

High Voltage Ceramic Capacitor Multiplier Sets With Leads, Class 2 Ceramic



QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Ceramic Class	2
Ceramic Dielectric	R4000 (Y5U)
Type	RHK...
Voltage (V_{DC})	8000, 10 000
Min. Capacitance (pF)	120
Max. Capacitance (pF)	1400
Mounting	Leaded

DESCRIPTION

Voltage multipliers are AC/DC power conversion devices, comprised of diodes and capacitor stacks, that produce a high potential DC voltage from a lower voltage AC source. Multipliers consist of multiple stacks of up to 14 stages. Each stage is comprised of one diode and one capacitor. A high-frequency generator supplies the input AC voltage via a ferrite transformer.

Output DC voltage up to 100 kV or higher can be produced, depending on the number of stages.

The most common type of voltage multiplier is the half-wave multiplier, also called the Villard cascade.

Another multiplier is the full-wave, also called the Delon circuit.

Vishay has the product lines to offer customized voltage multiplier sets:

- Build up to 14 stages or more
- Circuits are completely assembled and soldered with HV diodes / resistors and screwed connections

Please contact us. Our design team will work with you to find an individually solution.

FEATURES

- High voltage ratings
- Compact design
- Small sizes
- Many customized solutions available
- Voltage multipliers
- Completely assembled cascades with stacks and diodes

APPLICATIONS

- Electrostatic paint spraying

The major applications are x-ray equipment for:

- Medical diagnosis
- Dentistry x-ray application
- Industrial x-ray for material control
- Airport security x-ray scanner

CAPACITANCE RANGE

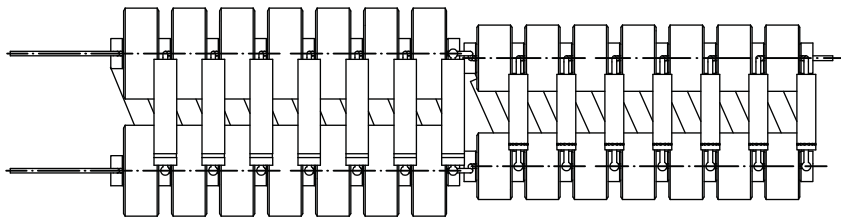
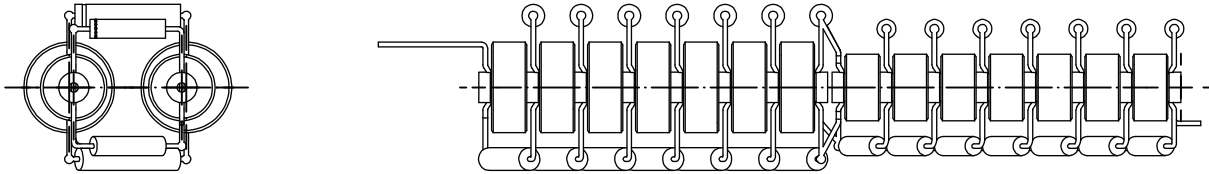
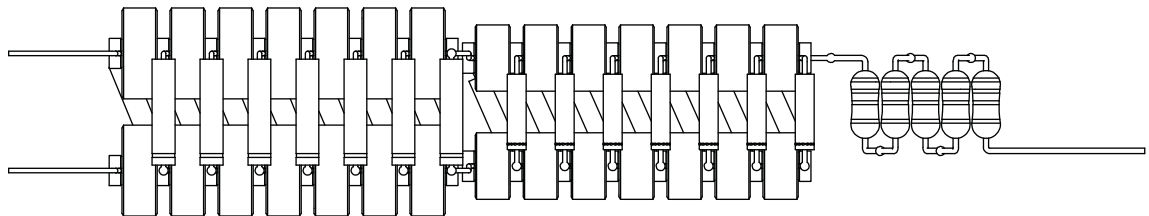
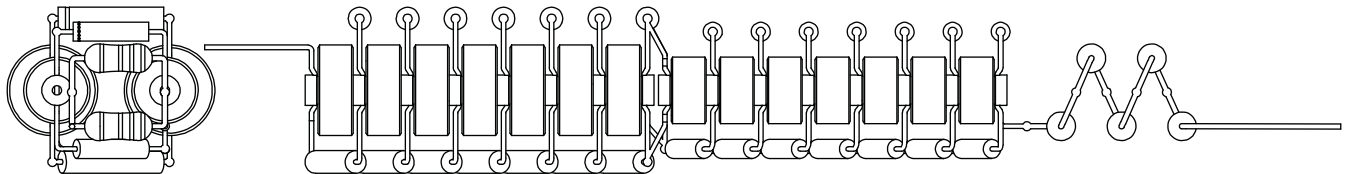
120 pF to 1.4 nF per single disc

CERAMIC DIELECTRIC

R4000 (Y5U)

RATED VOLTAGE

- 8.0 kV_{DC} per single disc
- 10 kV_{DC} per single disc

EXAMPLE WITH DIFFERENT SIZES OF DISCS

EXAMPLE WITH RESISTORS

Note

- For singlestacks see overview: www.vishay.com/capacitors/ceramic/voltage-multipliers/

RELATED DOCUMENTS

General Information

www.vishay.com/doc?22090



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