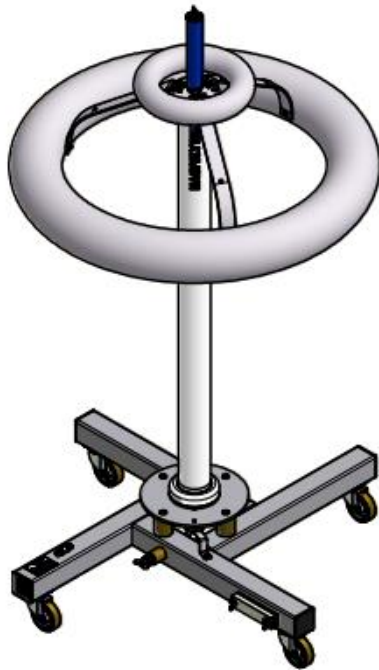


R-DIVIDER

Resistive Impulse Divider



R 700

APPLICATIONS

Resistive voltage dividers have very good response parameters. Therefore they are used for measurements of full and front chopped lightning impulses or impulse voltages with steep wave fronts.

The transformation ratio and transfer behaviour of R divider fulfils the IEC 60060-2 requirements, in particular those with respect to measuring accuracy and dynamic behaviour. The divider components are designed in such a way that the transfer errors are negligible for the lightning impulse shapes.

Resistive voltage dividers are generally used when an additional capacitance in the test circuit is not permissible due to the slowdown effect on the rise time. Therefore it can't be served as a load capacitor for the impulse generator.

DESIGN

The high voltage resistors made of anti-inductively wound CrNi wire. For dividers with a rated lightning impulse voltage above 200 kV the high voltage resistors are housed in cylinders made from glass fibre reinforced epoxy resin. For these dividers the pure ohmic divider comprises also of an external damping resistor.

Above 150 kV rated lightning impulse voltage the dividers are equipped with toroidal HV electrodes to guarantee corona free operation.

The secondary unit is fitted with LEMO connector. It consists of resistors of low inductance arranged in a coaxial design. The unit is fixed at the bottom of the divider and can easily be disassembled.

The voltage divider is designed for indoor operation. Dividers above a rated lightning voltage of 200 kV are erected on a four-arm base equipped with castors.

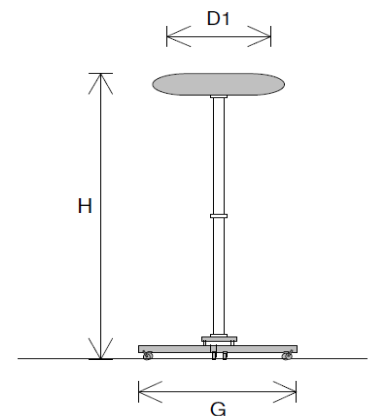
DIVIDER RATIO

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 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.



TECHNICAL DATA

Type	Rated L.I. voltage 1.2/50 μ s kV	HV Resist. approx. k Ω	Dampin g res. ext. approx. Ω	Exp. Resp. time TN typical value ns	Part. Resp. time T α typical value ns
R 50	50	2.5	--	< 10	< 12
R 100	100	2.5	--	< 10	< 12
R 150	150	2.5	--	< 10	< 12
R 200	200	5.0	240	< 10	< 12
R 300	300	5.0	240	< 15	< 17
R 400	400	5.0	240	< 20	< 23
R 500	500	7.5	240	< 25	< 28
R 600	600	7.5	300	< 30	< 35
R 800	800	7.5	300	< 35	< 40
R 1000	1000	7.5	300	< 35	< 40
R 1200	1020	9.0	350	< 40	< 46
R 1400	1400	10.5	350	< 45	< 50
R 1600	1600	12.0	300	< 50	< 55
R 1800	1800	13.5	350	< 55	< 60
R 2000	2000	15.0	350	< 60	< 65

Other ratings are available on request.

DIMENSIONS & WEIGHT (APPROX. VALUES)

Height H cm	Base frame G cm	Net Weigh t kg	Gross weight sea kg	Shipping Volume m ³
60	20	30	120	1.4
60	20	30	120	1.4
60	20	30	120	1.4
145	50	60	170	2.0
145	50	60	180	2.0
180	50	80	220	2.2
240	50	90	240	2.5
240	50	90	250	2.5
270	70	100	270	3.0
290	70	110	280	3.2
350	85	120	350	3.2
390	85	160	600	3.5
430	120	220	650	6.0
470	120	270	700	8.0
510	120	300	700	9.0


R 100

R 600

Sold & Serviced in USA by:



HV TECHNOLOGIES, Inc.

8526 Virginia Meadows Dr.

Manassas, VA 20109

(703) 365-2330

www.hvtechnologies.com
hvsales@hvtechnologies.com