

G5 transformer

CKSG three-phase series reactor



Selection guide

product name	Rated capacity of reactor	Capacitor rated voltage	Reactance ratio XL/XC
CKSG	☐	☐	☐
	0.6:0.6kvar	0.4kV	1%
	0.7:0.7kvar	0.45kV	0.45%
	...	...	...
	9.8:9.8kvar	1.14kV	14%

Scope of application

When compensating capacitive reactive power, CKSG series low-voltage series reactors are often affected by harmonic current, closing inrush current and operating process voltage, resulting in capacitor damage and power factor reduction. Therefore, series reactors need to be installed at the front end of capacitors to suppress and absorb harmonics, protect capacitors, and avoid the influence of harmonic voltage and impulse voltage and current, Improve power quality, improve system power factor and extend capacitor service life.

Certification and standards

National standard: GB/T1094.1、GB/T1094.6

Product Features

- The reactor adopts three-phase three-column core structure.
- The core air gap is separated by epoxy laminated glass cloth plate to ensure that the reactor air gap does not change during operation.
- The coil is tightly wound with enamelled flat wire to ensure that the reactor coil does not vibrate during operation.

Main technical parameters

product model	Matching capacitor capacity kvar	Capacitor rated voltage kV	Reactor capacitykvar	Reactance ratio
CKSG-0.6	10		0.6	
CKSG-1.2	20		1.2	
CKSG-1.8	30		1.8	
CKSG-2.4	40		2.4	
CKSG-3.0	50		3	
CKSG-3.6	60	10	3.6	6
CKSG-4.2	70		4.2	
CKSG-4.8	80		4.8	
CKSG-5.4	90		5.4	
CKSG-6.0	100		6	

There are also various voltage levels such as: 0.4kV、0.45kV、0.48kV、0.525kV、0.66kV、1.44kV etc; Various reactance rates such as: 1%、4.5%、5.6%、7%、12%、13%、14% etc.

G5 transformer

CKSG three-phase series reacto

Main technical parameters

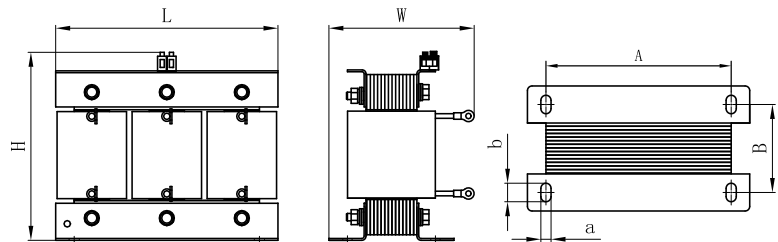
product model	Adaptive capacitance kvar	Reactance ratio%
CKSG-0.6kvar/0.45kV-6%	10	6
CKSG-0.72kvar/0.45kV-6%	12	6
CKSG-0.9kvar/0.45kV-6%	15	6
CKSG-0.96kvar/0.45kV-6%	16	6
CKSG-1.08kvar/0.45kV-6%	18	6
CKSG-1.2kvar/0.45kV-6%	20	6
CKSG-1.5kvar/0.45kV-6%	25	6
CKSG-1.68kvar/0.45kV-6%	28	6
CKSG-1.8kvar/0.45kV-6%	30	6
CKSG-2.1kvar/0.45kV-6%	35	6
CKSG-2.4kvar/0.45kV-6%	40	6
CKSG-2.7kvar/0.45kV-6%	45	6
CKSG-3.0kvar/0.45kV-6%	50	6
CKSG-3.6kvar/0.45kV-6%	60	6
CKSG-4.2kvar/0.45kV-6%	70	6
CKSG-0.7kvar/0.45kV-7%	10	7
CKSG-0.84kvar/0.45kV-7%	12	7
CKSG-1.05kvar/0.45kV-7%	15	7
CKSG-1.12kvar/0.45kV-7%	16	7
CKSG-1.26kvar/0.45kV-7%	18	7
CKSG-1.4kvar/0.45kV-7%	20	7
CKSG-1.75kvar/0.45kV-7%	25	7
CKSG-1.96kvar/0.45kV-7%	28	7
CKSG-2.1kvar/0.45kV-7%	30	7
CKSG-2.45kvar/0.45kV-7%	35	7
CKSG-2.8kvar/0.45kV-7%	40	7
CKSG-3.15kvar/0.45kV-7%	45	7
CKSG-3.5kvar/0.45kV-7%	50	7
CKSG-4.2kvar/0.45kV-7%	60	7
CKSG-4.9kvar/0.45kV-7%	70	7
CKSG-1.2kvar/0.525kV-12%	10	12
CKSG-1.44kvar/0.525kV-12%	12	12
CKSG-1.8kvar/0.525kV-12%	15	12
CKSG-1.92kvar/0.525kV-12%	16	12
CKSG-2.16kvar/0.525kV-12%	18	12
CKSG-2.4kvar/0.525kV-12%	20	12
CKSG-3.0kvar/0.525kV-12%	25	12

CKSG three-phase series reacto

product model	Adaptive capacitance kvar	Reactance ratio%
CKSG-3.36kvar/0.525kV-12%	28	12
CKSG-3.6kvar/0.525kV-12%	30	12
CKSG-4.2kvar/0.525kV-12%	35	12
CKSG-4.8kvar/0.525kV-12%	40	12
CKSG-5.4kvar/0.525kV-12%	45	12
CKSG-6.0kvar/0.525kV-12%	50	12
CKSG-7.2kvar/0.525kV-12%	60	12
CKSG-8.4kvar/0.525kV-12%	70	12
CKSG-1.3kvar/0.525kV-13%	10	13
CKSG-1.56kvar/0.525kV-13%	12	13
CKSG-1.95kvar/0.525kV-13%	15	13
CKSG-2.08kvar/0.525kV-13%	16	13
CKSG-2.34kvar/0.525kV-13%	18	13
CKSG-2.6kvar/0.525kV-13%	20	13
CKSG-3.25kvar/0.525kV-13%	25	13
CKSG-3.64kvar/0.525kV-13%	28	13
CKSG-3.9kvar/0.525kV-13%	30	13
CKSG-4.55kvar/0.525kV-13%	35	13
CKSG-5.2kvar/0.525kV-13%	40	13
CKSG-5.85kvar/0.525kV-13%	45	13
CKSG-6.5kvar/0.525kV-13%	50	13
CKSG-7.8kvar/0.525kV-13%	60	13
CKSG-9.1kvar/0.525kV-13%	70	13
CKSG-1.4kvar/0.525kV-14%	10	14
CKSG-1.68kvar/0.525kV-14%	12	14
CKSG-2.1kvar/0.525kV-14%	15	14
CKSG-2.24kvar/0.525kV-14%	16	14
CKSG-2.52kvar/0.525kV-14%	18	14
CKSG-2.8kvar/0.525kV-14%	20	14
CKSG-3.5kvar/0.525kV-14%	25	14
CKSG-3.92kvar/0.525kV-14%	28	14
CKSG-4.2kvar/0.525kV-14%	30	14
CKSG-4.9kvar/0.525kV-14%	35	14
CKSG-5.6kvar/0.525kV-14%	40	14
CKSG-6.3kvar/0.525kV-14%	45	14
CKSG-7.0kvar/0.525kV-14%	50	14
CKSG-8.4kvar/0.525kV-14%	60	14
CKSG-9.8kvar/0.525kV-14%	70	14

CKSG three-phase series reactor

Outline and mounting dimensions(mm)



Figuer1 Shape Y

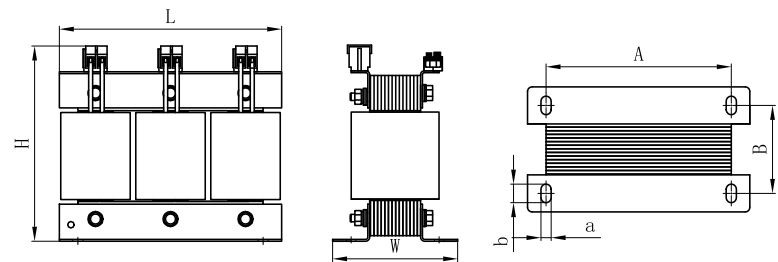


Figure 2 Shape D

CKSG three phase series reactor outline and installation dimensions(mm)										
parameter			React ance ratio %	Product shape	Copper product dimensions			Aluminum product dimensions		
Specification and model	React ance capa city kvar	Adap tive capaci tance kvar			Overall dimension L×W×H	mounting dimens ion A×B	mounting hole size a×b	Overall dimension L×W×H	mounting dimen s ion A×B	mounting hole size a×b
CKSG-0.3/0.45-6%	0.3	5	4.5%	D	160×95×165	130×60	φ7×17	160×105×165	130×60	φ7×17
CKSG-0.6/0.45-6%	0.6	10			160×115×165	130×80	φ7×17	160×110×165	130×75	φ7×17
CKSG-0.9/0.45-6%	0.9	15			200×145×185	170×70	φ7×17	200×150×180	170×80	φ7×17
CKSG-1.2/0.45-6%	1.2	20			200×155×185	170×80	φ7×17	200×160×180	170×80	φ7×17
CKSG-1.5/0.45-6%	1.5	25	5.6%	Y	200×170×185	170×90	φ7×17	200×170×180	170×90	φ7×17
CKSG-1.8/0.45-6%	1.8	30	6%		240×180×205	200×100	φ10×22	240×180×205	200×90	φ10×22
CKSG-2.1/0.45-6%	2.1	35	7%		240×180×230	200×100	φ10×22	240×185×205	200×95	φ10×22
CKSG-2.4/0.45-6%	2.4	40	12%		240×190×205	200×110	φ10×22	240×195×205	200×100	φ10×22
CKSG-2.7/0.45-6%	2.7	45			240×190×230	200×110	φ10×22	240×195×230	200×100	φ10×22
CKSG-3.0/0.45-6%	3	50	13%		250×200×235	210×115	φ10×22	250×200×235	210×105	φ10×22
CKSG-3.6/0.45-6%	3.6	60	14%		250×205×255	210×120	φ10×22	250×215×235	210×115	φ10×22
CKSG-4.2/0.45-6%	4.2	70	310×195×285		250×110	φ10×22	250×200×255	210×110	φ10×22	
CKSG-0.35/0.45-7%	0.35	5	D	D	160×105×165	130×75	φ7×17	160×105×165	130×75	φ7×17
CKSG-0.7/0.45-7%	0.7	10			200×105×190	170×75	φ7×17	160×115×165	130×80	φ7×17

CKSG three-phase series reactor

CKSG three phase series reactor outline and installation dimensions(mm)										
parameter			React ance ratio %	Product shape	Copper product dimensions			Aluminum product dimensions		
Specification and model	Reactance capacity kvar	Adaptive capacitance kvar			Overall dimension L×W×H	Mounting dimension A×B	Mounting hole size a×b	Overall dimension L×W×H	Mounting dimension A×B	Mounting hole size a×b
CKSG-1.05/0.45-7%	1.05	15		Y	200×155×180	170×80	φ7×17	200×160×180	170×80	φ7×17
CKSG-1.4/0.45-7%	1.4	20			200×165×180	170×90	φ7×17	200×165×180	170×85	φ7×17
CKSG-1.75/0.45-7%	1.75	25			240×175×205	200×95	φ10×22	240×175×205	200×90	φ10×22
CKSG-2.1/0.45-7%	2.1	30			240×180×230	200×100	φ10×22	240×190×205	200×100	φ10×22
CKSG-2.45/0.45-7%	2.45	35			240×185×230	200×105	φ10×22	240×190×230	200×100	φ10×22
CKSG-2.8/0.45-7%	2.8	40			250×190×235	210×105	φ10×22	240×190×230	200×100	φ10×22
CKSG-3.15/0.45-7%	3.15	45			250×195×255	210×110	φ10×22	240×205×230	200×110	φ10×22
CKSG-3.5/0.45-7%	3.5	50			250×205×255	210×120	φ10×22	250×205×235	210×110	φ10×22
CKSG-4.2/0.45-7%	4.2	60			250×205×255	210×120	φ10×22	250×210×255	210×110	φ10×22
CKSG-4.9/0.45-7%	4.9	70			310×195×285	250×110	φ10×22	250×220×255	220×120	φ10×22
CKSG-0.35/0.48-7%	0.35	5		D	160×105×165	130×75	φ7×17	160×105×165	130×75	φ7×17
CKSG-0.7/0.48-7%	0.7	10			200×105×190	170×75	φ7×17	160×115×165	130×80	φ7×17
CKSG-1.05/0.48-7%	1.05	15		Y	200×155×180	170×85	φ7×17	200×155×180	170×75	φ7×17
CKSG-1.4/0.48-7%	1.4	20	4.5%		200×165×180	170×95	φ7×17	200×165×180	170×90	φ7×17
CKSG-1.75/0.48-7%	1.75	25	5.6%		240×175×205	200×95	φ10×22	240×175×205	200×90	φ10×22
CKSG-2.1/0.48-7%	2.1	30	6%		240×180×230	200×100	φ10×22	240×185×205	200×95	φ10×22
CKSG-2.45/0.48-7%	2.45	35			240×190×230	200×110	φ10×22	240×195×205	200×105	φ10×22
CKSG-2.8/0.48-7%	2.8	40	7%		240×190×230	200×110	φ10×22	240×190×230	200×100	φ10×22
CKSG-3.15/0.48-7%	3.15	45	12%		250×205×235	210×120	φ10×22	240×200×230	200×110	φ10×22
CKSG-3.5/0.48-7%	3.5	50	13%		250×210×255	210×120	φ10×22	250×205×235	210×110	φ10×22
CKSG-4.2/0.48-7%	4.2	60			250×210×255	210×120	φ10×22	250×205×235	210×110	φ10×22
CKSG-4.9/0.48-7%	4.9	70	14%		310×200×285	250×110	φ10×22	250×220×255	220×120	φ10×22
CKSG-0.6/0.525-12%	0.6	5		D	160×115×165	130×80	φ7×17	200×105×190	170×70	φ7×17
CKSG-1.2/0.525-12%	1.2	10			200×115×190	170×80	φ7×17	200×120×190	170×85	φ7×17
CKSG-1.8/0.525-12%	1.8	15		Y	240×175×180	200×90	φ7×17	240×175×205	200×90	φ10×22
CKSG-2.4/0.525-12%	2.4	20			240×185×230	200×100	φ10×22	240×190×205	200×105	φ10×22
CKSG-3.0/0.525-12%	3	25			240×195×230	200×110	φ10×22	250×200×235	210×105	φ10×22
CKSG-3.6/0.525-12%	3.6	30			250×205×235	210×120	φ10×22	250×210×235	210×115	φ10×22
CKSG-4.2/0.525-12%	4.2	35			250×215×235	210×130	φ10×22	250×210×255	210×110	φ10×22
CKSG-4.8/0.525-12%	4.8	40			310×205×285	250×110	φ10×22	250×225×255	210×120	φ10×22
CKSG-5.4/0.525-12%	5.4	45			310×215×285	250×120	φ10×22	310×205×285	250×110	φ10×22
CKSG-6.0/0.525-12%	6	50			310×215×285	250×120	φ10×22	310×205×285	250×110	φ10×22
CKSG-7.2/0.525-12%	7.2	60			310×225×285	250×130	φ10×22	310×220×285	250×120	φ10×22
CKSG-8.4/0.525-12%	8.4	70			310×235×285	250×140	φ10×22	310×235×285	250×130	φ10×22

CKSG three-phase series reactor

CKSG three phase series reactor outline and installation dimensions(mm)										
parameter				Product shape	Copper product dimensions			Aluminum product dimensions		
Specification and model	Reactance capacity	Adaptive capacity	Reactance ratio		Overall dimension	Mounting dimension	Mounting hole size	Overall dimension	Mounting dimension	Mounting hole size
	kvar	kvar	%		L×W×H	A×B	a×b	L×W×H	A×B	a×b
CKSG-0.7/0.525-14%	0.7	5	4.5%	D	200×105×190	170×70	φ7×17	200×110×190	170×75	φ7×17
CKSG-1.4/0.525-14%	1.4	10			200×120×190	170×90	φ7×17	200×120×190	170×90	φ7×17
CKSG-2.1/0.525-14%	2.1	15	4.5%	Y	240×175×205	200×95	φ10×22	240×185×205	200×100	φ10×22
CKSG-2.8/0.525-14%	2.8	20	5.6%		240×190×230	200×110	φ10×22	240×185×230	200×100	φ10×22
CKSG-3.5/0.525-14%	3.5	25	6%		250×195×235	210×115	φ10×22	240×200×230	200×110	φ10×22
CKSG-4.2/0.525-14%	4.2	30	7%		250×215×235	210×130	φ10×22	250×205×255	210×110	φ10×22
CKSG-4.9/0.525-14%	4.9	35	8%		310×195×285	250×110	φ10×22	250×215×255	210×120	φ10×22
CKSG-5.6/0.525-14%	5.6	40	9%		310×205×285	250×120	φ10×22	310×205×285	250×110	φ10×22
CKSG-6.3/0.525-14%	6.3	45	10%		310×215×285	250×130	φ10×22	310×205×285	250×110	φ10×22
CKSG-7.0/0.525-14%	7	50	11%		310×225×285	250×140	φ10×22	310×215×285	250×120	φ10×22
CKSG-8.4/0.525-14%	8.4	60	12%		310×235×285	250×150	φ10×22	310×230×285	250×130	φ10×22
CKSG-9.8/0.525-14%	9.8	70	13%		310×235×285	250×150	φ10×22	310×240×285	250×140	φ10×22

Note: The above dimension error is ±10mm , Installation dimensions marked error is ±5mm.

Working conditions and installation conditions

- Ambient temperature: -5~+40℃
- Relative humidity: ≤90%(The average monthly temperature for the month is +25 ° C)
- altitude: ≤2000m
- Working environment: a. There is no pollution and corrosion-prone

and explosive media in the atmosphere that seriously affects the reactor insulation.

- b.The installation site is free from serious vibration and turbulence.
- c. A place protected from rain and snow.
- d. The surrounding environment should have good ventilation conditions. If installed in the cabinet, ventilation equipment should be installed.