

# High Voltage Ceramic Capacitors



## HP/HW/HK Type – Strontium-based Dielectric

### FEATURES

- Excellent behavior on pulse and fast discharge conditions
- Excellent capacitance vs voltage characteristic
- Low dissipation factor
- Very low Corona effect
- Coated and uncoated devices available

### APPLICATIONS

- High-voltage supply for gas lasers
- High-voltage dividers
- Marx generators
- Power generators
- High-voltage power supply
- High-voltage coupling devices
- Power line coupling system for Internet & Telecom

### TECHNOLOGY

- **HP** range: Coated capacitor with fixtures
- **HW** range: Uncoated capacitor with fixtures
- **HK** range: Uncoated capacitor without fixtures
- Fixtures: M5
- Marking: on each part: type – capacitance – rated voltage
- Delivery mode: bulk in carton box
- Dielectric Type II: N4700 class (see typical curves page 13)



### DIELECTRIC CHARACTERISTICS

TPC code	E
Dielectric class (DIN)	N4700
Operating temperature range (°C)	-30/+85°C
Capacitance change with temperature (%)	+22/-33%
Typical dielectric constant	1850
Dielectric strength kV <sub>DC</sub> /mm	8.0
Dissipation factor (1kHz/1V <sub>RMS</sub> /20°C)	20.10 <sup>-4</sup>
Insulation resistance (1000V <sub>D</sub> /20°C/60s)	>100GΩ

### ELECTRICAL CHARACTERISTICS

Rated voltage (V <sub>R</sub> )	15 to 100 kVdc*
Test voltage (V <sub>E</sub> ) (50Hz, in oil, 60s)	12 to 80 kVrms
Operating Temperature ranges	-30 +85°C
Temperature characteristic	N4700
Dissipation factor (20°C, 1kHz, 1V <sub>RMS</sub> )	<20.10 <sup>-4</sup>
Insulation resistance (1000V <sub>D</sub> /60s)	>100GΩ
Capacitance range (20°C – 1kHz – 1V <sub>RMS</sub> )	195pF to 5600pF
Tolerance	Standard: ±20% On request: ±10%
Self-inductance	L <sub>S</sub> ≤ 30nH

\*up to 150kVdc: upon request

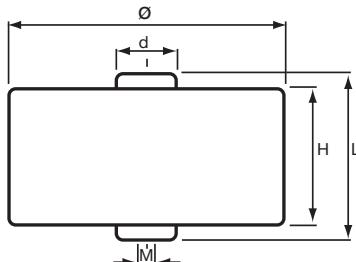
# High Voltage Ceramic Capacitors



## HP/HW/HK Type – Strontium-based Dielectric

### HP RANGE: COATED DEVICES WITH FIXTURES

### REFERENCES – VOLTAGE AND CAPACITANCE RANGE



All fixtures: M5  
(0.197)

Part Number	Rated Voltage kVdc	Rated Voltage kVrms	Test Voltage kVrms	Corona Inception Voltage (kVrms) (<10pc)	Capacitance ±20% (pF) ±10% on request	Dimensions millimeters (inches)				Packaging Unit	
						Ø ± 1	d	L ± 1	H ± 2		
HP30EX0561M - -	15	10	12	6	560	28 (1.100)	12 (0.472)			40	
HP30EX0751M - -					750	28 (1.100)	12 (0.472)				
HP30EX0102M - -					1000	28 (1.100)	12 (0.472)				
HP40EX0152M - -					1500	38 (1.500)	12 (0.472)				
HP40EX0182M - -					1800	38 (1.500)	12 (0.472)				
HP40EX0202M - -					2000	38 (1.500)	12 (0.472)				
HP50EX0252M - -					2500	48 (1.900)	12 (0.472)	22 (0.866)	16 (0.630)		
HP50EX0272M - -					2700	48 (1.900)	12 (0.472)				
HP50EX0332M - -					3300	48 (1.900)	12 (0.472)				
HP60EX0372M - -					3700	58 (2.283)	15 (0.591)				
HP60EX0402M - -					4000	58 (2.283)	15 (0.591)				
HP60EX0502M - -					5000	58 (2.283)	15 (0.591)				
HP60EX0562M - -					5600	58 (2.283)	15 (0.591)				
HP30EY0501M - -	20	15	18	9	500	28 (1.100)	12 (0.472)			40	
HP30EY0561M - -					560	28 (1.100)	12 (0.472)				
HP30EY0751M - -					750	28 (1.100)	12 (0.472)				
HP40EY0102M - -					1000	38 (1.500)	12 (0.472)				
HP40EY0132M - -					1300	38 (1.500)	12 (0.472)				
HP40EY0152M - -					1500	38 (1.500)	12 (0.472)				
HP50EY0202M - -					2000	48 (1.900)	12 (0.472)	24 (0.945)	18 (0.709)		
HP50EY0222M - -					2200	48 (1.900)	12 (0.472)				
HP50EY0252M - -					2500	48 (1.900)	12 (0.472)				
HP60EY0302M - -					3000	58 (2.283)	15 (0.591)				
HP60EY0332M - -					3300	58 (2.283)	15 (0.591)				
HP60EY0372M - -					3700	58 (2.283)	15 (0.591)				
HP60EY0402M - -					4000	58 (2.283)	15 (0.591)				
HP30E30561M - -	30	20	24	12	560	28 (1.100)	12 (0.472)			40	
HP40E30821M - -					820	38 (1.500)	12 (0.472)				
HP40E30102M - -					1000	38 (1.500)	12 (0.472)				
HP40E31121M - -					1120	38 (1.500)	12 (0.472)				
HP50E30152M - -					1500	48 (1.900)	12 (0.472)	26 (1.024)	20 (0.787)		
HP50E30172M - -					1700	48 (1.900)	12 (0.472)				
HP50E30202M - -					2000	48 (1.900)	12 (0.472)				
HP60E30272M - -					2700	58 (2.283)	15 (0.591)				
HP60E30302M - -					3000	58 (2.283)	15 (0.591)				
HP60E30332M - -					3300	58 (2.283)	15 (0.591)				
HP30E40391M - -	40	28	33	17	390	28 (1.100)	12 (0.472)			40	
HP40E40751M - -					750	38 (1.500)	12 (0.472)				
HP50E40102M - -					1000	48 (1.900)	12 (0.472)				
HP50E40142M - -					1400	48 (1.900)	12 (0.472)	30 (1.180)	24 (0.945)		
HP60E40172M - -					1700	58 (2.283)	15 (0.591)				
HP60E40202M - -					2000	58 (2.283)	15 (0.591)				
HP60E40242M - -					2400	58 (2.283)	15 (0.591)				

-Other tolerance on capacitance value: please consult us

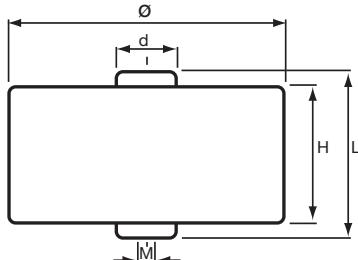
# High Voltage Ceramic Capacitors



## HP/HW/HK Type – Strontium-based Dielectric

### HP RANGE: COATED DEVICES WITH FIXTURES

### REFERENCES – VOLTAGE AND CAPACITANCE RANGE



All fixtures: M5  
(0.197)

Part Number	Rated Voltage kVdc	Rated Voltage kVrms	Test Voltage kVrms	Corona Inception Voltage (kVrms) (<10pc)	Capacitance $\pm 20\%$ (pF) $\pm 10\%$ on request	Dimensions millimeters (inches)				Packaging Unit
						$\text{Ø} \pm 1$	d	$L \pm 1$	$H \pm 2$	
HP30E50281M --	50	35	42	21	280	28 (1.100)	12 (0.472)	37 (1.457)	31 (1.221)	X
HP40E50411M --					410	38 (1.500)	12 (0.472)			
HP40E50501M --					500	38 (1.500)	12 (0.472)			
HP40E50561M --					560	38 (1.500)	12 (0.472)			
HP50E50751M --					750	48 (1.900)	12 (0.472)			
HP50E50851M --					850	48 (1.900)	12 (0.472)			
HP50E50102M --					1000	48 (1.900)	12 (0.472)			
HP60E51351M --					1350	58 (2.283)	15 (0.591)			
HP60E50152M --					1500	58 (2.283)	15 (0.591)			
HP60E51651M --					1650	58 (2.283)	15 (0.591)			
HP30E61950M --	60	42	50	25	195	28 (1.100)	12 (0.472)	45 (1.772)	39 (1.536)	X
HP40E63750M --					375	38 (1.500)	12 (0.472)			
HP50E60501M --					500	48 (1.900)	12 (0.472)			
HP50E60701M --					700	48 (1.900)	12 (0.472)			
HP60E60851M --					850	58 (2.283)	15 (0.591)			
HP60E60102M --					1000	58 (2.283)	15 (0.591)			
HP60E60122M --					1200	58 (2.283)	15 (0.591)			
HP50E90501M --	100	70	80	40	500	48 (1.900)	12 (0.472)	58.5 (2.303)	53 (2.087)	15
HP60E96750M --					675	58 (2.283)	15 (0.591)			10
HP60E90751M --					750	58 (2.283)	15 (0.591)			10
HP60E98250M --					825	58 (2.283)	15 (0.591)			10

X = open request

-Other tolerance on capacitance value: please consult us

# High Voltage Ceramic Capacitors

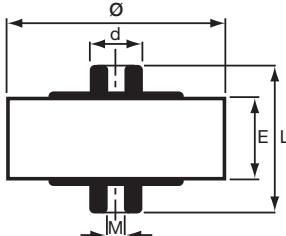


## HP/HW/HK Type – Strontium-based Dielectric

### HW RANGE: UNCOATED DEVICES WITH FIXTURES

### REFERENCES – VOLTAGE AND CAPACITANCE RANGE

Handling of uncoated devices must be done under strict cleanliness conditions.



All fixtures: M5  
(0.197)

Part Number	Rated Voltage (kVdc)	Rated Voltage (kVrms)	Test Voltage (kVrms)*	Corona Inception Voltage (kVrms) (<12pC)*	Capacitance ±20% (pF) ±10% on request	Dimensions millimeters (inches)			Packaging Unit
						Ø ± 2	L ± 1	E ± 2	
HW30EX0561M --	15	10	12	6	560	17 (0.670)	22 (0.866)	6 (0.236)	40
HW30EX0751M --					750	18 (0.719)			40
HW30EX0102M --					1000	21 (0.827)			40
HW40EX0152M --					1500	26 (1.024)			40
HW40EX0182M --					1800	28 (1.103)			40
HW40EX0202M --					2000	29 (1.142)			60
HW50EX0252M --					2500	34 (1.339)			45
HW50EX0272M --					2700	35 (1.378)			45
HW50EX0332M --					3300	38 (1.496)			45
HW60EX0372M --					3700	41 (1.614)			30
HW60EX0402M --					4000	43 (1.692)			30
HW60EX0502M --					5000	47 (1.850)			30
HW60EX0562M --					5600	49 (1.929)			30
HW30EY0501M --	20	15	18	9	500	17 (0.670)	24 (0.945)	8 (0.314)	40
HW30EY0561M --					560	18 (0.719)			40
HW30EY0751M --					750	21 (0.827)			40
HW40EY0102M --					1000	26 (1.024)			40
HW40EY0132M --					1300	28 (1.103)			40
HW40EY0152M --					1500	29 (1.142)			40
HW50EY0202M --					2000	34 (1.339)			45
HW50EY0222M --					2200	35 (1.378)			45
HW50EY0252M --					2500	38 (1.496)			45
HW60EY0302M --					3000	41 (1.614)			20
HW60EY0332M --					3300	43 (1.692)			20
HW60EY0372M --					3700	47 (1.850)			20
HW60EY0402M --					4000	49 (1.929)			20
HW30E30561M --	30	20	24	12	560	21 (0.827)	26 (1.024)	10 (0.394)	40
HW40E30821M --					820	26 (1.024)			40
HW40E30102M --					1000	28 (1.103)			40
HW40E31121M --					1120	29 (1.142)			40
HW50E30152M --					1500	34 (1.339)			45
HW50E30172M --					1700	35 (1.378)			45
HW50E30202M --					2000	38 (1.496)			45
HW60E30272M --					2700	43 (1.692)			20
HW60E30302M --					3000	47 (1.850)			20
HW60E30332M --					3300	49 (1.929)			20
HW30E40391M --	40	28	33	17	390	21 (0.827)	30 (1.180)	14 (0.552)	40
HW40E40751M --					750	28 (1.103)			40
HW50E40102M --					1000	34 (1.339)			30
HW50E40142M --					1400	38 (1.496)			30
HW60E40172M --					1700	41 (1.614)			20
HW60E40202M --					2000	47 (1.850)			20
HW60E40242M --					2400	49 (1.929)			20

\*tested in oil or Galden

-Other tolerance on capacitance value: please consult us

# High Voltage Ceramic Capacitors

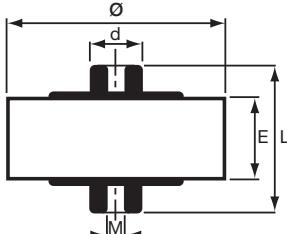


## HP/HW/HK Type – Strontium-based Dielectric

### HW RANGE: UNCOATED DEVICES WITH FIXTURES

### REFERENCES – VOLTAGE AND CAPACITANCE RANGE

Handling of uncoated devices must be done under strict cleanliness conditions.



All fixtures: M5  
(0.197)

Part Number	Rated Voltage (kVdc)	Rated Voltage (kVrms)	Test Voltage (kVrms)*	Corona Inception Voltage (kVrms) (<12pC)*	Capacitance ±20% (pF) ±10% on request	Dimensions millimeters (inches)			Packaging Unit
						Ø ± 2	L ± 1	E ± 2	
HW30E50281M --					280	21 (0.827)			
HW40E50411M --					410	26 (1.024)			
HW40E50501M --					500	28 (1.103)			
HW40E50561M --					560	29 (1.142)			
HW50E50751M --					750	34 (1.339)			
HW50E50851M --	50	35	42	21	850	35 (1.378)	37 (1.457)	21 (0.827)	X
HW50E50102M --					1000	38 (1.496)			
HW60E51351M --					1350	43 (1.692)			
HW60E50152M --					1500	47 (1.850)			
HW60E51651M --					1650	49 (1.929)			
HW30E61950M --					195	21 (0.827)			
HW40E63750M --					375	28 (1.024)			
HW50E60501M --					500	34 (1.339)			
HW50E60701M --	60	42	50	25	700	38 (1.496)	45 (1.772)	29 (1.142)	X
HW60E60851M --					850	41 (1.614)			
HW60E60102M --					1000	47 (1.850)			
HW60E60122M --					1200	49 (1.929)			
HW50E90501M --					500	38 (1.496)			15
HW60E96750M --					675	43 (1.693)			10
HW60E90751M --	100	70	80	40	750	47 (1.850)	58.5 (2.303)	43 (1.693)	10
HW60E98250M --					825	49 (1.929)			10

\*tested in oil or Galden

X = open request

-Other tolerance on capacitance value: please consult us

# High Voltage Ceramic Capacitors

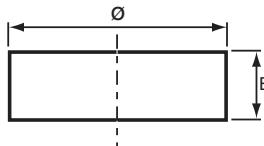


## HP/HW/HK Type – Strontium-based Dielectric

### HK RANGE: UNCOATED DEVICES WITHOUT FIXTURES

### REFERENCES – VOLTAGE AND CAPACITANCE RANGE

Handling of uncoated devices must be done under strict cleanliness conditions.



Part Number	Rated Voltage (kVdc)	Rated Voltage (kVrms)	Test Voltage (kVrms)*	Corona Inception Voltage (kVrms) (<12pC)*	Capacitance ±20% (pF) ±10% on request	Dimensions millimeters (inches)	
						Ø ± 2	E ± 2
HK30EX0561M - -	15	10	12	6	560	17 (0.670)	6 (0.236)
HK30EX0751M - -					750	18 (0.719)	
HK30EX0102M - -					1000	21 (0.827)	
HK40EX0152M - -					1500	26 (1.024)	
HK40EX0182M - -					1800	28 (1.103)	
HK40EX0202M - -					2000	29 (1.142)	
HK50EX0252M - -					2500	34 (1.339)	
HK50EX0272M - -					2700	35 (1.378)	
HK50EX0332M - -					3300	38 (1.496)	
HK60EX0372M - -					3700	41 (1.614)	
HK60EX0402M - -					4000	43 (1.692)	
HK60EX0502M - -					5000	47 (1.850)	
HK60EX0562M - -					5600	49 (1.929)	
HK30EY0501M - -	20	15	18	9	500	17 (0.670)	8 (0.314)
HK30EY0561M - -					560	18 (0.719)	
HK30EY0751M - -					750	21 (0.827)	
HK40EY0102M - -					1000	26 (1.024)	
HK40EY0132M - -					1300	28 (1.103)	
HK40EY0152M - -					1500	29 (1.142)	
HK50EY0202M - -					2000	34 (1.339)	
HK50EY0222M - -					2200	35 (1.378)	
HK50EY0252M - -					2500	38 (1.496)	
HK60EY0302M - -					3000	41 (1.614)	
HK60EY0302M - -					3300	43 (1.692)	
HK60EY0372M - -					3700	47 (1.850)	
HK60EY0402M - -					4000	49 (1.929)	
HK30E30561M - -	30	20	24	12	560	21 (0.827)	10 (0.394)
HK40E30821M - -					820	26 (1.024)	
HK40E30102M - -					1000	28 (1.103)	
HK40E31121M - -					1120	29 (1.142)	
HK50E30152M - -					1500	34 (1.339)	
HK50E30172M - -					1700	35 (1.378)	
HK50E30202M - -					2000	38 (1.496)	
HK60E30272M - -					2700	43 (1.692)	
HK60E30302M - -					3000	47 (1.850)	
HK60E30332M - -					3300	49 (1.929)	
HK30E40391M - -	40	28	33	17	390	21 (0.827)	14 (0.552)
HK40E40721M - -					720	28 (1.103)	
HK50E40102M - -					1000	34 (1.339)	
HK50E40142M - -					1400	38 (1.496)	
HK60E40172M - -					1700	41 (1.614)	
HK60E40202M - -					2000	47 (1.850)	
HK60E40242M - -					2400	49 (1.929)	

\*tested in oil or Galden

-Other tolerance on capacitance value: please consult us



# High Voltage Ceramic Capacitors

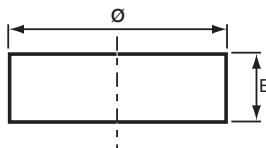


## HP/HW/HK Type – Strontium-based Dielectric

### HK RANGE: UNCOATED DEVICES WITHOUT FIXTURES

### REFERENCES – VOLTAGE AND CAPACITANCE RANGE

Handling of uncoated devices must be done under strict cleanliness conditions.



Part Number	Rated Voltage (kVdc)	Rated Voltage (kVrms)	Test Voltage (kVrms)*	Corona Inception Voltage (kVrms) (<12pC)*	Capacitance ±20% (pF) ±10% on request	Dimensions millimeters (inches)	
						Ø ± 2	E ± 2
HK30E50281M - -	50	35	42	21	280	21 (0.827)	21 (0.827)
HK40E50411M - -					410	26 (1.024)	
HK40E50501M - -					500	28 (1.103)	
HK40E50561M - -					560	29 (1.142)	
HK50E50751M - -					750	34 (1.339)	
HK50E50851M - -					850	35 (1.378)	
HK50E50102M - -					1000	38 (1.496)	
HK60E51351M - -					1350	43 (1.692)	
HK60E50152M - -					1500	47 (1.850)	
HK60E51651M - -					1650	49 (1.929)	
HK30E61950M - -	60	42	50	25	195	21 (0.827)	29 (1.142)
HK40E63750M - -					375	28 (1.024)	
HK50E60501M - -					500	34 (1.339)	
HK50E60701M - -					700	38 (1.496)	
HK60E60851M - -					850	41 (1.614)	
HK60E60102M - -					1000	47 (1.850)	
HK60E60122M - -					1200	49 (1.929)	
HK50E90501M - -	100	70	80	40	500	38 (1.496)	43 (1.693)
HK60E96750M - -					675	43 (1.693)	
HK60E90751M - -					750	47 (1.850)	
HK60E98250M - -					825	49 (1.929)	

\*tested in oil or Galden

-Other tolerance on capacitance value: please consult us



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

#### Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помошь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помошь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: [org@eplast1.ru](mailto:org@eplast1.ru)

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.