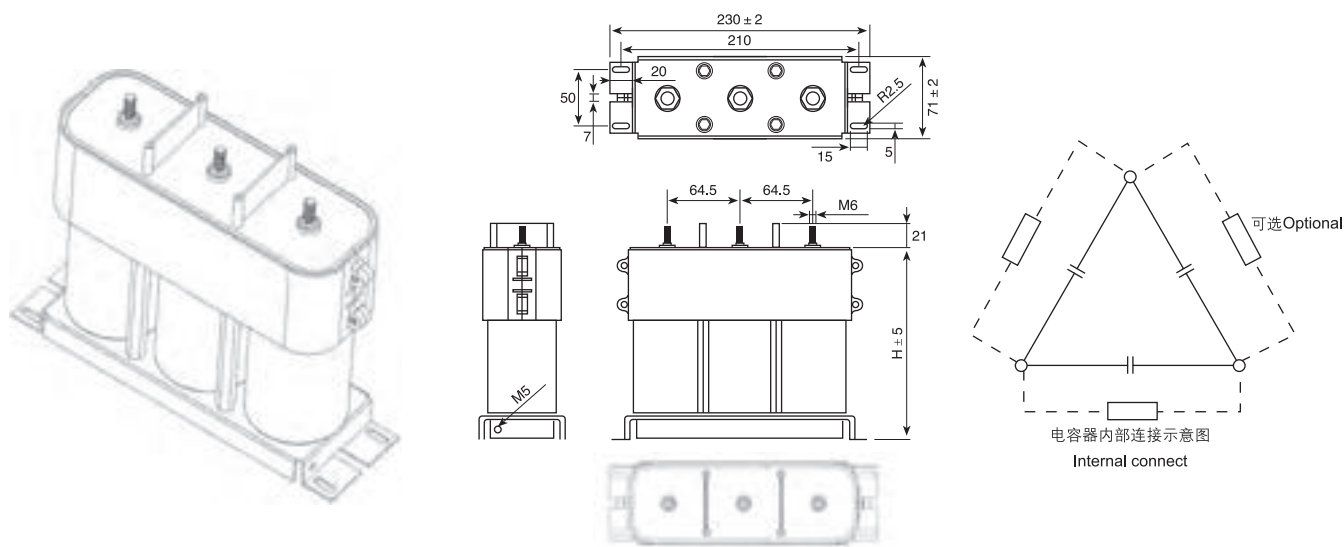


## 三相交流滤波电容器(组合)

## Three phase AC filter capacitor(assembled)

### ■ 外形图 Outline Drawing



### ■ 特点

- 适用于频率为50Hz/60Hz三相交流电源供电的功率补偿
- 具有优良的自愈特性
- 高稳定性，可靠性
- 防爆设计，更安全
- 分体设计，具有更好的散热效果，能耐受更大的热冲击

### ■ Features

- The capacitor is especially intended for power factor correction .
- Self-healing property
- Excellent stable performance and reliability
- Anti-explosion design, more safety
- Fission design, have better cooling, tolerated greater thermal shock

### ■ 技术要求 Specifications

|                                                |                                                                                                                                |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 引用标准 Reference standards                       | IEC 60831-1 and IEC60831-2                                                                                                     |
| 过电压 Over voltages                              | $U_{rms}+10\%$ , up to 8h daily; $1.15U_{rms}$ 30min/24h; $1.2U_{rms}$ for 5min or $1.3U_{rms}$ for 1min during life 200 times |
| 额定电压 Rated voltage( $U_{rms}$ )                | 500Vac, 690Vac                                                                                                                 |
| 额定频率 Rated frequency ( $f_N$ )                 | 50/60Hz                                                                                                                        |
| 电容量偏差 Capacitance tolerance                    | -5%~+10%                                                                                                                       |
| 瞬间电流 Inrush current ( $\hat{I}_s$ )            | $200I_N$                                                                                                                       |
| 最大过电流 Over current ( $I_{max}$ )               | $1.3I_N$                                                                                                                       |
| 极间耐压 Test voltage, ( $U_{T-T}$ )               | $2.15U_{rms}$ , 2s ( 50/60Hz )                                                                                                 |
| 极壳耐压 Test voltage, ( $U_{T-C}$ )               | 3 000Vac, 10s ( 50/60Hz )                                                                                                      |
| 损耗 Dissipation factor ( $\tan \delta$ ) @ 1kHz | $\leq 0.0060$                                                                                                                  |
| 工作温度范围 ( 热点温度 ) Operating temperature(Hotspot) | -40℃ ~ 70℃                                                                                                                     |
| 贮存温度 Storage Temperature                       | -40℃ ~ 70℃                                                                                                                     |
| 放电电阻 Discharge resistors                       | 750k $\Omega$ delta connection(Optional)                                                                                       |
| 保护等级 Degree of protection                      | IP00, indoor mounting                                                                                                          |
| 平均寿命 Life Expectancy                           | After 60 000 hours at $U_{rms}$ 、 $f_N$ 、50℃   $\Delta C/C$   $\leq 3\%$                                                       |
| 安装方式 Mounting position                         | Terminals upright                                                                                                              |
| 冷却方式 Cooling                                   | Naturally air-cooled ( or forced cooling )                                                                                     |
| 电极最大扭矩 Max Torque of terminals                 | 3Nm                                                                                                                            |
| 最高使用海拔 Max Altitude                            | 2 000m                                                                                                                         |



# C65(A)

## 产品编码说明 Part number system

### ■ 18位产品代码如下:

The 18 digits part number is formed as follow:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| C | 6 | 5 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |

|         |                                              |                |                                                                          |
|---------|----------------------------------------------|----------------|--------------------------------------------------------------------------|
| 第1~3位   | 型号代码                                         | Digit 1 to 3   | Series code                                                              |
| 第4~5位   | 交流额定电压<br>H2=500Vac U2=690Vac                | Digit 4 to 5   | A.C. rated voltage<br>H2=500Vac U2=690Vac                                |
| 第6~8位   | 标称容量<br>举例: 506=50 × 10 <sup>6</sup> pF=50μF | Digit 6 to 8   | Rated capacitance value<br>For example: 506=50 × 10 <sup>6</sup> pF=50μF |
| 第9位     | 容量等级<br>J= ± 5%,K= ± 10%,6=-5%~+10%          | Digit 9        | Capacitance tolerance<br>J= ± 5%,K= ± 10%,6=-5%~+10%                     |
| 第10位    | 产品外形尺寸代码                                     | Digit 10       | Dimension code                                                           |
| 第11位    | 内部特征码<br>“ A ” =三相                           | Digit 11       | Internal use<br>“ A ” is mean three phase                                |
| 第12~15位 | 引出端形式代码                                      | Digit 12 to 15 | Terminals code                                                           |

| Digit 12 |               | Digit 13 |             | Digit 14 |                     | Digit 15 |                      |
|----------|---------------|----------|-------------|----------|---------------------|----------|----------------------|
| Code     | Terminal form | Code     | Fixed style | Code     | length of lead wire | Code     | whether has Resister |
| 2        | M6 stud       | A        | Others      | 0        | standard form       | R<br>0   | yes<br>no            |

第16~18位 内部特征码

Digit 16 to 18 Internal use

### ■ 技术参数 Technical data

| 500Vac          |                  |                       |                  |                       |                        |                               |                         |           |
|-----------------|------------------|-----------------------|------------------|-----------------------|------------------------|-------------------------------|-------------------------|-----------|
| Part number     | 50Hz             |                       | 60Hz             |                       | C <sub>N</sub><br>(μF) | L ± 2 × W ± 2 × H ± 5<br>(mm) | I <sub>max</sub><br>(A) | M<br>(kg) |
|                 | Output<br>(kvar) | I <sub>N</sub><br>(A) | Output<br>(kvar) | I <sub>N</sub><br>(A) |                        |                               |                         |           |
| C65H250660A2A0R | 11.7             | 13.6 x 3              | 14.1             | 16.2 x 3              | 50 x 3                 | 230 x 71 x 169                | 21 x 3                  | 1.9       |
| C65H266660A2A0R | 15.5             | 17.9 x 3              | 18.7             | 21.5 x 3              | 66 x 3                 | 230 x 71 x 200                | 28 x 3                  | 2.2       |
| C65H275660A2A0R | 17.6             | 20.4 x 3              | 21.2             | 24.5 x 3              | 75 x 3                 | 230 x 71 x 210                | 28 x 3                  | 2.4       |

| 690Vac          |                  |                       |                  |                       |                        |                               |                         |           |
|-----------------|------------------|-----------------------|------------------|-----------------------|------------------------|-------------------------------|-------------------------|-----------|
| Part number     | 50Hz             |                       | 60Hz             |                       | C <sub>N</sub><br>(μF) | L ± 2 × W ± 2 × H ± 5<br>(mm) | I <sub>max</sub><br>(A) | M<br>(kg) |
|                 | Output<br>(kvar) | I <sub>N</sub><br>(A) | Output<br>(kvar) | I <sub>N</sub><br>(A) |                        |                               |                         |           |
| C65U215660A2A0R | 6.7              | 5.6 x 3               | 8.0              | 6.7 x 3               | 15 x 3                 | 230 x 71 x 169                | 10 x 3                  | 1.9       |
| C65U220660A2A0R | 8.9              | 7.5 x 3               | 10.7             | 9.0 x 3               | 20 x 3                 | 230 x 71 x 200                | 14 x 3                  | 2.2       |
| C65U222660A2A0R | 9.8              | 8.2 x 3               | 11.8             | 9.9 x 3               | 22 x 3                 | 230 x 71 x 210                | 15 x 3                  | 2.4       |

## ■ 注意事项 Cautions and warnings

- 外壳划伤或其他机械损伤超过1mm深以及有漏油现象的电容器不能使用。

In case of dents of more than 1mm depth or any other mechanical damage, capacitors must not be used at all. This applies also in cases of leakage.

- 本电容器应安装在可以避免伤害到铝壳的地方。

The capacitor has to be installed in a way that mechanical damages and dents in the aluminum can are avoided.

- 本电容器极间装有放电电阻，请在断开电容器5分钟后并进行短路放电再进行操作。

The capacitor have discharge resistors between terminals , when handle capacitors please wait for above 5 minutes after shut power and then short-circuit the capacitor.

- 不要把本电容器用于或存储于具有腐蚀性气体的环境下，在高粉尘的环境下使用该电容器时应定期对产品进行粉尘清理以防止漏电。

Do not use or store capacitors in corrosive atmosphere, especially where chloride gas, sulfide gas, acid, alkali, salt or the like are present. In dusty environments regular maintenance and cleaning especially of the terminals is required to avoid conductive path between phases and/or phase and ground.

## ■ 包装与运输 Packing and shipment

装有电容器的包装箱允许以任何方式运输，但应避免雨雪的直接淋浇和机械损伤。

For the packing box with capacitors, any kinds of shipments are permitted. But the sprinkle of rain or snow and mechanical damage must

## ■ 环境温度 Ambient temperature

该电容的环境温度类别是-25/D,意思环境温度最高可达55℃，若在强制制冷的条件下环境温度还可以再高些，但应保证电容器的外壳温度最高点不得高于60℃；温度对于聚丙烯膜式电容器来讲是影响损耗的一大因素，这会影响到产品的使用寿命。

The ambient temperature category is -25/D , means ambient temperature up to max. 55℃. Under forced cooling conditions higher ambient temperature is possible, but should guarantee the capacitor shell temperature point no more than 70℃. Temperature is one of the main stress factors for polypropylene type capacitors, means it has a major influences on the life cycle of the capacitor.

## ■ 冲击电流限制 Inrush current limitation

电网切入PFC电容器时，特别是切入时其他并联着的具有电能的器件时，电容器可能会产生是额定电流200倍的冲击电流，这种高冲击电流可能影响电网质量如：瞬间电压下降。

Switching PFC capacitors, especially switching in parallel to other already energized ones cause high inrush currents up to 200 times the rated current. This may cause additional stress to contactors as well as capacitors and reduce their life cycle. On top of that high inrush currents have a negative effect on power quality, e.g. transients, voltage drop.

## ■ 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。纹波由一系列频率为50赫或60赫倍数的正弦电流和电压组成。



## C65(A)

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

### ■ 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

### ■ 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他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他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

Check the discharge resistance whether normal work. By power the capacitor up and down , after 3 minutes the capacitor voltage must less than 75V.