduced  $\text{SF}_6$  gas volume



## Dimensions



## DT1-245 F3

	mm	in
A1	1,245	49
A2	862	33
C	1,002	39
H	4,698	185
S	3,785	149
T1	2,338	92
T2	2,050	80
U	2,592	102
W	2,880	113
M	2,285	90

## Ratings

IEEE/ANSI	IEC	Value	Units
Rated maximum voltage	Rated voltage	245	kV
Rated power frequency	Rated frequency	50/60	Hz
Dry withstand	At power frequency: dry	425/460	kV
Rated lightning impulse withstand voltage	At lightning impulse	900/1,050	kV
Rated chopped wave impulse voltage 2us		1,160	kV
Rated continuous current	Rated normal current	3,000/4,000/5,000	A
Rated short-circuit current	Rated short-circuit breaking current	up to 63 (capacitance required)	kA
Rated closing, latching and short time carrying		164	kA
	Rated short-circuit making current	164	kA
Rated capacitance switching*			
Rated interrupting time		3	cycles
	Rated break time	50	ms
Rated standard operating duty		O-0,3s-CO-15s-CO	

\* Ratings available upon request \*\* Contact GE for special purpose, high TRV, high X/R or other ratings requirements.

## Technical Data

	Value	Units
Ambient temperature range*	-30 to +40	degree C
Seismic withstand in accordance with IEEE 693-2005		
Creepage distance	168/4,200	inches/mm
Closing resistor (optional)*		
Weight (without current transformers)	12,000/5,454	lbs/kg
Weight of SF <sub>6</sub>	189/86	lbs/kg

\* Alternate values upon request

For more information please contact  
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Imagination at work