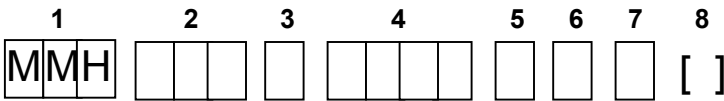


METALLIZED POLYESTER FILM CAPACITOR MULTIPURPOSE APPLICATIONS SERIES CODES: MMH

All dimensions are in mm.

PART NUMBERING SYSTEM



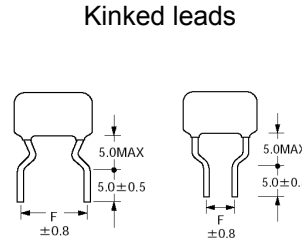
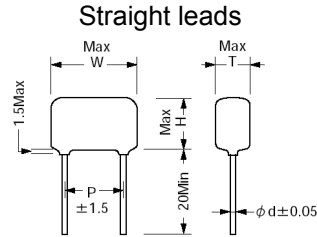
- Series code
- Capacitance value in pico farads. First 2 digits are significant and 3rd digit indicates number of zeros.
- Capacitance tolerance
J = 5% K = 10%
- D.C. voltage
- Packaging code
B = bulk A = ammo
- Lead spacing (mm) -- (Applies to standard lead spacing only. For non-standard lead spacing, contact NAA for assistance.)
C = 5.0 D = 7.5 F = 10.0
G = 12.5 I = 15.0 K = 17.5
N = 22.5 R = 27.5
- Lead Forming (omit for straight leads):
K = kink
- Internal code

SPECIFICATIONS

- Temp range:** -40 to +85°C (+105°C)*
- Voltage:** 100Vdc, 250Vdc, 400Vdc, 630Vdc, 1000Vdc, 1250Vdc
- Capacitance:** 100V 0.033μF to 4.7μF
250V 0.047μF to 3.3μF
400V 0.022μF to 1.5μF
630V 1000pF to 0.68μF
1000V 1000pF to 0.22μF
1250V 1000pF to 0.1μF
- Cap. tolerance:** ±5% (J); ±10% (K)
- Tangent of loss angle:** ≤ 0.008 (at 1kHz)
- Insulation resistance:** ≥ 15,000 MΩ for C≤0.33μF
≥ 5,000 ΩF for C>0.33μF
- Endurance:** 85°C WV x 125% 1000hrs
ΔC/C ±5% tgδ ≤ 0.01
IR C≤0.33μF ≥ 2,700 MΩ
C>0.33μF ≥ 900 ΩF
- Damp heat:** 60°C 90 to 95%RH WV 500hrs
ΔC/C ±7% tgδ ≤ 0.01
IR C≤0.33μF ≥ 2,700 MΩ
C>0.33μF ≥ 900 ΩF

* If temperature exceeds 85°C, voltage must be derated by 1.25% per degree C.

METALLIZED POLYESTER FILM CAPACITOR MULTIPURPOSE APPLICATIONS SERIES CODES: MMH



Rated Cap.	100Vdc						Part Number
	W	H	T	P	F	Ød	
0.033µF	9.5	5.5	3.5	7.5	5.0/7.5	0.5	MMH333-100---
0.039µF	9.5	5.5	3.5	7.5	5.0/7.5	0.5	MMH393-100---
0.047µF	9.5	5.5	3.5	7.5	5.0/7.5	0.5	MMH473-100---
0.056µF	9.5	5.5	3.5	7.5	5.0/7.5	0.5	MMH563-100---
0.068µF	9.5	5.5	3.5	7.5	5.0/7.5	0.5	MMH683-100---
0.082µF	9.5	5.5	3.5	7.5	5.0/7.5	0.5	MMH823-100---
0.10µF	10.0	7.0	3.8	7.5	5.0/7.5	0.5	MMH104-100---
0.12µF	10.0	7.5	3.8	7.5	5.0/7.5	0.5	MMH124-100---
0.15µF	10.0	8.0	4.0	7.5	5.0/7.5	0.5	MMH154-100---
0.18µF	10.0	8.0	4.3	7.5	5.0/7.5	0.5	MMH184-100---
0.22µF	10.0	8.0	4.5	7.5	5.0/7.5	0.5	MMH224-100---
0.27µF	10.0	9.8	4.5	7.5	5.0/7.5	0.5	MMH274-100---
0.33µF	10.0	11.0	4.5	7.5	5.0/7.5	0.5	MMH334-100---
0.39µF	10.0	11.5	5.0	7.5	5.0/7.5	0.5	MMH394-100---
0.47µF	10.0	12.0	5.3	7.5	5.0/7.5	0.5	MMH474-100---
0.56µF	12.5	10.5	5.3	10.0	5.0/7.5/10.0	0.6	MMH564-100---
0.68µF	12.5	10.5	6.4	10.0	5.0/7.5/10.0	0.6	MMH684-100---
0.82µF	12.5	13.5	5.7	10.0	5.0/7.5/10.0	0.6	MMH824-100---
1.0µF	12.5	14.0	6.0	10.0	5.0/7.5/10.0	0.6	MMH105-100---
1.2µF	18.0	12.0	5.5	15.0	5.0/7.5/15.0	0.8	MMH125-100---
1.5µF	18.0	13.0	6.0	15.0	5.0/7.5/15.0	0.8	MMH155-100---
1.8µF	18.0	13.5	6.5	15.0	5.0/7.5/15.0	0.8	MMH185-100---
2.2µF	18.0	14.0	7.3	15.0	5.0/7.5/15.0	0.8	MMH225-100---
2.7µF	25.0	13.5	6.5	22.5	22.5	0.8	MMH275-100---
3.3µF	25.0	15.0	7.0	22.5	22.5	0.8	MMH335-100---
3.9µF	25.0	16.0	7.5	22.5	22.5	0.8	MMH395-100---
4.7µF	25.0	17.0	8.0	22.5	22.5	0.8	MMH475-100---

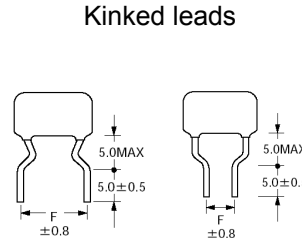
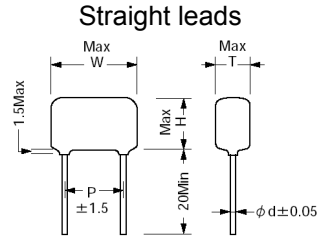
Tolerance: J ($\pm 5\%$); K ($\pm 10\%$)
 Packaging code: B (bulk); A (ammo)
 Lead spacing: C (5.0); D (7.5); F (10.0);
 I (15.0); N (22.5)
 Lead forming: K (kink)

Rated Cap.	250Vdc						Part Number
	W	H	T	P	F	Ød	
0.047µF	10.0	7.5	4.5	7.5	5.0/7.5	0.6	MMH473-250---
0.056µF	10.0	8.0	5.0	7.5	5.0/7.5	0.6	MMH563-250---
0.068µF	10.0	8.5	5.0	7.5	5.0/7.5	0.6	MMH683-250---
0.082µF	13.0	8.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH823-250---
0.10µF	13.0	9.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH104-250---
0.12µF	13.0	10.0	5.0	10.0	5.0/7.5/10.0	0.6	MMH124-250---
0.15µF	13.0	10.5	5.0	10.0	5.0/7.5/10.0	0.6	MMH154-250---
0.18µF	13.0	11.0	5.5	10.0	5.0/7.5/10.0	0.6	MMH184-250---
0.22µF	13.0	11.5	6.0	10.0	5.0/7.5/10.0	0.6	MMH224-250---
0.27µF	18.0	10.5	5.0	15.0	5.0/7.5/15.0	0.6	MMH274-250---
0.33µF	18.0	12.0	5.0	15.0	5.0/7.5/15.0	0.6	MMH334-250---
0.39µF	18.0	12.5	5.5	15.0	5.0/7.5/15.0	0.6	MMH394-250---
0.47µF	18.0	13.0	6.0	15.0	5.0/7.5/15.0	0.6	MMH474-250---
0.56µF	18.0	15.0	6.0	15.0	5.0/7.5/15.0	0.6	MMH564-250---
0.68µF	18.0	15.5	7.0	15.0	5.0/7.5/15.0	0.8	MMH684-250---
0.82µF	25.0	15.0	6.0	22.5	22.5	0.8	MMH824-250---
1.0µF	25.0	15.5	6.5	22.5	22.5	0.8	MMH105-250---
1.2µF	25.0	16.0	7.3	22.5	22.5	0.8	MMH125-250---
1.5µF	25.0	17.0	8.0	22.5	22.5	0.8	MMH155-250---
1.8µF	25.0	17.5	9.0	22.5	22.5	0.8	MMH185-250---
2.2µF	30.0	17.5	8.5	27.5	27.5	0.8	MMH225-250---
2.7µF	30.0	18.5	10.5	27.5	27.5	0.8	MMH275-250---
3.3µF	30.0	19.5	11.0	27.5	27.5	0.8	MMH335-250---

Tolerance: J ($\pm 5\%$); K ($\pm 10\%$)
 Packaging code: B (bulk); A (ammo)
 Lead spacing: C (5.0); D (7.5); F (10.0);
 I (15.0); N (22.5); R (27.5)
 Lead forming: K (kink)

All dimensions are in mm.

METALLIZED POLYESTER FILM CAPACITOR MULTIPURPOSE APPLICATIONS SERIES CODES: MMH



Rated Cap.	400Vdc						Part Number
	W	H	T	P	F	Ød	
0.022µF	13.0	7.0	4.0	10.0	5.0/7.5/10.0	0.6	MMH223-400---
0.027µF	13.0	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH273-400---
0.033µF	13.0	9.0	4.5	10.0	5.0/7.5/10.0	0.6	MMH333-400---
0.039µF	13.0	9.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH393-400---
0.047µF	13.0	10.0	5.0	10.0	5.0/7.5/10.0	0.6	MMH473-400---
0.056µF	13.0	10.5	5.0	10.0	5.0/7.5/10.0	0.6	MMH563-400---
0.068µF	13.0	10.0	6.5	10.0	5.0/7.5/10.0	0.6	MMH683-400---
0.082µF	13.0	10.5	7.0	10.0	5.0/7.5/10.0	0.6	MMH823-400---
0.10µF	18.0	10.5	5.0	15.0	5.0/7.5/15.0	0.6	MMH104-400---
0.12µF	18.0	11.0	5.5	15.0	5.0/7.5/15.0	0.6	MMH124-400---
0.15µF	18.0	12.0	6.5	15.0	5.0/7.5/15.0	0.6	MMH154-400---
0.18µF	18.0	12.5	7.0	15.0	5.0/7.5/15.0	0.6	MMH184-400---
0.22µF	18.0	15.0	6.5	15.0	5.0/7.5/15.0	0.6	MMH224-400---
0.27µF	18.0	15.0	8.0	15.0	5.0/7.5/15.0	0.8	MMH274-400---
0.33µF	18.0	15.5	8.5	15.0	5.0/7.5/15.0	0.8	MMH334-400---
0.39µF	18.0	16.5	9.0	15.0	5.0/7.5/15.0	0.8	MMH394-400---
0.47µF	25.0	17.5	7.0	22.5	22.5	0.8	MMH474-400---
0.56µF	25.0	18.0	7.5	22.5	22.5	0.8	MMH564-400---
0.68µF	25.0	19.0	8.5	22.5	22.5	0.8	MMH684-400---
0.82µF	25.0	19.5	9.5	22.5	22.5	0.8	MMH824-400---
1.0µF	25.0	20.5	10.5	22.5	22.5	0.8	MMH105-400---
1.2µF	25.0	21.5	11.5	22.5	22.5	0.8	MMH125-400---
1.5µF	30.0	21.5	11.5	27.5	27.5	0.8	MMH155-400---

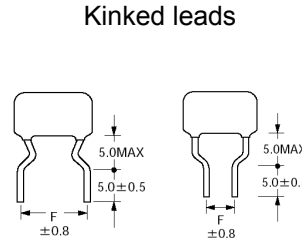
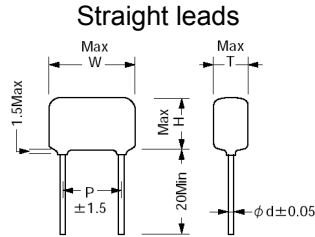
Tolerance: J (± 5%); K (±10%) _____
 Packaging code: B (bulk); A (ammo) _____
 Lead spacing: C (5.0); D (7.5); F (10.0);
 I (15.0); N (22.5) _____
 Lead forming: K (kink) _____

All dimensions are in mm.

Rated Cap.	630Vdc						Part Number
	W	H	T	P	F	Ød	
1000pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH102-630---
1200pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH122-630---
1500pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH152-630---
1800pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH182-630---
2200pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH222-630---
2700pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH272-630---
3300pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH332-630---
3900pF	12.5	7.5	4.5	10.0	5.0/7.5/10.0	0.6	MMH392-630---
4700pF	12.5	10.0	5.0	10.0	5.0/7.5/10.0	0.6	MMH472-630---
5600pF	12.5	10.0	5.0	10.0	5.0/7.5/10.0	0.6	MMH562-630---
6800pF	12.5	10.0	5.0	10.0	5.0/7.5/10.0	0.6	MMH682-630---
8200pF	12.5	10.0	5.0	10.0	5.0/7.5/10.0	0.6	MMH822-630---
0.010µF	13.0	7.5	4.0	10.0	5.0/7.5/10.0	0.6	MMH103-630---
0.012µF	13.0	8.0	4.5	10.0	5.0/7.5/10.0	0.6	MMH123-630---
0.015µF	13.0	9.5	4.0	10.0	5.0/7.5/10.0	0.6	MMH153-630---
0.018µF	13.0	10.0	4.5	10.0	5.0/7.5/10.0	0.6	MMH183-630---
0.022µF	13.0	10.5	5.0	10.0	5.0/7.5/10.0	0.6	MMH223-630---
0.027µF	13.0	10.5	5.5	10.0	5.0/7.5/10.0	0.6	MMH273-630---
0.033µF	13.0	11.0	5.5	10.0	5.0/7.5/10.0	0.6	MMH333-630---
0.039µF	13.0	10.5	7.0	10.0	5.0/7.5/10.0	0.6	MMH393-630---
0.047µF	18.0	10.5	5.0	15.0	5.0/7.5/15.0	0.6	MMH473-630---
0.056µF	18.0	11.0	5.5	15.0	5.0/7.5/15.0	0.6	MMH563-630---
0.068µF	18.0	11.0	6.0	15.0	5.0/7.5/15.0	0.6	MMH683-630---
0.082µF	18.0	13.5	6.0	15.0	5.0/7.5/15.0	0.6	MMH823-630---
0.10µF	18.0	14.0	6.5	15.0	5.0/7.5/15.0	0.6	MMH104-630---
0.12µF	18.0	15.5	6.5	15.0	5.0/7.5/15.0	0.6	MMH124-630---
0.15µF	25.0	13.5	6.0	22.5	22.5	0.8	MMH154-630---
0.18µF	25.0	14.0	6.5	22.5	22.5	0.8	MMH184-630---
0.22µF	25.0	16.0	7.0	22.5	22.5	0.8	MMH224-630---
0.27µF	25.0	17.0	8.0	22.5	22.5	0.8	MMH274-630---
0.33µF	25.0	17.5	8.5	22.5	22.5	0.8	MMH334-630---
0.39µF	25.0	18.5	9.5	22.5	22.5	0.8	MMH394-630---
0.47µF	30.0	19.0	8.5	27.5	27.5	0.8	MMH474-630---
0.56µF	30.0	20.0	9.5	27.5	27.5	0.8	MMH564-630---
0.68µF	30.0	21.0	10.5	27.5	27.5	0.8	MMH684-630---

Tolerance: J (± 5%); K (±10%) _____
 Packaging code: B (bulk); A (ammo) _____
 Lead spacing: C (5.0); D (7.5); F (10.0);
 I (15.0); N (22.5); R (27.5) _____
 Lead forming: K (kink) _____

METALLIZED POLYESTER FILM CAPACITOR MULTIPURPOSE APPLICATIONS SERIES CODES: MMH



Rated Cap.	1000Vdc						Part Number
	W	H	T	P	F	Ød	
1000pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH102-1000---
1200pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH122-1000---
1500pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH152-1000---
1800pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH182-1000---
2200pF	19.0	11.0	5.5	15.5	7.5/10.0	0.6	MMH222-1000---
2700pF	19.0	11.0	6.0	15.5	7.5/10.0	0.6	MMH272-1000---
3300pF	19.0	11.0	6.0	15.5	7.5/10.0	0.6	MMH332-1000---
3900pF	19.0	11.5	6.5	15.5	7.5/10.0	0.6	MMH392-1000---
4700pF	19.0	12.0	6.5	15.5	7.5/10.0	0.6	MMH472-1000---
5600pF	19.0	13.0	7.0	15.5	7.5/10.0	0.6	MMH562-1000---
6800pF	19.0	13.5	7.5	15.5	7.5/10.0	0.6	MMH682-1000---
8200pF	19.0	13.5	7.5	15.5	7.5/12.5	0.6	MMH822-1000---
0.010µF	19.0	13.0	7.0	15.5	7.5/12.5	0.6	MMH103-1000---
0.012µF	19.0	13.0	7.5	15.5	7.5/12.5	0.6	MMH123-1000---
0.015µF	19.0	14.0	8.0	15.5	7.5/12.5	0.6	MMH153-1000---
0.018µF	19.0	15.0	8.0	15.5	7.5/12.5	0.6	MMH183-1000---
0.022µF	19.0	16.0	8.5	15.5	7.5/12.5	0.6	MMH223-1000---
0.027µF	26.0	15.0	7.0	21.5	12.5	0.8	MMH273-1000---
0.033µF	26.0	15.5	7.5	21.5	12.5	0.8	MMH333-1000---
0.039µF	26.0	17.0	7.5	21.5	12.5	0.8	MMH393-1000---
0.047µF	26.0	17.5	8.5	21.5	12.5	0.8	MMH473-1000---
0.056µF	26.0	18.0	9.0	21.5	12.5	0.8	MMH563-1000---
0.068µF	26.0	19.0	10.0	21.5	12.5	0.8	MMH683-1000---
0.082µF	26.0	20.0	10.0	21.5	12.5	0.8	MMH823-1000---
0.10µF	26.0	22.0	10.5	21.5	12.5	0.8	MMH104-1000---
0.12µF	31.0	20.5	10.5	26.5	17.5	0.8	MMH124-1000---
0.15µF	31.0	22.0	11.5	26.5	17.5	0.8	MMH154-1000---
0.18µF	31.0	23.0	12.5	26.5	17.5	0.8	MMH184-1000---
0.22µF	31.0	24.0	13.5	26.5	17.5	0.8	MMH224-1000---

Tolerance: J (± 5%); K (± 10%) _____
 Packaging code: B (bulk); A (ammo) _____
 Lead spacing: F (10.0); G (12.5);
 K (17.5); N (22.5); R (27.5) _____
 Lead forming: K (kink) _____

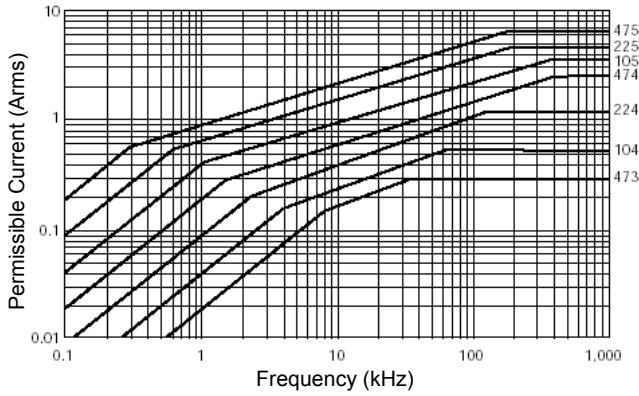
Rated Cap.	1250Vdc						Part Number
	W	H	T	P	F	Ød	
1000pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH102-1250---
1200pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH122-1250---
1500pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH152-1250---
1800pF	19.0	10.5	5.5	15.5	7.5/10.0	0.6	MMH182-1250---
2200pF	19.0	11.0	5.5	15.5	7.5/10.0	0.6	MMH222-1250---
2700pF	19.0	11.0	6.0	15.5	7.5/10.0	0.6	MMH272-1250---
3300pF	19.0	11.0	6.0	15.5	7.5/10.0	0.6	MMH332-1250---
3900pF	19.0	11.5	6.5	15.5	7.5/10.0	0.6	MMH392-1250---
4700pF	19.0	12.0	6.5	15.5	7.5/10.0	0.6	MMH472-1250---
5600pF	19.0	13.0	7.0	15.5	7.5/10.0	0.6	MMH562-1250---
6800pF	19.0	13.5	7.5	15.5	7.5/10.0	0.6	MMH682-1250---
8200pF	26.0	12.0	6.0	21.5	12.5	0.6	MMH822-1250---
0.010µF	26.0	12.5	6.5	21.5	12.5	0.6	MMH103-1250---
0.012µF	26.0	12.5	6.5	21.5	12.5	0.6	MMH123-1250---
0.015µF	26.0	14.0	6.5	21.5	12.5	0.6	MMH153-1250---
0.018µF	26.0	14.5	7.0	21.5	12.5	0.6	MMH183-1250---
0.022µF	26.0	15.0	8.0	21.5	12.5	0.6	MMH223-1250---
0.027µF	31.0	15.5	8.0	26.5	17.5	0.8	MMH273-1250---
0.033µF	31.0	16.0	8.5	26.5	17.5	0.8	MMH333-1250---
0.039µF	31.0	17.0	8.5	26.5	17.5	0.8	MMH393-1250---
0.047µF	31.0	18.0	9.0	26.5	17.5	0.8	MMH473-1250---
0.056µF	34.0	18.0	9.0	30.5	22.5	0.8	MMH563-1250---
0.068µF	34.0	20.0	9.5	30.5	22.5	0.8	MMH683-1250---
0.082µF	34.0	20.5	10.0	30.5	22.5	0.8	MMH823-1250---
0.10µF	34.0	22.0	10.5	30.5	22.5	0.8	MMH104-1250---

Tolerance: J (± 5%); K (± 10%) _____
 Packaging code: B (bulk); A (ammo) _____
 Lead spacing: F (10.0); G (12.5);
 K (17.5); N (22.5); R (27.5) _____
 Lead forming: K (kink) _____

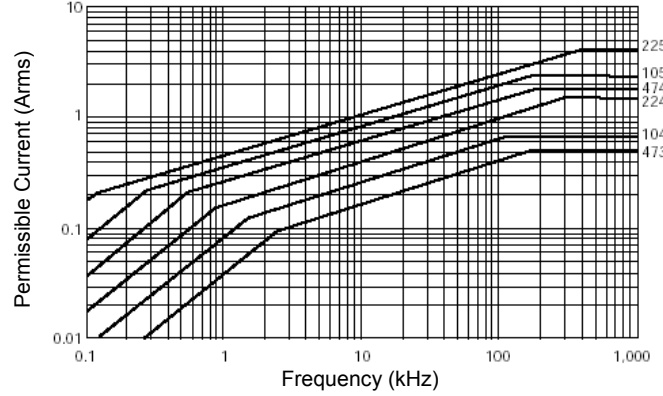
All dimensions are in mm.

METALLIZED POLYESTER FILM CAPACITOR
MULTIPURPOSE APPLICATIONS
 SERIES CODES: **MMH**

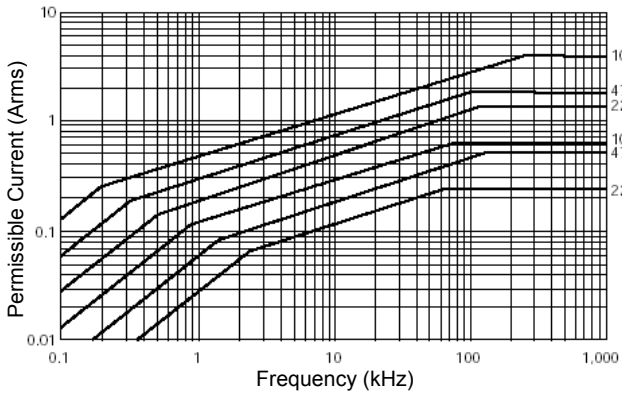
Permissible Current Versus Frequency
100Vdc



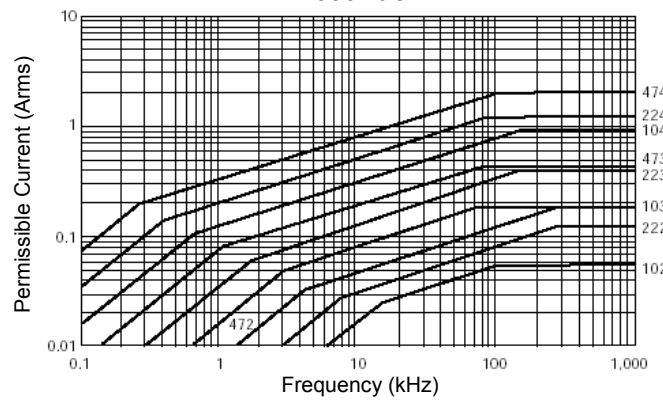
250Vdc



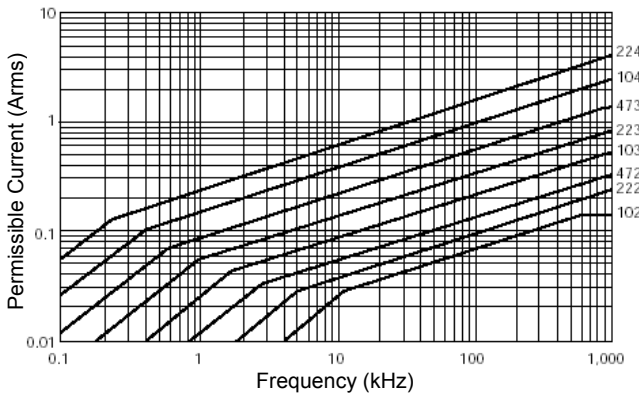
400Vdc



630Vdc



1000Vdc



1250Vdc

