SPGLc Automatic Controllers

SPGL

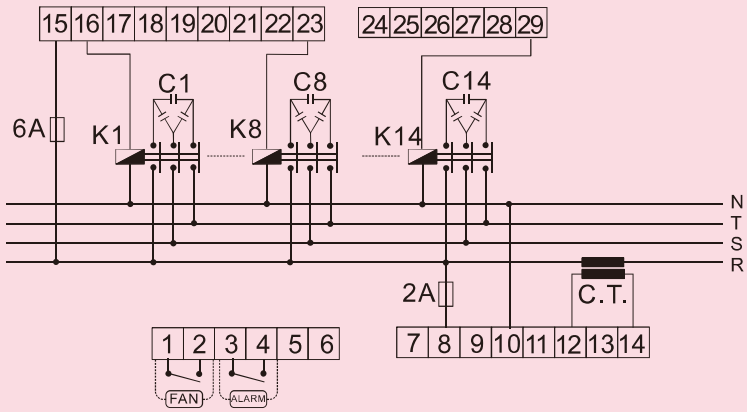
Reactive power compensation plants are used to decrease the load of cables and power distributions caused by inductive currents and to save reactive power costs. The power factor controller is a main part of such a plant and connects or disconnects capacitor stages automatically. The series SPGLc power factor controllers are suitable for the use in conventional or special dynamic reactive power compensation systems and a mixed operation is possible as well.

Series SPGLc800II,14 steps & 7 steps

Features

- Micro-processor based.
- Digital power factor display.
- Programmable switching sequence (optimized) (auto, custom or preset).
- LED indication for individual step. 5 Auto manual operation.
- Automatic detection of C.T. polarity.
- Automatic detection of C/K value.
- Secondary current/power factor info display/voltage/frequency info display.
- THD / individual harmonic info display.(3th to11th harmonics display)
- Alarm output. (THD,frequency,under/over compensate,over voltage).
- Integrated timer-controlled exhaust fan output.
- Programmable THD cut-off.
- Keypad lock (software programmable).
- Flush mount more than 14 steps.

Electric connection



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Sepcification

Power Supply	Un	220VAC±10% or other on request
Rated Current (In)	In	../5A(same phase with power supply)
Working Current	C/K	0.02-10.0
Operating Frequency	Hz	45-65
Power Factor Setting		0.85-0.95
Output Realay/Alarm/Fan	Qn	5A/250VAC
System Protection	THD,U	Harmonic THD off:20-100%,Voltage off:240-270V
Re-connection Time	Sec.	1-250
Step Programe		P0-P6:Liner and 1:1:1:1:1;1:2:2:2:2;1:1:2:2:2; 1:2:4:4:4;1:1:2:2:4
Mounting dimension		144x144,14 steps,98x98,7 steps

Paraments setting & section

C/K	Auto/Manual sensitivity setting=1st cap.Bank(Kvar)+CT ratio
Target CosΦ	Power factor to be achleved
No.Connected Steps	The number of capacitor bank connected to be network
Switching Program	Custom program/Auto/7seclectable switching programs
Switching Time	Capacitor bank switching delay time(sec.)
Re-Connection Time	Re-connection delay time(sec.)
Voltage>(V)	Over-voltage limit
THD>(%) alarm & voltage	Total harmonic distortion limit
CosΦ	Displacement power factor(Default Mode)
I secondary(A)	real-time secondary CT current（ampere） press[select]to view actual power factor
Voltage info	real-time line voltage value press[select]to view frequency(Hz)value
THD(%)	total hamontic distotion (current:load>0.30A)
(Current & Voltage)	pres[select]to view individuel nth odd harmonic ampolitude up to 11th order.
Operation hr	Operation hour ×1000 hours.e.g.(0.01×1000=10hours in operation)
Alarm info	Alarm warmings

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Series SPGLcJKL economic type

SPGLc JKL Series Intelligent Reactive Power Controller is a controller designed for low voltage distribution system for compensation of reactive power. Applying the latest reactive power control of excellent CMOS chip, the Controller provides high anti-jamming capability, wide compatibility with the distribution systems with different parameters, stable function, complete compensation and simple operation.

Series

- SPGLcJKL58-12 12steps
- SPGLcJKL58-7 7 steps

Features

Control signal
Comprehensively controlled by using two physical quantities, i.e. power factor and reactive current.

Current distinguish
Automatic distinguish of switching in/out free of taking account of polarity of input current.

Data memory
The setting parameters will not get lost, if power down and the data will be saved permanently.

Over voltage protection
Automatically and quickly throw out the thrown in capacitor unit step by step when the voltage of power network exceeds the setting value.

Low load locking
The capacitor will be restricted to throw in and the thrown in capacitor unit will be thrown out step by step according to the designed delay time when the current signal is less than 5% of designed rating.

Simple operation
Automatic running, manual throw-in/out, parameter setting by using three keys.

General purpose of number of circuits
Number of throwing in/out return circuits subjects to the user.

Wide applicability
The controller can automatically meet the distribution systems of different parameters while the transformation ratio of current transformer and capacitance of compensation capacitor are not required.

Low reactive locking
The capacitor unit will be restricted to throw in to avoid throw-in/out vibration when the reactive value of power network is less than 1.1 times of compensation value of one set of capacitor, even COSΦ is less than the setting value.

Throwing in/out interval self-lock
In order to avoid throw in/out over voltage caused by insufficient discharge of capacitor, throw-in will be restricted until the interval is more than 1 minute when the throw-in/out action interval is less than the discharging time of same set of capacitor unit.

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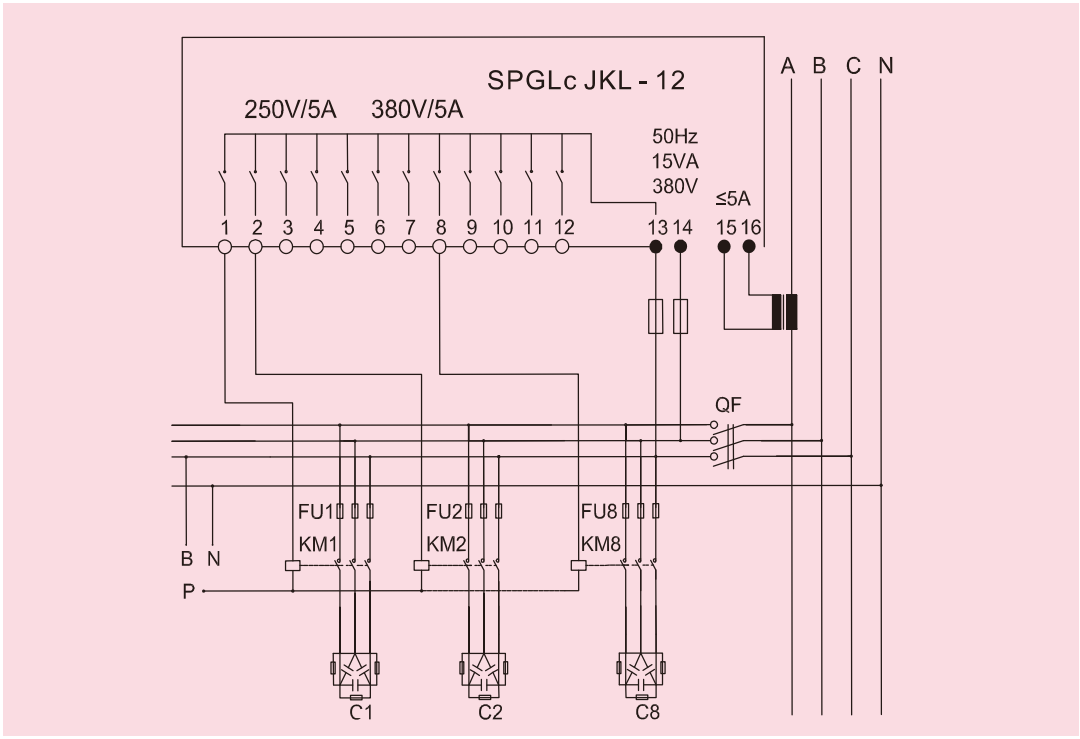
Electric connection



Sepcification

Operating voltage	Un	380V ± 20% ,50 Hz
Input Current	In	⩽5 A
Output contact	Qn	250VAC/5A , 380 VAC/3A
Operating way		automatic cycle and continuous operation
Throw-In threshold		more than1.1 In and less than COSΦ setting value
Throw-Out threshold		lead
COSΦ Setting		adjustable between 0.90-0.99
Delay time setting		adjustable between10-99s
Over voltage setting		adjustable between 410 and 470 V
Voltage return		8-10V
Different numbers of return circuits setting		adjustable between 1 and10/12（1-5/7）, throw-in/out locking time of same
Height above sea Level		not higher than 2000 m
Ambient temperature		lower than +50℃ and higher than -10℃
Air relative humidity		85% at 25℃
Mounting diemension		120x120,12 steps,72x72,7 steps