Our goal is the sea of stars!

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Giantele®

Reactor product manual



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Zhejiang Zhegui Electric Co., Ltd.

Giantele®

CKSG SERIES

Reactor



closing inrush current and operating process voltage,A reactor is a vital electrical device that regulates current and voltage, ensuring stable power system operation. It suppresses harmonics, improves power quality, and protects equipment from short-circuit and overload currents, extending their lifespan. When paired with capacitors, reactors enhance power factor and reduce reactive power losses. They also help balance loads in systems with multiple motors, optimizing overall performance. With these essential functions, reactors are indispensable in power systems and industrial applications.

Main technical indicators

- The reactor is divided into three-phase and single-phase, both of which are dry type with iron core.
- The iron core is made of high-quality low loss imported cold rolled oriented silicon steel sheets. The core column is divided into uniform small sections by multiple air gaps. The air gaps are separated by epoxy laminated glass cloth sheets, and are bonded with special adhesives to ensure that the reactance air gap does not change during operation.
- The coil is wound with Class H or Class C enamelled flat copper wire, arranged tightly and evenly.
- After the coil and iron core of the reactor are assembled into one body, they undergo the process of pre drying → vacuum impregnation → heat drying and solidification. The H-grade impregnation paint is used to firmly combine the coil and iron core of the reactor.
- The clamps and fasteners of the reactor are made of non magnetic materials to ensure a high quality factor of the reactor and a good filtering effect.
- The exposed parts are treated with anti-corrosion treatment, and the outgoing terminals are made of tinned copper tube terminals.

Main technical indicators

- Can be used in 0.4KV, 0.45KV, 0.48KV, 0.525KV, 0.66KV, 0.69KV, 1.14KV;
- Types of reactance rate: 1%, 4.5%, 5.6%, 6%, 7%, 12%, 13%, 14%;
- Withstand voltage level: 3KV/min, insulation level: Level B, F, H, noise<50dB, overload capacity<1.35 times continuous operation;

Main technical indicators

C K S G □/□-□

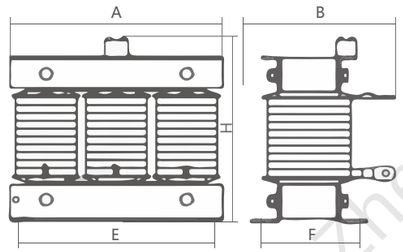
- Reactance XC/XL
- Capacitance rated voltage (kv)
- Rated capacity (kvar)
- Dry type
- S three-phase (D single-phase)
- Reactor
- Series

Connection mode

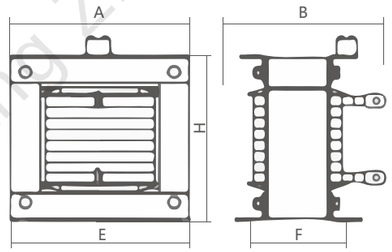


Y Connection

▲Connection



Three-phase



Single phase

Model and Size (three-phase)

Reactor model	Matching capacitor capacity (kvar)	Reactor capacity (kvar)	Inductance (mH)	Insulation class	Dimensions length x width x height (mm)	Installation size (mm)
CKSG-0.35/0.45-7%	5	0.35	9.0	F、H	170×100×160	150×60
CKSG-0.7/0.45-7%	10	0.7	4.5	F、H	175×110×160	150×70
CKSG-1.05/0.45-7%	15	1.05	3.0	F、H	175×145×160	150×80
CKSG-1.4/0.45-7%	20	1.4	2.3	F、H	200×155×185	170×80
CKSG-1.75/0.45-7%	25	1.75	1.8	F、H	240×165×210	200×90
CKSG-2.1/0.45-7%	30	2.1	1.5	F、H	240×170×210	200×95
CKSG-2.45/0.45-7%	35	2.45	1.3	F、H	240×175×210	200×100
CKSG-2.8/0.45-7%	40	2.8	1.1	F、H	240×180×210	210×105
CKSG-3.15/0.45-7%	45	3.15	1.0	F、H	240×190×210	200×110
CKSG-3.5/0.45-7%	50	3.5	0.9	F、H	250×190×210	210×110
CKSG-4.2/0.45-7%	60	4.2	0.75	F、H	250×190×250	210×120
CKSG-1.4/0.525-14%	10	1.4	12.3	F、H	200×120×190	170×80
CKSG-2.1/0.525-14%	15	2.1	8.2	F、H	240×165×210	200×95
CKSG-2.8/0.525-14%	20	2.8	6.1	F、H	240×175×210	200×105
CKSG-3.5/0.525-14%	25	3.5	4.9	F、H	240×185×240	200×110
CKSG-4.2/0.525-14%	30	4.2	4.1	F、H	250×185×250	210×110
CKSG-5.6/0.525-14%	40	5.6	3.1	F、H	250×190×265	210×115
CKSG-7.0/0.525-14%	50	7.0	2.5	F、H	310×200×285	260×120

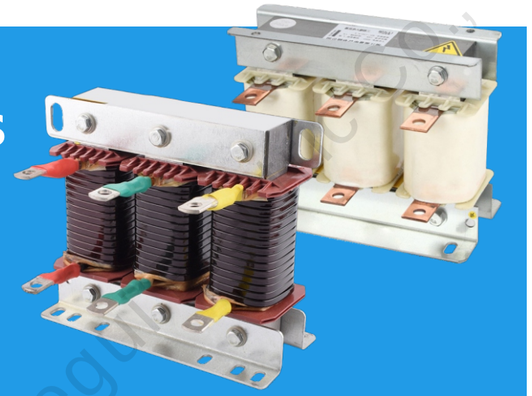
Reactor model	Matching capacitor capacity (kvar)	Reactor capacity (kvar)	Inductance (mH)	Dimensions length x width x height (mm)	Installation size (mm)
CKDG-0.35/0.25-7%	5	0.35	2.8	135×155×140	95×105.4-φ8
CKDG-0.525/0.25-7%	7.5	0.525	1.9	135×165×155	95×105.4-φ8
CKDG-0.7/0.25-7%	10	0.7	1.4	170×175×160	120×115.4-φ8
CKDG-1.05/0.25-7%	15	1.05	0.93	170×195×180	120×135.4-φ8
CKDG-1.4/0.25-7%	20	1.4	0.7	155×195×200	105×135.4-φ8
CKDG-1.75/0.25-7%	25	1.75	0.56	155×205×210	105×145.4-φ8

Zhejiang Zhegui Electric Co., Ltd.

Giantele®

ACL and OCL series

Inverter incoming and outgoing line reactor



The incoming line reactor is used to limit current surges caused by sudden voltage changes and switching overvoltages in the power grid, smooth out spikes contained in the power supply voltage, or smooth out voltage defects generated during commutation of bridge rectifier circuits, effectively protecting the frequency converter and improving power factor. It can not only prevent interference from the power grid, but also reduce the pollution of harmonic currents generated by the rectifier units to the power grid.

The main function of the outgoing line reactor is to compensate for the impact of distributed capacitance on long lines (50-200 m), and to suppress output harmonic current, improve output high-frequency impedance, effectively suppress dv/dt, reduce high-frequency leakage current, protect frequency converters, reduce equipment noise, and premature aging of equipment.

Product structure features

Used to filter out harmonic voltages and currents, and improve the quality of the power grid. The incoming and outgoing line systems and series reactors produced by our company are made of high-quality imported silicon steel sheets and high-quality copper wires through advanced technology, featuring small size, low temperature rise, and low noise.

Technical parameters and implementation standards

- Rated working voltage: 380V /50Hz or 660V/50Hz
- Rated working current: 1A to 1500A
- Dielectric strength: iron core and winding AC3000v/50Hz/5mA/10s without flashover breakdown (factory test)
- Reactor noise:<50dB (tested at a horizontal distance of 1m from the reactor)
- Insulation grade: above grade F
- Protection grade: IP00
- Product executive standard: GB19212.1 GB19212.21 GB1094.6

Model specification

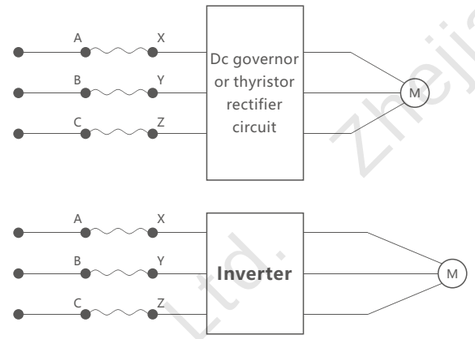
ACL – □/□

- Voltage drop (phase)
- Rated current
- Incoming reactor

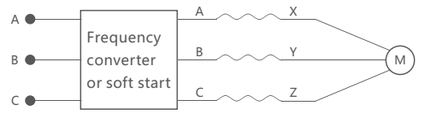
OCL – □/□

- Voltage drop (phase)
- Rated current
- Outgoing reactor

Wiring diagram



Incoming line reactor



Outgoing reactor

Model and Size

Power adapter (KW)	Type of incoming reactor	Rated inductance (mH)	Model of outgoing reactor	Rated inductance (mH)	Dimensions(length * width * height (mm)	Installation size (mm)
0.75(1.5)	ACL-5(8)A/4.4V	2.8	OCL-5(8)A/2.2V	1.4	120×85×135	90×60
2.2	ACL-10A/4.4V	1.4	OCL-10A/2.2V	0.7	120×85×135	90×60
3.7(4)	ACL-10A/4.4V	1.4	OCL-10A/2.2V	0.7	120×85×135	90×60
5.5	ACL-15A/4.4V	0.94	OCL-15A/2.2V	0.47	175×130×135	150×60
7.5	ACL-20A/4.4V	0.7	OCL-20A/2.2V	0.35	175×130×135	150×60
11	ACL-30A/4.4V	0.467	OCL-30A/2.2V	0.234	175×140×135	150×70
15	ACL-40A/4.4V	0.35	OCL-40A/2.2V	0.175	175×140×135	150×70
18.5	ACL-50A/4.4V	0.28	OCL-50A/2.2V	0.14	175×150×135	150×80
22	ACL-60A/4.4V	0.239	OCL-60A/2.2V	0.117	175×150×135	150×80
30	ACL-80A/4.4V	0.179	OCL-80A/2.2V	0.0876	200×160×165	170×80
37	ACL-110A/4.4V	0.127	OCL-110A/2.2V	0.0637	240×150×185	200×80
45	ACL-125A/4.4V	0.11	OCL-125A/2.2V	0.055	240×150×185	200×80
55	ACL-150A/4.4V	0.093	OCL-150A/2.2V	0.0467	240×165×185	200×90
75	ACL-200A/4.4V	0.07	OCL-200A/2.2V	0.035	240×170×185	200×95
90(93)	ACL-250A/4.4V	0.056	OCL-250A/2.2V	0.028	250×180×185	201×105
110	ACL-280A/4.4V	0.052	OCL-280A/2.2V	0.026	250×185×185	210×110
132	ACL-300A/4.4V	0.047	OCL-300A/2.2V	0.023	250×185×185	210×110
160	ACL-400A/4.4V	0.035	OCL-400A/2.2V	0.0175	260×200×185	220×120
187	ACL-450A/4.4V	0.032	OCL-450A/2.2V	0.016	260×200×185	220×120
200(220)	ACL-500A/4.4V	0.028	OCL-500A/2.2V	0.014	310×195×265	260×100
250	ACL-600A/4.4V	0.023	OCL-600A/2.2V	0.0117	310×195×265	260×100
315	ACL-800A/4.4V	0.018	OCL-800A/2.2V	0.0088	310×215×265	260×120
400	ACL-1000A/4.4V	0.014	OCL-1000A/2.2V	0.007	380×260×320	300×140
450(500)	ACL-1250A/4.4V	0.011	OCL-1250A/2.2V	0.006	380×260×320	300×140
630	ACL-1600A/4.4V	0.008	OCL-1600A/2.2V	0.0043	380×280×320	300×160

Ordering instructions

- Product model
- Rated current
- Rated voltage (grid voltage)
- Rated reactance (voltage drop)
- Rated inductance
- Insulation class
- Other special requirements may be specified separately in the agreement

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