

C51

DC-Link Capacitor

直流支撑电容器

C51



产品特点.Characteristics

- 圆形外壳封装, 干式树脂灌注;
 - 镀锡铜螺母或铜螺杆引出;
 - 耐压高, 损耗(tgδ)小, 温升低;
 - 自感(ESL)小, 等效串联电阻(ESR)小;
 - 稳定性好、具有自愈性
- Aluminum metal shell, flame retardant epoxy resinencapsulation
 - Tin plated copper nut or copper screw out
 - High voltage resistance, low temperature rise
 - Low ESL, low ESR, small dissipation factor (tgδ)
 - Excellent stability and self healing

产品应用.Application

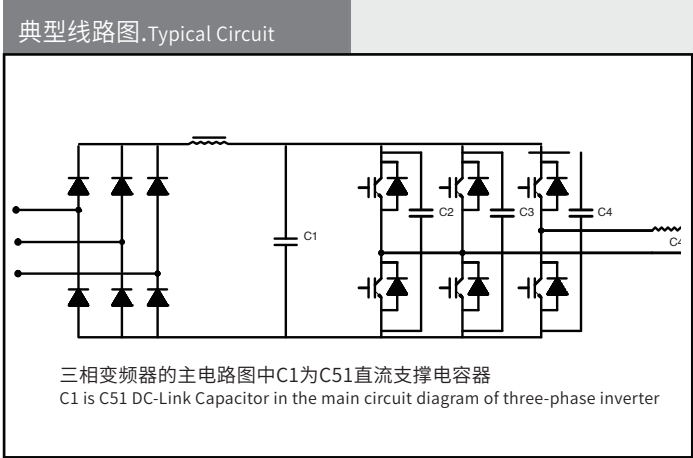
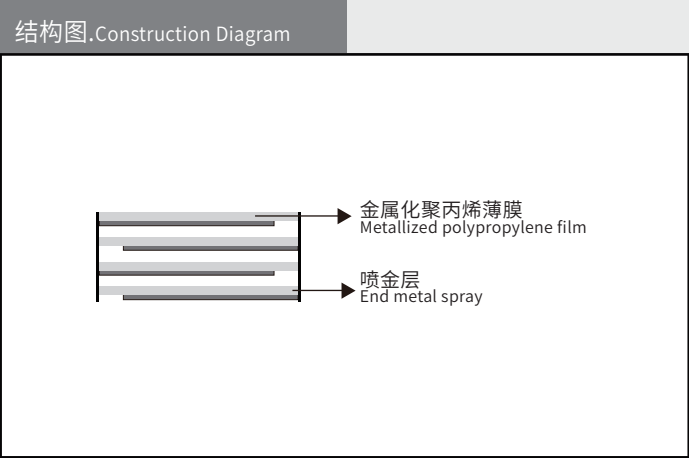
- 广泛应用于DC-Link电路中, 作滤波储能用。
 - 能代替电解电容, 性能更优, 寿命更长。
 - 光伏逆变器, 风电变流器; 各种变频器及逆变电源; 纯电动及混合动力汽车; SVG,SVC等各类电能质量管理设备。
- Widely used in of DC-link circuit for energy storage.
 - Can replace electrolytic capacitors,better performance and longer life.
 - Pv inverter,wind power converter,All kinds of frequency converter and inverter power supply; Pure electric and hybrid cars;SVG,SVC devices and other kinds of power quality management

性能参数.Technical Data	
● 引用标准 Reference Standards	GB/T 17702 IEC 61071
● 工作温度范围 Operating Temperature Range	-40℃~+70℃ 最高温度+85℃
● 容量范围 Capacitance Range	33μF~3000μF
● 额定电压 Rated Voltage	700VDC~4000VDC
● 容量偏差 Capacity Tolerance	±5%(J); ±10%(K)
● 极间耐电压 Test voltage between electrodes	1.5UN (DC) 60S 20℃
● 极壳耐电压 Test voltage between electrode and case	1000+2×UN/√2(VAC) 50Hz 60S (min 3000VAC)
● 损耗角正切 Dissipation Factor	tgδ≤3×10-3 at 20℃, 100Hz
● 绝缘电阻 Insulation Resistance	C•R≥10000S, at 100VDC, 20℃, 60S
● 预期寿命 Life Expectancy	100000hrs (Un hotspot ≤ 70℃)

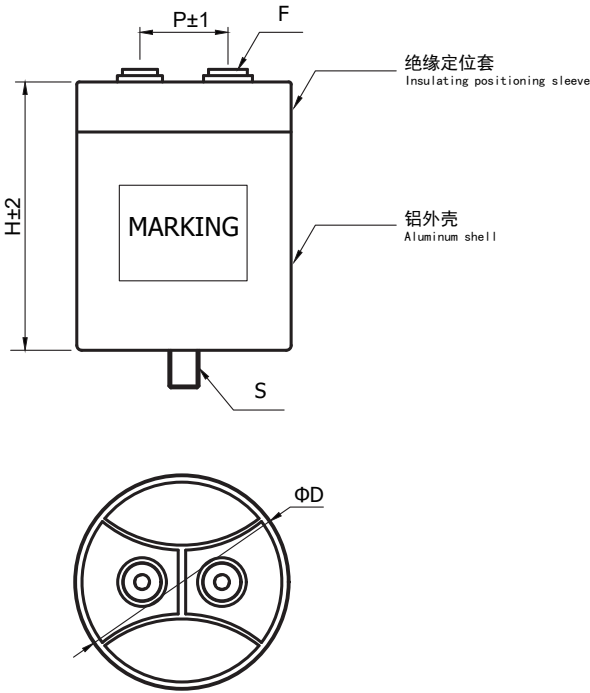
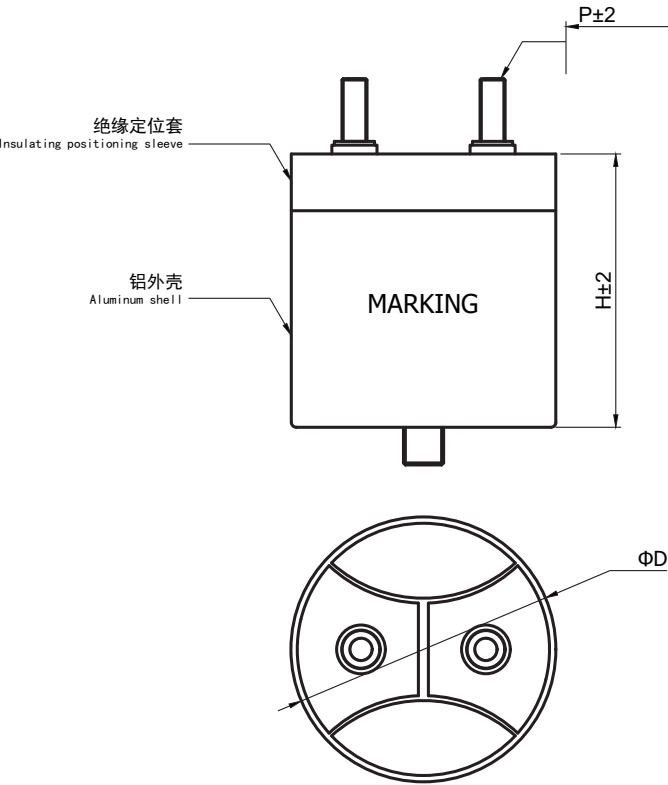
过压运行.Overtoltage Operation	
1.1×Un	30% of on-load-dur.
1.15×Un	30 min/day
1.2×Un	5 min/day
1.3×Un	1min/day
1.5×Un	100ms every time, no more than 1000 times during the lifetime

C51

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产品外形.Product Shape



尺寸表 Product Dimension				
D(mm)	P(mm)	S(mm)	F(mm)	M(mm)
76	32	M12×16	M6×10	M8×20
86	32	M12×16	M6×10	M8×20
96	45	M12×16	M6×10	M8×20
106	50	M12×16	M6×10	M8×20
116	50	M12×16	M6×10	M8×20
136	50	M16×25	M6×10	M8×20

C51

DC-Link Capacitor

产品编码.Product Coding

010203

C51

产品型号
Product model

040506

XXN

额定电压
Rated voltage
XX*10ⁿ (V)

070809

XXN

标称容量
Nominal capacity
XX*10ⁿ (pF)

10

容量偏差
Capacity deviation
J ±5%
K ±10%

11

引出电极
Extraction electrode
F-螺母
F-Nut
M-螺栓
M-Bolt

1213

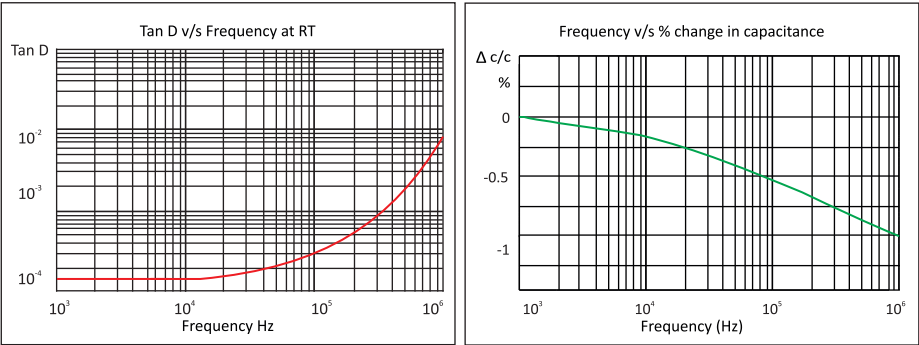
螺母或螺栓规格
Nut or Bolt Specification

141516

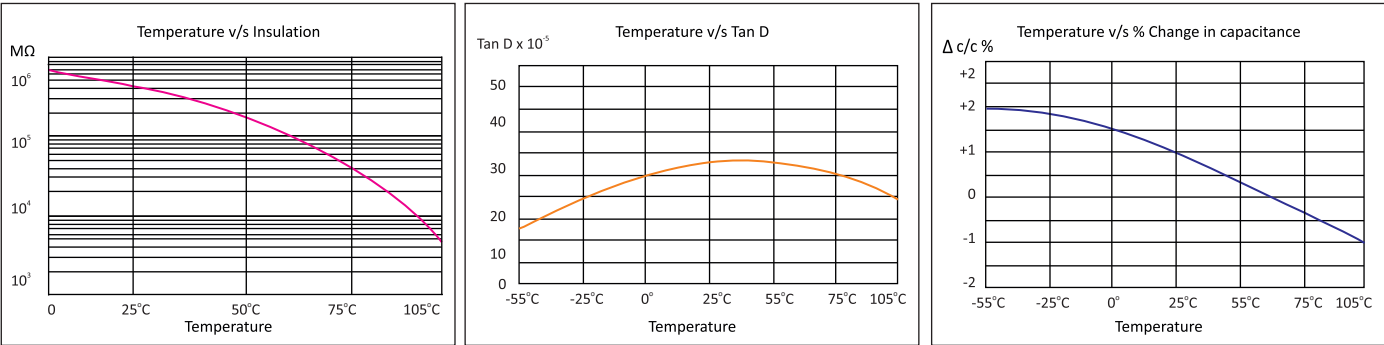
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序列号
Serial number
01、02...

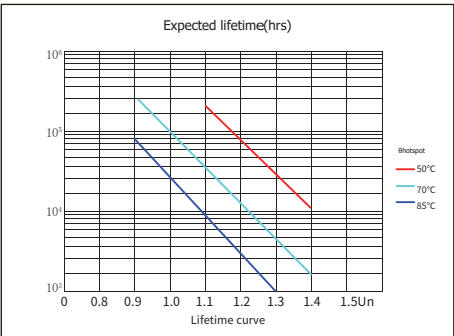
频率特性.Temperature Characteristics



温度特性.Frequency Characteristics



预期寿命 Life Expectancy



C51

DC-Link Capacitor

参数表,Article Table

Part Number	CAP μF	Dimension (mm)			dV/dt (V/μS)	Ip (KA)	Is (KA)	Irms @ 50℃ (A)	Rth (K/W)	ESL (nH)	ESR @1KHz (mΩ)
		D	H	P							
UN 800VDC											
C51801437JFM····	430	76	120	32	12	5.1	15.3	40	1.5	45	2.5
C51801557JFM····	550	86	120	32	12	6.6	19.8	46	1.6	55	2.8
C51801807JFM····	800	76	225	32	11	8.8	26.4	67	2.0	60	3
C51801108JFM····	1000	86	225	32	10	10.0	30.0	76	1.3	62	3.5
UN 900VDC											
C51901377JFM····	370	76	125	32	15	5.5	16.5	60	4.5	50	3.0
C51901397JFM····	390	76	130	32	13	5.0	15.0	33	5.0	45	3.5
C51901457JFM····	450	76	145	32	12	5.4	16.2	61	3.0	45	3.0
C51901497JFM····	490	86	125	32	10	4.9	14.7	71	2.3	45	2.0
C51901527JFM····	520	86	120	32	10	5.2	15.6	40	2.3	45	2.0
C51901577JFM····	570	76	175	32	8	4.5	13.5	61	2.0	50	3.5
C51901607JFM····	600	86	145	32	8	4.8	14.4	72	3.0	55	2.3
C51901757JFM····	750	86	175	32	8	6.0	18.0	73	2.3	55	2.3
C51901787JFM····	780	76	225	32	7	5.4	16.2	63	2.5	60	2.5
C51901108JFM····	1000	116	125	50	7	7.0	21.0	53	2.7	60	1.6
C51901108JFM····	1050	86	225	32	7	7.3	21.9	76	2.68	65	1.5
C51901118JFM····	1100	116	150	50	6	6.6	19.2	88	2.8	65	1.3
C51901148JFM····	1450	116	180	50	6	8.7	26.1	90	2.7	65	1.3
C51901208JFM····	2000	116	230	50	6	12.0	36.0	92	2.2	70	1.0
C51901278JFM····	2750	136	230	50	5	13.7	41.1	99	2.1	70	1.0
UN 1000VDC											
C51102277JFM····	270	76	120	32	14	3.7	11.1	37	2.0	55	3.5
C51102357JFM····	350	86	120	32	12	4.2	12.6	43	6.5	55	3.5
C51102507JFM····	500	76	225	32	9	4.5	13.5	63	2.8	60	2.5
C51102687JFM····	680	86	225	32	9	6.1	18.3	73	2.6	70	2.5
UN 1100VDC											
C51112257JFM····	250	76	120	32	15	3.7	11.1	30	2.0	50	4.5
C51112337JFM····	330	86	120	32	15	4.9	14.7	36	1.7	45	3.0
C51112377JFM····	370	86	130	32	12	4.4	13.2	36	6.5	45	2.8
C51112407JFM····	400	86	145	32	12	4.8	14.4	67	3.0	45	2.5
C51112427JFM····	420	86	155	32	12	5.0	15.0	69	3.2	45	1.8
C51112507JFM····	500	86	175	32	10	5.0	15.0	67	2.3	60	1.8

以上表格/图形仅供参考, 以实物为准, (单位:mm)
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C51

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参数表,Article Table

Part Number	CAP μF	Dimension (mm)			dV/dt (V/μS)	Ip (KA)	Is (KA)	Irms @ 50℃ (A)	Rth (K/W)	ESL (nH)	ESR @1KHz (mΩ)
		D	H	P							
UN 1100VDC											
C51112657JFM....	650	116	125	50	10	6.5	19.5	49	2.9	65	2.5
C51112687JFM....	680	86	225	32	9	6.1	18.3	69	1.9	70	2.5
C51112737JFM....	730	116	150	50	9	6.5	19.5	82	2.7	70	2.5
C51112907JFM....	900	136	125	50	8	7.2	21.6	54	2.1	75	2.0
C51112927JFM....	920	116	180	50	9	8.2	24.6	82	2.2	75	2.0
C51112128JFM....	1250	116	230	50	12	15	45	84	2.1	75	1.5
C51112178JFM....	1700	136	230	50	5	8.5	26.5	90	1.4	70	1.4
C51112198JFM....	1900	136	260	50	5	9.5	28.5	120	1.7	70	1.2
C51112258JFM....	2550	136	335	50	5	12.7	38.1	120	5.7	80	1.0
UN 1200VDC											
C51122207JFM....	200	76	120	32	15	3.0	9.0	35	2.4	55	5.5
C51122227JFM....	220	76	120	32	15	3.3	9.9	29.2	2.6	55	5.0
C51122257JFM....	250	86	120	32	13	3.2	9.6	33	2.2	50	4.5
C51122257JFM....	250	86	125	32	13	3.2	9.6	63	1.4	50	4.5
C51122277JFM....	270	86	120	32	13	3.5	10.5	34	2.6	50	4.5
C51122337JFM....	330	86	125	50	13	4.3	12.9	41	1.7	45	3.0
C51122337JFM....	330	86	140	32	15	4.9	14.7	34	1.8	45	3.0
C51122377JFM....	370	76	225	32	13	4.8	14.4	61	2.0	55	3.0
C51122427JFM....	420	86	175	32	12	5.0	15.0	64.5	2.8	45	1.6
C51122477JFM....	470	86	225	32	12	5.6	16.8	60.7	3.0	60	3.0
C51122507JFM....	500	116	130	50	10	5.0	15.0	88	1.9	65	3.0
C51122557JFM....	550	116	150	50	10	5.5	16.5	98.1	2.1	65	2.5
C51122567JFM....	560	86	225	32	10	5.6	16.8	65.5	2.5	60	2.1
C51122687JFM....	680	116	180	50	10	6.8	17.4	83.1	2.1	65	2.8
C51122108JFM....	1000	136	180	50	8	8.0	24.0	99.8	2.1	70	1.5
C51122108JFM....	1000	116	230	50	7	7.0	21.0	85.4	2.3	70	1.3
C51122128JFM....	1200	136	230	50	7	8.4	25.2	97.4	1.2	70	1.3
C51122188JFM....	1800	136	335	50	5	9.0	27.0	120	1.3	80	0.9
UN 1400VDC											
C51142147JFM....	140	76	120	32	15	2.1	6.3	33	3.0	50	5.5
C51142147JFM....	180	86	120	32	15	2.7	8.1	38	3.3	50	5.5
C51142147JFM....	270	76	225	32	13	3.5	10.5	58	1.9	60	5.0
C51142147JFM....	350	86	225	32	13	4.5	13.5	66	1.7	60	3.5

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C51

DC-Link Capacitor

参数表,Article Table

Part Number	CAP μF	Dimension（mm）			dV/dt (V/μS)	I _p (KA)	I _s (KA)	I _{rms} @ 50℃ (A)	R _{th} (K/W)	ESL (nH)	ESR @1KHz (mΩ)
		D	H	P							
U _N 1600VDC											
C51162107JFM····	100	76	120	32	15	1.5	4.5	30	2.8	55	6.0
C51162147JFM····	140	86	120	32	15	2.1	6.3	36	3.3	55	5.5
C51162207JFM····	200	76	225	32	15	3.0	6.0	54	1.0	55	4.5
C51162207JFM····	200	106	140	50	13	2.6	7.8	55	2.0	60	4.0
C51162277JFM····	270	86	225	32	12	3.2	9.6	64	1.2	60	3.5
U _N 1800VDC											
C51182806JFM····	80	76	120	32	15	1.2	3.6	29	2.7	50	5.5
C51182117JFM····	110	86	120	32	15	1.6	4.8	35	3.2	55	5.0
C51182167JFM····	160	76	225	32	15	2.4	7.2	52	1.5	60	4.0
C51182207JFM····	200	86	225	32	13	2.6	7.8	60	1.9	60	3.5
U _N 2000VDC											
C51202756JFM····	75	76	120	32	15	1.1	3.3	22	3.3	55	4.0
C51202107JFM····	100	86	120	32	15	1.5	4.5	27	3.8	55	4.0
C51202137JFM····	130	76	225	32	15	1.9	5.7	36	3.5	60	4.0
C51202157JFM····	150	86	175	32	15	2.2	6.6	51	3.5	60	3.5
C51202177JFM····	170	86	225	32	12	2.0	6.0	42	2.4	65	3.5
C51202197JFM····	190	116	125	50	10	1.9	5.7	36	2.5	65	3.0
C51202207JFM····	200	86	225	32	12	2.4	7.2	52	2.4	65	2.5
C51202227JFM····	220	116	150	50	10	2.2	6.6	65	2.0	65	2.5
C51202277JFM····	275	136	125	50	10	2.7	8.1	41	2.1	70	2.0
C51202287JFM····	280	116	180	50	10	2.8	8.4	64	2.0	75	1.8
C51202387JFM····	380	116	230	50	10	3.8	11.4	65	1.6	80	2.0
C51202407JFM····	400	136	180	50	7	2.8	8.4	71	1.3	65	1.8
C51202547JFM····	540	136	230	50	7	3.8	11.4	72	1.3	70	1.5
C51202607JFM····	600	136	260	50	6	3.6	10.8	99	1.2	70	1.3
C51202807JFM····	800	136	335	50	5	4.0	12.0	102	1.3	80	1.3
U _N 2500VDC											
C512521956JFM····	95	116	130	50	25	2.4	7.2	43	1.9	60	2.5
C51252137JFM····	130	136	130	50	25	3.2	9.6	47	2.0	60	2.5
C51252207JFM····	200	116	230	50	25	5.0	15.0	42	1.5	75	2.0
C51252287JFM····	280	136	230	50	20	5.6	16.8	46	1.3	75	2.5

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DC-Link Capacitor

参数表,Article Table

Part Number	CAP μF	Dimension (mm)			dV/dt (V/μS)	Ip (KA)	Is (KA)	Irms @ 50℃ (A)	Rth (K/W)	ESL (nH)	ESR @1KHz (mΩ)
		D	H	P							
UN 3000VDC											
C51302396JFM····	39	76	175	32	35	1.3	3.9	21	2.0	65	4.0
C51302476JFM····	47	86	145	32	35	1.6	4.8	28	3.2	60	4.0
C51302566JFM····	56	76	225	32	35	1.9	5.7	22	2.3	70	4.0
C51302686JFM····	68	116	130	50	35	2.4	7.2	40	1.6	75	3.6
C51302826JFM····	82	86	225	32	30	2.4	7.2	27	2.4	85	3.5
C51302107JFM····	100	116	180	50	30	3.0	9.0	37	1.2	80	3.5
C51302127JFM····	120	136	180	50	30	3.6	10.8	43	1.5	80	3.0
C51302157JFM····	150	116	230	50	30	4.5	13.5	38	1.5	85	3.0
C51302187JFM····	180	136	230	50	25	4.5	13.5	54	1.3	85	2.5
UN 3600VDC											
C51182806JFM····	42	116	180	50	45	1.9	5.7	35	1.2	80	3.5
C51182117JFM····	60	136	180	50	40	2.4	7.2	40	1.5	80	3.0
C51182167JFM····	88	116	230	50	40	3.5	10.5	34	1.5	85	3.0
C51182207JFM····	125	136	230	50	35	4.3	12.9	38	1.3	85	3.0
UN 4000VDC											
C51402336JFM····	33	116	180	50	50	1.6	4.8	33	1.2	80	3.5
C51402476JFM····	47	136	180	50	40	1.8	5.4	37	1.5	80	3.0
C51402706JFM····	70	116	230	50	35	2.4	7.2	32	1.5	85	3.0
C51402107JFM····	100	136	230	50	35	3.5	10.8	36	1.3	85	3.0

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- 注:1. “Irms @ 50℃”是指在环境温度50℃下,最大允许电流有效值。在这种条件下,热点温度将达到最大值。
“Irms @ 50℃”=Maxium allowable r.m,s Current at θambient 50℃. θhotspot will reach the maximum value on this condition.
2. “Rth”是指在自然冷却条件下,电容器热点到环境的热阻。
“Rth”= Rth between hotspot and ambient on natural cooling condition.
3. 上表中所列的尺寸为本产品系列的常用外壳尺寸,其它规格尺寸也可生产。引出端子尺寸参照国家标准。
These are standard shell sizes in the above chart, other specification with different size can be made. Pls refer national standards for the size of leading out terminal.
4. 顾客还可以选用带底部螺栓或不带底部螺栓的电容器。
Choose the capacitor which bottom with or without screw bolts according to your needs.