

Reference Impulse Divider Type RCZ 500 REF and R 500 REF



Application

Reference dividers are used for comparative measurements for the calibration of measuring systems.

Reference dividers type RCZ are designed for the calibration of voltage dividers for AC, DC, full and tail chopped impulse voltages. Of course they can be used for normal measurements also.

Reference dividers type R are designed for the calibration of voltage dividers for full and front-chopped lightning impulse voltages. Also R dividers can be used for normal measurements.

Reference dividers by Haefely meet all requirements of IEC 60060-2 (1994), in particular those with respect to measuring accuracy and step response.

Design

The active part of the high voltage unit of dividers type RCZ consists of one oil-filled capacitor which is housed in a cylinder made from glass fibre enforced epoxy resin. A series damping resistance is inserted between the capacitor elements of the unit and acts as distributed internal resistive element. A further resistor is arranged in parallel with these RC elements.

The active part of the high-voltage unit in the R 500 REF forms a low-inductance resistor consisting of CrNi wire wound on a core which is housed also in a glass fibre enforced epoxy resin cylinder.

The reference divider type R is equipped with a special HV electrode to guarantee corona-free operation.

The secondary unit consists of a damping resistor of low inductance and for the divider type RCZ an additional capacitor both arranged in a coaxial design. The unit is fixed at the bottom of the divider and can easily be disassembled.

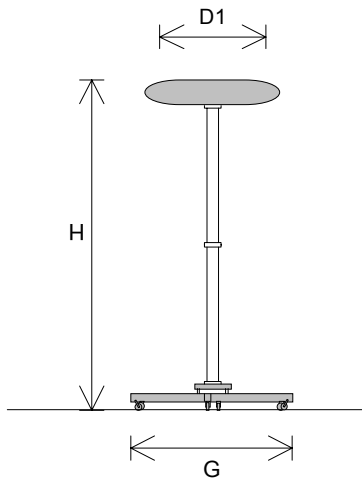
The reference divider is erected on a four-arm base equipped with castors. It is designed for indoor design.

Technical Data

Type	Rated L.I. and S.I. impulse voltage kV	Rated AC voltage, 50/60 Hz, cont. duty kV RMS	Rated DC voltage cont. duty kV	Primary capacitance pF	Primary resistor Ω	Primary parallel resistor M Ω	Damping resistor Ω
RCZ 500 REF	500	180	180	500	400	225	300
R 500 REF	500	-	-	-	5000		300

Dimensions, weights & clearance

Type	Height H m	Base frame G cm	Electrode type d1/D1	Net weight approx. kg	Gross weight sea approx. kg	Shipping volume approx. m ³	Clearance to walls and ceiling m
RCZ 500 REF	2	120	--	170	400	2.0	2.0
R 500 REF	1.9	80	R 40/890	100	300	2.0	1.9



Divider Ratio

The divider ratio is designed to achieve an output voltage of approx. 1400 V at rated lightning impulse voltage. This value was chosen as the standard input voltage for impulse measuring systems from Haefely Test in order to reduce the influence of electromagnetic interferences. Upon request the dividers can be supplied with other ratios or with an attenuator to match the input voltage of other measuring devices.

Step Response

The unit step response of the dividers is adjusted to meet the requirements of IEC 60060-2 (1994).



12.2003

Subject to technical modifications without notice.

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