概述 General description

在电力系统，由于大量可控硅整流设备的集中使用，因可控硅调整控制角而对电网造成成高次谐波和严重的波形畸变，致使用于无功补偿的电容柜不能正常投入使用，造成功率因数低下，我公司生产一种在低压侧消除高次谐波铁芯电抗器，该铁芯电抗器用于低压无功补偿中，与电容器相串联，当低压电网中有大量整流、交流装置等谐波源时，其产生的高次谐波会严重危害主变及其它电器设备的安全运行，电抗器与电容器相串联后，能有效地吸收电网谐波，改善系统的电压波形，提高系统的功率因数，并能有效地抑制合闸涌流及操作过电压，有效地保护了电容器。

For the extensive application of silicon-controlled rectifying installation,the reactive compensation capacitor cabinet may not be put into normal use due to high harmonic and serious wave distortion caused by controlling angle of controlled silicon to power grid, which results in low power factor. Our company developed one type of iron-core reactor that eliminates the high harmonic on the low voltage side, this iron-core reactor is used in low voltage reactive compensator and is connected to capacitor in series, when there’s a number of harmonic resources, such as rectifying and elternating-current equipment, in the low-voltage power grid, the high harmonic arising may seriously impair the safe operation of main transformer and other electrical equipments, and it can effectively absorb harmonic, improve voltage waveshape, enhance power factor and suppress inrush transient current and over-voltage after the series connection of reactor and capacitor, effectively protecting the capacitor.

型号及其含义 Model and implication

CK S G - □/□ - □

↓ ↓ ↓ ↓ ↓ ↓

① ② ③ ④ ⑤ ⑥

序号 NO.	含义 Implication
①	串联电抗器 Shunt reactor
②	S：三相 Three phase D：单相 Single phase
③	浸渍式 Soaking type
④	额定容量 (kvar) Rated Capacity
⑤	额定线路电压 (kV) Rated Capacity
⑥	电抗率 (%) Percentage of react

技术特点 Technical features

本公司独立设计生产，根据负荷特性，谐波特性及工程经验确定最终参数，硅钢片采用冷轧有取向硅钢片，线圈采用钢箔式线圈或铜导线制成，载流量达，线性度好中，在谐波环境中（过流 1.35 倍）电抗器始终运行在线性范围内，电抗器参数保持绝对稳定，浸源渍介质为 F 级绝缘的环氧树脂，黏度强，运行时温升小，噪音低。

用先进的浸渍式绕制工艺，经过高温固化，使整个电抗器形成一个紧密、坚实的整体，提高电抗器的整体机械强度。噪声低，运行时噪音小于 40db；

电抗器整体结构简单，体积小，免维护，便于柜内安装。

电感值准确，线性度好，温升留有合理的余量。

电抗器能在工频加谐波电流不大于 1.35 倍额定电流下长期运行。

Our company independently designs and produces, and determines the final parameters according to load characteristic, harmonic characteristic and engineering experience, cold-rolled grain-oriented silicon steel sheet is used and the coil is made of steel foil coil or copper conductor, with high current-carrying capacity and good linearity, the reactor always operates within the linear range in the harmonic environment (1.35 over-current), and the parameters of reactor keeps absolutely steady, level F insulted epoxy resin is used as the dipping dielectric, which has high viscosity,low temperature rise and low noise.

Advanced dipping winding technology, after the high-temperature solidification,makes the reactor form a compact and firm whole, which enhances the whole mechanical strength of reactor. With low noise less than 40db during service;

The reactor is simple in structure, small in volume, maintenance-free and is easy to be mounted in cabinet.

It has accurate inductance, good linearity, reasonable margin for temperature rise.

The reactor can work for long time in the condition that the power frequency plus harmonic current is not more than 1.35times of rated current.

使用条件 Service conditions

1. 海拔高度不超过 1000 米
2. 运行环境温度 -25℃至 +45℃，相对湿度不超过 90%；
3. 周围无有害气体，无易燃爆炸物品；
4. 周围环境应有良好的通风条件，如装在柜内，应加装通风设备。

1. Altitude: ≤ 1000m;
2. Ambient temperature:-25℃ ~+45℃ , relative humidity: ≤ 90%;
3. No harmful gas and no flammable and explosive articles at surrounding;
4. There sould be good ventilation, and ventilating equipment shall be mounted if it’ s installed inside cabinet.

产品规格（铜 / 铝） Produce specification (copper/aluminum)

电抗器型号 Reactor type	适配电容容量 (Kvar) Adaptive capacity	电抗器容量 (Kvar) Reactance capacity	电感量 (MH) Inductance	外形尺寸 (mm) Outline size L×W×H	安装尺寸 (mm) Installation size A×B
CKSG-0.6/0.45-6%	10	0.6	3.87	200×140×190	140×85
CKSG-0.9/0.45-6%	15	0.9	2.58	200×140×190	140×85
CKSG-1.2/0.45-6%	20	1.2	1.93	200×140×190	140×85
CKSG-1.5/0.45-6%	25	1.5	1.55	240×170×210	130×90
CKSG-1.8/0.45-6%	30	1.8	1.29	240×170×210	130×90
CKSG-2.1/0.45-6%	35	2.1	1.11	240×190×210	130×110
CKSG-2.4/0.45-6%	40	2.4	0.97	240×190×210	130×110
CKSG-3.0/0.45-6%	50	3	0.77	240×200×240	130×110
CKSG-3.6/0.45-6%	60	3.6	0.65	270×200×240	200×110

电抗器型号 Reactor type	适配电容容量 (Kvar) Adaptive capacity	电抗器容量 (Kvar) Reactance capacity	电感量 (MH) Inductance	外形尺寸 (mm) Outline size L×W×H	安装尺寸 (mm) Installation size A×B
CKSG-0.7/0.45-7%	10	0.7	4.52	200×140×190	140×85
CKSG-1.05/0.45-7%	15	1.05	3.01	200×140×190	140×85
CKSG-1.4/0.45-7%	20	1.4	2.26	200×150×190	140×95
CKSG-1.75/0.45-7%	25	1.75	1.81	240×180×210	130×100
CKSG-2.1/0.45-7%	30	2.1	1.51	240×180×210	130×100
CKSG-2.45/0.45-7%	35	2.45	1.29	240×190×210	130×110
CKSG-2.8/0.45-7%	40	2.8	1.13	240×190×210	130×110
CKSG-3.5/0.45-7%	50	3.5	0.9	270×200×240	200×110
CKSG-4.2/0.45-7%	60	4.2	0.75	270×200×240	200×110

电抗器型号 Reactor type	适配电容容量 (Kvar) Adaptive capacity	电抗器容量 (Kvar) Reactance capacity	电感量 (MH) Inductance	外形尺寸 (mm) Outline size L×W×H	安装尺寸 (mm) Installation size A×B
CKSG-1.4/0.525-14%	10	0.7	12.29	240×170×210	130×90
CKSG-2.1/0.525-14%	15	2.1	8.19	240×190×210	130×110
CKSG-2.8/0.525-14%	20	2.8	6.14	240×200×210	130×120
CKSG-3.5/0.525-14%	25	3.5	4.92	270×200×240	200×110
CKSG-4.2/0.525-14%	30	4.2	4.10	270×200×240	200×110
CKSG-5.6/0.525-14%	40	5.6	3.07	270×220×270	200×130
CKSG-7.0/0.525-14%	50	7	2.46	290-220-290	

备注：以上参数仅为典型值供参考，可根据客户要求定做，我公司保留对数据的变更权利。
Note: The above parameters are only typical values for reference, can be customized according to customer requirements, our company reserves the right to change the data.

安装尺寸示意图 Installation size schematic diagram