APPLICATIONS

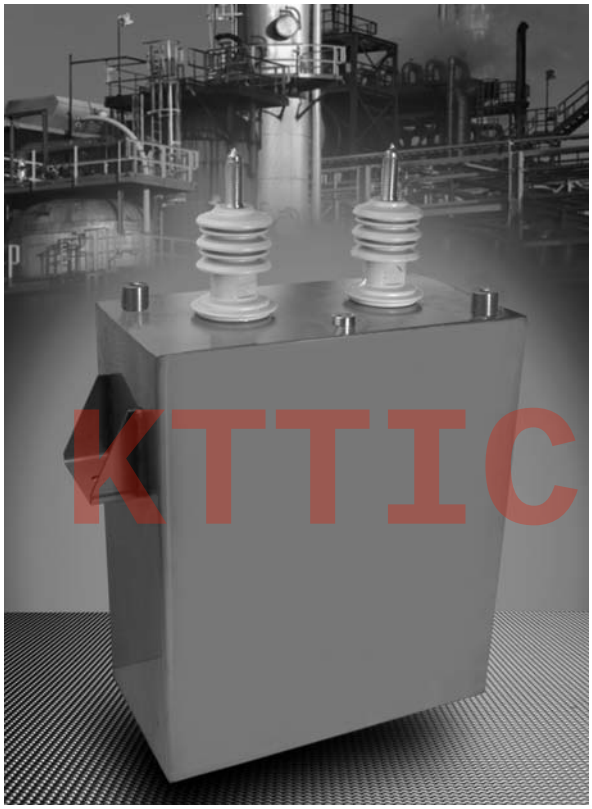
DC voltage filtering for:

- DC link
- Resonant filtering
- Active correction *(FACTS)*
- HVDC
- High Power DC Supply

PACKAGING

Rectangular stainless steel case.
Grounding is via a nut on top of the case.

PRESENTATION



ELECTRICAL CHARACTERISTICS

Capacitance range C_n	2.6µF to 612µF
Tolerance on C_n	±10%
Nominal DC voltage range	6500V to 56kV (up to 100kV on specific design)
Operating hot-spot temperature range	-55ºC to 85°C
Lifetime @ V_n and 70°C hot-spot temperature	100,000 hours
Test voltage between terminals	1.5V_n during 10s
Test voltage between shorten terminals and case	1.5V_n during 10s

PART NUMBER / HOW TO ORDER

D	L	I	F	M	1	A	M		A		1	8	8	6

Section and Option
1 350x185 1 terminal
2 350x185 2 terminals
3 520x185 1 terminal
4 520x185 2 terminals
5 695x185 1 terminal
6 695x185 2 terminals

Terminal Type
A, B or C
See drawings

Fixing
W=without
M=brackets

Voltage

A 6500V	F 14500V	K 28000V
B 7900V	G 15800V	L 32000V
C 9000V	H 18000V	M 36000V
D 10500V	I 22000V	N 42000V
E 12000V	J 26000V	O 56000V

Capacitance
EIA Code

THERMAL RESISTANCE

Rth1: Between hot spot and case

Rth2: Between case and ambient air vs convection

Height (mm) millimeters (inches)	Rth1 (°C/W)			Rth2 (°C/W) Natural convection			Rth2 (°C/W) Forced air (velocity>2m/s)		
	Base 350x185	Base 520x185	Base 695x185	Base 350x185	Base 520x185	Base 695x185	Base 350x185	Base 520x185	Base 695x185
315 (12.40)	0.2	0.15	0.115	0.2	0.15	0.115	0.1	0.075	0.058
410 (16.14)	0.16	0.12	0.095	0.16	0.12	0.095	0.08	0.06	0.048
500 (19.69)	0.14	0.1	0.08	0.14	0.1	0.08	0.07	0.05	0.04
595 (23.43)	0.12	0.085	0.07	0.12	0.085	0.07	0.06	0.043	0.035
685 (26.97)	0.1	0.075	0.06	0.1	0.075	0.06	0.05	0.038	0.03
770 (30.31)	0.09	0.07	0.055	0.09	0.07	0.055	0.045	0.035	0.028

PARASITIC INDUCTANCE

L_s (nH) = 0.332 x H (mm) + $L_{terminals}$

WEIGHT VS SIZE

Height millimeters (inches)	Weight (kg)		
	Base 350x185	Base 520x185	Base 695x185
315 (12.40)	29	41	54
410 (16.14)	36	52	68
500 (19.69)	43	62	81
595 (23.43)	50	72	95
685 (26.97)	57	82	108
770 (30.31)	63	91	119

FILFIM Products

Table of Values

Height millimeters (inches)	V_n = 6500V Terminal Type A Base 350x185 (Length x Width)			V_n = 7900V Terminal Type A Base 350x185 (Length x Width)		
	C (µF)	Rs (mΩ)	Part Number	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**188**	3.4	DLIFMXAXA1886	**126**	3.6	DLIFMXAXB1266
410 (16.14)	**275**	3.3	DLIFMXAXA2756	**184**	3.4	DLIFMXAXB1846
500 (19.69)	**362**	3.2	DLIFMXAXA3626	**242**	3.3	DLIFMXAXB2426
595 (23.43)	**450**	3.2	DLIFMXAXA0457	**300**	3.2	DLIFMXAXB0307
685 (26.97)	**537**	3.1	DLIFMXAXA5376	**359**	3.2	DLIFMXAXB3596
770 (30.31)	**612**	3.1	DLIFMXAXA6126	**410**	3.2	DLIFMXAXB0417

Height millimeters (inches)	V_n = 9000V Terminal Type A Base 350x185 (Length x Width)			V_n = 10500V Terminal Type A Base 350x185 (Length x Width)		
	C (µF)	Rs (mΩ)	Part Number	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**95**	3.7	DLIFMXAXC0956	**73**	5.8	DLIFMXAXD0736
410 (16.14)	**138**	3.4	DLIFMXAXC1386	**107**	5	DLIFMXAXD1076
500 (19.69)	**181**	3.3	DLIFMXAXC1816	**140**	4.6	DLIFMXAXD0147
595 (23.43)	**225**	3.3	DLIFMXAXC2256	**174**	4.4	DLIFMXAXD1746
685 (26.97)	**269**	3.2	DLIFMXAXC2696	**208**	4.3	DLIFMXAXD2086
770 (30.31)	**307**	3.2	DLIFMXAXC3076	**237**	4.3	DLIFMXAXD2376

Height millimeters (inches)	V_n = 12000V Terminal Type A Base 350x185 (Length x Width)			V_n = 14500V Terminal Type A Base 350x185 (Length x Width)		
	C (µF)	Rs (mΩ)	Part Number	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**55**	6.2	DLIFMXAXE0556	**37.5**	5.6	DLIFMXAXF3755
410 (16.14)	**80**	5.3	DLIFMXAXE0806	**55**	4.9	DLIFMXAXF0556
500 (19.69)	**105**	4.9	DLIFMXAXE1056	**72**	4.6	DLIFMXAXF0726
595 (23.43)	**130**	4.6	DLIFMXAXE0137	**89**	4.4	DLIFMXAXF0896
685 (26.97)	**155**	4.5	DLIFMXAXE1556	**106**	4.3	DLIFMXAXF1066
770 (30.31)	**177**	4.4	DLIFMXAXE1776	**121**	4.2	DLIFMXAXF1216

Height millimeters (inches)	V_n = 15800V Terminal Type A Base 350x185 (Length x Width)			V_n = 18000V Terminal Type B Base 350x185 (Length x Width)		
	C (µF)	Rs (mΩ)	Part Number	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**31.5**	5.9	DLIFMXAXG3155	**19.5**	7.8	DLIFMXBXH1955
410 (16.14)	**46**	5.1	DLIFMXAXG0466	**30**	6.5	DLIFMXBXH0306
500 (19.49)	**60.5**	4.7	DLIFMXAXG6055	**45**	5.9	DLIFMXBXH0456
595 (23.43)	**75**	4.5	DLIFMXAXG0756	**51**	5.6	DLIFMXBXH0516
685 (26.97)	**89**	4.4	DLIFMXAXG0896	**62**	5.4	DLIFMXBXH0626
770 (30.31)	**102**	4.3	DLIFMXAXG1026	**72**	5.3	DLIFMXBXH0726

FILFIM Products

Table of Values

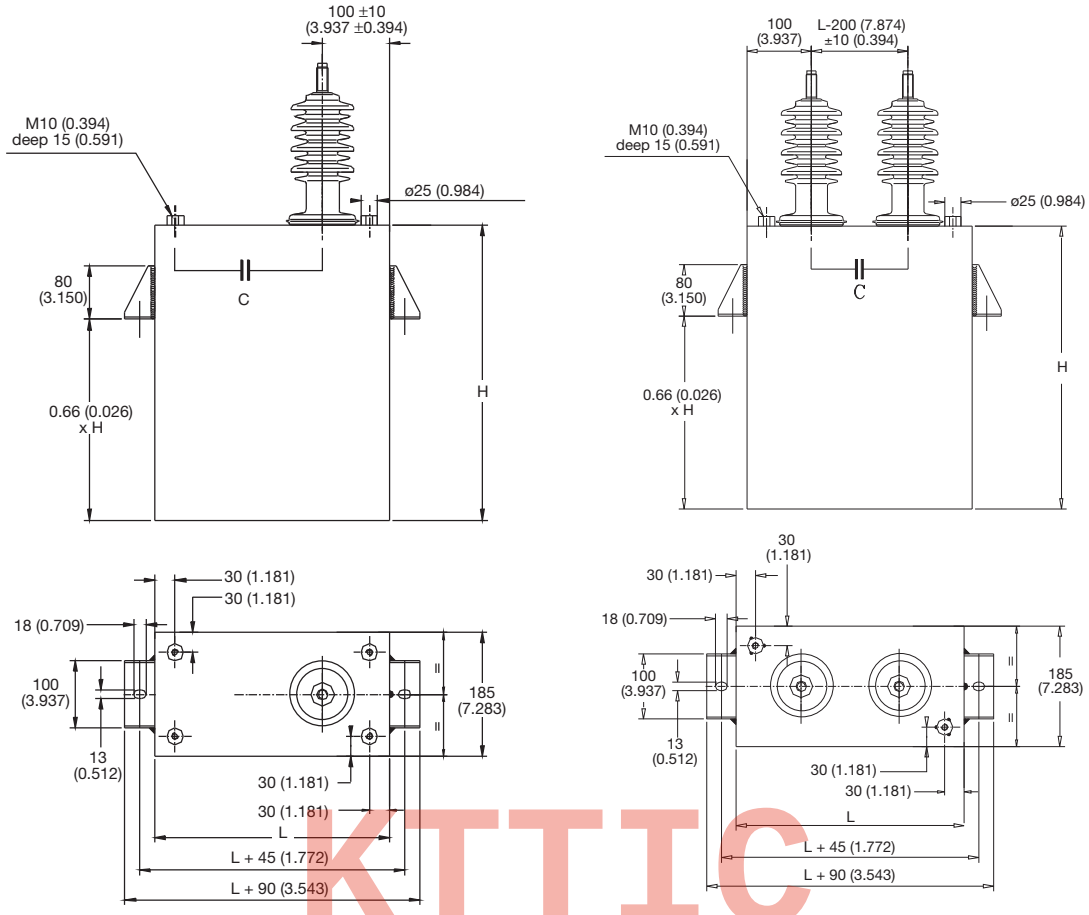
Height millimeters (inches)	V_n = 22000V Terminal Type B Base 520x185 (Length x Width)			V_n = 26000V Terminal Type B Base 520x185 (Length x Width)		
	C (µF)	Rs (mΩ)	Part Number	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**20**	8.9	DLIFMXBXI0206	**14.2**	9.8	DLIFMXBXJ1425
410 (16.14)	**31.5**	7.2	DLIFMXBXI3155	**22.5**	7.8	DLIFMXBXJ2255
500 (19.69)	**42.5**	6.6	DLIFMXBXI4255	**30**	7	DLIFMXBXJ0306
595 (23.43)	**54**	6.2	DLIFMXBXI0546	**38**	6.6	DLIFMXBXJ0386
685 (26.97)	**65**	6	DLIFMXBXI0656	**46**	6.3	DLIFMXBXJ0466
770 (30.31)	**75**	5.9	DLIFMXBXI0756	**53**	6.2	DLIFMXBXJ0536

Height millimeters (inches)	V_n = 28000V Terminal Type B Base 350x185 (Length x Width)			V_n = 32000V Terminal Type B Base 695x185 (Length x Width)		
	C (µF)	Rs (mΩ)	Part Number	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**5.8**	6.8	DLIFMXBXK0585	**12.8**	11.2	DLIFMXBXL1285
410 (16.14)	**9**	5.9	DLIFMXBXK0905	**20**	8.8	DLIFMXBXL0206
500 (19.69)	**12**	5.5	DLIFMXBXK0126	**27**	7.9	DLIFMXBXL0276
595 (23.43)	**15.5**	5.2	DLIFMXBXK1555	**34**	7.4	DLIFMXBXL0346
685 (26.97)	**18.3**	5.1	DLIFMXBXK1835	**41**	7.1	DLIFMXBXL0416
770 (30.31)	**21.5**	5.1	DLIFMXBXK2155	**47**	6.9	DLIFMXBXL0476

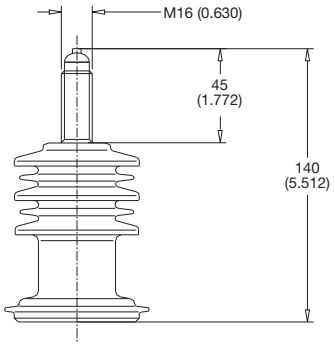
Height millimeters (inches)	V_n = 36000V Terminal Type C Base 695x185 (Length x Width)			V_n = 42000V Terminal Type C Base 520x185 (Length x Width)		
	C (µF)	Rs (mΩ)	Part Number	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**9**	13.5	DLIFMXCXM0905	**3.5**	5.5	DLIFMXCXN0355
410 (16.14)	**14.2**	10.5	DLIFMXCXM1425	**5.6**	8	DLIFMXCXN0565
500 (19.69)	**19.3**	9.3	DLIFMXCXM1935	**7.7**	7.2	DLIFMXCXN0775
595 (23.43)	**24.8**	8.6	DLIFMXCXM2485	**9.8**	6.9	DLIFMXCXN0985
685 (26.97)	**30**	8.2	DLIFMXCXM0306	**12**	6.7	DLIFMXCXN0126
770 (30.31)	**35.5**	7.9	DLIFMXCXM3555	**14**	6.6	DLIFMXCXN0146

Height millimeters (inches)	V_n = 56000V Terminal Type C Base 695x185 (Length x Width))		
	C (µF)	Rs (mΩ)	Part Number
315 (12.40)	**2.6**	11.6	DLIFMXCXO0265
410 (16.14)	**4.2**	9.2	DLIFMXCXO0425
500 (19.69)	**5.7**	8.3	DLIFMXCXO0575
595 (23.43)	**7.3**	7.8	DLIFMXCXO0735
685 (26.97)	**8.8**	7.5	DLIFMXCXO0885
770 (30.31)	**10.3**	7.4	DLIFMXCXO1035

Mechanical Design



A

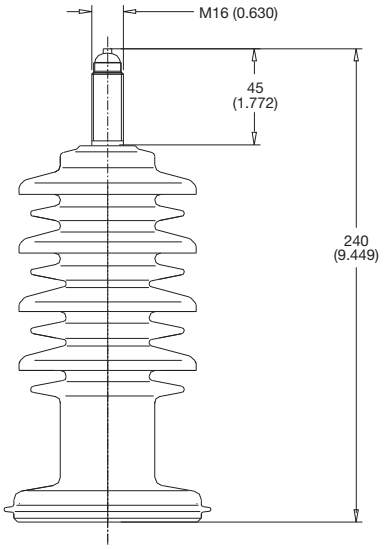


Creepage distance 195 (7.677)
Air distance 93 (3.661)

$L_{terminal}$ = 140nH

Un≤16kV

B

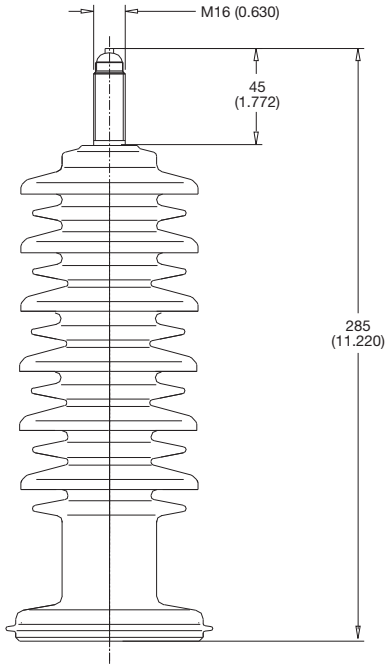


Creepage distance 440 (17.323)
Air distance 191 (7.520)

$L_{terminal}$ = 240nH

16kV<Un≤32kV

C



Creepage distance 615 (24.213)
Air distance 239 (9.409)

$L_{terminal}$ = 285nH

32kV<Un≤56kV