

APPLICATIONS

DC voltage filtering for:

- DC link
- Speed converter (drives and traction)
- Resonant filtering
- Active correction (FACTS)
- Windmills
- Substation

PACKAGING

Rectangular none magnetic stainless steel case.
Grounding is via a nut on the top of the case.

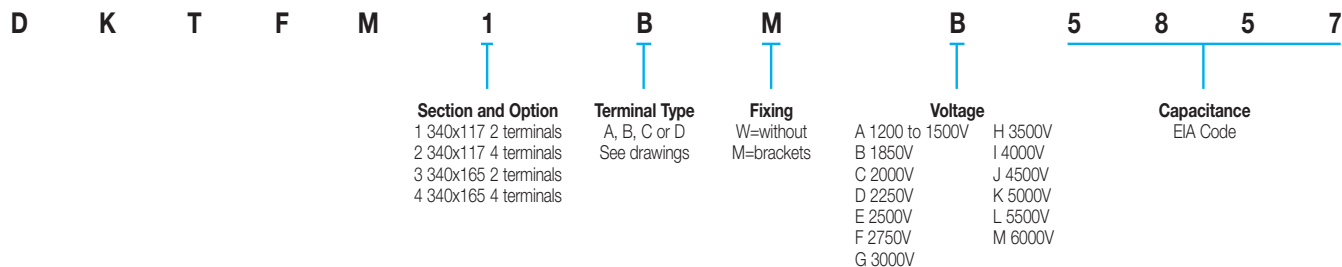
PRESENTATION



ELECTRICAL CHARACTERISTICS

Capacitance range C_n	130 μ F to 16100 μ F
Tolerance on C_n	$\pm 10\%$
Nominal DC voltage range	1200V to 6000V
Operating hot-spot temperature	-55°C to 85°C
Lifetime at V_n and 70°C hot-spot temperature	100,000 hours
Stray inductance	min 40nH at 1MHz
Maximum Rms current	255 Arms
Test voltage between terminals	1.5 V_n during 10s
Test voltage between shorten terminals and case	(2 x V_n + 1000) V_{rms} at 50Hz during 10s

PART NUMBER / HOW TO ORDER



THERMAL RESISTANCES

Rth1: Between hot spot and case

Rth2: Between case and ambient air vs convection

Height millimeters (inches)	Rth1 (°C/W)		Rth2 (°C/W) Natural convection		Rth2 (°C/W) Forced air (velocity>2m/s)	
	Base 340x117	Base 340x165	Base 340x117	Base 340x165	Base 340x117	Base 340x165
215 (8.465)	0.23	0.29	0.34	0.29	0.17	0.15
290 (11.42)	0.17	0.23	0.26	0.23	0.13	0.12
365 (14.37)	0.14	0.19	0.21	0.19	0.11	0.10
440 (17.32)	0.12	0.16	0.18	0.16	0.09	0.08
515 (20.28)	0.10	0.14	0.16	0.14	0.08	0.07
590 (23.23)	0.09	0.12	0.14	0.12	0.07	0.06
705 (27.76)	0.08	0.11	0.12	0.11	0.06	0.06
815 (32.09)	0.07	0.09	0.10	0.09	0.05	0.05

PARASITIC INDUCTANCE VS SIZE

Height millimeters (inches)	Parasitic Inductance L (nH) Measured @ 1MHz							
	Base 340x117				Base 340x165			
	2 Terminals		4 Terminals		2 Terminals		4 Terminals	
	Type A/B	Type C/D	Type A/B	Type C/D	Type A/B	Type C/D	Type A/B	Type C/D
215 (8.465)	69	109	24	34	73	113	28	38
290 (11.42)	72	112	27	37	78	118	33	43
365 (14.37)	75	115	30	40	82	122	37	47
440 (17.32)	78	118	33	43	87	127	42	52
515 (20.28)	81	121	36	46	91	131	46	56
590 (23.23)	84	124	39	49	96	136	51	61
705 (27.76)	89	129	44	54	103	143	58	68
815 (32.09)	93	133	48	58	109	149	64	74

WEIGHT VS SIZE

Height millimeters (inches)	Weight (kg)			
	Base 340x117	Base 340x117	Base 340x165	Base 340x165
	2 terminals	4 terminals	2 terminals	4 terminals
215 (8.465)	14	15	19	20
290 (11.42)	18	19	24	25
365 (14.37)	21.5	22.5	29	30
440 (17.32)	25.5	26.5	34.5	35.5
515 (20.28)	30	31	39.5	40.5
590 (23.23)	34	35	44.5	45.5
705 (27.76)	40	41	52.5	53.5
815 (32.09)	45.5	46.5	60	61

TRAFIM Products

Table of Values

Base 340mm x 117mm (Length x Width)

Height millimeters (inches)	$V_n = 1200$ to $1500V$			$V_n = 1850V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	1900	0.60	DKTFMXXXA1907	1420	0.64	DKTFMXXXB1427
290 (11.42)	2850	0.48	DKTFMXXXA2857	2140	0.49	DKTFMXXXB2147
365 (14.37)	3800	0.42	DKTFMXXXA3807	2850	0.42	DKTFMXXXB2857
440 (17.32)	4750	0.39	DKTFMXXXA4757	3560	0.38	DKTFMXXXB3567
515 (20.28)	5700	0.37	DKTFMXXXA5707	4270	0.36	DKTFMXXXB4277
590 (23.23)	6750	0.36	DKTFMXXXA6757	4980	0.35	DKTFMXXXB4987
705 (27.76)	8100	0.35	DKTFMXXXA8107	6050	0.33	DKTFMXXXB6057
815 (32.09)	9500	0.34	DKTFMXXXA9507	7120	0.32	DKTFMXXXB7127

Height millimeters (inches)	$V_n = 2000V$			$V_n = 2250V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	1260	0.67	DKTFMXXXC1267	1000	0.73	DKTFMXXXD1007
290 (11.42)	1880	0.51	DKTFMXXXC1887	1500	0.55	DKTFMXXXD1507
365 (14.37)	2510	0.44	DKTFMXXXC2517	2000	0.47	DKTFMXXXD2007
440 (17.32)	3140	0.40	DKTFMXXXC3147	2500	0.42	DKTFMXXXD2507
515 (20.28)	3770	0.37	DKTFMXXXC3777	3000	0.39	DKTFMXXXD3007
590 (23.23)	4400	0.36	DKTFMXXXC4407	3500	0.37	DKTFMXXXD3507
705 (27.76)	5340	0.34	DKTFMXXXC5347	4250	0.36	DKTFMXXXD4257
815 (32.09)	6280	0.33	DKTFMXXXC6287	5000	0.35	DKTFMXXXD5007

Height millimeters (inches)	$V_n = 2500V$			$V_n = 2750V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	810	0.79	DKTFMXXXE0817	675	0.86	DKTFMXXXF6756
290 (11.42)	1220	0.60	DKTFMXXXE1227	1010	0.64	DKTFMXXXF1017
365 (14.37)	1620	0.50	DKTFMXXXE1627	1350	0.53	DKTFMXXXF1357
440 (17.32)	2030	0.44	DKTFMXXXE2037	1680	0.47	DKTFMXXXF1687
515 (20.28)	2440	0.41	DKTFMXXXE2447	2020	0.44	DKTFMXXXF2027
590 (23.23)	2840	0.39	DKTFMXXXE2847	2360	0.41	DKTFMXXXF2367
705 (27.76)	3450	0.37	DKTFMXXXE3457	2860	0.39	DKTFMXXXF2867
815 (32.09)	4060	0.36	DKTFMXXXE4067	3370	0.37	DKTFMXXXF3377

Height millimeters (inches)	$V_n = 3000V$			$V_n = 3500V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	570	0.92	DKTFMXXXG0577	365	0.62	DKTFMXXXH3656
290 (11.42)	850	0.68	DKTFMXXXG0857	545	0.48	DKTFMXXXH5456
365 (14.37)	1140	0.56	DKTFMXXXG1147	730	0.41	DKTFMXXXH0737
440 (17.32)	1420	0.50	DKTFMXXXG1427	910	0.38	DKTFMXXXH0917
515 (20.28)	1700	0.46	DKTFMXXXG1707	1090	0.35	DKTFMXXXH1097
590 (23.23)	1990	0.43	DKTFMXXXG1997	1280	0.34	DKTFMXXXH1287
705 (27.76)	2410	0.40	DKTFMXXXG2417	1550	0.33	DKTFMXXXH1557
815 (32.09)	2840	0.39	DKTFMXXXG2847	1820	0.32	DKTFMXXXH1827

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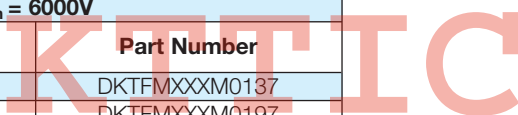
Table of Values

Base 340mm x 117mm (Length x Width)

Height millimeters (inches)	V _n = 4000V			V _n = 4500V		
	C (μF)	Rs (mΩ)	Part Number	C (μF)	Rs (mΩ)	Part Number
215 (8.465)	280	0.68	DKTFMXXXI0287	225	0.74	DKTFMXXXJ2256
290 (11.42)	425	0.52	DKTFMXXXI4256	335	0.56	DKTFMXXXJ3356
365 (14.37)	565	0.44	DKTFMXXXI5656	445	0.48	DKTFMXXXJ4456
440 (17.32)	705	0.40	DKTFMXXXI7056	560	0.43	DKTFMXXXJ0567
515 (20.28)	845	0.38	DKTFMXXXI8456	670	0.40	DKTFMXXXJ0677
590 (23.23)	985	0.36	DKTFMXXXI9856	780	0.38	DKTFMXXXJ0787
705 (27.76)	1200	0.34	DKTFMXXXI1207	950	0.36	DKTFMXXXJ0957
815 (32.09)	1410	0.33	DKTFMXXXI1417	1120	0.35	DKTFMXXXJ1127

Height millimeters (inches)	V _n = 5000V			V _n = 5500V		
	C (μF)	Rs (mΩ)	Part Number	C (μF)	Rs (mΩ)	Part Number
215 (8.465)	180	0.80	DKTFMXXXK0187	150	0.86	DKTFMXXXL0157
290 (11.42)	275	0.60	DKTFMXXXK2756	225	0.65	DKTFMXXXL2256
365 (14.37)	365	0.51	DKTFMXXXK3656	300	0.54	DKTFMXXXL0307
440 (17.32)	455	0.45	DKTFMXXXK4556	375	0.48	DKTFMXXXL3756
515 (20.28)	545	0.42	DKTFMXXXK5456	450	0.44	DKTFMXXXL0457
590 (23.23)	635	0.40	DKTFMXXXK6356	530	0.41	DKTFMXXXL0537
705 (27.76)	775	0.37	DKTFMXXXK7756	640	0.39	DKTFMXXXL0647
815 (32.09)	910	0.36	DKTFMXXXK0917	755	0.38	DKTFMXXXL7556

Height millimeters (inches)	V _n = 6000V		
	C (μF)	Rs (mΩ)	Part Number
215 (8.465)	130	0.93	DKTFMXXXM0137
290 (11.42)	190	0.69	DKTFMXXXM0197
365 (14.37)	255	0.57	DKTFMXXXM2556
440 (17.32)	320	0.50	DKTFMXXXM0327
515 (20.28)	380	0.46	DKTFMXXXM0387
590 (23.23)	445	0.43	DKTFMXXXM4456
705 (27.76)	540	0.41	DKTFMXXXM0547
815 (32.09)	635	0.39	DKTFMXXXM6356



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Table of Values

Base 340mm x 165mm (Length x Width)

Height millimeters (inches)	$V_n = 1200$ to $1500V$			$V_n = 1850V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	3100	0.78	DKTFMXXXA3107	2110	0.92	DKTFMXXXB2117
290 (11.42)	4630	0.60	DKTFMXXXA4637	3170	0.69	DKTFMXXXB3177
365 (14.37)	6200	0.52	DKTFMXXXA6207	4230	0.58	DKTFMXXXB4237
440 (17.32)	7700	0.47	DKTFMXXXA7707	5290	0.52	DKTFMXXXB5297
515 (20.28)	9300	0.44	DKTFMXXXA9307	6340	0.48	DKTFMXXXB6347
590 (23.23)	10800	0.42	DKTFMXXXA1088	7400	0.46	DKTFMXXXB7407
705 (27.76)	13200	0.40	DKTFMXXXA1328	8980	0.43	DKTFMXXXB8987
815 (32.09)	15500	0.39	DKTFMXXXA1558	10600	0.42	DKTFMXXXB1068

Height millimeters (inches)	$V_n = 2000V$			$V_n = 2250V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	1680	1.00	DKTFMXXXC1687	1420	1.08	DKTFMXXXD1427
290 (11.42)	2520	0.75	DKTFMXXXC2527	2140	0.80	DKTFMXXXD2147
365 (14.37)	3360	0.63	DKTFMXXXC3367	2850	0.66	DKTFMXXXD2857
440 (17.32)	4200	0.56	DKTFMXXXC4207	3570	0.58	DKTFMXXXD3577
515 (20.28)	5040	0.51	DKTFMXXXC5047	4280	0.53	DKTFMXXXD4287
590 (23.23)	5880	0.48	DKTFMXXXC5887	5000	0.50	DKTFMXXXD5007
705 (27.76)	7140	0.45	DKTFMXXXC7147	6070	0.47	DKTFMXXXD6077
815 (32.09)	8400	0.44	DKTFMXXXC8407	7140	0.45	DKTFMXXXD7147

Height millimeters (inches)	$V_n = 2500V$			$V_n = 2750V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	1130	1.18	DKTFMXXXE1137	955	1.27	DKTFMXXXF9556
290 (11.42)	1700	0.87	DKTFMXXXE1707	1430	0.93	DKTFMXXXF1437
365 (14.37)	2260	0.71	DKTFMXXXE2267	1910	0.76	DKTFMXXXF1917
440 (17.32)	2830	0.63	DKTFMXXXE2837	2380	0.66	DKTFMXXXF2387
515 (20.28)	3400	0.57	DKTFMXXXE3407	2860	0.60	DKTFMXXXF2867
590 (23.23)	3950	0.53	DKTFMXXXE3957	3340	0.56	DKTFMXXXF3347
705 (27.76)	4820	0.49	DKTFMXXXE4827	4060	0.52	DKTFMXXXF4067
815 (32.09)	5670	0.47	DKTFMXXXE5677	4770	0.49	DKTFMXXXF4777

Height millimeters (inches)	$V_n = 3000V$			$V_n = 3500V$		
	C (μF)	R_s ($m\Omega$)	Part Number	C (μF)	R_s ($m\Omega$)	Part Number
215 (8.465)	800	1.37	DKTFMXXXG0807*	555	1.60	DKTFMXXXH5556*
290 (11.42)	1200	0.99	DKTFMXXXG1207	833	1.15	DKTFMXXXH8336
365 (14.37)	1600	0.81	DKTFMXXXG1607	1110	0.92	DKTFMXXXH1117
440 (17.32)	2000	0.70	DKTFMXXXG2007	1390	0.79	DKTFMXXXH1397
515 (20.28)	2400	0.63	DKTFMXXXG2407	1660	0.71	DKTFMXXXH1667
590 (23.23)	2800	0.59	DKTFMXXXG2807	1940	0.65	DKTFMXXXH1947
705 (27.76)	3400	0.54	DKTFMXXXG3407	2360	0.59	DKTFMXXXH2367
815 (32.09)	4000	0.51	DKTFMXXXG4007	2780	0.56	DKTFMXXXH2787

* see particular Rms current value on page 20

TRAFIM Products

Table of Values

Base 340mm x 165mm (Length x Width)

Height millimeters (inches)	V _n = 4000V			V _n = 4500V		
	C (μF)	Rs (mΩ)	Part Number	C (μF)	Rs (mΩ)	Part Number
215 (8.465)	438	1.78	DKTFMXXXI4386*	335	1.08	DKTFMXXXJ3356
290 (11.42)	657	1.26	DKTFMXXXI6576	503	0.80	DKTFMXXXJ5036
365 (14.37)	876	1.00	DKTFMXXXI8766	670	0.67	DKTFMXXXJ0677
440 (17.32)	1090	0.87	DKTFMXXXI1097	839	0.59	DKTFMXXXJ8396
515 (20.28)	1310	0.77	DKTFMXXXI1317	1000	0.54	DKTFMXXXJ1007
590 (23.23)	1530	0.70	DKTFMXXXI1537	1170	0.50	DKTFMXXXJ1177
705 (27.76)	1860	0.64	DKTFMXXXI1867	1420	0.47	DKTFMXXXJ1427
815 (32.09)	2190	0.59	DKTFMXXXI2197	1680	0.45	DKTFMXXXJ1687

Height millimeters (inches)	V _n = 5000V			V _n = 5500V		
	C (μF)	Rs (mΩ)	Part Number	C (μF)	Rs (mΩ)	Part Number
215 (8.465)	266	1.19	DKTFMXXXK2666	224	1.28	DKTFMXXXL2246
290 (11.42)	400	0.87	DKTFMXXXK0407	336	0.93	DKTFMXXXL3366
365 (14.37)	532	0.72	DKTFMXXXK5326	448	0.76	DKTFMXXXL4486
440 (17.32)	666	0.63	DKTFMXXXK6666	560	0.67	DKTFMXXXL0567
515 (20.28)	800	0.57	DKTFMXXXK0807	672	0.60	DKTFMXXXL6726
590 (23.23)	932	0.53	DKTFMXXXK9326	785	0.56	DKTFMXXXL7856
705 (27.76)	1130	0.50	DKTFMXXXK1137	953	0.52	DKTFMXXXL9536
815 (32.09)	1330	0.47	DKTFMXXXK1337	1120	0.49	DKTFMXXXL1127

Height millimeters (inches)	V _n = 6000V		
	C (μF)	Rs (mΩ)	Part Number
215 (8.465)	188	1.38	DKTFMXXXM1886*
290 (11.42)	282	1.00	DKTFMXXXM2826
365 (14.37)	376	0.81	DKTFMXXXM3766
440 (17.32)	470	0.70	DKTFMXXXM0477
515 (20.28)	564	0.64	DKTFMXXXM5646
590 (23.23)	659	0.59	DKTFMXXXM6596
705 (27.76)	800	0.54	DKTFMXXXM0807
815 (32.09)	940	0.51	DKTFMXXXM0947

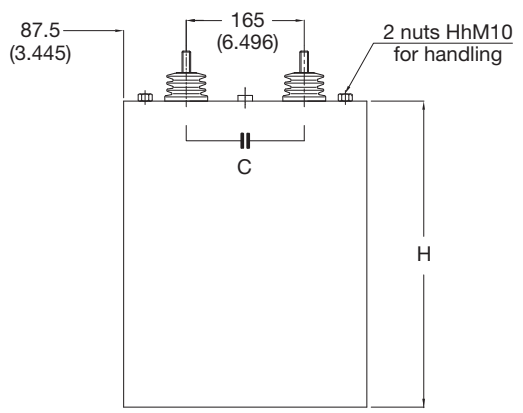
* see particular Rms current value

Particular Rms Current Value	
Part Number	I _{rms} max (A)
DKTFMXXXG0807	244
DKTFMXXXH5556	204
DKTFMXXXI4386	181
DKTFMXXXM1886	244

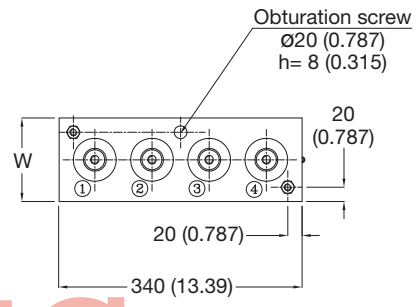
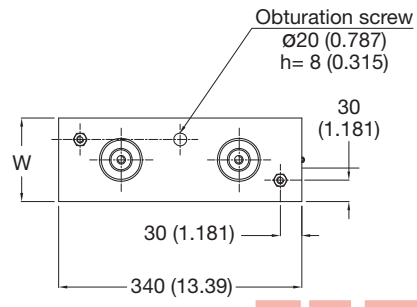
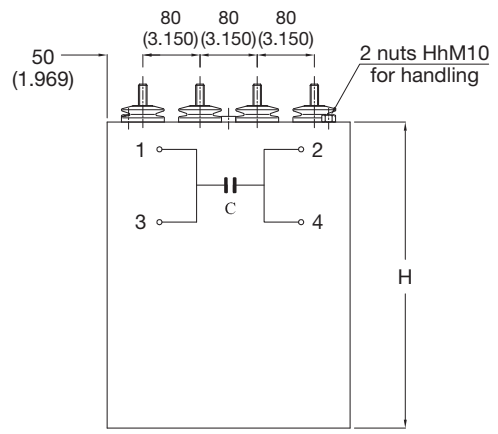
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Mechanical Design

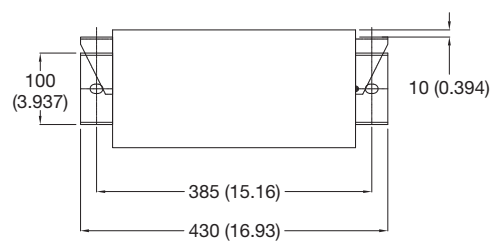
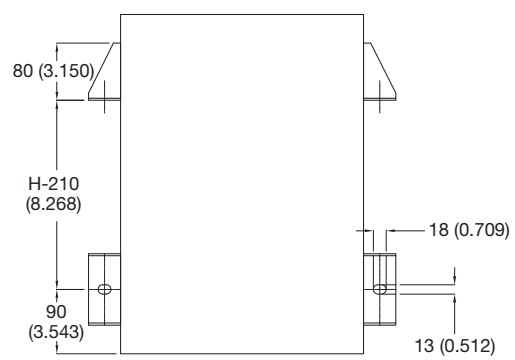
Standard Design



Low Inductance Option



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



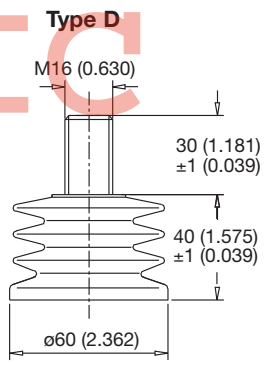
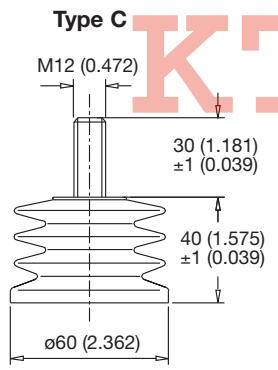
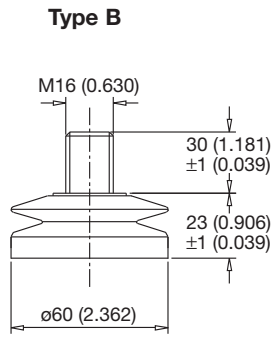
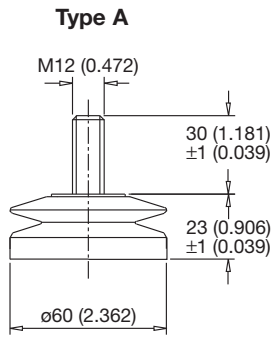
TRAFIM Products

Terminals and Connections

Epoxide terminals assembled by O-ring
 Other specific connections on request

millimeters (inches)

Type	Creepage distance	Air distance
Type A / Type B	52 (2.047)	30 (1.181)
Type C / Type D	84 (3.307)	50 (1.969)



KTTIC

Other terminals types are available on request.