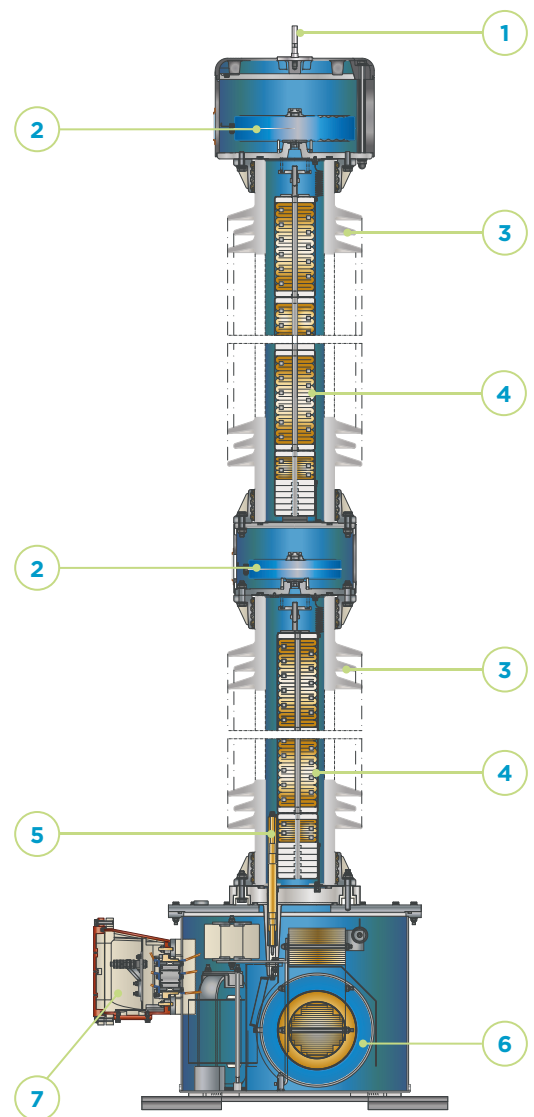


DDB/DFK SERIES

Capacitive voltage transformer:
 model DDB 72.5 kV to 170 kV;
 model DFK 245 kV to 800 kV.



1. Primary terminal
2. Oil volume compensating system
3. Insulator
4. Capacitors
5. Intermediate voltage tap
6. Inductive voltage transformer
7. Secondary terminal box



DESIGN AND MANUFACTURING

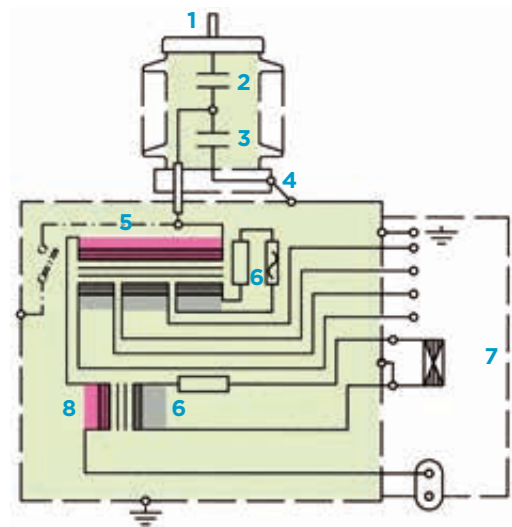
Capacitive voltage transformers consist of a number of capacitors connected in series on top of a tank in which the electromagnetic unit (EMU) is housed. The EMU includes an inductive transformer (5), a series reactor (8) and other auxiliary elements. These capacitors form a voltage divider (2, 3) between the high voltage terminal (1) and the high frequency terminal (4).

The capacitors, impregnated with high grade dielectric oil, are housed within one or more insulators. Each of them forms an hermetically sealed independent unit, with a very stable capacitance over time.

The high frequency terminal (4) for the PLC signal comes out of one side through a piece of resin that separates the capacitive unit from the inductive voltage transformer.

The medium voltage inductive voltage transformer is immersed in mineral oil and housed inside an hermetically sealed metallic tank.

The secondary terminals are located inside the secondary terminal box (7) enabling connection; sufficient space is available to install protection elements such as fuses or circuit breakers.



1. Primary terminal
2. Capacitors (C1)
3. Capacitors (C2)
4. High frequency terminal
5. Inductive voltage transformer
6. Ferroresonance suppression circuit
7. Secondary terminal box
8. Compensating reactor

CHARACTERISTICS

- › High stability of capacitance, and therefore of accuracy, steady for the operational life of the equipment, with maximum reliability.
- › Up to 4 secondary windings with or without taps, with metering, protection, or dual function.
- › Reliable ferroresonance suppression system that does not affect transient response or accuracy.
- › Robust mechanical strength.
- › Excellent response under extreme environmental conditions: Temperatures from -60°C up to +60°C, high altitudes, seismic hazard areas, violent winds, etc.
- › Maintenance-free throughout their complete lifespan of more than 30 years. Only periodic monitoring is recommended.
- › Oil sampling valve and EMU oil level indicator for monitoring.
- › Hermetically sealed to guarantee complete water tightness with the minimum volume of oil. Each unit is tested individually.
- › Metallic oil level compensating system that effectively regulates changes in oil volume mainly caused by temperature.
- › Officially homologated in-house testing facilities.
- › Quality management system certifications: ISO9001, ISO14001 and OHSAS 18001.
- › Each unit is routine tested following applicable standards.
- › Complete type tests reports following international standards.
- › Compliance to any international or domestic standards.
- › Environmentally friendly. The materials used for construction are recyclable and resistant to the elements. Its advanced design adheres to environmental regulations using high-quality insulating oils, free of PCBs.
- › Reduced size due to a compact design that is easy to transport, store and install, and which reduces visual impact.

OPTIONS:

- › Carrier accessories for HF signal transmission.
- › Line trap mounted on top of the CVT.
- › EMU grounding switch.
- › PQSensor® for HF harmonic measurement.
- › Porcelain or polymeric insulators.
- › Sealable secondary terminals.
- › Different cable glands and accessories.
- › Wide range of capacitance values available.
- › Wide range of primary and secondary terminals.
- › Secondary protection devices inside the terminal box (fuses, MCBs...).

RANGE

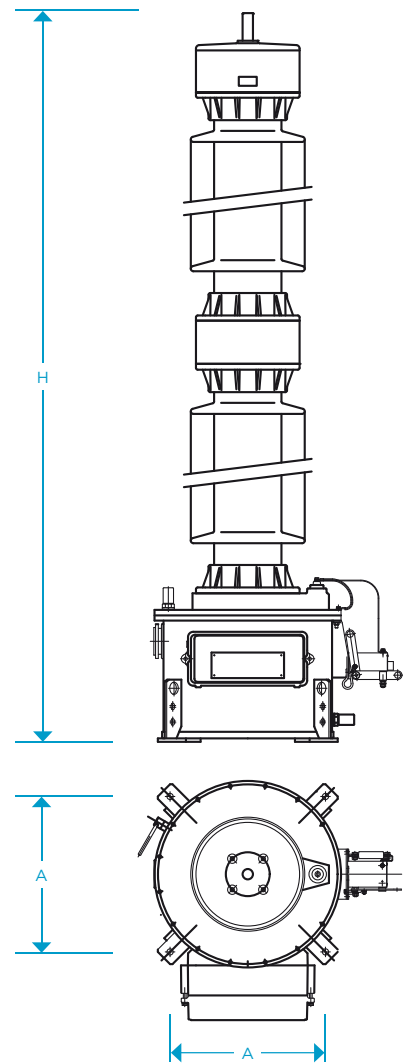
This series is named with the letters DDB or DFK followed by 2 or 3 numbers indicating the maximum service voltage for which they have been designed.

The table on the next page shows the range currently manufactured by ARTECHE. These characteristics are merely indicative. ARTECHE can manufacture these transformers to comply with any domestic or international standard.

Secondary windings for:

- › Protection: all possible types.
- › Metering: accuracy classes for any metering/billing need (including high accuracy class 0.1 / 0.15 with extended range in current).

Number of secondary windings: up to 4 secondary windings are possible in a single device.



Capacitive voltage transformers										
Model	Highest Voltage (kV)	Rated insulation level			Standard capacitance (pF)	High capacitance (pF)	Standard creepage distance (mm)	Dimensions		Weight (kg)
		Power frequency (kV)	Lightning impulse (BIL) (kVp)	Switching impulse (kVp)				A (mm)	H (mm)	
DDB-72	72.5	140	325	-	10300	25500	1825	450	1510	245
DDB-100	100	185	450	-	5700	14300	2500	450	1600	255
DDB-123	123	230	550	-	5600	14000	3075	450	1830	300
DDB-145	145	275	650	-	3900	19500	3625	450	1920	310
DDB-170	170	325	750	-	7500	16500	4250	450	2065	330
DFK-245	245	460	1050	-	5800	11000	6125	450	2885	450
		395	950							
DFK-300	300	460	1050	850	6000	12500	7500	450	3205	480
DFK-362	362	510	1175	950	4500	10100	9050	450	3675	520
DFK-420	420	630	1425	1050	3500	7700	10500	450	4595	670
		575	1300	950						
DFK-525	(525) 550	680	1550	1175	3000	6200	13125	450	5560	1065
		800	1800	1175						
DFK-765	(765) 800	880	1950	1425	3000	4500	15300	450	7010	1270
		975	2100	1550						

These dimensions and weights are approximate based on standard requirements.

For detailed values please consult with Arteche.

Higher capacitances available on request.