



## 概述 General description

WSK-8D 系列智能电力电容一体机（以下简称为智能电容），是浙江威斯康电气有限公司研发并拥有自主知识产权的新一代无功补偿装置，是以自愈式低压电力电容器（S 型包含 1 组共补电容器组，F 型包含 1 组分补电容器组）为主体，采用先进的单片机检测技术，实现精准控制磁保持继电器在电压零点时刻快速闭合，在电流零点时刻快速分断，从而提高了投切速度及补偿效果，提高了抗谐波能力。由于采用磁保持继电器，装置只在投切动作瞬间耗电，平时不耗电，真正达到节能降耗的目的。输入信号与装置有光电隔离，抗干扰能力强，运行安全可靠。

WSK-8D 系列智能电容产品集过零投切技术、网络技术和最新电气技术自主研制而成，具有模块化、智能化、小型化、零投化、多样化等特点。

该系列智能电容全部为受控型，组网时必须与本公司生产的智能无功功率补偿控制器配套使用。

WSK-8D Series Intelligent Power Capacitor Integrator (hereinafter referred to as Intelligent Capacitor) is a new generation of reactive power compensation device developed by Zhejiang Wisconsin Electric Co., Ltd. with independent property rights. It is based on self-healing low-voltage power capacitor (S-type includes a group of co-compensating capacitor banks, F-type includes a group of compensating capacitor banks) as the main body, and adopts advanced single chip computer detection technology to achieve precise control. The magnetic holding relay closes quickly at the voltage zero point and breaks off quickly at the current zero point, which improves the switching speed and compensation effect, and improves the anti-harmonic ability. Because of the magnetic retaining relay, the device only consumes power at the moment of switching action, and does not consume power at ordinary times, thus achieving the goal of saving energy and reducing consumption. The input signal and the device are photoelectric isolation, strong anti-interference

ability, safe and reliable operation.

WSK-8D series intelligent capacitor products are self-developed with zero-crossing switching technology, network technology and the latest electrical technology. They are modular, intelligent, miniaturized, zero-crossing and diversified.

The series of smart capacitors are all controlled. When networking, they must be matched with the intelligent reactive power compensation controller manufactured by our company.

## 型号及其含义 Model and implication

1. WSK-8D 系列精简型智能电容器的产品型号如下图，表明产品种类  
1. WSK-8D Series Thin intelligent capacitor product model as shown below, indicate that product category

WSK - 8 D □ □ / □ - □  
↓ ↓ ↓ ↓ ↓ ↓ ↓  
① ② ③ ④ ⑤ ⑥ ⑦

序号 No.	含义 Implication
①	系列标识 Series logo
②	设计序号 Design No.
③	产品分类 Product Categories
④	补偿方式 Compensation S- 三相补偿 three-phase compensation; F- 分相补偿 phase compensation
⑤	要求分类 Requirements classification 空, 普通型; Empty, ordinary type; 1-9,A-Z, 特殊要求类 the special requirements of the class
⑥	额定电压 Rated voltage (V)
⑦	额定容量 Rated capacity (kvar)

# WSK-8D 系列精简型智能电容器

WSK-8D Series Intelligent Integrated Power Capacitor

2. 示例一：WSK-8DS/450-30，表示三相共补智能电力电容器，总容量为 30kvar，电容额定电压为 450V。

示例二：WSK-8DF/250-20，表示单相分补智能电力电容器，总容量为 20kvar，电容额定电压为 250V，a, b, c 每相容量各为 6.7kvar。

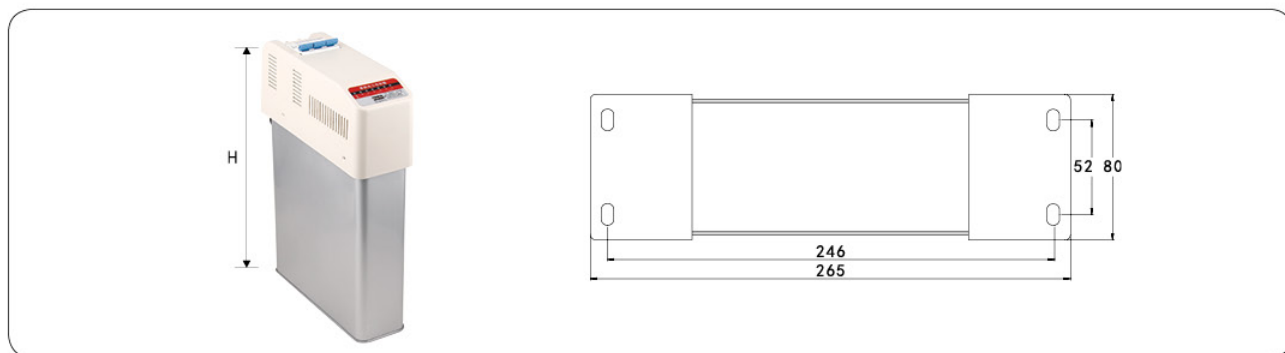
2. Example one: WSK-8DS / 450-30, said the three-phase total complement of intelligent power capacitors, the total capacity of 30kvar, capacitor rated voltage of 450V.

Example Two: WSK-8DF / 250-20, represents a single phase split up intelligent power capacitors with a total capacity of 20kvar, capacitor rated voltage 250V, a, b, c each phase capacity each 6.7kvar.

3. 电容器是产品中电压耐受性最脆弱的元件，因此额定电压选取应有较大的安全裕度。产品一般安装于配变出口处，该处电压较高，三相补偿方式额定电压（Un）取 450V、分相补偿方式额定电压（Un）取 250V 较好。

3. The capacitor is the product of the most vulnerable element voltage tolerance, and therefore should have a large selection of rated voltage safety margin. Products are generally installed in the distribution transformer exit, where a higher voltage, phase compensation of rated voltage (Un) take 450V, phase compensation of rated voltage (Un) take 250V better.

## 外形尺寸 Overall dimension

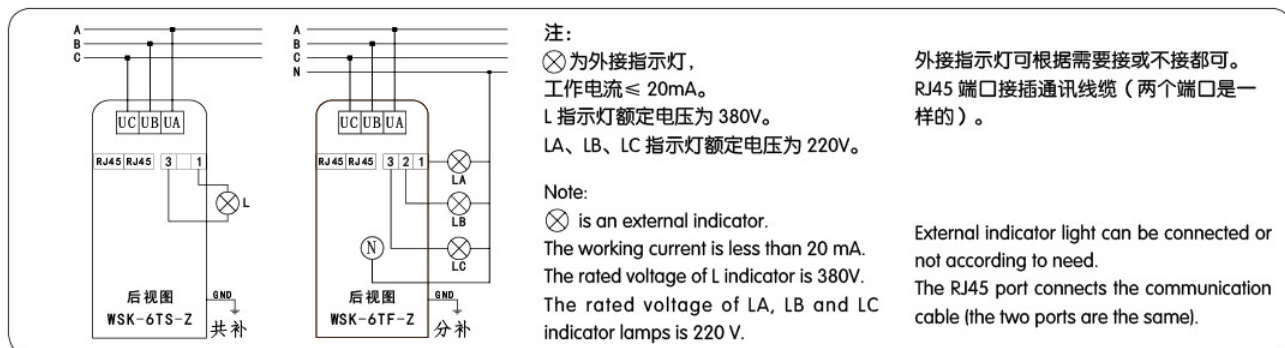


## 产品选型 Product selection

补偿方式 Compensation mode	产品型号 Product model	容量 (KVar) Capacity	电压 (V) Voltage	高度 H(mm) Height
三相共补 (受控型) Three-phase co-compensation (controlled type)	WSK-8DS-40	40	450	340
	WSK-8DS-35	35	450	340
	WSK-8DS-30	30	450	340
	WSK-8DS-25	25	450	340
	WSK-8DS-20	20	450	340
	WSK-8DS-15	15	450	250
	WSK-8DS-10	10	450	250
	WSK-8DS-5	5	450	250

补偿方式 Compensation mode	产品型号 Product model	容量 (KVar) Capacity	电压 (V) Voltage	高度 H(mm) Height
三相分补 (受控型) Three-Phase Subsidiary (Controlled)	WSK-8DF-30	30	250	420
	WSK-8DF-20	20	250	340
	WSK-8DF-15	15	250	340
	WSK-8DF-10	10	250	250
	WSK-8DF-5	5	250	250

## 安装接线图 Installation wiring diagram

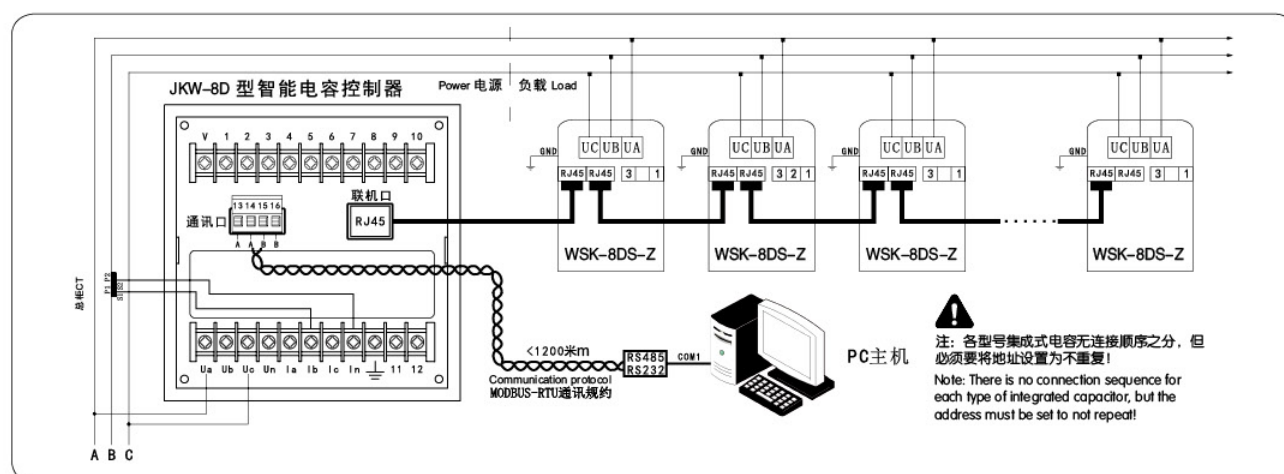




## 技术参数 Technical parameter

电源电压 Supply voltage	380V(Ua-Uc) ± 20%	信号电压 Signal voltage	AC 50V-275V(相电压)(Phase voltage)
信号电流 Signal current	AC 0-5.5A	工作频率 Working frequency	45-65Hz
欠压门限 Undervoltage threshold	176V	防护等级 Protection level	外壳 Shell IP30
最小工作电流 (灵敏度) Minimum operating current (sensitivity)	32 个 individual		
RS485 负载强度 Load Strength of RS485	<6VA		
整机能量消耗 Energy consumption of the whole machine	嵌入式安装倒齿附件螺丝固定 Embedded mounting chamfer attachment screw fixation		
安装方式 Installation mode	可拔插接线端子螺丝固定 Screw Fixation of Extricable Connection Terminal		
连接方式 Connection mode	50mA		
外形尺寸 Outline size	长 Length (120mm) × 宽 width (120mm) × 深 depth (87mm)		
安装尺寸 Installation dimension	实物尺寸 Physical size 112mm × 112mm 开孔尺寸 Hole size 113mm × 113mm		

## WSK-8DS-Z 系列与 JKW-8DS 型控制器组成三相共补系统典型应用接线图 Typical application wiring diagram of three-phase co-compensation system composed of WSK-8DS-Z series and JKW-8DS controller



## WSK-8DF-Z 系列与 JKW-8DF 型控制器组成混合补偿系统典型应用接线图 Typical application wiring diagram of hybrid compensation system composed of WSK-8DF-Z series and JKW-8DF controller

