

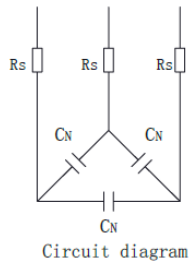
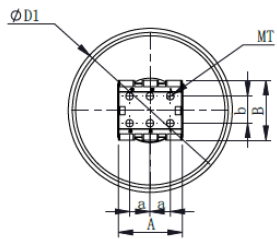
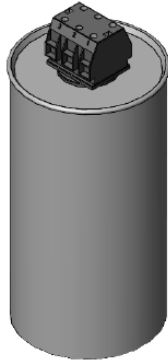
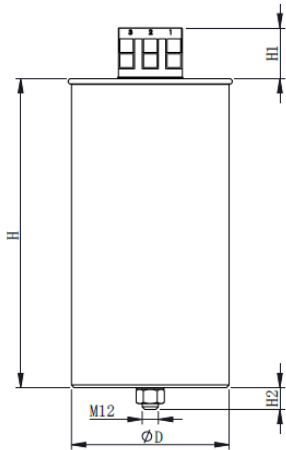


## 干式三相交流滤波电容器（一体）

## Dry type three-phase AC filter capacitors (Single case)

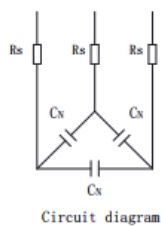
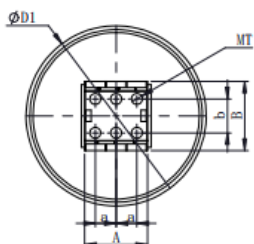
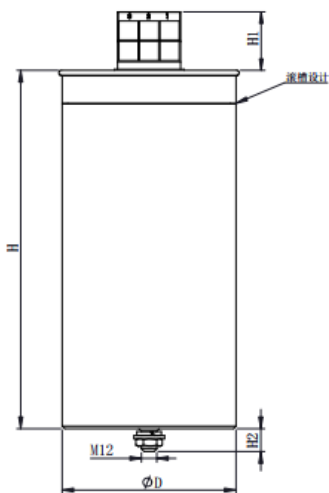
### ■ 外形图 Outline Drawing

帽式设计（无滚槽设计, D=76~106） Cap type design (Without channeling)

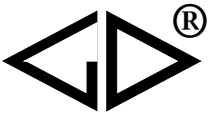


D±1	76~106
a±0.5	15
b±0.5	19.4
A±1	43.5
B±1	44.5
H1±2	35
H2±1	16
MT	M5

帽式设计（带滚槽设计, D=116~136） Cap type design (Channeling)

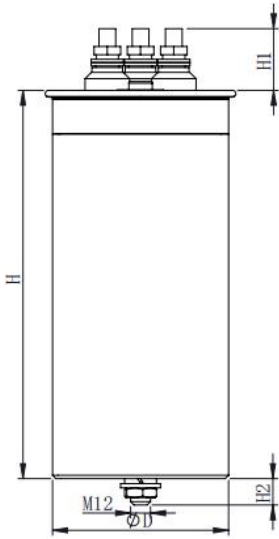


D±1	116	136
a±0.5	15	16.5
b±0.5	19.4	25
A±1	43.5	49
B±1	44.5	54.5
H1±2	35	45
H2±1	16	18
MT	M5	M6

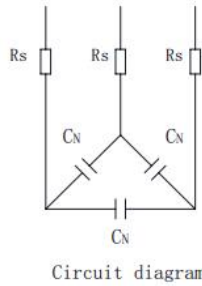
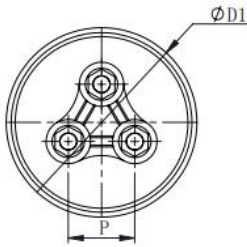


# C6S (Three phase)

螺栓式设计（带滚槽设计, D=116~136） Bolt type design (Channeling)



D±1	116	136
H1±1	38	38
H2±2	16	18
P±1	40	40
MT	M8	M8



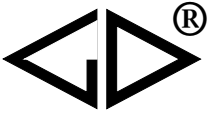
## ■ 特点 Features

- 金属化聚丙烯膜设计，自愈性优良  
Metallized polypropylene film design, excellent self-healing property
- 防爆设计，过压力保护更安全  
Anti-explosion design, overpressure tear-off fuse more safety
- 结构多样化，有帽式、螺栓式  
Structural diversity, include cap type design and bolt type design
- 干式树脂填充，树脂阻燃等级 UL94 V-0  
Dry resin filling, flame retardant grade UL94 V-0
- 干式结构，无漏液风险，安装方向更灵活  
Dry type structure, no leakage risk, more flexible installation direction
- 适用于三相功率因数校正、LCL 滤波，广泛用于风电、光伏等场合  
Suitable for power factor correction and LCL filter, widely used in wind power, photovoltaic and other occasions



## ■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC61071)	
额定均方根电压 Rated RMS Voltage ( $U_{rms}$ )	230Vac ~ 850Vac(可根据客户要求定制 $U_{rms} \leq 1200$ Vac 的设计) (The design of $U_{rms} \leq 1200$ Vac can be customized according to customer requirements)	
额定频率 Rated Frequency ( $f_N$ )	50/60Hz	
额定电容量 Rated capacitance ( $C_N$ )	8 $\mu$ F ~330 $\mu$ F	
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K), $-5\% \sim +10\%$ (6)	
电容内部连接方式 Capacitor internal connection	三角形接法 ( $\Delta$ ) Delta connection ( $\Delta$ )	
极间耐电压 Test voltage between Terminals ( $U_{T-T}$ )	2.15 $U_{rms}$ 或 1.5 $U_N$ (50/60Hz), 10s	
极壳耐电压 Test voltage between terminals to case ( $U_{T-C}$ )	4 000Vac(50/60Hz), 10s	
绝缘电阻 Insulation Resistance ( $IR \times C_N$ )	$\geq 10\ 000$ s (20°C, 500V, 1min)	
介质损耗角正切 Dielectric dissipation factor ( $\tan \delta_d$ )	$2 \times 10^{-4}$	
气候类别 Climatic category	40/70/56	
可运行温度范围(热点温度) Operating temperature range ( $\theta_{hs}$ )	-40°C~85°C (建议使用过程中, 保证 $\theta_{hs} \leq 70^\circ\text{C}$ , 否则会影响寿命, 具体见预期寿命曲线) (Recommended to ensure $\theta_{hs} \leq 70^\circ\text{C}$ during use, or the life will be affected. For details, see the expectancy life curve)	
贮存温度范围 Storage Temperature range ( $\theta_s$ )	-40°C~85°C (若 $\theta_s > 70^\circ\text{C}$ , 会影响电容预期寿命, 具体参照预期寿命曲线) (If $\theta_s > 70^\circ\text{C}$ , the life will be affected. For details, see the expectancy life curve)	
预期寿命 Expected lifetime	$ \Delta C/C  \leq 5\%$ after 100 000h @ 0.8 $U_{rms}$ , $\theta_{hs} \leq 70^\circ\text{C}$	
防爆装置 Explosion-proof device	过压力防护装置 Overpressure disconnecter	
内部填充料 Internal stuffing	干式聚氨酯 (PU) Polyurethane	
冷却方式 Cooling	自然空气或强制冷却 Naturally air-cooled or force cooled	
是否有放电电阻 Whether has the discharge resistor	可根据客户要求进行配置 Configured according to customer requirement	
电极最大扭矩 Max. Torque of terminals	2N·m (M5); 3N·m (M6); 6N·m (M8)	
安装 Fix	引出端形式 Terminal form	帽式 (插头螺栓 M5 或 M6 ) Cap type (Plug bolt M5 or M6) 螺栓式 M8 Bolt type M8
	安装方向 Fix direction	任意方向 Any direction
	安装形式 Fix style	底部螺栓 M8 或 M12 Bottom-bolt M8 or M12
最大安装扭矩 Max. Torque of Installation	5N·m (M8); 10N·m (M12)	
最高海拔 Max. altitude	2 000m: 电流不降额(No derating for current); 2000m to 4000m: 电流每 500m 按 3% 降额(Decreasing factor 3% per 500m for current).	



# C6S (Three phase)

## 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

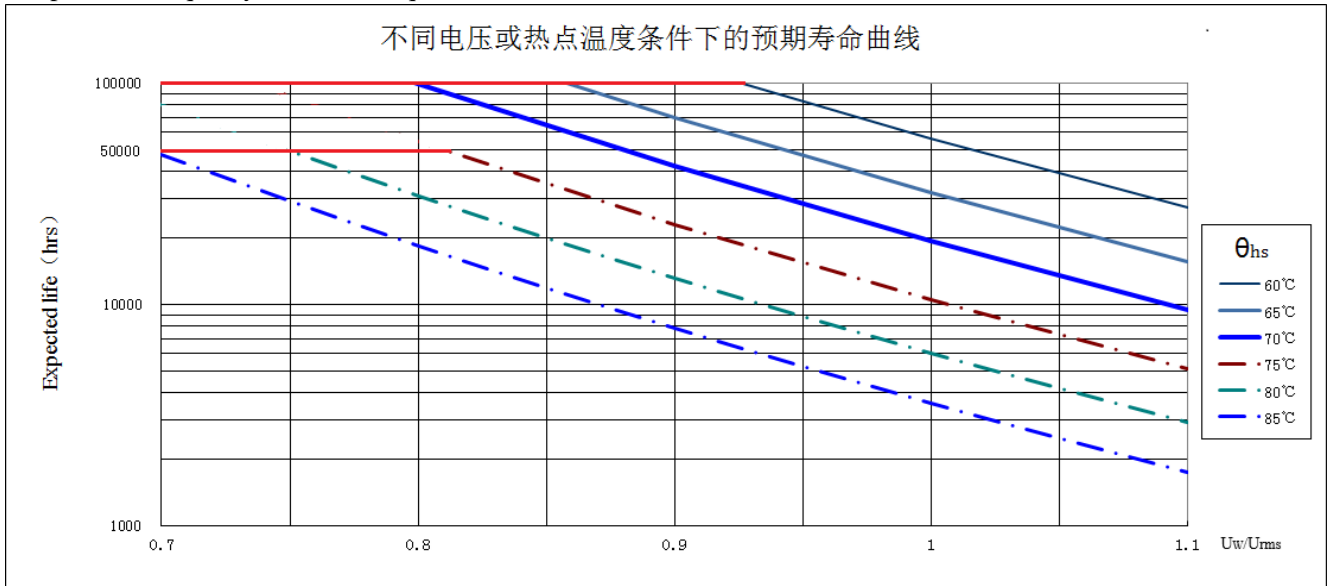
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	S												

第 1~3 位	型号代码 C6S	Digit 1 to 3	Series code C6S
第 4~5 位	额定均方根电压 P5=230Vac S1=440Vac T1=540Vac U2=690Vac V2=760Vac K2=800Vac W1=850Vac	Digit 4 to 5	Rated RMS Voltage P5=230Vac S1=440Vac T1=540Vac U2=690Vac V2=760Vac K2=800Vac W1=850Vac
第 6~8 位	标称容量 A to H & J 表示 0.1 to 0.9 举例: 506=50×10 <sup>6</sup> pF= 50μF 26E=26.5μF	Digit 6 to 8	Rated capacitance value A to H & J 表示 0.1 to 0.9 for example: 506=50×10 <sup>6</sup> pF= 50μF 26E=26.5μF
第 9 位	容量等级 J=±5%, K=±10%, 6=-5%~+10%	Digit 9	Capacitance tolerance J=±5%,K=±10%, 6=-5%~+10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use

## 预期寿命曲线 Expected lifetime curve

电容器的应用中,有多种因素会影响到电容器的使用寿命,比如电压、温度、电流、电网谐波、光照或辐射以及其它一些未知的因素。以下预期寿命曲线仅考虑电压、温度的关系,基于长期耐久性试验的合格结果,再通过预期寿命理论计算公式计算该电容在不同工况下的预期寿命。因此,预期寿命曲线仅作为选型参考,而不代表电容器的实际使用寿命,也不代表质保要求。

For capacitors application, various factors will affect the expected lifetime of capacitors, such as voltage, temperature, current, network harmonics, humidity, lighting or radiation and other unknown factors. The following lifetime curve only considers the effects of voltage and temperature. Based on the qualified results of long-term durability test, the lifetime curve of the capacitor under different working conditions is calculated by using the theoretical calculation formula of lifetime. Therefore, the lifetime curve is only used as a reference for selection, and does not represent the actual service life of the capacitor, nor does it represent the quality assurance requirements.





### ■ 技术参数 Technical data

$U_{rms}=230Vac$   $U_N=325Vac$

$C_N$ ( $\mu F$ )	$D\pm 1.0$ (mm)	$D1max.$ (mm)	$H\pm 3.0$ (mm)	$R_s$ (m $\Omega$ )	$L_s$ (nH)	$R_{th}$ (K/W)	$I_{max}$ (A)	$\hat{I}$ (kA)	$\hat{I}_s$ (kA)	M (kg)	Part number
3x84	76	79	200	3x1.5	100	4.5	3x34	1.6	4.8	1.1	C6SP5846-*****
3x105	76	79	230	3x1.6	120	4.0	3x36	1.5	4.5	1.2	C6SP5004-*****
3x160	86	90	230	3x1.2	120	3.5	3x43	2.3	6.9	1.6	C6SP5167-*****
3x250	116	121	200	3x0.8	110	3.1	3x53	3.0	9.0	2.4	C6SP5257-*****
3x330	116	121	230	3x0.9	130	2.7	3x54	4.8	14.4	2.5	C6SP5337-*****

$U_{rms}=440Vac$   $U_N=625Vac$

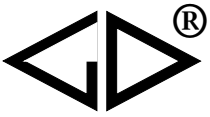
$C_N$ ( $\mu F$ )	$D\pm 1.0$ (mm)	$D1max.$ (mm)	$H\pm 3.0$ (mm)	$R_s$ (m $\Omega$ )	$L_s$ (nH)	$R_{th}$ (K/W)	$I_{max}$ (A)	$\hat{I}$ (kA)	$\hat{I}_s$ (kA)	M (kg)	Part number
3x13	76	79	140	3x1.8	100	6.2	3x22	0.8	2.4	0.9	C6SS1136-*****
3x16.5	76	79	140	3x1.5	100	5.6	3x25	1.1	3.3	0.9	C6SS116E-*****
3x26.5	76	79	200	3x2.3	100	4.4	3x25	0.8	2.4	1.2	C6SS126E-*****
3x33	76	79	200	3x1.9	100	4.0	3x28	1.0	3.0	1.2	C6SS1336-*****
3x50	86	90	200	3x1.4	110	3.4	3x34	1.5	4.5	1.4	C6SS1506-*****
3x66	86	90	230	3x1.5	120	2.9	3x36	1.4	4.2	1.7	C6SS1666-*****
3x83	116	121	200	3x1.1	110	3.1	3x40	2.4	7.2	2.4	C6SS1836-*****
3x100	116	121	200	3x1.0	110	2.8	3x43	2.9	8.7	2.4	C6SS1107-*****
3x133	136	142	200	3x0.9	120	2.5	3x46	3.9	11.7	3.3	C6SS1A00-*****
3x154	136	142	200	3x0.8	120	2.3	3x48	4.0	12.0	3.3	C6SS1021-*****
3x170	136	142	230	3x0.9	130	2.2	3x45	4.5	13.5	3.8	C6SS1177-*****

$U_{rms}=540Vac$   $U_N=760Vac$

$C_N$ ( $\mu F$ )	$D\pm 1.0$ (mm)	$D1max.$ (mm)	$H\pm 3.0$ (mm)	$R_s$ (m $\Omega$ )	$L_s$ (nH)	$R_{th}$ (K/W)	$I_{max}$ (A)	$\hat{I}$ (kA)	$\hat{I}_s$ (kA)	M (kg)	Part number
3x19	76	79	170	3x1.0	110	5.1	3x32	1.0	3.0	1.0	C6ST1196-*****
3x23	76	79	170	3x1.0	110	5.0	3x33	1.2	3.6	1.2	C6ST1236-*****
3x39	86	90	200	3x0.9	110	4.0	3x39	1.4	4.2	1.7	C6ST1396-*****
3x48	86	90	230	3x1.0	120	3.6	3x40	1.3	3.9	1.9	C6ST1486-*****
3x96	116	121	230	3x0.8	130	3.0	3x45	2.3	6.9	2.8	C6ST1966-*****

$U_{rms}=690Vac$   $U_N=980Vac$

$C_N$ ( $\mu F$ )	$D\pm 1.0$ (mm)	$D1max.$ (mm)	$H\pm 3.0$ (mm)	$R_s$ (m $\Omega$ )	$L_s$ (nH)	$R_{th}$ (K/W)	$I_{max}$ (A)	$\hat{I}$ (kA)	$\hat{I}_s$ (kA)	M (kg)	Part number
3x33.5	116	121	170	3x0.8	110	3.5	3x42	1.6	4.8	2.2	C6SU233E-*****
3x38	116	121	200	3x0.8	110	3.5	3x40	1.3	3.9	2.4	C6SU2386-*****
3x75	136	142	230	3x0.8	130	2.6	3x45	1.9	5.7	3.7	C6SU2756-*****



# C6S (Three phase)

$U_{rms}=760Vac/850Vac\#$   $U_N=1\ 070Vac/1\ 200Vac$

$C_N$ ( $\mu F$ )	$D\pm 1.0$ (mm)	$D1max.$ (mm)	$H\pm 3.0$ (mm)	$R_s$ (m $\Omega$ )	$L_s$ (nH)	$R_{th}$ (K/W)	$I_{max}$ (A)	$\hat{I}$ (kA)	$\hat{I}_s$ (kA)	M (kg)	Part number
3x8	76	79	170	3x1.3	110	5.6	3x24	0.6	1.8	1.0	C6SW1805-*****
3x10	86	90	170	3x1.1	110	5.2	3x27	0.7	2.1	1.0	C6SW1106-*****
3x12	86	90	170	3x1.0	110	4.8	3x29	0.9	2.7	1.0	C6SW1126-*****
3x17	106	110	170	3x0.9	110	4.3	3x34	1.1	3.3	1.7	C6SW1176-*****
3x23	86	90	230	3x1.1	120	3.4	3x37	0.9	2.7	1.6	C6SW1236-*****
3x28	106	110	230	3x1.0	130	3.3	3x38	1.0	3.0	2.2	C6SW1286-*****
3x33	106	110	230	3x1.0	130	3.0	3x41	1.2	3.6	2.3	C6SW1336-*****
3x38	116	121	230	3x0.9	130	2.9	3x42	1.4	4.2	2.8	C6SW1386-*****
3x49	136	142	230	3x0.9	130	2.7	3x43	1.9	5.7	3.7	C6SW1496-*****
3x55.8	136	142	230	3x0.8	130	2.5	3x45	2.2	6.6	3.8	C6SW155H-*****

备注: 1. “-”表示容量偏差。

“-”=capacitance tolerance code.

2. “\*\*\*\*\*”表示内部特征码, 请联系技术工程师确认完整代码。

“\*\*\*\*\*”= Internal use, please contact the technical engineer to confirm the complete code.

3. “#”当额定均方根电压为 760Vac 时, 第 4~5 位是 V2。

“#” when the rated RMS voltage is 760Vac, the digit 4~5 is V2.


4. “ $R_{th}$ ”是指在自然冷却条件下, 电容器热点到环境的热阻。

“ $R_{th}$ ” =  $R_{th}$  between hotspot and ambient on natural cooling condition.

5. “ $I_{max}$ ”为通过电容器接线端子的最大电流, 表格中数值是基于温升不超过 30°C 计算所得, 其值必须小于端子所能承受的载流能力; 建议使用过程中电容器的最热点温度不超过 70°C, 必要时采取强制冷却措施。

“ $I_{max}$ ”=The maximum current passing through the terminal of the capacitor. The value in the table is calculated based on the temperature rise not exceeding 30°C, and its value must be less than the current carrying capacity of the terminal. Recommend the most hot spot temperature does not exceed 70 °C, forced cooling measures when necessary.

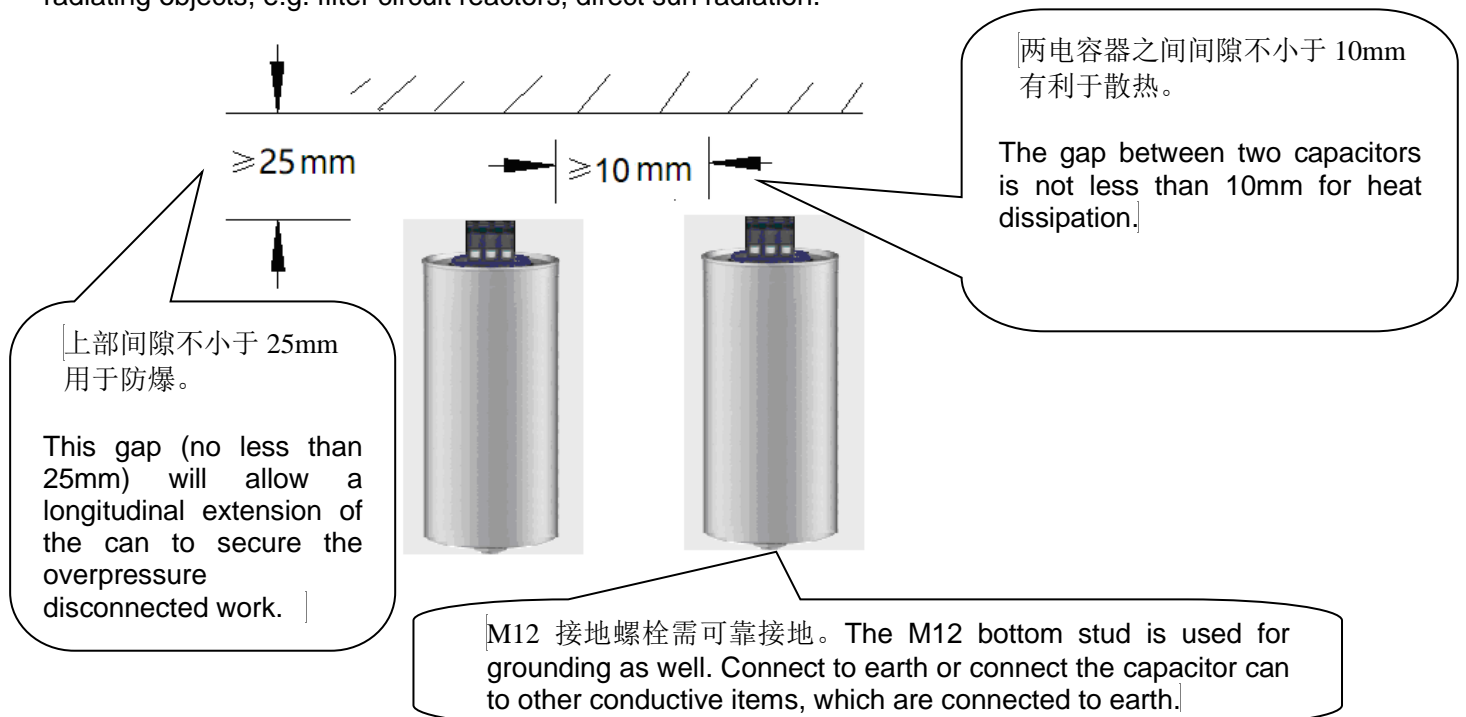
6. 如需星型接法设计产品, 请联系技术工程师。

If need  connection design, please contact our technical engineer.

## ■ 安装空间要求(以帽式设计为例) Installation space requirements (Take cap type design as an example)

电容要安装在阴凉、通风良好的位置, 且其周围不能有热辐射的物体, 如滤波电路电抗器、太阳直射。

The capacitor is to be installed at a cool and well-ventilated place, and must not be installed within the range of heat radiating objects, e.g. filter circuit reactors, direct sun radiation.



### ■ 连接电缆（以帽式设计为例） Connection of the supply cable (Take cap type design as an example)

上部必须保持足够的空间（不小于 25mm），该空间内不能安装其它组件。连接电缆应使用软性电线并保持松弛，不要用硬芯电缆。

Keep enough space (no less than 25mm) on the top of the capacitors and do not fix any mounting components at the top. The connection cable shall be of flexible type and keep slack, do not use hard core cable.

对于帽式设计，可安装的最大引线截面积为 16 mm<sup>2</sup>(M5)/25 mm<sup>2</sup>(M6)，可根据实际电流值来选择合适的电缆。

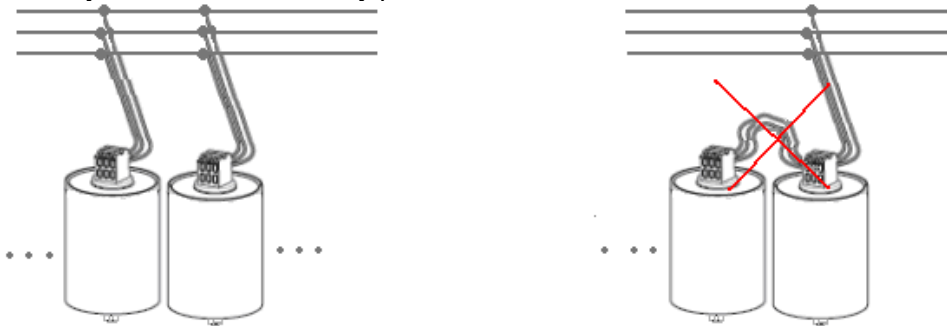
For the cap type design, maximum cable cross section is 16 mm<sup>2</sup>(M5)/25 mm<sup>2</sup>(M6), according to actual result to choose the appropriate cable.

对于螺栓式设计，根据实际电流值来选择合适的电缆。

For the bolt type design, according to actual result to choose the appropriate cable.

以帽式设计为例，对于多个电容器并联，每个电容器采用直接连接到母线上方式，若有其它连接方式请联系我们。

Take cap type design as an example, for capacitors connected in parallel, each capacitor should use independent lead wires, if you have any other connection way please contact us.



### ■ 安装注意事项 Installation cautions

操作前注意电容器必须充分放电。

Discharge the capacitor completely before operation

注意端子最大可承受电流，端子总电流不得超出规定的最大值：

Pay attention to the Max. Current on the terminals, the total current on terminals must not go beyond the Max. current by specified

● M8 引出螺栓最大电流为 80A。

The maximum current of the M8 lead bolt is 80A.

● M6 插头螺栓的引出端子最大电流为 60A。

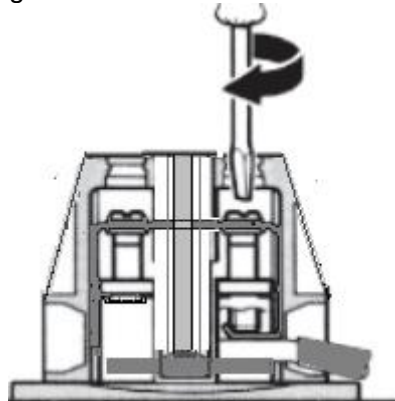
The maximum current of the outlet terminal of M6 plug bolt is 60A.

● M5 插头螺栓的引出端子最大电流为 45A。

The maximum current of the outlet terminal of M5 plug bolt is 45A.

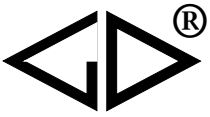
对于帽式设计，安装引出端子推荐使用一字螺丝刀，刀腿的直径小于防护盖孔以方便插入防护盖上的孔。

For the cap type design, recommend to using a slotted screwdriver to install the terminals.

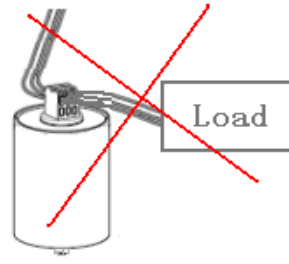


以帽式设计为例，电容器均只能作为一个独立的分支，不能在电容器的一端连接负载（放电电阻除外）。

Take cap type design as an example, each capacitor is only used as an independent subfield, and not connected the load in the terminals (Except discharge resistors) .

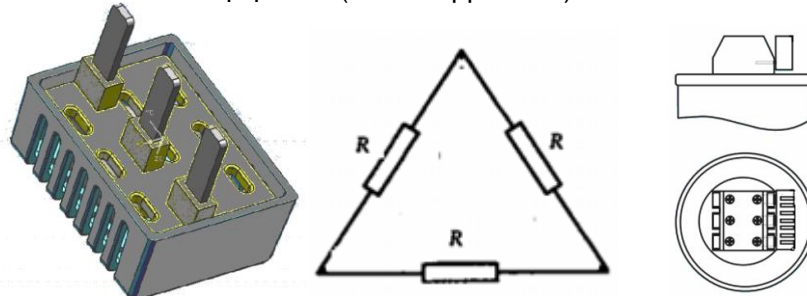


# C6S (Three phase)



## ■ 放电电阻连接 Connection of the discharge resistors

当用户有需求时，应提供将每一电容器单元或电容器组在 10min 之内从工作电压放电到 75V 或更低电压的装置。  
 When required by the user, each capacitor unit or bank shall be provided with means for discharging each unit in 10 min to 75 V or less, from an initial voltage  $U_N$ .  
 放电电阻用于对电容器进行放电以保护人免受电击的危险，同时也在自动 PFC 装置内电容器进行切换时放电。  
 Discharge resistors are required for discharging capacitor for protection of human being (Electric shock risk), and for re-switching capacitors in automatic PFC equipment (Phase opposition).



C6S 帽式设计电容器系列有可选配的放电电阻，其配套的放电电阻能满足在 3 分钟内使电容器放电到 75V 或更低电压，放电电阻值的计算可以按如下公式：

Capacitors of the C6S series (cap type design) are fitted with discharge resistors for a discharge <75V within <180s, the resistors to be used can be calculated with the following formula:

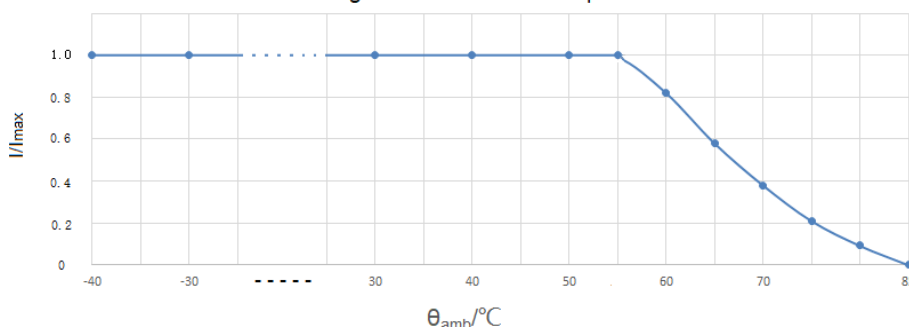
$$R \leq \frac{T}{k \times C \times \ln \frac{U_N \times \sqrt{2}}{U}}$$

$T$ : 放电时间 Discharge time       $C$ : 每一相的容量 Capacitance of one phase  
 $U_N$ : 实际工作电压 Operating voltage       $U$ : 最大允许的残留电压 Maximum permissible voltage after discharging  
 $k$ : 系数，内部使用  $\Delta$  接法,  $k=1$ ; 内部使用  $Y$  接法,  $k=1/3$ 。  
 Coefficient, if delta connection,  $k=1$ ; if star connection,  $k=1/3$ .

## ■ 环境温度 Ambient temperature

建议电容使用环境温度  $\leq 55^\circ\text{C}$ ；当环境温度  $> 55^\circ\text{C}$  时，随环境温度升高，电容发热功率应逐渐下降，当环境温度达最高温度  $85^\circ\text{C}$  时，电容发热功率为 0W。电容环境温度的使用，可参照预期寿命曲线和电流随环境温度降额曲线。  
 The capacitors' working ambient temperature that we recommend is  $55^\circ\text{C}$  (or lower). When the ambient temperature exceeds  $55^\circ\text{C}$ , with the ambient temperature rising, the active power of the capacitor should be gradually decreased (When it gets to the highest temperature ( $85^\circ\text{C}$ ), the active power of the capacitor should be decreased to 0 Watt). If you want to know more details about the operating temperature of capacitors, please refers to the expected lifetime curves of capacitors and the current derating curve with ambient temperature.

电流随环境温度降额曲线  
 Current derating curve with ambient temperature







## ■ 冲击电流限制 Inrush current limitation

当电容器接入电路或设备切换时可能会出现高幅值和高频率的暂态过电流，暂态过电流可能是额定电流数十倍或更大的冲击电流，但要保证电容器不在电流超过  $I_{\max}$ （最大电流）、 $\hat{I}$ （最大峰值电流）和  $\hat{I}_s$ （最大冲击电流）规定的最大参数值下运行。

When the capacitor is connected to the circuit or device switch may appear high amplitude and high frequency transient current, transient currents may be rated current several times or greater impact current, but to ensure that the capacitor is not current exceeds  $I_{\max}$  (maximum current),  $\hat{I}$  (maximum peak current), and  $\hat{I}_s$  (maximum impact current) the biggest parameter values regulations.

$I_{\max}$ : 连续运行时的最大均方根电流。

The maximum RMS current at continuous operation.

$\hat{I}$ : 在连续运行中出现的最大重复峰值电流，通常持续时间为 ms 级。

The maximum repeated peak current that occurs in continuous operation. Usually the duration is ms level.

$\hat{I}_s$ : 由切换或系统中任何其它扰动所感应的非重复峰值电流，此电流只允许持续比基本周期短的时间和出现有限的次数，通常持续时间为  $\mu s$  级且在生命周期内不超过 1000 次。

A non-repeating peak current induced by a switch or any other disturbance in the system that is allowed to last only a limited number of times shorter than the base period. Usually the duration is  $\mu s$  level and it occurs not more than 1000 times in a lifetime.

## ■ 谐波 Harmonics

谐波是由于一些非线性电器运行时造成的，这些载荷诸如现代电力电子中的转换器、电气传动、焊接机、备用电源等。Harmonics result from the operation of electrical loads with non-linear voltage-current characteristics. They are caused by loads operated with modern power electronic, such as converters, electrical drives, welding machines and stand-by power supplies.

纹波由一系列频率为 50Hz 或 60Hz 倍数的正弦电流和电压组成。

Harmonics are sinusoidal voltages and currents with frequencies that are multiples of a 50Hz or 60Hz power supply frequency.

在使用过程中计算产品的温升以及核心热点温度是必要的，若使用过程中理论计算出的电容器热点超出了允许的最高范围，建议检查输入线的电流谐波畸变总数 THD<sub>I</sub>，并按以下要求执行：

It is necessary to calculate the temperature rise of the capacitors from hotspot to case during the using process. If the temperature rises of theoretical calculation of capacitors' hotspot beyond the maximum allowable range, we would propose to check the total harmonic current distortion (THD<sub>I</sub>) of the input terminals, and according to the following requirements:

- 当  $I_N \geq 40A$  时，建议 THD<sub>I</sub> ≤ 50%。

When  $I_N \geq 40A$ , suggest THD<sub>I</sub> ≤ 50%.

- 当  $40A > I_N \geq 35A$  时，建议 THD<sub>I</sub> ≤ 100%。

When  $40A > I_N \geq 35A$ , suggest THD<sub>I</sub> ≤ 100%.

- 当  $35A > I_N \geq 25A$  时，建议 THD<sub>I</sub> ≤ 200%。

When  $35A > I_N \geq 25A$ , suggest THD<sub>I</sub> ≤ 200%.

- 当  $25A > I_N \geq 15A$  时，建议 THD<sub>I</sub> ≤ 250%。

When  $25A > I_N \geq 15A$ , suggest THD<sub>I</sub> ≤ 250%.

- 当  $I_N < 15A$  时，关于 THD<sub>I</sub> 的限定，请联系我司技术人员确认。

When  $I_N < 15A$ , please contact our technical staff to check the THD<sub>I</sub> limit.

(注： $I_N$  是指额定均方根电压、额定容量条件下的基波电流。)

(Note:  $I_N$  is the fundamental current under rated RMS voltage and rated capacity.)

$$THD_I = \frac{\sqrt{\sum_{n=1}^{\infty} I_n^2}}{I_0}$$

(THD<sub>I</sub>: 电流谐波畸变总数;  $I_0$ : 实际工作的基波电流;  $I_n$ : 实际工作的谐波电流。)  
(THD<sub>I</sub>: Total current harmonic distortion;  $I_0$ : Actual working fundamental current;  $I_n$ : Actual working harmonic current.)

## ■ 安全注意事项 Safety

电容器外壳保持良好和可靠接地。

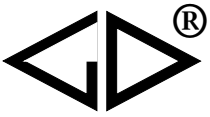
Maintain good and effective earthing for enclosures of capacitors.

拆装电容器时要确保电容器已放电干净。

Handle capacitor to ensure capacitor has discharge clean.

遵循良好的工程规范。

Follow good engineering practices.



## C6S (Three phase)

### ■ 过流/短路保护 Over current/short circuit protection

建议使用限流熔断器或塑壳断路器进行短路保护。短路保护的元件以及连接电缆需能长时间承受 1.5 倍电容器额定电流。

HRC-fuse or MCCB for short circuit protection is recommended to use. Short circuit protection equipment and connection cable should be selected so that the 1.5 times rated current of the capacitor can be managed permanently.

限流熔断器额定电流值应为正常电容电流的 1.6~1.8 倍。

HRC-fuse rating has to be 1.6 to 1.8 times nominal capacitor current.

使用热磁继电器为过载保护。

Use thermal magnetic overcurrent relays for overload protection.

### ■ 维护 Maintenance

检查连接线与端子螺丝是否打紧。

Check tightness of Connections/terminals periodically.

定期清理引出端子避免因灰尘或其它可导电的垃圾引起短路。

Clean the terminals periodically to avoid dust or other conductive garbage can cause a short-circuit.

检查短路保护保险丝。

Check short circuit protection fuses.

每半年使用电流钳表或其它在线测电流的工具测量电容器电流。

Every half a year use current clamp table or other on-line measuring tools of current measurement capacitor current.

检查放电电阻是否正常工作, 可以通过电容器先上电后断开 3 分钟后测量电容器的电压是否降至 75V 以下来进行判断。

To check whether the discharge resistance is working normally, it can be judged by measuring whether the voltage of the capacitor drops to 75V after the capacitor is turned on first and disconnected for 3 minutes.

### ■ 安装与调试步骤 Installation & commissioning procedures

1、打开包装箱取出电容

Unpack Capacitor

取电容时请勿直接抓取端子

Do not touch capacitor terminals by hand directly while taking them.

2、检查电容器外观 (是否有机械损伤)

Check Physically

3、固定好电容器

Fixed capacitors

4、确保使用电容器场合的电压、频率、温度在电容器额定值以下

Ensure for correctness of supply voltage, frequency, temperature

5、连接好电容器

Connect Capacitor

6、打开电源开关

Switch on supply

7、检查主回路的电压与电流是否正常

Check main supply Voltage & current

8、电容器正常运行

Capacitor is commissioned

