

FSK FILTER

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About Us

FOUNDED IN 1975, SECOM IS A LEADING COMPANY FOR THE DISTRIBUTION AND PRODUCTION OF COMPONENTS AND DEVICES FOR POWER ELECTRONICS

SECOM continuously carries out new research and technical proposal in conjunction with important clients, providing technical support to meet their specific needs.

Production excellence and efficient organization allow SECOM to commit itself to providing to the market with timely and professional service in numerous sectors of static energy conversion. Flexibility and short delivery time have become pillars to SECOM's company policy.

WHO WE ARE



Over the years the company has become an important designer and manufacturer of power electronic devices for industrial automation manufacturing technologies

WHAT WE DO



SECOM studies and manufactures customized solutions on behalf of its customers.

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FSK FILTER

OVERVIEW

RC line filters are needed as optional protection devices to work with AC/DC converters, in order to reduce or minimize overvoltages on power supply, which could damage the semiconductor power converter.

The **FSK filters** have a three phases protection on the input side and the fuses are provided with fault indicators.

The main causes of the overvoltage are:

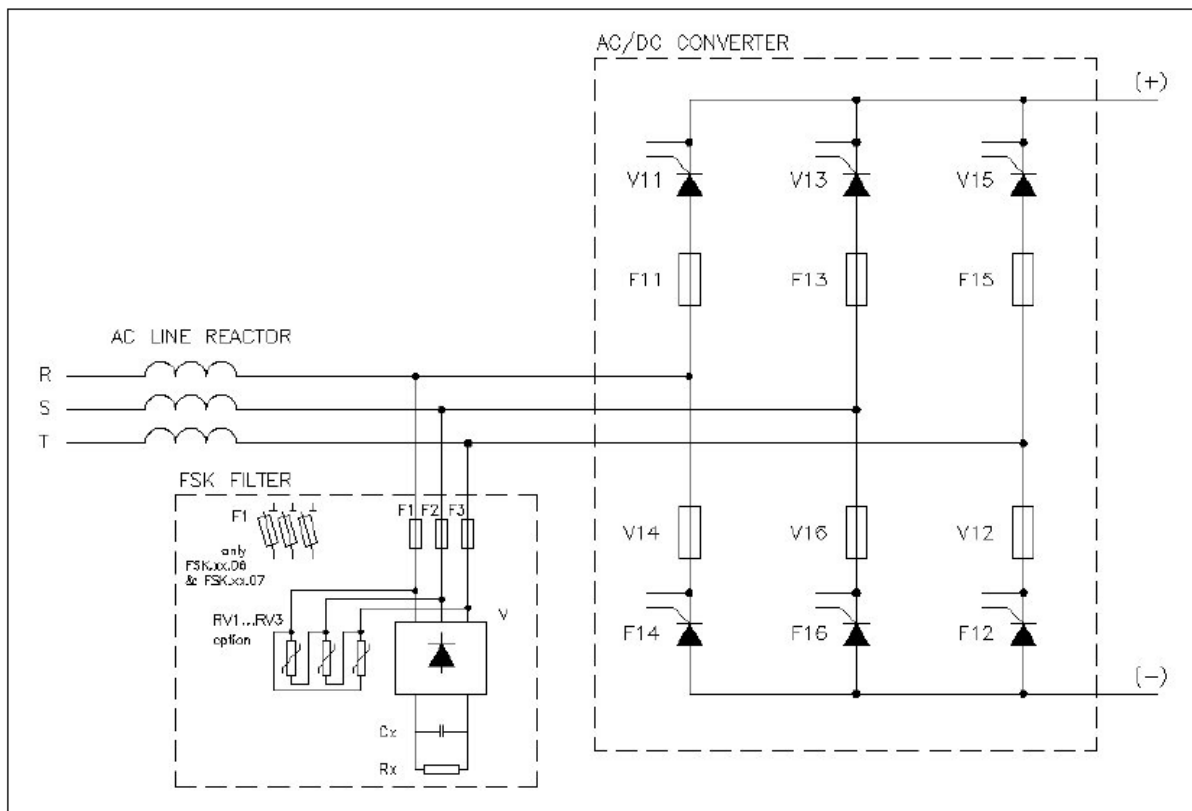
- Overvoltage due to the weather conditions; lighting on distribution line, even if at a considerable distance from the plant
- Inducted overvoltage; high variations in current and/or voltage due to the connection of capacitive or inductive loads to the supply of the plant
- Manoeuvre overvoltage; due to the opening of circuits in which inductive loads are installed
- Overvoltage due to the commutation of other semiconductors mounted in the same circuit
- Opening/closure of the circuit breaker on AC side, with or without the insertion of the power supply transformer.



FSK FILTER

OVERVIEW

The most common used protection against the overvoltage, especially the manoeuvre overvoltage, is the RC filter (fig. below) installed on the supply AC line, just before the device which has to be protected.



The line filter is designed considering the magnetizing energy of the power supply transformer, when this is opened on primary side.

The filter is composed of one or more capacitors, with high armature current, supplied through a diode rectifier. A group of resistors provides the capacitors discharge, with a suitable time constant.

STANDARDIZATION OF

LINE FILTERS

For the correct size of the Line Filter it is necessary to know the main parameters of the circuit, like supply transformer power, supply voltage, converter nominal current, short circuit capacity, inductive value of the downstream circuit.

Code IP00	Code IP20	Model	Converter range (converter I_{DC})	Dimensions W*H*D	
AC supply 380-440 V			A	IP00	IP20
110870R1002	110870R1202	FSK.10.04	up to 1000	375x440x120	375x440x242
110870R1005	110870R1205	FSK.20.04	1050 ÷ 2000	375x440x120	375x440x242
110870R1008	110870R1208	FSK.30.04	2050 ÷ 3000	375x440x120	375x440x242
110870R1011	110870R1211	FSK.40.04	3050 ÷ 4000	375x440x120	375x440x242
110870R1012	110870R1212	FSK.50.04	4050 ÷ 5000	*	*
AC supply 460-525 V			A	IP00	IP20
110870R1014	110870R1214	FSK.10.05	up to 1000	375x440x163	375x440x242
110870R1017	110870R1217	FSK.20.05	1050 ÷ 2000	375x440x163	375x440x242
110870R1020	110870R1220	FSK.30.05	2050 ÷ 3000	375x440x163	375x440x242
110870R1023	110870R1223	FSK.40.05	3050 ÷ 4000	110870R1023	110870R1223
110870R1024	110870R1224	FSK.50.05	4050 ÷ 5000	*	*
AC supply 530-690 V			A	IP00	IP20
110870R1026	110870R1226	FSK.10.06	up to 1000	375x440x163	375x440x163
110870R1029	110870R1229	FSK.20.06	1050 ÷ 2000	375x440x163	375x440x163
110870R1032	110870R1232	FSK.30.06	2050 ÷ 3000	375x440x163	375x440x163
110870R1035	110870R1235	FSK.40.06	3050 ÷ 4000	375x440x163	375x440x163
110870R1036	110870R1236	FSK.50.06	4050 ÷ 5000	*	*
AC supply 700-800 V			A	IP00	IP20
110870R1038	110870R1238	FSK.10.07	up to 1000	375x440x163	375x440x163
110870R1041	110870R1241	FSK.20.07	1050 ÷ 2000	375x440x163	375x440x163
110870R1044	110870R1244	FSK.30.07	2050 ÷ 3000	375x440x163	375x440x163
110870R1047	110870R1247	FSK.40.07	3050 ÷ 4000	375x440x163	375x440x163
110870R1048	110870R1248	FSK.50.07	4050 ÷ 5000	*	*

STANDARDIZATION OF

LINE FILTERS

Code IP00	Code IP20	Model	Converter range (converter I _{DC})	Dimensions W*H*D	
AC supply 800-900 V			A	IP00	IP20
110870R1050	110870R1250	FSK.10.08	up to 1000	375x440x120	375x440x242
110870R1053	110870R1253	FSK.20.08	1050 ÷ 2000	375x440x120	375x440x242
110870R1056	110870R1256	FSK.30.08	2050 ÷ 3000	375x440x120	375x440x242
110870R1059	110870R1259	FSK.40.08	3050 ÷ 4000	375x440x120	375x440x242
110870R1060	110870R1260	FSK.50.08	4050 ÷ 5000	*	*
AC supply 850-990 V			A	IP00	IP20
110870R1061	110870R1261	FSK.10.09	up to 1000	550x413x316	550x413x316
110870R1062	110870R1262	FSK.20.09	1050 ÷ 2000	550x413x421	550x413x421
110870R1065	110870R1265	FSK.30.09	2050 ÷ 3000	550x413x421	550x413x421
110870R1068	110870R1268	FSK.40.09	3050 ÷ 4000	550x413x421	550x413x421
110870R1069	110870R1269	FSK.50.09	4050 ÷ 5000	*	*
AC supply 1000-1250 V			A	IP00	IP20
110870R1070	110870R1270	FSK.10.10	up to 1000	586x476x450	586x476x450
110870R1071	110870R1271	FSK.20.10	1050 ÷ 2000	586x476x450	586x476x450
110870R1074	110870R1274	FSK.30.10	2050 ÷ 3000	586x476x450	586x476x450
110870R1077	110870R1277	FSK.40.10	3050 ÷ 4000	586x476x555	586x476x555
110870R1078	110870R1278	FSK.50.10	4050 ÷ 5000	*	*

*: customized filters, please contact commerciale@secompower.it for further information

FSK FILTER EQUIPMENT

The components of the filter are assembled on a zink coated steel sheet.

The main components are:

- Power cable connection terminals
- Three phase protection (fuse holder and fast fuses)
- Diode rectifier
- Capacitors
- Power resistors
- Power varistors (optional)

