



DATASHEET

Common Mode Choke series - CMC71

These chokes are installed in series with the phase and neutral conductors of AC lines to suppress unwanted interference. They reduce common-mode noise (line/neutral to ground) and attenuate differential-mode disturbances. For enhanced performance, they are typically used with noise suppression capacitors in EMI filtering applications

Technical Specifications:

Rated Voltage	:300VAC
Operating Frequency	:DC to 400 Hz
Rated Current	:0.3A to 10A @ 40°C
Rated inductance	:0.4 to 100 mH
Surge current 10 m sec	:20 x nominal current
Temperature range (operation and storage)	:-40°C to 100°C (40/100/56) acc. IEC 60068-1
High potential test voltage winding-to winding @ 25°C	:1500 VAC, 2 sec
Flammability corresponding to	:UL 94V-0
Design Corresponding to	:UL 1283

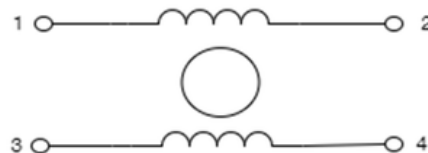
Features:

- High saturation resistance & thermal stability
- Secure PCB mounting with through-hole pins
- Compact size for space-constrained applications
- Multiple enclosure options available

Applications:

- Engineered for use in switch-mode power supply (SMPS) applications
- Effectively attenuates common-mode electromagnetic interference
- Functions as an EMI input filter for improved noise performance
- Suitable for applications where earth/ground connection is not required

Type Circuit Diagram:



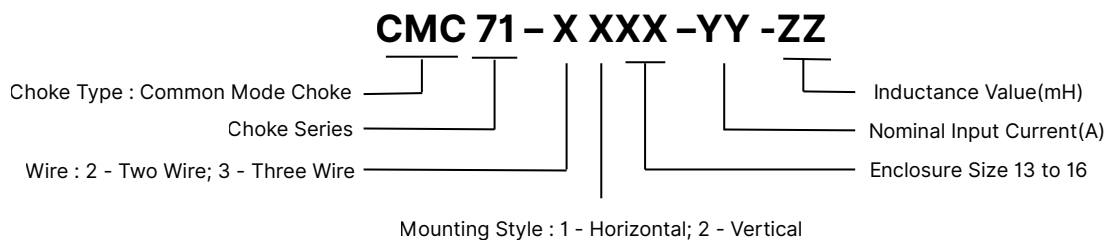
Ordering Information

Model Number	Part Number	Current Ratings (A)	Inductance (mH)	Resistance (R _{DC}) mΩ	Enclosure Size	Min.Weight (g)
CMC71-2101-0.3-22	E115680-1	0.3	22	1300	01	5
CMC71-2101-0.3-12	E115681-1	0.3	12	1100	01	4
CMC71-2101-0.6-4.4	E115682-1	0.6	4.4	400	01	4
CMC71-2101-1-3	E115683-1	1	3	225	01	4
CMC71-2101-1.5-1.6	E115684-1	1.5	1.6	100	01	4
CMC71-2101-2-1.1	E115685-1	2	1.1	75	01	4
CMC71-2103-0.4-39	E115686-1	0.4	39	1500	03	7
CMC71-2103-0.4-27	E115687-1	0.4	27	1400	03	7
CMC71-2103-0.5-27	E115688-1	0.5	27	1200	03	7
CMC71-2103-0.5-18	E115689-1	0.5	18	1100	03	7
CMC71-2103-0.5-15	E115690-1	0.5	15	700	03	7
CMC71-2103-0.6-15	E115691-1	0.6	15	500	03	7
CMC71-2103-0.8-10	E115692-1	0.8	10	400	03	7
CMC71-2103-1.2-6.8	E115693-1	1.2	6.8	250	03	7
CMC71-2103-1.5-3.3	E115694-1	1.5	3.3	110	03	7
CMC71-2103-2-1.8	E115695-1	2	1.8	80	03	7
CMC71-2103-2-1	E115696-1	2	1	75	03	7
CMC71-2103-2.6-0.4	E115697-1	2.6	0.4	50	04	7
CMC71-2103-3.6-0.4	E115698-1	3.6	0.4	30	04	7
CMC71-2103-4-0.7	E115699-1	4	0.7	25	04	7
CMC71-2104-0.3-47	E115700-1	0.3	47	1700	04	11
CMC71-2104-0.5-39	E115701-1	0.5	39	850	04	12
CMC71-2104-0.8-27	E115702-1	0.8	27	500	04	12
CMC71-2104-1-15	E115703-1	1	15	375	04	11
CMC71-2104-1.2-10	E115704-1	1.2	10	200	04	11
CMC71-2104-1.5-6.8	E115705-1	1.5	6.8	125	04	12
CMC71-2104-2-4.2	E115705-1	2	4.2	100	04	12
CMC71-2104-2.5-3.3	E115707-1	2.5	3.3	75	04	12
CMC71-2104-3-2	E115708-1	3	2	55	04	11
CMC71-2104-4-1.5	E115709-1	4	1.5	35	04	12
CMC71-2105-0.5-47	E115710-1	0.5	47	960	05	12
CMC71-2105-0.5-39	E115711-1	0.5	39	925	05	12
CMC71-2105-0.5-27	E115712-1	0.5	27	800	05	12
CMC71-2105-0.8-27	E115713-1	0.8	27	375	05	14
CMC71-2105-1-15	E115714-1	1	15	275	05	13
CMC71-2105-1-10	E115715-1	1	10	200	05	13
CMC71-2105-1.3-6.8	E115716-1	1.3	6.8	150	05	13
CMC71-2105-1.5-10	E115717-1	1.5	10	140	05	13
CMC71-2105-1.7-4	E115718-1	1.7	4	90	05	13
CMC71-2105-2-3.3	E115719-1	2	3.3	75	05	13
CMC71-2105-2-2.2	E115720-1	2	2.2	70	05	13
CMC71-2107-0.5-56	E115721-1	0.5	56	1800	07	21
CMC71-2107-0.6-47	E115722-1	0.6	47	1300	07	21
CMC71-2107-0.8-39	E115723-1	0.8	39	1000	07	21
CMC71-2107-1-18	E115724-1	1	18	630	07	20
CMC71-2107-1-10	E115725-1	1	10	575	07	20
CMC71-2107-1.5-10	E115726-1	1.5	10	250	07	21
CMC71-2107-2-6.8	E115727-1	2	6.8	165	07	21
CMC71-2107-2-5	E115728-1	2	5	140	07	22

Model Number	Part Number	Current Ratings (A)	Inductance (mH)	Resistance (R _{DC}) mΩ	Enclosure size	Min.Weight (g)
CMC71-2107-2.5-5.6	E115729-1	2.5	5.6	110	07	21
CMC71-2107-3-4.5	E115730-1	3	4.5	80	07	22
CMC71-2107-4-3.3	E115731-1	4	3.3	50	07	23
CMC71-2107-4-1.8	E115732-1	4	1.8	45	07	23
CMC71-2109-0.5-82	E115733-1	0.5	82	2700	09	37
CMC71-2109-1-33	E115734-1	1	33	810	09	38
CMC71-2109-1.5-27	E115735-1	1.5	27	500	09	41
CMC71-2109-2-6.8	E115736-1	2	6.8	192	09	37
CMC71-2109-4-3.3	E115737-1	4	3.3	70	09	39
CMC71-2109-6-1.8	E115738-1	6	1.8	20	09	42
CMC71-2110-0.5-100	E115739-1	0.5	100	2900	10	36
CMC71-2110-1-47	E115740-1	1	47	900	10	38
CMC71-2110-2-10	E115741-1	2	10	250	10	42
CMC71-2110-4-3.9	E115742-1	4	3.9	65	10	39
CMC71-2110-6-1.8	E115743-1	6	1.8	25	10	42
CMC71-2111-1-68	E115744-1	1	68	1300	11	75
CMC71-2111-2-18	E115745-1	2	18	450	11	64
CMC71-2111-4-6.8	E115746-1	4	6.8	90	11	74
CMC71-2111-6-3.9	E115747-1	6	3.9	45	11	68
CMC71-2111-8-2.7	E115748-1	8	2.7	25	11	73
CMC71-2111-10-1.8	E115749-1	10	1.8	15	11	73
CMC71-2201-0.3-22	E115750-1	0.3	22	1300	01	4
CMC71-2201-0.3-12	E115751-1	0.3	12	1100	01	4
CMC71-2201-0.6-4.4	E115752-1	0.6	4.4	380	01	4
CMC71-2201-1-3	E115753-1	1	3	210	01	4
CMC71-2201-1.5-1.6	E115754-1	1.5	1.6	95	01	4
CMC71-2201-2-1.1	E115755-1	2	1.1	70	01	4
CMC71-2202-0.3-22	E115756-1	0.3	22	1300	02	3
CMC71-2202-0.3-12	E115757-1	0.3	12	960	02	3
CMC71-2202-0.6-4.4	E115758-1	0.6	4.4	350	02	3
CMC71-2202-1-3	E115759-1	1	3	200	02	3
CMC71-2202-1.5-1.6	E115760-1	1.5	1.6	100	02	3
CMC71-2202-2-1.1	E115761-1	2	1.1	60	02	3
CMC71-2203-0.4-39	E115762-1	0.4	39	1500	03	8
CMC71-2203-0.4-27	E115763-1	0.4	27	1400	03	8
CMC71-2203-0.5-27	E115764-1	0.5	27	1200	03	8
CMC71-2203-0.5-18	E115765-1	0.5	18	1100	03	8
CMC71-2203-0.5-15	E115766-1	0.5	15	700	03	8
CMC71-2203-0.6-15	E115767-1	0.6	15	500	03	8
CMC71-2203-0.8-10	E115768-1	0.8	10	400	03	8
CMC71-2203-1.2-6.8	E115769-1	1.2	6.8	250	03	8
CMC71-2203-1.5-3.3	E115770-1	1.5	3.3	110	03	8
CMC71-2203-2-1.8	E115771-1	2	1.8	75	03	8
CMC71-2203-2-1	E115772-1	2	1	70	03	8
CMC71-2203-2.6-0.4	E115773-1	2.6	0.4	40	03	8
CMC71-2203-3.6-0.4	E115774-1	3.6	0.4	30	03	8
CMC71-2203-4-0.7	E115775-1	4	0.7	25	03	8
CMC71-2204-0.3-47	E115776-1	0.3	47	1700	04	14
CMC71-2204-0.5-56	E115777-1	0.5	56	1700	04	15

Model Number	Part Number	Current Ratings (A)	Inductance (mH)	Resistance (R _{DC}) mΩ	Enclosure size	Min.Weight (g)
CMC71-2204-0.5-39	E115778-1	0.5	39	850	04	14
CMC71-2204-0.8-27	E115779-1	0.8	27	500	04	15
CMC71-2204-1-15	E115780-1	1	15	375	04	14
CMC71-2204-1.2-10	E115781-1	1.2	10	200	04	15
CMC71-2204-1.5-6.8	E115782-1	1.5	6.8	125	04	15
CMC71-2204-2-4.2	E115783-1	2	4.2	100	04	14
CMC71-2204-2-2.2	E115784-1	2	2.2	70	04	14
CMC71-2204-2.5-3.3	E115785-1	2.5	3.3	75	04	15
CMC71-2204-3-2	E115786-1	3	2	55	04	14
CMC71-2204-4-1.5	E115787-1	4	1.5	35	04	15
CMC71-2205-0.5-47	E115788-1	0.5	47	960	05	15
CMC71-2205-0.5-39	E115789-1	0.5	39	925	05	15
CMC71-2205-0.5-27	E115790-1	0.5	27	700	05	15
CMC71-2205-0.8-27	E115791-1	0.8	27	375	05	16
CMC71-2205-1-15	E115792-1	1	15	275	05	16
CMC71-2205-1-10	E115793-1	1	10	225	05	15
CMC71-2205-1.3-6.8	E115794-1	1.3	6.8	140	05	16
CMC71-2205-1.5-10	E115795-1	1.5	10	150	05	16
CMC71-2205-1.7-4	E115796-1	1.7	4	90	05	16
CMC71-2205-2-3.3	E115797-1	2	3.3	75	05	16
CMC71-2205-2-2.2	E115798-1	2	2.2	75	05	15
CMC71-2206-0.4-100	E115799-1	0.4	100	2800	06	8
CMC71-2206-0.6-47	E115800-1	0.6	47	1200	06	8
CMC71-2206-0.7-39	E115801-1	0.7	39	1150	06	8
CMC71-2206-0.9-27	E115802-1	0.9	27	620	06	8
CMC71-2206-1-22	E115803-1	1	22	520	06	8
CMC71-2206-1.1-15	E115804-1	1.1	15	420	06	8
CMC71-2206-1.4-10	E115805-1	1.4	10	330	06	8
CMC71-2206-1.7-6.8	E115806-1	1.7	6.8	180	06	8
CMC71-2206-2.2-3.3	E115807-1	2.2	3.3	100	06	8
CMC71-2207-0.5-56	E115808-1	0.5	56	1800	06	27
CMC71-2207-0.6-47	E115809-1	0.6	47	1300	07	26
CMC71-2207-0.8-39	E115810-1	0.8	39	1000	07	27
CMC71-2207-1-33	E115811-1	1	33	1300	07	29
CMC71-2207-1-18	E115812-1	1	18	630	07	26
CMC71-2207-1.5-10	E115813-1	1.5	10	250	07	26
CMC71-2207-2-6.8	E115814-1	2	6.8	160	07	28
CMC71-2207-2.5-5.6	E115815-1	2.5	5.6	110	07	27
CMC71-2207-3-4.5	E115816-1	3	4.5	80	07	28
CMC71-2207-4-3.3	E115817-1	4	3.3	50	07	28
CMC71-2208-0.6-47	E115818-1	0.6	47	1300	08	37
CMC71-2208-1-18	E115819-1	1	18	400	08	38
CMC71-2208-1.6-10	E115820-1	1.6	10	170	08	38
CMC71-2208-2.5-5.6	E115821-1	2.5	5.6	90	08	38
CMC71-2208-4-3.3	E115822-1	4	3.3	55	08	38
CMC71-2209-0.5-82	E115823-1	0.5	82	2700	09	37
CMC71-2209-1-33	E115824-1	1	33	825	09	38
CMC71-2209-1.4-27	E115825-1	1.4	27	500	09	38
CMC71-2209-2-6.8	E115826-1	2	6.8	200	09	37
CMC71-2209-4-3.3	E115827-1	4	3.3	70	09	38
CMC71-2209-6-1.8	E115828-1	6	1.8	20	09	41

Product Selector



Example:

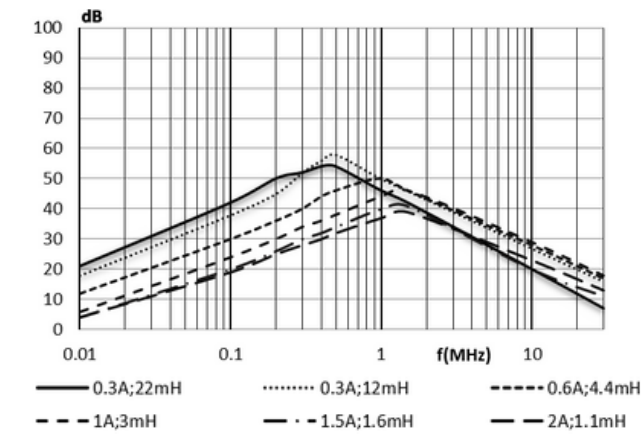
CMC71-2104-0.5-39 = 2-wire choke with horizontal mounting, designed for 0.5 A with an inductance of 39 mH

CMC71-2207-0.8-39 = 2-wire choke with Vertical Mounting, designed for 0.8A, with an inductance of 39mH

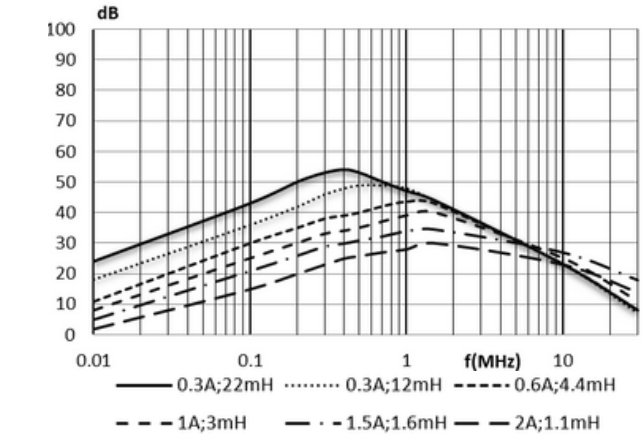
Insertion Loss :

As Per CISPR 17; C=50Ω/50Ω D=50Ω/50Ω

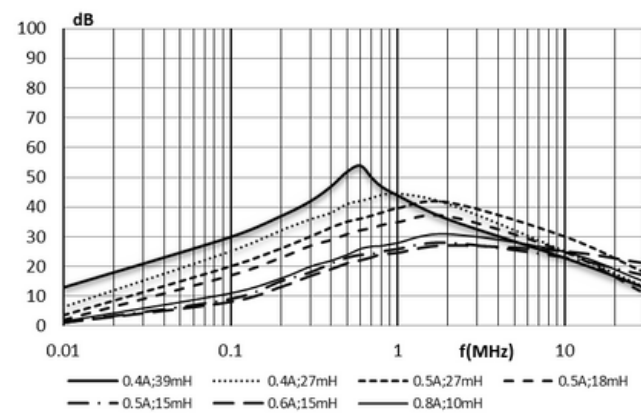
CMC71-2101,CMC71-2201



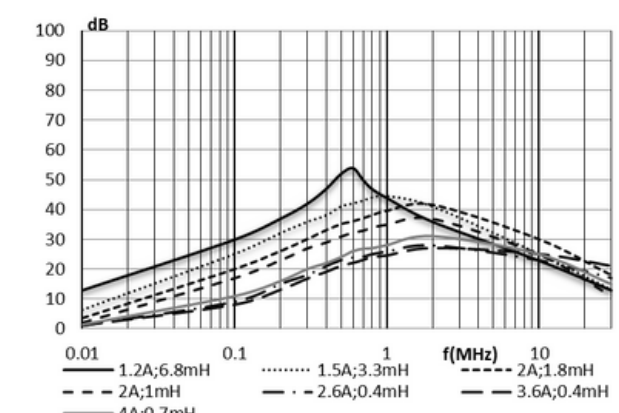
CMC71-2202



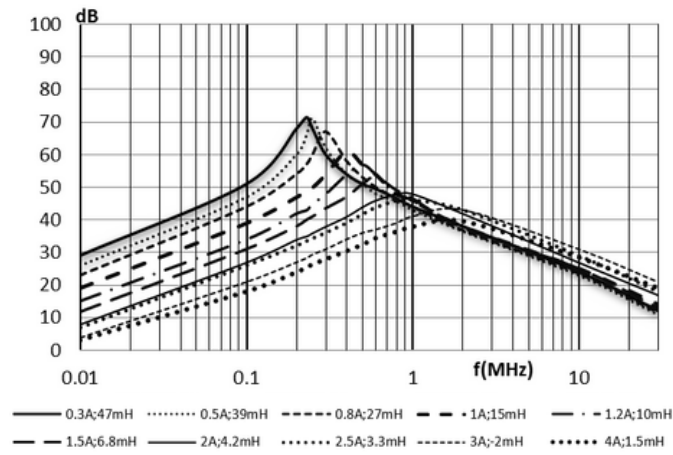
CMC71-2103,CMC71-2203(<1A)



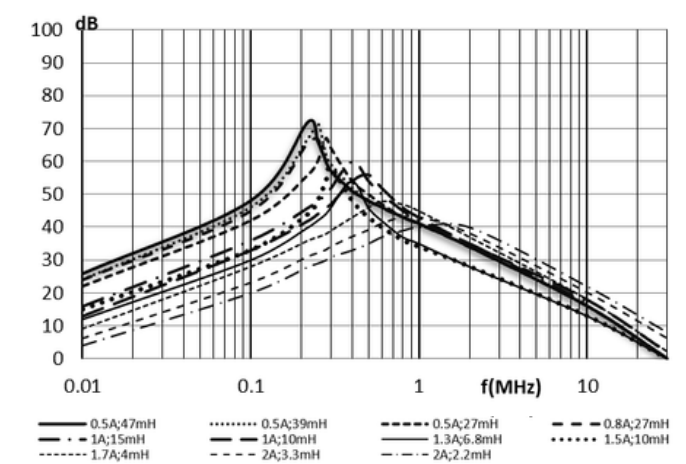
CMC71-2103,CMC71-2203(>1A)



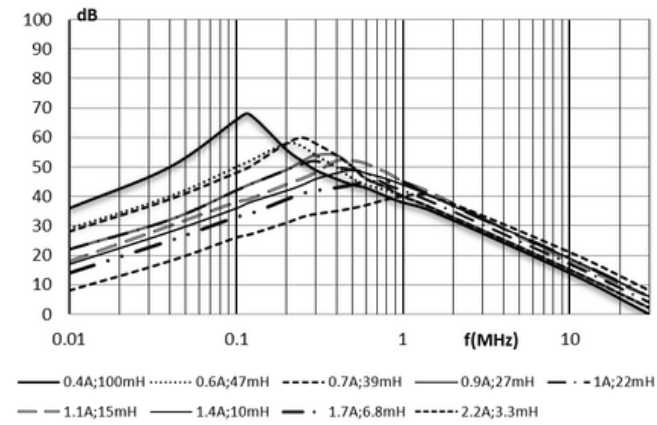
CMC71-2104, CMC71-2204



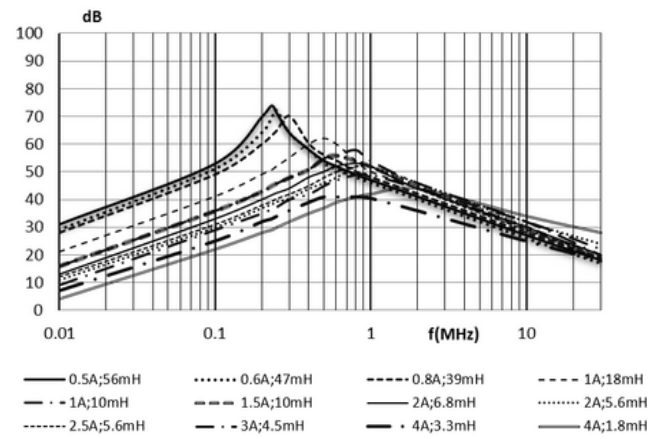
CMC71-2105, CMC71-2205



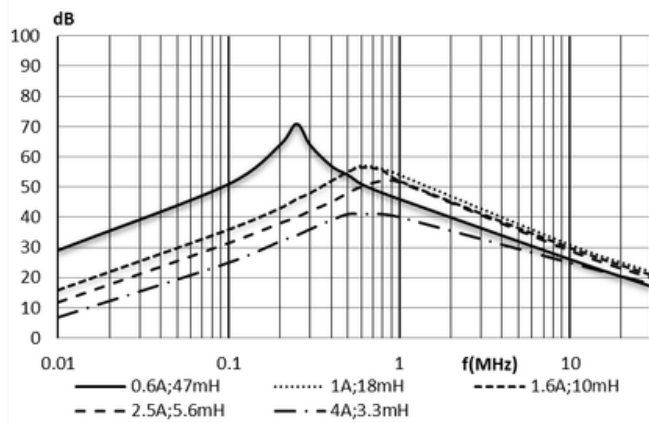
CMC71-2206



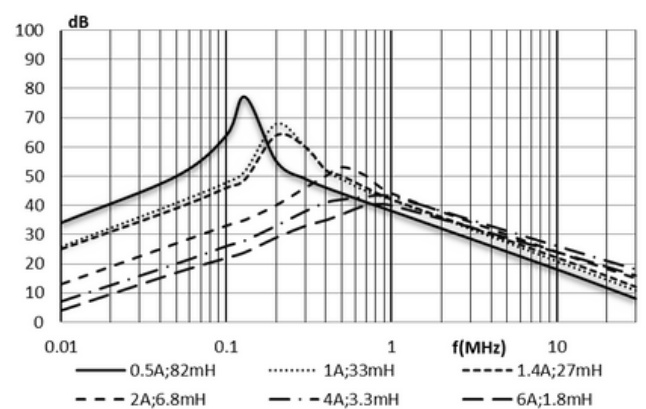
CMC71-2107, CMC71-2207,



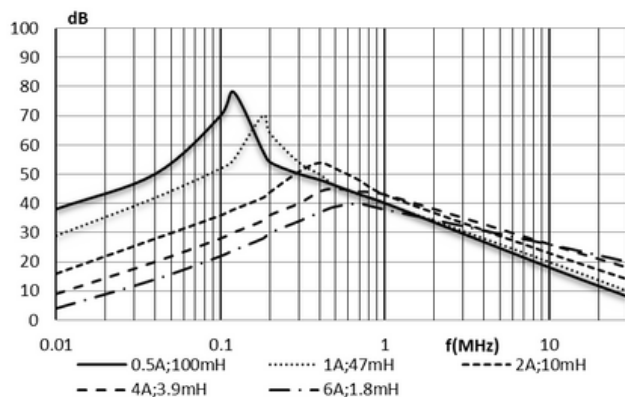
CMC71-2208



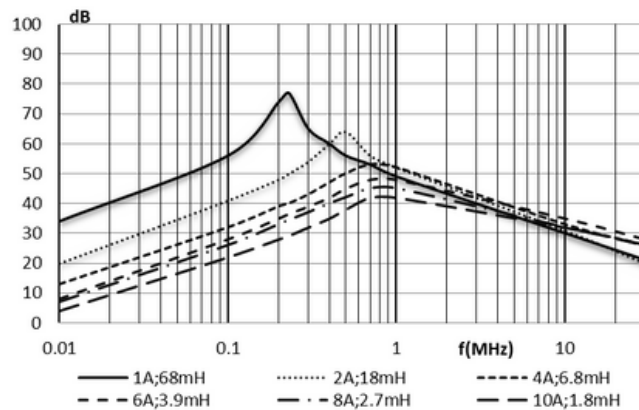
CMC71-2109, CMC71-2209



CMC71-2110

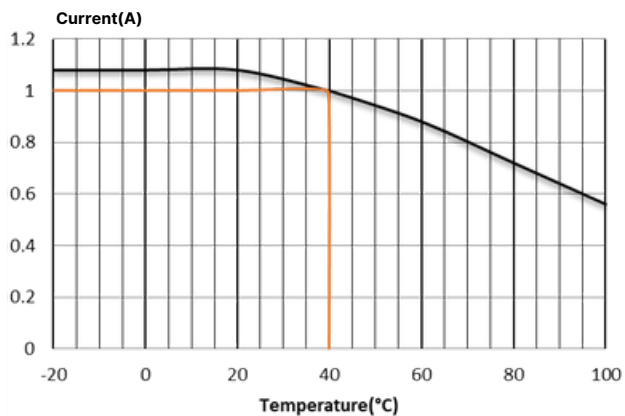


CMC71-2111

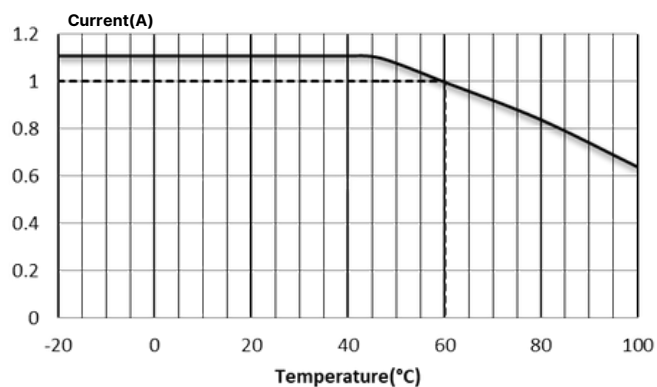


Thermal Derating

40°C

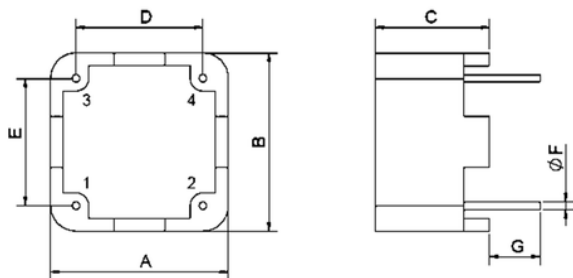


60°C

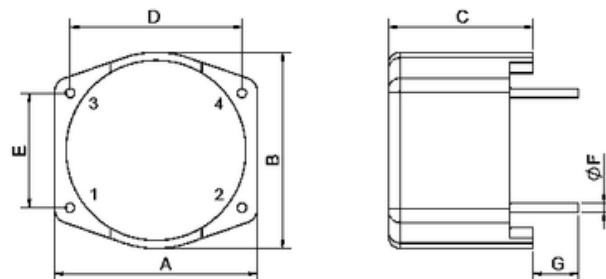


If the ambient temperature exceeds the specified limit, the nominal current needs to be reduced according to the thermal Derating graph shown above. (Left for 40 °C, right for 60 °C)

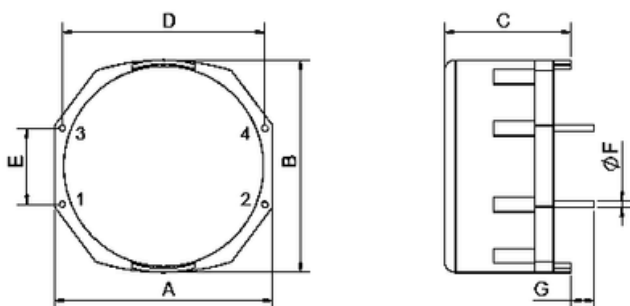
CMC71-2101



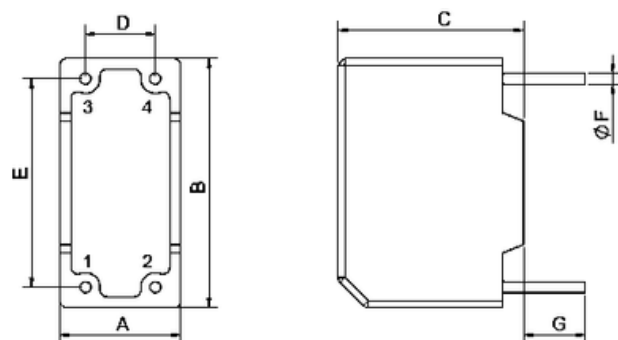
CMC71-2103, CMC71-2104,
CMC71-2105, CMC71-2107, CMC71-2109,
CMC71-2110,



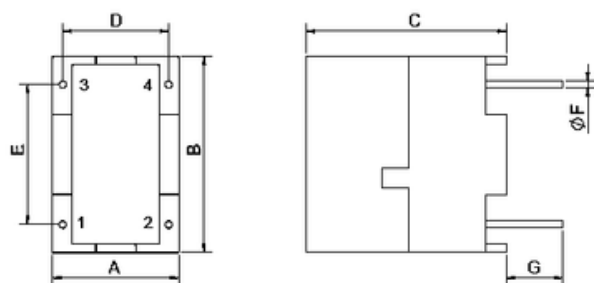
CMC71-2111



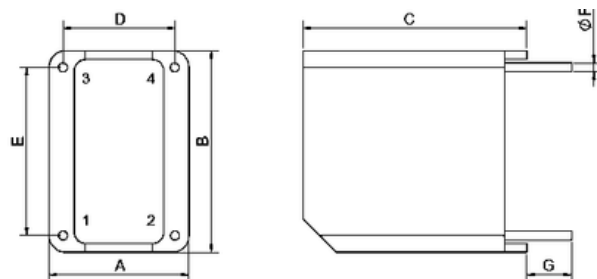
CMC71-2201



CMC71-2202



CMC71-2203, CMC71-2203, CMC71-2104,
CMC71-2205, CMC71-2207, CMC71-2208,
CMC71-2209



Dimensions

CMC71-XXXX	A (±1)	B (±1)	C (±1)	D (±1)	E (±1)	ØF(± 0.1)	G (±1)
2101	14	14	9	10	10	0.6	4
2103	17.7	17.1	12.6	15	10	0.8	4
2104	22.5	21.5	13.2	20.1	12.5	0.8	4
2105	22.5	21.5	13.2	20.1	12.5	0.8	4
2107	28	27	16.5	25	15	0.8	4
2109	33.1	32.5	19.7	30	20	0.8	4.2
2110	33.1	32.5	19.7	30	20	0.8	4.2
2111	43	41.8	25	40	15	1.2	4.5
2201	8.8	18.2	13.5	5.1	15.2	0.8	4.5
2202	9	14	14.3	7.6	10	0.5	4
2203	12.5	18	20	10	15	0.8	4
2204	15.5	23	25	12.5	10	0.8	4
2205	15.5	23	25	12.5	10	0.8	4
2206	12.5	18	20	10	12.5	0.8	4
2207	18	31	29.3	15	12.5	0.8	4
2208	18	31	34.3	15	12.5	0.8	4.2
2209	18	31	34.3	15	12.5	0.8	4.2

All Dimension in mm; Tolerance According : ISO 2768-m