TRAFIM Products

Standard

APPLICATIONS

DC voltage filtering for:

- DC link
- Resonant filtering
- Active correction (FACTS, UPFC, DVR...)
- Speed converters (drives and traction)
- Windmills
- Substation

PACKAGING

Rectangular stainless steel case sandblasted. Grounding is via a threaded screw located on the cover of the case.

PRESENTATION

ELECTRICAL CHARACTERISTICS

Capacitance range C_n	610µF to 15600µF
Tolerance on C_n	±10%
DC voltage range	1200V to 5000V
Maximum hot-spot temperature	85°C
Life duration at nominal voltage and 70°C hot-spot temperature	100000 hours
Stray inductance	<400nH
Test voltage between terminals	$1.5V_n$ during 10s
Test voltage between short terminals and case	$10kV_{rms}$ (at 50Hz during 1mn)
Standard reference	Conforms with IEC 61071 and 61881, 61373, 60068 and 60077

This catalog presents standard products, for specific products; please fill out the Guide for Customer's Specific Requirement on page 30.

TRAFIM Products

Standard

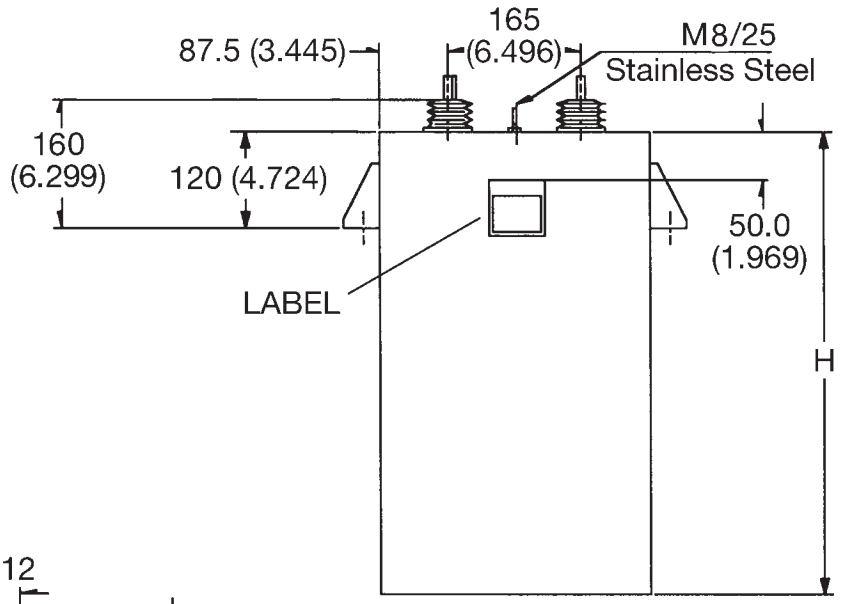
In the top of each cell is the part number that can be used to order these capacitors.

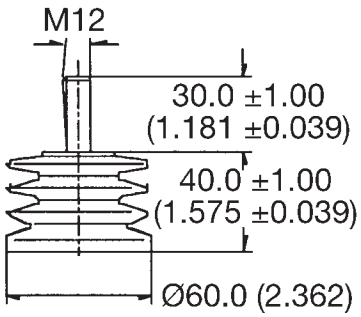
TABLE OF VALUES

L x Wmm (inches)	**Base 340 (13.386) x 165 (6.496)**			
Hmm (inches)	330 (12.992)	485 (19.094)	640 (25.197)	830 (32.677)
Weight (kg)	25.5	35.5	46	58.5
S (dm²)	39	54.5	70.5	89.4
Vn (V)	Part Number **C (µF)** Rs (mΩ)	Part Number **C (µF)** Rs (mΩ)	Part Number **C (µF)** Rs (mΩ)	Part Number **C (µF)** Rs (mΩ)
1200 → 1400	DKTFM1K405477 **5470** 0.66	DKTFM1K401057 **1050** 0.58	DKTFM1K401178 **11700** 0.56	DKTFM1K401568 **15600** 0.55
2000	DKTFM2K002857 **2850** 0.85	DKTFM1K408607 **8600** 0.71	DKTFM2K006127 **6120** 0.66	DKTFM2K008167 **8160** 0.64
2400	DKTFM2K401927 **1920** 0.97	DKTFM2K403037 **3030** 0.78	DKTFM2K404127 **4120** 0.72	DKTFM2K405507 **5500** 0.68
2900	DKTFM2K901367 **1360** 1.07	DKTFM2K902147 **2140** 0.85	DKTFM2K902927 **2920** 0.77	DKTFM2K903897 **3890** 0.72
3300	DKTFM3K301067 **1060** 1.14	DKTFM3K301667 **1660** 0.90	DKTFM3K302277 **2270** 0.80	DKTFM3K303037 **3030** 0.75
4200	DKTFM4K200677 **670** 1.29	DKTFM4K201057 **1050** 0.99	DKTFM4K201437 **1430** 0.87	DKTFM4K201917 **1910** 0.81
5000	DKTFM5K000617 **610** 1.47	DKTFM5K000717 **710** 1.11	DKTFM5K000977 **970** 0.96	DKTFM5K001297 **1290** 0.87

Hmm (inches)	330 (12.992)	485 (19.094)	640 (25.197)	830 (32.677)
Ls (nH)	180	210	235	270

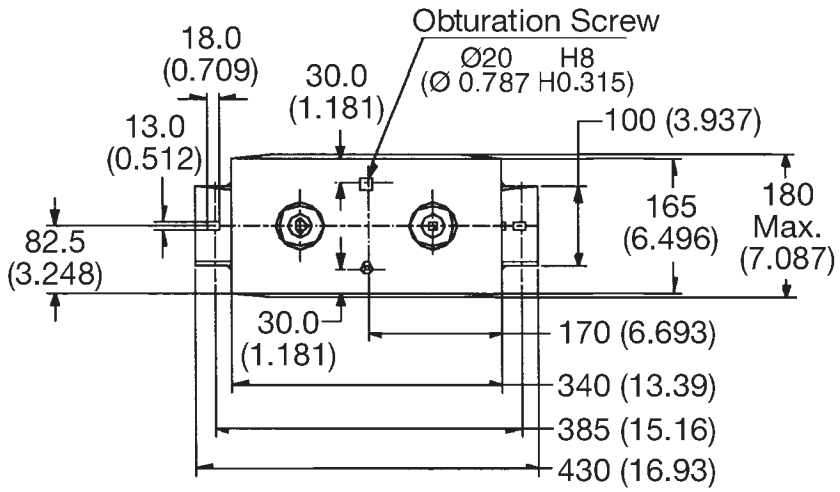
MECHANICAL DESIGN millimeters (inches)





Creepage Distance:
78.0 (3.071)

Air Distance:
50.0 (1.969)



DESIGN EXAMPLE

Previously, we gave all the basic information to design a capacitor. Now we apply these formulations on an example.

Vn DETERMINATION (see page 4)

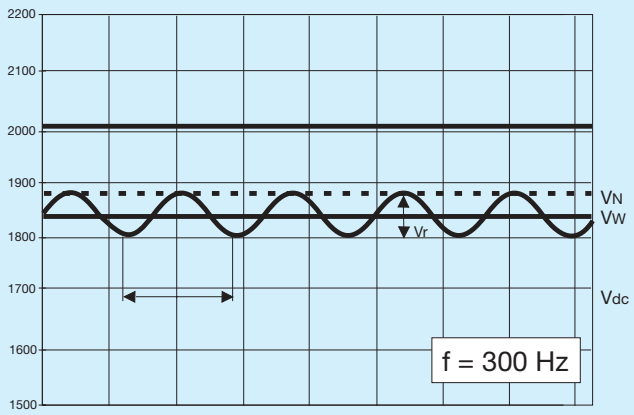
C = 6000 µF
DC voltage = 1850 V
f = 300 Hz
I_{rms} = 208 A

According to data:

V_r = 52 V peak-to-peak
V_w = 1850 + 52/2 = 1876 V

Example:

C_n = 6120 µF (page 13)
V_n = 2000 V
H = 640mm



HOT SPOT TEMPERATURE CALCULATION (see page 4)

Using the previous example:

C_n = 6120 µF
V_n = 2000 V
V_w = 1876 V
f = 300 Hz
I_{rms} = 208 A

The cooling air temperature:

θ_{amb} = 50°C

From the tables find the following constants:

S = 70.5 dm^2 (find in the table)
Rs = 0.66 mΩ

The hot spot temperature in this example is therefore:

θ_{HS} = 56.8°C

MTBF CALCULATION (see page 5)

For a train application (4) in favorable conditions (1) in accordance to IEC 61071 (2)

Vw = 0.9 Vn (400,000 h of expected lifetime)
θ_{HS} = 56.8°C

$\lambda = \lambda_B x2x4x1$

$\lambda = 9x10^{-9}$ failures/hour

MTBF = 111 x 10^6 hours

CALORIFIC VALUE (see page 8)

millimeters (inches)

L = 340 (13.386)
W = 165 (6.496)
H = 640 (25.197)
N = 2

CV#1506MJ

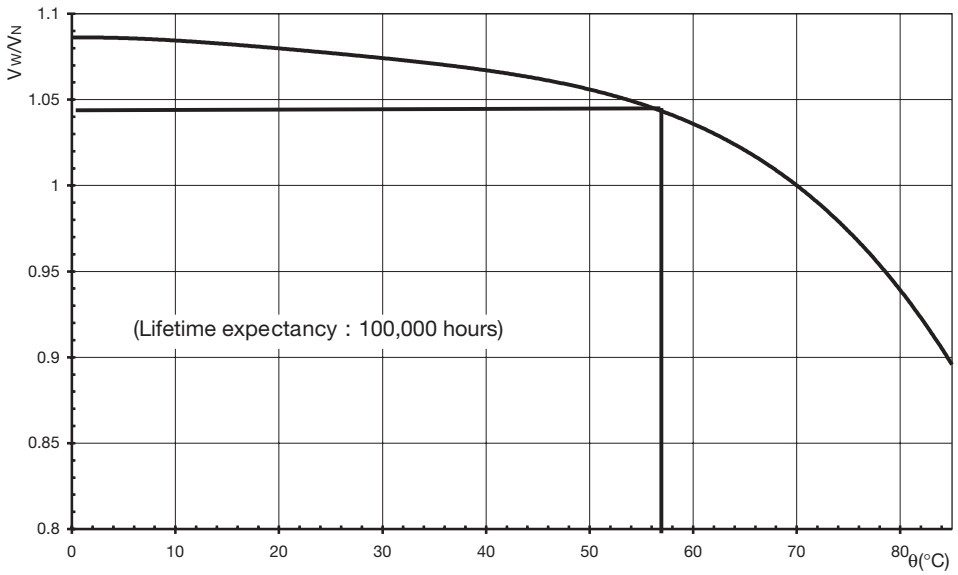
P/N TO ORDER

DKTFM2K006127

LIFETIME EXPECTANCY DESIGN

CURVE 1

V_W/V_n vs Hot spot temperature



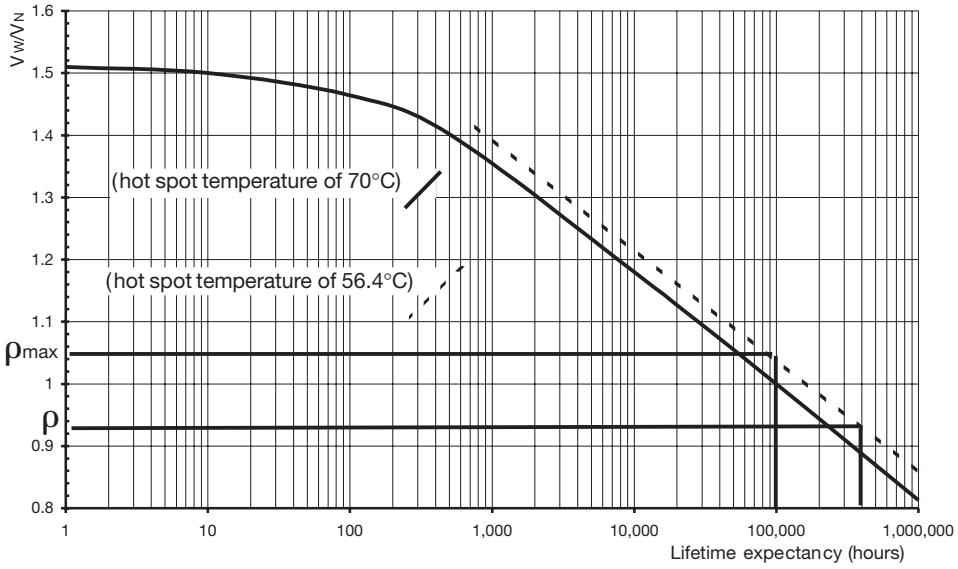
The highest V_w/V_n ratio (= ρ_{max}) for a lifetime of 100,000 hours can be deduced from Curve 1.

$\rho_{max} = V_{wmax}/V_n = 1.040$

so **V_{Wmax} = 2080 V** (= 1.040 x 2000)
(for θ_{HS} = 56.8°C and 100,000 hours)

CURVE 2

V_W/V_n vs Lifetime expectancy



According to Curve 2, theoretical lifetime expectancy at V_w = 1876 V and θ_{HS} = 56.8°C can be determined.

This gives a lifetime of **400,000 hours** for this capacitor under working conditions. This value is explained by the choice of $V_n >> V_w$.

TRAFIM Products

Custom

APPLICATIONS

DC voltage filtering for:

- DC link
- Resonant filtering
- Active correction *(FACTS, UPFC, DVR...)*
- Speed converters (drives and traction)
- Windmills
- Substation

PACKAGING

Rectangular stainless steel case sandblasted. Grounding is via a threaded screw located on the cover of the case.

PRESENTATION

ELECTRICAL CHARACTERISTICS

Capacitance range C_n	83µF to 15300µF
Tolerance on C_n (±5% or ±2% available for specific requirements)	±10%
DC voltage range	1200V to 6000V
Maximum hot-spot temperature	85°C
Life duration at nominal voltage and 70°C hot-spot temperature	100,000 hours
Stray inductance On option low inductance for IGBT and other applications	200nH to 430nH down to 40nH
Test voltage between terminals	$1.5V_n$ during 10s
Test voltage between short terminals and case	$10kV_{rms}$ (at 50Hz during 1mn)
Standard reference	Conforms with IEC 61071, 61881 and 61373, IEC 60068 and IEC 60077

For specific products out of this catalog, please fill out the Guide for Customer's Specific Requirement on page 30.

TRAFIM Products

Custom

TABLE OF VALUES

L x W mm (inches)	**Base 166 (6.535) x 152 (5.984) Stainless Steel Case**							
H mm (inches)	250 (9.843)	340 (13.386)	435 (17.126)	530 (20.866)	620 (24.409)	715 (28.150)	805 (31.693)	855 (33.661)
Weight (kg)	10.5	13	16	19	22	25	28	29.5
S (dm²)	18	24	30	36	44.5	48	54	57
Vn (V)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)
1200 →1400	**1580** 1.41	**2210** 1.17	**3160** 1.01	**3790** 0.96	**4740** 0.92	**5370** 0.91	**6320** 0.90	**6640** 0.89
1800	(202) **1040** 1.64	**1460** 1.33	**2080** 1.13	**2500** 1.06	**3120** 1.01	**3540** 0.99	**4160** 0.97	**4370** 0.97
2000	(180) **825** 1.79	(252) **1160** 1.44	**1650** 1.20	**1980** 1.13	**2480** 1.06	**2810** 1.04	**3300** 1.01	**3470** 1.01
2200	(166) **700** 1.91	(232) **980** 1.52	**1400** 1.26	**1680** 1.18	**2100** 1.10	**2380** 1.07	**2800** 1.05	**2940** 1.04
2450	(148) **560** 2.09	(207) **780** 1.65	**1120** 1.36	**1340** 1.25	**1680** 1.17	**1900** 1.13	**2240** 1.10	**2350** 1.09
2650	(135) **470** 2.24	(190) **655** 1.76	**940** 1.43	**1130** 1.32	**1410** 1.22	**1600** 1.18	**1880** 1.14	**1980** 1.13
2900	(124) **395** 2.41	(171) **550** 1.88	(249) **790** 1.52	**950** 1.39	**1180** 1.28	**1340** 1.23	**1580** 1.19	**1600** 1.18
3100	(117) **350** 2.53	(164) **490** 1.97	(234) **700** 1.58	**840** 1.44	**1050** 1.32	**1190** 1.27	**1400** 1.22	**1470** 1.21
3300	(109) **305** 2.68	(153) **430** 2.07	(219) **610** 1.65	**735** 1.50	**915** 1.37	**1040** 1.31	**1220** 1.26	**1290** 1.25
3500	(103) **275** 2.81	(145) **385** 2.17	(207) **550** 1.72	(248) **660** 1.56	**825** 1.41	**935** 1.36	**1100** 1.30	**1150** 1.29
3650	(98) **245** 2.94	(137) **345** 2.26	(196) **490** 1.78	(235) **590** 1.61	**735** 1.46	**835** 1.40	**980** 1.33	**1030** 1.32
4000	(180) **194** 1.80	(250) **272** 1.45	**388** 1.21	**465** 1.13	**582** 1.07	**660** 1.04	**776** 1.02	**815** 1.01
4350	(166) **165** 1.92	(233) **231** 1.53	**330** 1.27	**396** 1.18	**495** 1.11	**561** 1.08	**660** 1.05	**693** 1.05
4900	(148) **131** 2.11	(207) **183** 1.67	**262** 1.37	**313** 1.26	**392** 1.17	**444** 1.14	**524** 1.11	**548** 1.10
5300	(135) **110** 2.26	(190) **154** 1.77	**220** 1.44	**264** 1.33	**330** 1.23	**374** 1.19	**440** 1.15	**462** 1.14
5800	(124) **93** 2.43	(174) **130** 1.90	**186** 1.53	**222** 1.40	**277** 1.28	**315** 1.24	**372** 1.20	**391** 1.18
6000	(117) **83** 2.54	(164) **116** 1.98	**166** 1.59	**198** 1.45	**248** 1.33	**280** 1.28	**332** 1.23	**349** 1.22

Unless specified I_{max} = 255A

TRAFIM Products

Custom

TABLE OF VALUES

L x Wmm (inches)	**Base 340 (13.386) x 125 (4.921) Stainless Steel Case**							
Hmm (inches)	250 (9.843)	340 (13.386)	435 (17.126)	530 (20.866)	620 (24.409)	715 (28.150)	805 (31.693)	855 (33.661)
Weight (kg)	16	21	26	31	35.5	40.5	45	47.5
S (dm²)	27.5	36	45	54	62	71	79	84
Vn (V)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)
1200 → 1400	**2370** 1.07	**3790** 0.85	**5220** 0.77	**6640** 0.73	**7590** 0.71	**9000** 0.70	**10500** 0.69	**10900** 0.69
1800	**1560** 1.23	**2500** 0.95	**3430** 0.84	**4370** 0.78	**5000** 0.76	**5930** 0.74	**6870** 0.73	**7180** 0.73
2000	(250) **1240** 1.33	**1980** 1.01	**2730** 0.88	**3470** 0.82	**3970** 0.80	**4710** 0.77	**5460** 0.76	**5710** 0.75
2200	(232) **1050** 1.41	**1680** 1.06	**2310** 0.92	**2940** 0.85	**3360** 0.82	**4000** 0.79	**4620** 0.78	**4830** 0.77
2450	(206) **835** 1.53	**1340** 1.14	**1840** 0.98	**2340** 0.89	**2680** 0.86	**3180** 0.83	**3680** 0.81	**3840** 0.80
2650	(190) **705** 1.63	**1130** 1.20	**1550** 1.02	**1980** 0.93	**2260** 0.89	**2680** 0.86	**3100** 0.83	**3250** 0.83
2900	(174) **590** 1.74	**945** 1.27	**1300** 1.07	**1660** 0.97	**1890** 0.93	**2250** 0.89	**2600** 0.86	**2720** 0.85
3100	(164) **526** 1.82	**845** 1.32	**1160** 1.11	**1480** 1.00	**1690** 0.95	**2010** 0.91	**2320** 0.88	**2430** 0.87
3300	(153) **460** 1.926	(244) **735** 1.38	**1010** 1.16	**1290** 1.04	**1470** 0.99	**1750** 0.94	**2030** 0.90	**2120** 0.90
3500	(144) **410** 2.00	(231) **655** 1.44	**900** 1.19	**1150** 1.07	**1310** 1.01	**1560** 0.96	**1800** 0.92	**1890** 0.92
3650	(137) **367** 2.10	(219) **590** 1.49	**810** 1.24	**1030** 1.10	**1180** 1.04	**1400** 0.98	**1620** 0.95	**1690** 0.94
4000	(250) **290** 1.34	**465** 1.02	**640** 0.89	**810** 0.82	**930** 0.80	**1100** 0.77	**1280** 0.76	**1340** 0.76
4350	(230) **247** 1.42	**395** 1.07	**543** 0.93	**690** 0.85	**790** 0.82	**940** 0.80	**1090** 0.78	**1140** 0.78
4900	(205) **196** 1.54	**315** 1.14	**430** 0.98	**550** 0.90	**630** 0.86	**745** 0.83	**865** 0.81	**905** 0.81
5300	(190) **165** 1.64	**265** 1.21	**365** 1.03	**465** 0.93	**530** 0.90	**630** 0.86	**730** 0.84	**760** 0.83
5800	(174) **139** 1.75	**222** 1.28	**305** 1.08	**389** 0.98	**445** 0.93	**528** 0.89	**612** 0.86	**640** 0.86
6000	(164) **124** 1.83	**198** 1.33	**273** 1.12	**347** 1.00	**397** 0.96	**472** 0.91	**546** 0.88	**570** 0.88

Unless specified I_{max} = 255A

TRAFIM Products

Custom

TABLE OF VALUES

L x Wmm (inches)	Base 340 (13.386) x 152 (5.984) Stainless Steel Case							
Hmm (inches)	250 (9.843)	340 (13.386)	435 (17.126)	530 (20.866)	620 (24.409)	715 (28.150)	805 (31.693)	855 (33.661)
Weight (kg)	19	24.5	30.5	36	41.5	47.5	53	56
S (dm²)	30	39	48	57	66	76	84	89
Vn (V)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)
1200 → 1400	**3160** 0.92	**4420** 0.79	**6320** 0.72	**7580** 0.69	**9480** 0.67	**10800** 0.67	**12700** 0.66	**13300** 0.66
1800	**2080** 1.03	**2920** 0.88	**4160** 0.78	**5000** 0.74	**6240** 0.72	**7080** 0.71	**8320** 0.70	**8740** 0.69
2000	**1650** 1.11	**2320** 0.93	**3300** 0.81	**3960** 0.77	**4960** 0.74	**5620** 0.73	**6600** 0.72	**6940** 0.72
2200	**1400** 1.17	**1960** 0.97	**2800** 0.84	**3360** 0.80	**4200** 0.76	**4760** 0.75	**5600** 0.74	**5880** 0.73
2450	**1120** 1.26	**1560** 1.04	**2240** 0.89	**2680** 0.84	**3360** 0.80	**3800** 0.78	**4480** 0.76	**4700** 0.76
2650	**940** 1.33	**1310** 1.09	**1880** 0.93	**2260** 0.87	**2820** 0.82	**3200** 0.80	**3760** 0.78	**3960** 0.78
2900	(248) **790** 1.41	**1100** 1.15	**1580** 0.97	**1900** 0.91	**2360** 0.85	**2680** 0.83	**3160** 0.81	**3320** 0.80
3100	(234) **700** 1.48	**980** 1.20	**1400** 1.00	**1680** 0.93	**2100** 0.87	**2380** 0.85	**2800** 0.82	**2940** 0.82
3300	(218) **610** 1.55	**860** 1.25	**1220** 1.04	**1470** 0.96	**1830** 0.90	**2080** 0.87	**2440** 0.84	**2580** 0.84
3500	(206) **550** 1.61	**770** 1.29	**1100** 1.07	**1320** 0.99	**1650** 0.92	**1870** 0.89	**2200** 0.86	**2300** 0.85
3650	(196) **490** 1.68	**690** 1.34	**980** 1.11	**1180** 1.02	**1470** 0.94	**1670** 0.91	**1960** 0.88	**2060** 0.87
4000	**388** 1.11	**544** 0.94	**776** 0.82	**930** 0.78	**1160** 0.75	**1320** 0.73	**1550** 0.72	**1630** 0.72
4350	**330** 1.17	**462** 0.98	**660** 0.85	**792** 0.80	**990** 0.77	**1120** 0.75	**1320** 0.74	**1390** 0.74
4900	**262** 1.26	**366** 1.04	**524** 0.89	**626** 0.84	**784** 0.77	**888** 0.78	**1050** 0.76	**1100** 0.76
5300	**220** 1.34	**308** 1.10	**440** 0.93	**528** 0.88	**660** 0.82	**748** 0.80	**880** 0.79	**924** 0.78
5800	**186** 1.43	**260** 1.16	**372** 0.98	**444** 0.91	**554** 0.85	**630** 0.83	**742** 0.81	**782** 0.80
6000	(235) **166** 1.48	**232** 1.20	**332** 1.01	**396** 0.94	**496** 0.87	**560** 0.85	**664** 0.83	**698** 0.82

Unless specified I_{max} = 255A

TRAFIM Products

Custom

TABLE OF VALUES

L x W mm (inches)	Base 340 (13.386) x 165 (6.496) Stainless Steel Case							
H mm (inches)	250 (9.843)	340 (13.386)	435 (17.126)	530 (20.866)	620 (24.409)	715 (28.150)	805 (31.693)	855 (33.661)
Weight (kg)	20.5	26	32.5	38.5	44.5	51	57	60
S (dm²)	31	40	50	59	68	79	87	92
Vn (V)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)	(I_{max}(A)) **C (µF)** Rs (mΩ)
1200 → 1400	**3820** 0.83	**5350** 0.73	**6880** 0.69	**9170** 0.66	**10700** 0.65	**13000** 0.64	**14500** 0.64	**15300** 0.63
1800	**2510** 0.93	**3520** 0.80	**4520** 0.74	**6030** 0.70	**7040** 0.68	**8540** 0.67	**9540** 0.67	**10100** 0.67
2000	**2000** 0.99	**2800** 0.85	**3600** 0.78	**4800** 0.73	**5600** 0.71	**6800** 0.69	**7600** 0.69	**8000** 0.69
2200	**1700** 1.04	**2380** 0.88	**3060** 0.81	**4080** 0.75	**4760** 0.73	**5780** 0.71	**6460** 0.70	**6800** 0.70
2450	**1350** 1.11	**1890** 0.94	**2430** 0.84	**3240** 0.78	**3780** 0.76	**4590** 0.74	**5130** 0.73	**5400** 0.72
2650	**1140** 1.18	**1590** 0.98	**2050** 0.88	**2720** 0.81	**3180** 0.78	**3860** 0.76	**4310** 0.75	**4540** 0.74
2900	**950** 1.24	**1330** 1.03	**1710** 0.92	**2280** 0.84	**2660** 0.81	**3230** 0.78	**3610** 0.77	**3800** 0.76
3100	**850** 1.29	**1190** 1.06	**1530** 0.95	**2040** 0.86	**2380** 0.82	**2890** 0.79	**3230** 0.78	**3400** 0.78
3300	**740** 1.36	**1040** 1.11	**1340** 0.98	**1780** 0.88	**2070** 0.85	**2520** 0.81	**2810** 0.80	**2960** 0.79
3500	**660** 1.41	**925** 1.15	**1190** 1.01	**1590** 0.91	**1850** 0.87	**2250** 0.83	**2510** 0.81	**2640** 0.81
3650	(244) **590** 1.47	**830** 1.19	**1070** 1.05	**1430** 0.93	**1660** 0.89	**2020** 0.85	**2260** 0.83	**2370** 0.82
4000	**470** 1.00	**655** 0.85	**845** 0.78	**1120** 0.73	**1310** 0.71	**1600** 0.70	**1780** 0.69	**1870** 0.69
4350	**400** 1.04	**560** 0.89	**720** 0.81	**960** 0.75	**1120** 0.73	**1360** 0.71	**1520** 0.71	**1600** 0.70
4900	**315** 1.12	**445** 0.94	**570** 0.85	**760** 0.78	**885** 0.76	**1080** 0.74	**1200** 0.73	**1270** 0.73
5300	**266** 1.18	**375** 0.99	**480** 0.89	**640** 0.81	**750** 0.78	**905** 0.76	**1010** 0.75	**1070** 0.74
5800	**224** 1.25	**313** 1.04	**403** 0.93	**540** 0.84	**630** 0.81	**760** 0.78	**850** 0.77	**895** 0.76
6000	**200** 1.30	**280** 1.07	**360** 0.95	**480** 0.86	**560** 0.83	**680** 0.80	**760** 0.78	**800** 0.78

Unless specified I_{max} = 255A

DESIGN EXAMPLE

Previously, we gave all the basic information to design a capacitor. Now we apply these formulations on an example.

Vn DETERMINATION (see page 4)

millimeters (inches)

C = 2000 µF
DC voltage = 2800 V
F = 33 Hz
I_{rms} = 233 A

In accordance to data:

V_r = 1590 V
V_w= 2800 + 1590/2 = 3595V

Solution:

C_n = 2060µF (page 21)
V_n = 3650 V
V_r = 0.45 x 3650 = 1642 V max.
L x W = 340 x 152 (13.386 x 5.984)
H = 855 (33.661)

HOT SPOT TEMPERATURE CALCULATION (see page 4)

θ_{amb} = 50°C with natural convection

From tables of values:

S = 89dm2 (Found in the table)
R_S = 0.87mΩ (page 21)

The hot spot temperature is therefore:

θ_{HS} = 68.7°C

MTBF CALCULATION (see page 5)

For a train application (4) in favorable conditions (1) in accordance to IEC 61071 (2)

Vw = 0.985 Vn (105,000 h of expected lifetime)
θ_{HS} = 68.7°C

$\lambda = \lambda_B x2x4x1$

$\lambda = 49.3x10^{-9}$ failures/hour

MTBF = 20.3 x 10^6 hours

CALORIFIC VALUE (see page 8)

millimeters (inches)

L = 340 (13.386)
W = 152 (5.984)
H = 855 (33.661)
N = 2

CV#1827.5MJ

PARASITIC INDUCTANCE

Maximum inductance for products (with 2 terminals)

millimeters (inches)

L x W millimeters (inches)	**Ls (nH)**
166 x 152 (6.535 x 5.984)	150 (nH) + 0.45 (0.018) x H
340 x 125 (13.386 x 4.921)	150 (nH) + 0.30 (0.012) x H
340 x 152 (13.386 x 5.984)	150 (nH) + 0.23 (0.009) x H
340 x 165 (13.386 x 6.378)	150 (nH) + 0.18 (0.007) x H

This inductance can be reduced by approximately 75nH by using 4 terminals instead of 2 (see mechanical design chapter). If this solution does not reduce the inductance sufficiently, we suggest taking the low inductance option (down to 40nH).

TERMINALS AND CONNECTIONS

Epoxide terminals, mechanically assembled by O-ring. 9 solutions of terminals are offered, the most standard is type 2. On specific requirements we can propose other solutions depending on the waited function.

BRACKETS

The capacitor may or may not be equipped with mounting brackets. They are shown on page 25.

LOW INDUCTANCE OPTION

Please note that the low inductance option will increase width as well as weight:

W + 10mm

Weight +10% (approximately)

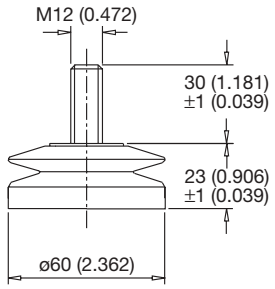
Terminals

4 terminals will be used instead of 2.

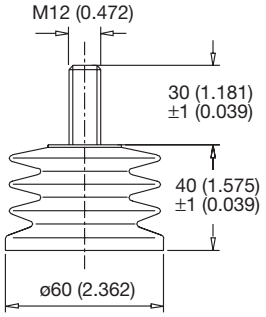
millimeters (inches)

Body	Creepage distance	Air distance
2 waves	52 (2.047)	30 (1.181)
4 waves	78 (3.071)	50 (1.969)

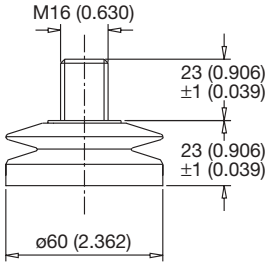
1



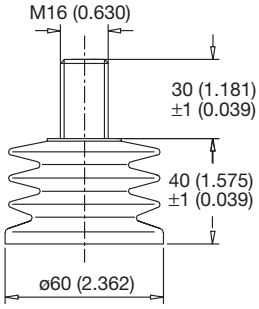
2



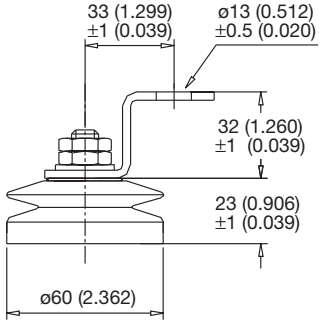
3



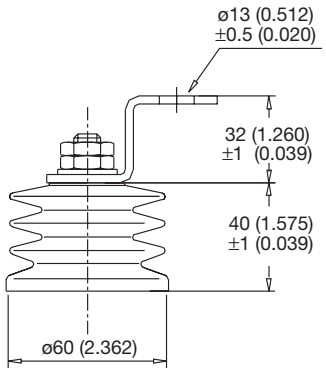
4



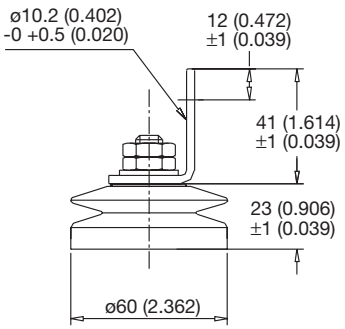
5



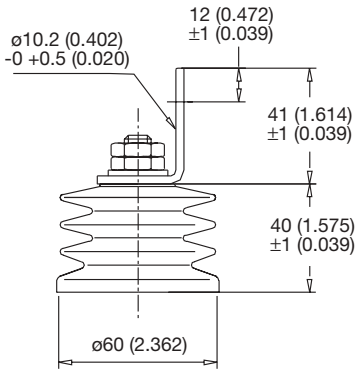
6



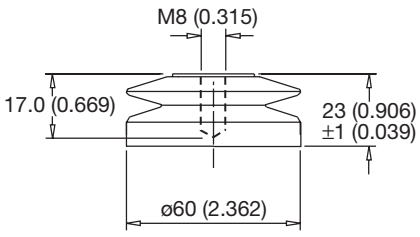
7



8

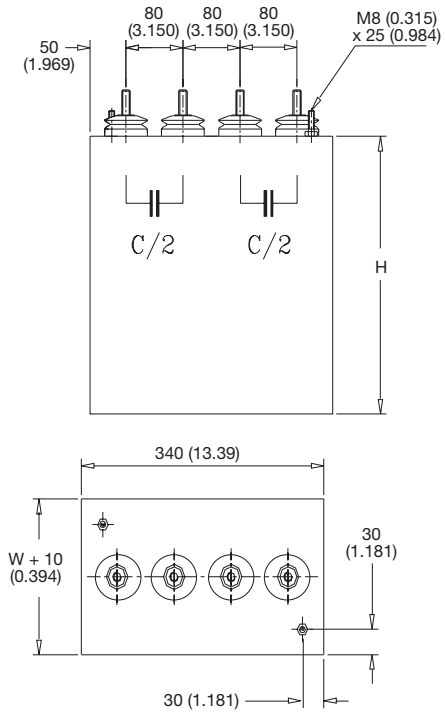


9

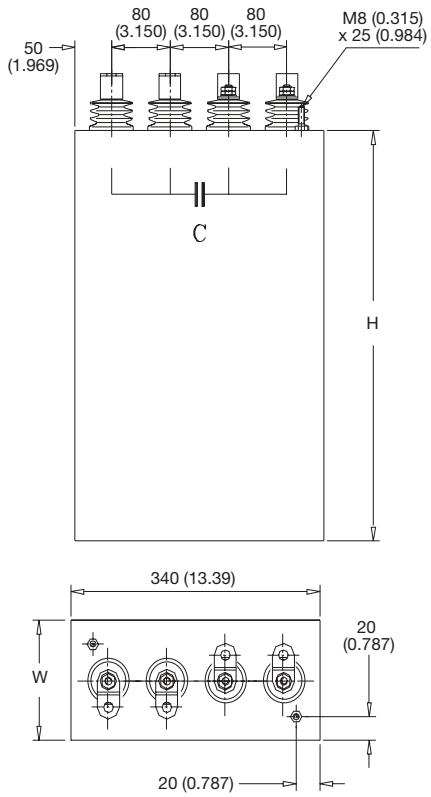


MECHANICAL DESIGN

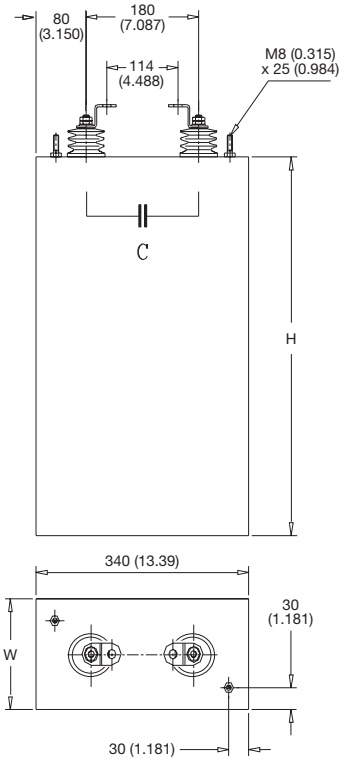
Low Inductance Option



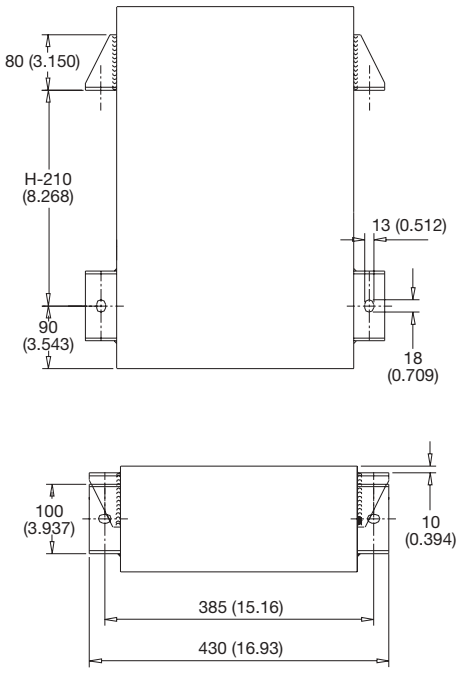
4 Terminals Option



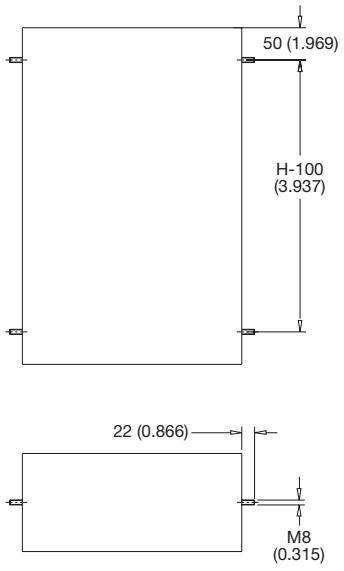
Standard Design



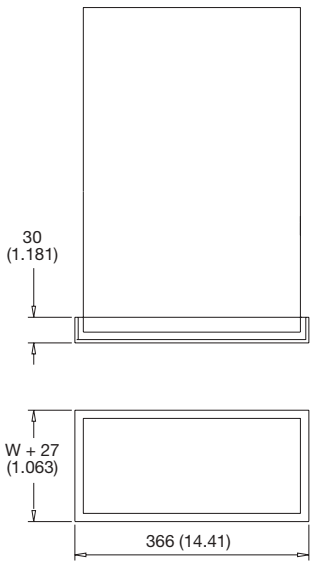
Mounting Brackets (M) (suggested) Lower Brackets Removed for H < 500 mm



Bolts M (B) (possible)



Bed Plate (P) (possible)



MECHANICAL DESIGN

SMALL BASE TRAFIMS
166 x 152 (6.535 x 5.984)

These capacitors can only be equipped with two terminals and therefore are not available in low inductance four terminals version. Brackets are also specific.