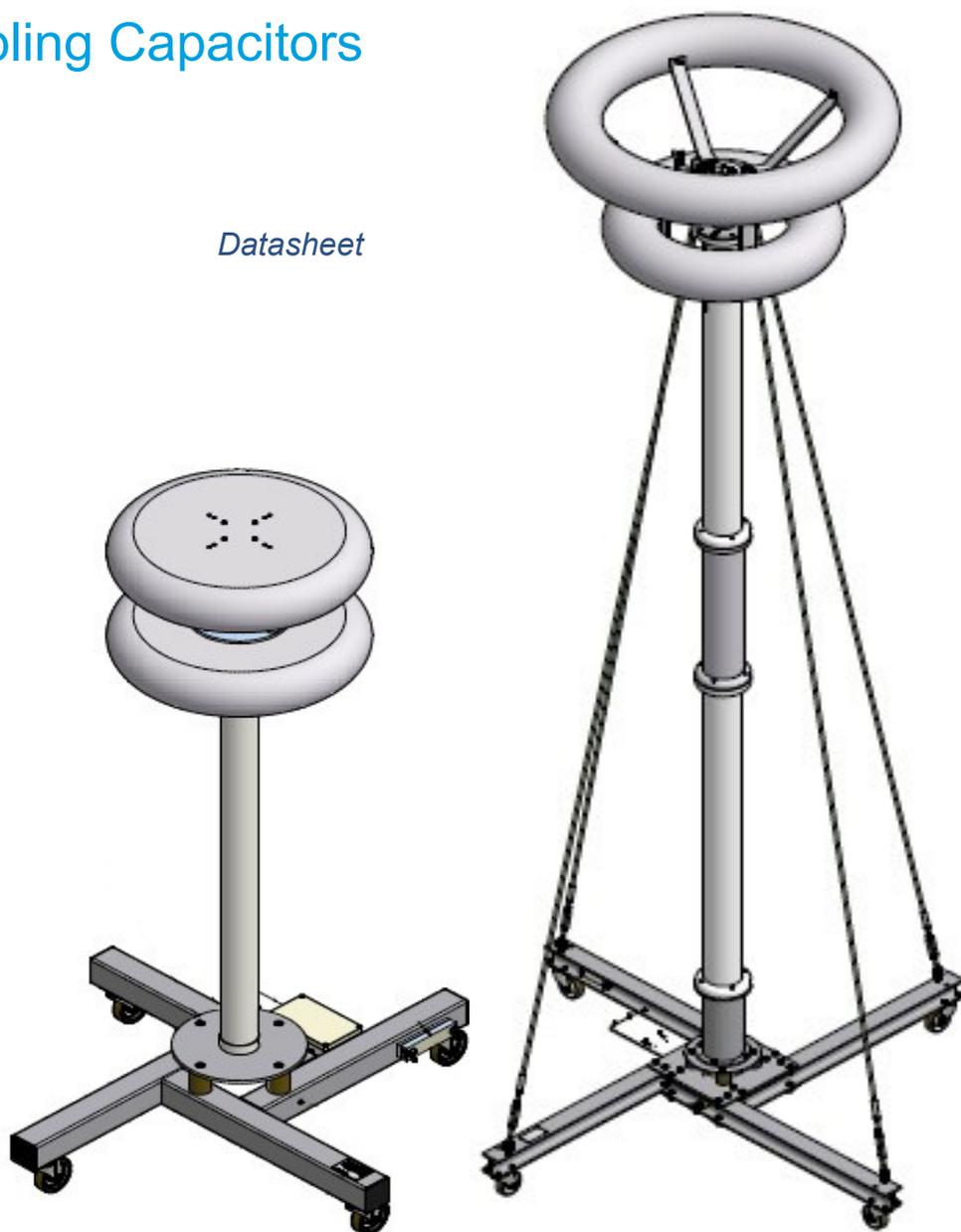




KK

Coupling Capacitors

Datasheet



HAEFELY

Current and voltage – our passion

General Description

The coupling capacitors of the series KK or TK consist of 1 or more modular units, built into glass fibre reinforced epoxy tubes. Their applications are:

- providing a base load for high voltage AC resonant test systems (KK only).
- the separation of the partial discharge signal from the high voltage.
- measuring AC voltages in the industrial frequency range.
- attenuating interferences coming from the HV side (together with a HV inductance, KK only)

The standard base frame is fitted with castors for mobility (from 100 kV). Upon request, large and heavy versions can be equipped with air cushions.

They are built for indoor use. with a double toroid electrode if they shall be used with large HV connections or act as HV filters.

HIGH VOLTAGE FILTERS FOR KK SERIES

By adding optionally an inductance to the coupling capacitor, they form the high voltage filter KKF, which attenuates interferences coming from the high voltage reactor / transformer side.

The high voltage filter inductance is connected between the reactor / transformer and the coupling capacitor or between two coupling capacitors.

-Typical insertion loss ($50 \Omega / 50 \Omega$ at 40 kHz - 400 kHz): $\geq 20\text{dB}$

Technical Data

Type KK	Voltage kV	Capacity nF	PD Level at Un pC	Type	Height approx. mm	Diameter top electrode approx. mm	Base frame dimension < approx. mm	Weight net approx. kg
300-1	300	1	≤ 1	B	2540	800	1510	130
300-2	300	2	≤ 1	B	2600	660	1500	180
300-4	300	4	≤ 1	B	3170	660	1500	220
400-1	400	1	≤ 2	B	2870	1200	1510	160
400-2	400	2	≤ 2	B	3220	1200	1500	270
400-4	400	4	≤ 2	B	3220	1200	1500	270
400-7	400	7	≤ 2	B	3220	1200	1500	270
400-10	400	10	≤ 2	B	3700	1200	1500	300
500-5	500	5	≤ 3	C	4550	1900	2030	490
600-1	600	1	≤ 3	C	5640	1960	3060	690
600-2	600	2	≤ 3	C	4485	1960	2000	460
800-0.5	800	0.5	≤ 5	C	6180	2200	3060	700
800-1	800	1	≤ 5	C	6180	2200	3060	750
800-3.5	800	3.5	≤ 5	C	5930	1900	3100	650

Technical Data Filters

Type	Inductivity mH	Max. current A	Weight approx kg
F 70-8	70	8	20
F 100-20	100	20	33
F 140-8	140	8	20
F 150-15	150	15	20
F 330-10	330	10	30
F 500-4	500	4	30
F 600-2	600	2	35

MEASURING OF PARTIAL DISCHARGES

By adding a coupling quadripole (option), the coupling capacitor can be used for measuring partial discharges

Haefely or third-party Coupling impedances can be used

MEASURING OF AC VOLTAGES

The secondary unit type SEK AC (option) with standard output voltage 140 V RMS is used for voltage measurements with a DMI 551 or with a control unit OT 248 and OT 257.

COLOURS

- Insulating parts grey-white RAL 9002
- Top electrode brushed aluminum

BASIC SCOPE OF SUPPLY

High voltage coupling capacitor unit(s)

- Mobile base frame
- Top electrode
- Struts if required

CALIBRATION

Our basic standard for calibrating each coupling capacitor is a PTB (Germany) calibrated internal standard. A HV divider should be re-calibrated every year. Haefely can provide these services, in our Basel works or on-site.

ROUTINE TESTS IN THE FACTORY

Typically, capacitance, $\tan \delta$ and partial discharge values are tested before and after the 1,1 U_n over-voltage test.



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