COMET

Vacuum Capacitors

Broadcast & Industrial Applications

Overview

Broadcast

Variable and Fixed Vacuum Capacitors

Applications and Solutions

Applications of Vacuum Capacitors

COMET has been manufacturing fixed and variable vacuum capacitors since 1965. Our excellent reputation for product quality has resulted in close cooperation with most leading international companies in the RF industry.

COMET vacuum capacitors, with their special capabilities, are used for many unique applications world-wide, e.g.

- Mid and Short Wave Transmitters up to 500kW
- Antenna Tuning Units
- Wood drying.

Integrated Drive Solution

The Integrated Drive Solution is the ideal solution for any transmitter manufacturer. In addition to ensuring 100% accuracy in RF transmitting design, the Integrated Drive Solution dramatically reduces procurement and assembly lead times, and replaces tedious and error-prone manual assembly with a standardized, easy to install subsystem. For further information, please refer to COMET's Integrated Drive Solution brochure, available on our website or at your local representative.

COMET's World Wide Customer Service

In order to facilitate service and communication with all customers, COMET has a highly professional and long time experienced representative base in place to provide local customer service world wide.
COMET also established service bulletins and technical data sheets to provide general and specific technical information.

Visit our website to download the most recent version of any service bulletin and/or data sheet.
COMET reserves the right to modify specifications in the course of later technical developments.

Unbelievable sound quality. COMET Vacuum Capacitors for analog and digital broadcasting stabilize frequencies in the short, medium and long wave bands.

About COMET's Vacuum Capacitors

The design, construction and processing of COMET Vacuum Capacitors combined with decades of experience in precision manufacturing assure outstanding quality standards. The unique modular design of the capacitors allows a high degree of special types on very short notice. The superior performance and reliability of the products has been proven by hundreds of thousands of units in operation.
For performance reasons all capacitors are made with ceramic envelops, which enable the capacitors to withstand higher thermal and mechanical loads than glass. Most units fit sockets of competitive types and are electrically and mechanically compatible and interchangeable.

Variable and Fixed Vacuum Capacitors

Special Features and Services of COMET

Data Sheets, Curves, Various Technical Information

This catalogue shows only a limited amount of technical information and only fort he types most widely used and latest designed. For all these capacitors, outline drawings, C-curves, I-curves as well as inductance and in most cases self resonance curves can be sent to you within a very short time or downloaded from COMET's website. Please make sure that you are in the possession of the latest edition of the data sheets as they are subject to change without prior notice.

Analysis of Failed Vacuum Capacitors

COMET firmly believes that the ability to perform a prompt and thorough analysis of a failed unit constitutes an important tool both to improve our own products and to assist designers of RF equipment in improving their systems. A properly filled in Service Report form will enable us to determine the cause of failure in most cases. A Service Report form is shipped with every capacitor leaving the factory.

Service Bulletins

On special subjects, COMET is issuing Service Bulletins if and when appropriate that contain technical recommendations and technical information. Subjects covered so far typically include maintenance, testing and disposal of vacuum capacitors. These can be made available through your local representative or from COMET's website.

Special Versions of Vacuum Capacitors

Despite the high degree of standardisation in the product line, COMET tries to accommodate special requirements of its customers as much as possible. It is through such efforts that product improvements like the integral flange or the double flat shaft end can be accomplished. Other "specials" include spring loaded drive mechanisms for low torque actuation or low pull force or capacitors designed for low inductance. For special requirements, please contact your local representative or COMET directly.

Storage

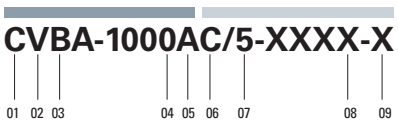
Shelf life can be extended substantially if the following storage recommendations are observed:

- Keep capacitors in a dry place
- Hold – off voltage test of water cooled capacitors prior to storage should be made without filling the cooling system with water
- Cooling systems should be kept dry during storage
- Vacuum capacitors should be handled with care in order to avoid all mechanical damage
- COMET recommends as good engineering practice to test capacitors with the High Voltage Test Unit periodically, about every 4 to 6 months
- For shipment, variable capacitors must be set to minimum capacitance.

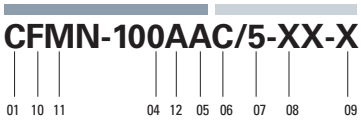
Type Designation System

Beginning 2004, COMET introduced a new Type Designation System to identify each type of capacitor unambiguously. The type designation is divided into two parts, the block and the variant. The block part shows which types are basically designed out of the same block, which makes any exchange of types within the same capacitance value much easier. The variant indicates on one hand the kind of mechanical interfaces like lead screw shaft and mounting flanges and on the other hand any options like optical sensors or tighter capacitance tolerance. The two tables below explain how to read the type designation for variable and fixed capacitors in general.

Variable Vacuum Capacitors



Fixed Vacuum Capacitors



Block
Variant

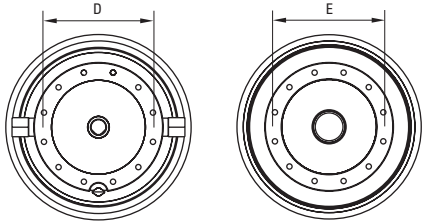
01 Capacitor
02 Variable
03 Product Family
04 Capacity pF $_{Cmax}$
05 Block No.
06 Cooling System
07 Voltage kV $_{Upt}$
08 Interface
09 Option
10 Fixed
11 Product Family
12 Geometry

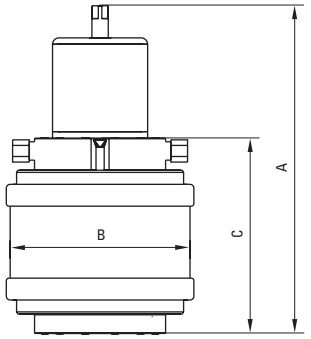
Hiper-Con

Designed for highest power FPD applications over 50 kW – High voltage and highest current capabilities – Enhanced water cooling system allows industry water with pressure up to 6 bars – Typical frequency range between 2 MHz and 40 MHz – Standardized mounting flanges – Long bellows lifetime – Improved drive system with lead-screw-coating 2003 for long lifetime over 1 million cycles – Mostly used in the semiconductor industry, especially in the display technology.

Technical Features

Capacitance (Cmax)	350 pF to 2500 pF
Voltage (peak test)	15 kV to 40 kV
Current (rms max)	300 A
Diameter	127.8 mm
Overall length	255 mm
Inductance (@ Cmax)	≤ 15 nH





Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
20	**350**	40	300	≤ 15	W	255	143	152	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	23.9	0.8	–	–	**CVHI-350AW/40-ADUB**
50	**500**	40	300	≤ 15	W	255	143	152	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	23.3	0.8	–	–	**CVHI-500AW/40-ADUB**
100	**1000**	20	300	≤ 15	W	255	143	152	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	50.0	0.8	–	–	**CVHI-1000AW/20-ADUB**
150	**1500**	15	300	≤ 15	W	255	143	152	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	73.8	0.8	–	–	**CVHI-1500AW/15-ADUB**
200	**2500**	15	300	≤ 15	W	255	143	152	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	125.7	0.8	–	–	**CVHI-2500AW/15-ADUB**

W: Water

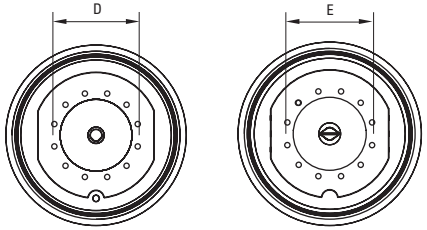
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

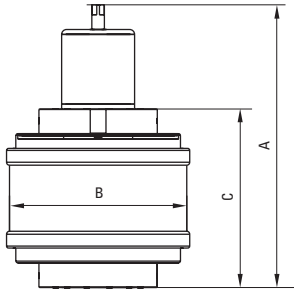
Supra-Con

Designed for highest power application in any RF industry up to over 100 kW – Dedicated for a wide frequency range from below 1 MHz up to over 40 MHz due to low self inductance – Surpassing new triplex-water-cooling allows industry water up to 6 bars without compromising the bellows – Improved and latest lead-free drive system for long lifetime over 1 million cycles – Mostly used in the semiconductor, display and solar technology.

Technical Features

Capacitance (Cmax)	250 pF to 5000 pF
Voltage (peak test)	10 kV to 60 kV
Current (rms max)	450 A
Diameter	183 mm
Overall length	295 mm
Inductance (@ Cmax)	≤ 15 nH





Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
25	**250**	60	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	9.4	0.8	–	–	**CVSU-250AW/65-ADUD**
50	**500**	55	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	19.5	0.8	–	–	**CVSU-500AW/55-ADUD**
75	**750**	40	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	28.3	0.8	–	–	**CVSU-750AW/40-ADUD**
100	**1000**	25	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	37.6	0.8	–	–	**CVSU-1000AW/25-ADUD**
200	**2000**	25	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	75.4	0.8	–	–	**CVSU-2000AW/25-ADUD**
250	**2500**	20	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	97.8	0.8	–	–	**CVSU-2500AW/20-ADUD**
300	**3000**	15	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	111.1	0.8	–	–	**CVSU-3000AW/15-ADUD**
500	**5000**	10	450	≤ 15	W	295	183	187	Ø 88.9 12x M6	Ø 88.9 12x M6	213.3	0.8	–	–	**CVSU-5000AW/10-ADUD**

W: Water

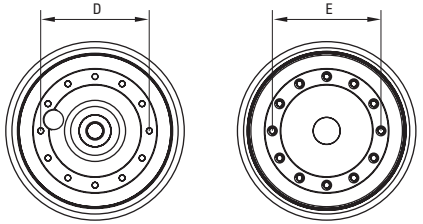
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

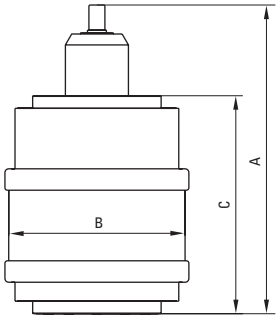
Sami-Con

Most popular broadcast capacitors – Designed for typical AM/MW broadcast applications – Used in broadcast and communication transmitters from 10 kW to 50 kW – Forced Air Cooling allows high current applications for transmitters up to 100 kW – Compact design relative to operation power – Wide range of voltage and capacitance values for different applications like coastal transmitters, combiners, antenna networks and industrial RF generators.

Technical Features

Capacitance (Cmax)	250 pF to 2300 pF
Voltage (peak test)	15 kV to 40 kV
Current (rms max)	106 A to 138 A
Diameter	146 mm
Overall length	207 mm to 250 mm
Inductance (@ Cmax)	≤ 22 nH





Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
15	**250**	40	138	≤ 13	C	245	146	173	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	13.3	1.50	–	–	**CVSA-250AC/40-AAB**
25	**450**	40	138	≤ 15	C	245	146	173	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	13.5	1.50	–	–	**CVSA-450AC/40-AAB**
35	**1500**	15	108	≤ 21	C	250	146	178	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	65.9	0.75	–	–	**CVSA-1500AC/15-AAB**
30	**2000**	15	107	≤ 21	C	250	146	178	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	56.4	0.75	–	–	**CVSA-2000AC/15-AAB**
50	**2300**	15	106	≤ 22	C	250	146	178	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	65.7	0.75	–	–	**CVSA-2300AC/15-AAB**
50	**2300**	15	106	≤ 22	C	207	146	178	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	72.5	0.75	≤ 500	–	**CVSA-2300AC/15-ZZP**
50	**2300**	15	106	≤ 22	C	250	146	178	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	65.7	0.75	–	–	**CVSA-2300AC/15-ADB**
30	**2300**	15	107	≤ 22	C	250	146	178	Ø 88.9 6x M6/ 1/4"-20 UNC	Ø 88.9 6x M6/ 1/4"-20 UNC	65.3	0.75	–	–	**CVSA-2300AC/15-ABB**

C: Convection

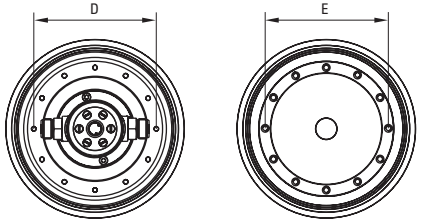
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

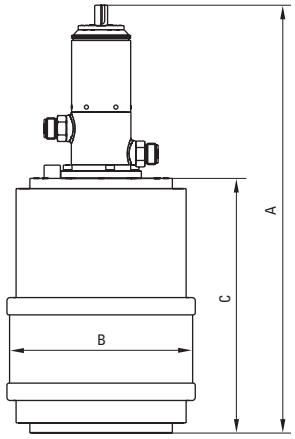
Mami-Con

Designed for typical MW/SW broadcast applications – Widely used in broadcast transmitters from 100 kW to 500 kW – High voltage relative to the capacitance level – Forced air cooling or water cooling allows for higher current applications – Wide range supports different applications like industrial generators, combiners and antenna networks.

Technical Features

Capacitance (Cmax)	450 pF to 1500 pF
Voltage (peak test)	40 kV to 55 kV
Current (rms max)	136 A to 832 A
Diameter	188 mm
Overall length	297 mm to 423 mm
Inductance (@ Cmax)	≤ 32 nH





Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
15	**450**	50	419	–	W	423	188	253	Ø 127.0 6x M6	Ø 127.0 6x M6	11.1	1.5	–	R	**CVMA-450CW/50-AAB-R1**
15	**450**	55	137	–	C	302	188	216	Ø 127.0 6x M6	Ø 127.0 6x M6	11.1	1.5	–	–	**CVMA-450AC/55-AAB**
30	**650**	50	467	≤ 31	W	420	188	250	Ø 127.0 6x M6	Ø 127.0 6x M6	25.9	1.5	–	F	**CVMA-650FW/50-ABE-F**
25	**650**	50	467	≤ 31	W	365	188	250	Ø 143.7 12x M6	Ø 143.7 12x M6	12.2	–	≤ 700	F	**CVMA-650EW/50-AGP-F**
30	**650**	50	832	≤ 31	W	420	188	250	Ø 127.0 6x M6	Ø 127.0 6x M6	25.9	1.5	–	FJ	**CVMA-650HW/50-ABE-FJ**
30	**650**	50	467	≤ 31	W	420	188	250	Ø 127.0 6x M6	Ø 127.0 6x M6	25.9	1.5	–	F	**CVMA-650FW/50-AAE-F**
30	**650**	55	137	≤ 24	C	302	188	216	Ø 127.0 6x M6	Ø 127.0 6x M6	11.1	1.5	–	F	**CVMA-650AC/55-AAB-F**
30	**650**	55	138	≤ 24	C	302	188	216	Ø 127.0 6x M6	Ø 127.0 6x M6	–	1.5	–	F	**CVMA-650AC/55-ABB-F**
30	**650**	55	252	≤ 24	A	302	188	216	Ø 127.0 6x M6	Ø 127.0 6x M6	–	1.5	–	P	**CVMA-650AA/55-ABB-P**
35	**1000**	40	138	≤ 25	C	297	188	211	Ø 127.0 6x M6	Ø 127.0 6x M6	20.9	1.5	–	–	**CVMA-1000AC/40-AAB**
35	**1000**	40	138	≤ 25	C	297	188	211	Ø 127.0 6x M6	Ø 127.0 6x M6	20.9	1.5	–	–	**CVMA-1000AC/40-ABB**
30	**1200**	40	420	≤ 32	W	365	188	250	Ø 143.7 12x M6	Ø 143.7 12x M6	24.1	–	≤ 700	F	**CVMA-1200AW/40-AGP-F**
100	**1500**	40	136	–	C	354	188	262	Ø 127.0 6x M6	Ø 127.0 6x M6	22.1	1.5	–	–	**CVMA-1500AC/40-AAB**
100	**1500**	40	136	–	C	354	188	262	Ø 127.0 6x M6	Ø 127.0 6x M6	77.6	1.5	–	–	**CVMA-1500AC/40-ADM**

C: Convection, W: Water, A: Air

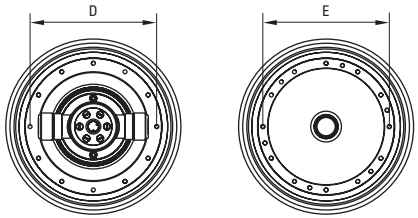
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

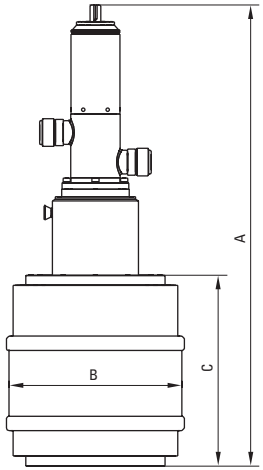
Lami-Con

Designed for high power SW broadcast applications – Widely used in high power broadcast transmitters from 500 kW to 1000 kW – Forced air cooling or high efficiency turbulence water cooling allows for very high current capabilities – Wide tuning range from Cmax to Cmin (up to 30:1) allows for different applications like wood drying and industrial generators.

Technical Features

Capacitance (Cmax)	1000 pF to 2000 pF
Voltage (peak test)	35 kV to 50 kV
Current (rms max)	136 A to 843 A
Diameter	211 mm
Overall length	363 mm to 636 mm
Inductance (@ Cmax)	≤ 39 nH





Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
100	**1000**	50	843	≤ 39	W	474	211	280	Ø 152.4 6x M6	Ø 152.4 6x M6	35.6	1.5	–	N	**CVLA-1000CW/50-ABE-N**
85	**1000**	50	602	–	W	454	211	284	Ø 152.4 6x M6	Ø 152.4 6x M6	35.7	1.5	–	HJNR	**CVLA-1000DW/50-AAE-HJNR**
85	**1000**	50	525	≤ 39	W	363	211	284	Ø 152.4 6x M6	Ø 152.4 6x M6	16.9	–	≤ 700	R	**CVLA-1000BW/50-ZJP-R**
100	**1000**	50	521	≤ 39	W	454	211	284	Ø 152.4 6x M6	Ø 152.4 6x M6	35.6	1.5	–	RV	**CVLA-1000BW/50-AAE-RV1**
40	**1000**	50	136	–	C	372	211	280	Ø 152.4 6x M6	Ø 152.4 6x M6	15.2	1.5	–	–	**CVLA-1000AC/50-AAB**
40	**1300**	50	797	≤ 34	W	546	211	226	Ø 152.4 12x M6	Ø 152.4 12x M6	35.8	1.5	–	HN	**CVLA-1300AW/50-ABE-HN**
40	**1300**	50	797	≤ 34	W	550	211	230	Ø 152.4 12x M6	Ø 152.4 12x M6	35.8	1.5	–	HNR	**CVLA-1300AW/50-ABE-HNR**
40	**1300**	50	797	≤ 34	W	550	211	230	Ø 152.4 12x M6	Ø 152.4 12x M6	35.8	1.5	–	FNR	**CVLA-1300AW/50-ABE-FNR**
100	**1600**	40	633	≤ 36	W	636	211	275	Ø 152.4 6x M6	Ø 152.4 6x M6	36.2	1.5	–	HN	**CVLA-1600BW/40-AAE-HN**
100	**1600**	40	633	≤ 36	W	636	211	275	Ø 152.4 6x M6	Ø 152.4 6x M6	36.2	1.5	–	HN	**CVLA-1600BW/40-ABE-HN**
100	**2000**	35	136	–	C	372	211	280	Ø 152.4 6x M6	Ø 152.4 6x M6	29.9	1.5	–	–	**CVLA-2000AC/35-AAB**

C: Convection, W: Water

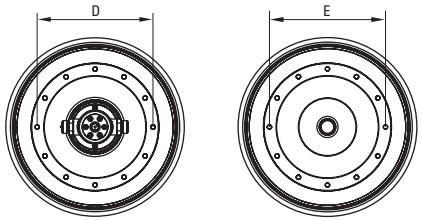
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

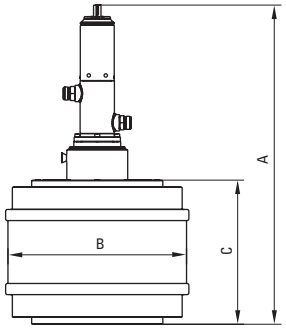
Hami-Con

Designed for highest power SW broadcast applications – Used in broadcast transmitters or industrial generators up to 1000 kW – High efficiency turbulence water cooling provides very high current capabilities over 1000 A – High capacitance relative to voltage – High voltage and capacitance values for the most demanding applications.

Technical Features

Capacitance (Cmax)	1600 pF to 2600 pF
Voltage (peak test)	40 kV to 60 kV
Current (rms max)	753 A to 870 A
Diameter	313 mm
Overall length	435 mm to 609 mm
Inductance (@ Cmax)	≤ 44 nH





Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
100	**1600**	60	870	≤ 44	W	545	313	246	Ø 203.2 12x 3/8" UNC	Ø 203.2 12x 3/8" UNC	30.7	1.50	–	N	**CVHA-1600AW/60-ABG-N**
100	**1600**	60	870	≤ 44	W	504	313	246	Ø 203.2 12x 3/8" UNC	Ø 203.2 12x 3/8" UNC	24.5	–	≤ 780	N	**CVHA-1600AW/60-ZGP-N**
100	**1600**	60	870	≤ 44	W	435	313	252	Ø 203.2 12x 3/8" UNC	Ø 203.2 12x 3/8" UNC	24.5	–	≤ 700	NR	**CVHA-1600AW/60-ZJP-NR**
100	**2050**	50	753	≤ 43	W	609	313	246	Ø 203.2 12x 3/8" UNC	Ø 203.2 12x 3/8" UNC	30.8	1.05	–	N	**CVHA-2050AW/50-AAG-N**
100	**2600**	40	812	≤ 43	W	545	313	246	Ø 203.2 12x 3/8" UNC	Ø 203.2 12x 3/8" UNC	51.7	1.50	–	N	**CVHA-2600AW/40-ABG-N**

W: Water

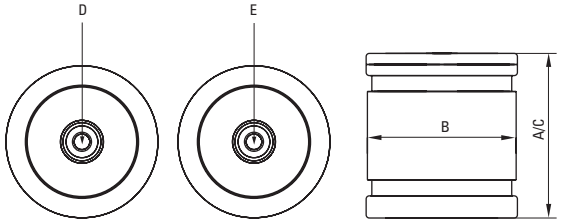
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

Mini-Cap

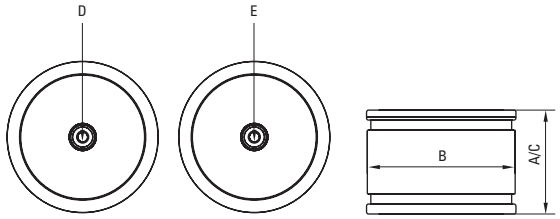
High quality capacitor for high current applications – Replacement for low current applications with long life time – Low internal inductance for operation in excess of 100 MHz – Very compact and uniform size – Unique rugged and cost effective design – Widely used in different applications like matching networks, DC blocking and RF sealing – All Mini-Caps delivered with mounting-kit for easy installation – Optional extension rods for easy replacement.

Technical Features

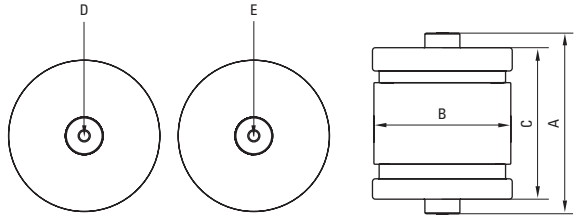
Capacitance (Cmax)	50 pF to 4000 pF
Voltage (peak test)	3 kV to 35 kV
Current (rms max)	27 A to 168 A
Diameter	49 mm to 74 mm
Overall length	52 mm to 87 mm



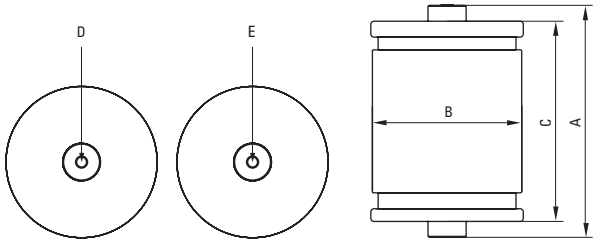
Outline A



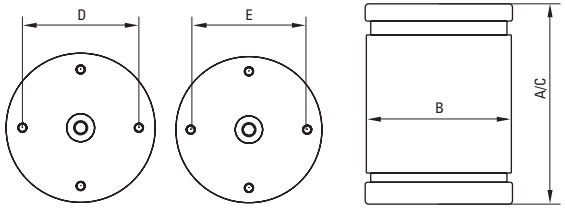
Outline B



Outline C



Outline D



Outline E

Product Overview

Capacitance		Voltage	Current @13.56	Inductance @Cmax	Cooling System	Mounting Dimensions in mm					Slope pF/Turn	Max. Torque	Pull Force	Optional Features	Type Designation System
Cmin pF	Cmax pF	Upt kV	MHz Arms	nH		A	B	C	D	E	pF/mm	Nm	N		Part No.
–	**50**	15	27	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	H	**CFMN-50CAC/15-AF-H**
–	**50**	15	27	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	–	**CFMN-50CAC/15-AF**
–	**50**	30	54	–	C	73	47	63	Ø 1x M4	Ø 1x M4	–	–	–	–	**CFMN-50DAC/30-AF**
–	**80**	15	43	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-80CAC/15-AF-G**
–	**100**	15	54	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	E	**CFMN-100CAC/15-AF-E**
–	**100**	15	54	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-100CAC/15-AF-G**
–	**100**	30	108	–	C	73	47	63	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-100DAC/30-AF-G**
–	**100**	35	126	–	C	87	64	–	Ø 1x M6/ Ø 4x M4	Ø 1x M6/ Ø 4x M4	–	–	–	G	**CFMN-100EAC/35-DH-G**
–	**110**	15	59	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	E	**CFMN-110CAC/15-AF-E**
–	**120**	15	65	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-120CAC/15-AF-G**
–	**130**	15	70	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	E	**CFMN-130CAC/15-AF-E**
–	**150**	15	81	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	E	**CFMN-150CAC/15-AF-E**
–	**150**	15	81	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-150CAC/15-AF-G**
–	**175**	35	168	–	C	87	64	–	Ø 1x M6/ Ø 4x M4	Ø 1x M6/ Ø 4x M4	–	–	–	G	**CFMN-175EAC/35-DH-G**
–	**180**	15	97	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-180CAC/15-AF-G**
–	**200**	15	107	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-200CAC/15-AF-G**
–	**200**	25	143	–	C	73	47	63	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-200DAC/25-AF-G**
–	**210**	15	113	–	C	62	49	52	Ø 1x M4	Ø 1x M4	–	–	–	G	**CFMN-210CAC/15-AF-G**
–	**250**	15	134	–	C	52	49	–	Ø 1x M6	Ø 1x M6	–	–	–	E	**CFMN-250AAC/15-DE-E**
–	**250**	15	134	–	C	52	47	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-250AAC/15-DE-G**
–	**350**	15	132	–	C	52	47	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-350AAC/15-DE-G**
–	**500**	12	126	–	C	52	47	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-500AAC/12-DE-G**
–	**750**	10	116	–	C	52	47	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-750AAC/10-DE-G**
–	**1000**	8	115	–	C	52	47	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-1000AAC/8-DE-G**
–	**2000**	3	121	–	C	52	74	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-2000BAC/5-DE-G**
–	**2000**	3	105	–	C	52	47	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-2000AAC/3-DE-G**
–	**4000**	5	121	–	C	52	74	–	Ø 1x M6	Ø 1x M6	–	–	–	G	**CFMN-4000BAC/5-DE-G**

C: Convection

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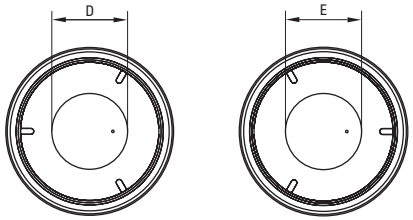
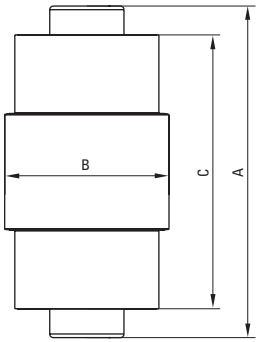
Nami-Cap

Designed for typical AM/MW broadcast and Industrial applications – Small size relative to the voltage level – Wide range of capacitance and voltage – Easy to install through a simple flange mount system – Wide variety of applications for broadcast and communication transmitters, antenna network systems, output-filters, couple-capacitors, industrial RF generators and nuclear research – Low inductance results in high self resonance frequency.

Technical Features

Capacitance (Cmax)	125 pF to 1000 pF
Voltage (peak test)	30 kV to 60 kV
Current (rms max)	162 A to 271 A
Diameter	116 mm
Overall length	137 mm to 230 mm





Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
–	**125**	60	271	–	C	137.0	114	116	Ø 86.4 6x M6/ 1/4"-20 UNC	Ø 86.4 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFNA-125CAC/60-GC-G**
–	**500**	30	184	–	C	230.0	116	190	FM Ø 51.5	FM Ø 51.5	–	–	–	G	**CFNA-500BAC/30-MA-G**
–	**500**	30	215	–	C	165.5	116	140	FM Ø 100.0	FM Ø 100.0	–	–	–	G	**CFNA-500AAC/30-KB-G**
–	**500**	40	184	–	C	230.0	116	190	FM Ø 51.5	FM Ø 51.5	–	–	–	G	**CFNA-500BAC/40-MA-G**
–	**500**	40	215	–	C	165.5	116	140	FM Ø 100.0	FM Ø 100.0	–	–	–	G	**CFNA-500AAC/40-KB-G**
–	**750**	30	171	–	C	230.0	116	190	FM Ø 51.5	FM Ø 51.5	–	–	–	G	**CFNA-750BAC/30-MA-G**
–	**750**	30	176	–	C	165.5	116	140	FM Ø 100.0	FM Ø 100.0	–	–	–	G	**CFNA-750AAC/30-KB-G**
–	**750**	40	176	–	C	165.5	116	140	FM Ø 100.0	FM Ø 100.0	–	–	–	G	**CFNA-750AAC/40-KB-G**
–	**1000**	30	162	–	C	215.5	116	190	FM Ø 100.0	FM Ø 100.0	–	–	–	G	**CFNA-1000BAC/30-KB-G**
–	**1000**	30	162	–	C	230.0	116	190	FM Ø 51.5	FM Ø 51.5	–	–	–	G	**CFNA-1000BAC/30-MA-G**
–	**1000**	40	162	–	C	215.5	116	190	FM Ø 100.0	FM Ø 100.0	–	–	–	G	**CFNA-1000BAC/40-KB-G**
–	**1000**	40	162	–	C	230.0	116	190	FM Ø 51.5	FM Ø 51.5	–	–	–	G	**CFNA-1000BAC/40-AAB**

C: Convection

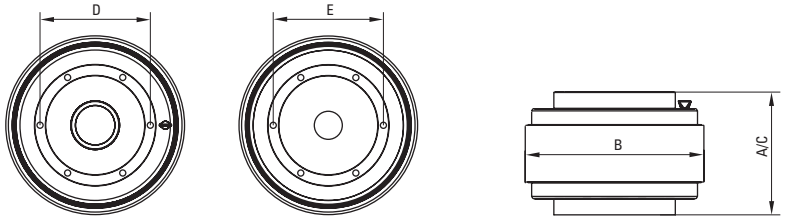
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

Sami-Cap

Designed for typical MW/SW broadcast applications – Used in broadcast and communication transmitters from 10 kW to 100 kW – High capacitance supports a wide range of different applications like antenna networks, output filters and industrial RF generators – Very flat and compact design – Low inductance results in high self resonance frequency – Standardized fixed-capacitor-solution for any medium power application.

Technical Features

Capacitance (Cmax)	1000 pF to 2500 pF
Voltage (peak test)	15 kV to 25 kV
Current (rms max)	171 A to 271 A
Diameter	116 mm or 146 mm
Overall length	86 mm to 100 mm



Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
–	**1000**	15	171	–	C	97.0	116	–	Ø 86.4 6x M6/ 1/4"-20 UNC	Ø 86.4 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFSA-1000BAC/15-GC-G**
–	**1000**	15	171	–	C	100.0	116	60	FM Ø 50.8	FM Ø 50.8	–	–	–	G	**CFSA-1000BAC/15-RA-G**
–	**1000**	25	271	–	C	96.5	140	–	Ø 86.4 6x M6/ 1/4"-20 UNC	Ø 86.4 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFSA-1000DAC/25-GC-G**
–	**1500**	15	171	–	C	86.0	116	60	FM Ø 38.1	FM Ø 38.1	–	–	–	G	**CFSA-1500BAC/15-CA-G**
–	**1500**	15	226	–	C	86.0	140	–	Ø 89.0 6x M6/ 1/4"-20 UNC	Ø 89.0 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFSA-1500AAC/15-HC-G**
–	**2000**	15	226	–	C	86.0	140	–	Ø 89.0 6x M6/ 1/4"-20 UNC	Ø 89.0 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFSA-2000ABC/15-HC-G**
–	**2000**	15	226	–	C	86.0	140	60	FM Ø 38.1	FM Ø 38.1	–	–	–	G	**CFSA-2000AAC/15-CA-G**
–	**2500**	15	224	–	C	86.0	140	60	FM Ø 38.1	FM Ø 38.1	–	–	–	G	**CFSA-2500AAC/15-CA-G**

C: Convection

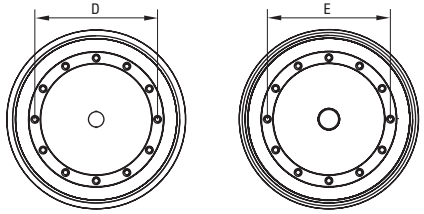
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

Mami-Cap

Designed for typical MW/SW broadcast applications – Widely used in broadcast transmitters from 100 kW to 1000 kW – Broadest range and widely used – High capacitance values available for demanding applications – Available with water cooling for higher current applications – Low inductance results in high self resonance frequency – Ideal fixed-capacitor-solution for medium and high power applications.

Technical Features

Capacitance (Cmax)	400 pF to 2000 pF
Voltage (peak test)	35 kV to 70 kV
Current (rms max)	259 A to 543 A
Diameter	188 mm
Overall length	158 mm to 184 mm



Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
–	**400**	50	543	–	W	164	188.0	–	Ø 127 12x M6	Ø 127 12x M6	–	–	–	GKR	**CFMA-400AAW/50-BC-GKR**
–	**450**	70	339	–	C	158	188.0	–	Ø 127 6x M6/ 1/4"-20 UNC	Ø 127 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFMA-450AAC/70-BC-G**
–	**1000**	50	296	–	C	158	188.0	–	Ø 127 6x M6/ 1/4"-20 UNC	Ø 127 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFMA-1000AAC/50-BC-G**
–	**1500**	35	303	–	C	158	188.0	–	Ø 127 6x M6/ 1/4"-20 UNC	Ø 127 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFMA-1500AAC/35-BC-G**
–	**2000**	35	266	–	C	158	188.0	–	Ø 127 6x M6/ 1/4"-20 UNC	Ø 127 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFMA-2000AAC/35-BC-G**
–	**2000**	40	259	–	C	184	188.0	–	Ø 152.4 6x 1/4"-20 UNC	Ø 152.4 6x 1/4"-20 UNC	–	–	–	G	**CFMA-2000ABC/40-PG-G**

C: Convection, W: Water

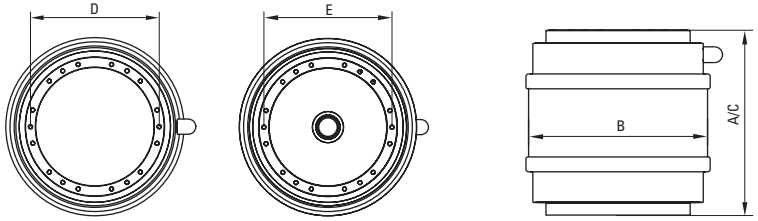
The information above is not to be used for design purpose. For detailed information refer to the individual data sheet.

Lami-Cap

Designed for high power MW/SW broadcast applications – Used in broadcast transmitters from 500 kW to 1000 kW – Auxiliary water cooling allows high current capability – High voltage relative to capacitance – Low inductance results in high self resonance frequency.

Technical Features

Capacitance (Cmax)	2000 pF
Voltage (peak test)	45 kV to 55 kV
Current (rms max)	282 A
Diameter	210 mm
Overall length	183 mm to 212 mm



Product Overview

Capacitance Cmin pF	Capacitance Cmax pF	Voltage Upt kV	Current @13.56 MHz Arms	Inductance @Cmax nH	Cooling System	Mounting Dimensions in mm A	B	C	D	E	Slope pF/Turn pF/mm	Max. Torque Nm	Pull Force N	Optional Features	Type Designation System Part No.
–	**2000**	45	282	–	C	183	210	–	Ø 152.4 6x M6/ 1/4"-20 UNC	Ø 152.4 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFLA-2000BAC/45-PC-G**
–	**2000**	55	282	–	C	212	210	–	Ø 152.4 6x M6/ 1/4"-20 UNC	Ø 152.4 6x M6/ 1/4"-20 UNC	–	–	–	G	**CFLA-2000AAC/55-PC-G**

C: Convection

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November 2007
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