

# THREE PHASE PARALLEL FILTERS





#### **APPLICATION GUIDE**

Enerdoor parallel filter series includes three phase and three phase plus neutral products designed to work in a frequency range between 50 kHz to 10 MHz. This series significantly reduces radio frequency interference to below the European Standard limit of 150 kHz.

The FIN130SP and 230SP filters have a resonance frequency of 150 kHz and provide a significant interference reduction in the frequency range of 50 kHz to 5 MHz.

The FIN730, 735 and 740 filters reduce interference in the frequency range of 30 kHz to 10 MHz.

This series offers terminal block connections with screw and DIN rail mounting installation.

### **ELECTRIC CHARACTERISTICS**

Capacitor dielectric	Film polypropylene
Capacitor electrodes	Vacuum deposited aluminium layers
Capacitor construction	Extended double side metallized carrier film with internal series connection and metallized film
Resistor construction	Metallic layer
Coating	Solvant resistant (UL94 V-I) plastic case with flame retardant (UL94 V-0) epoxy resin sealing
Standard reference	IEC 68
Resistance power	3 W
Voltage category	Nominal voltage at 85° C
Max repetitive pulse rise time	650 V/µs
Max non repetitive pulse rise time	1000 V/μs
Capacitor dissipation factor	<5x10 <sup>-4</sup> measured at 1 kHz / 25±5°C
Insulation resistance	>30 G $\Omega$ between terminals after 1 minute of energisation at 100 V / 25 ± 5°C
Climatic class	– 40 / +85 °C



# FIN130SP / FIN230SP

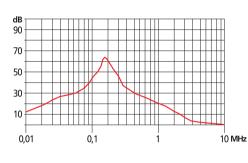
FIN130	Nominal Voltage 50/60 Hz	Nominal Voltage	Phase to Ground Test Voltage	Phase to Phase Test Voltage	C1 Rated Capacitance	Rated Resistance
.001.M	600 Vac	1000 VDC	3200 Vpc	2400 Vpc	7μF ±10% at 1kHz	3.3MΩ ±20% at 1kHz



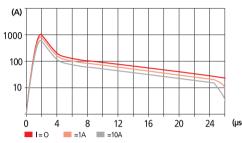
Leakage current for phase at 230 V phase to ground 50 Hz / 40°C

< 25mA

#### **RESONANCE CIRCUIT RESPONSE**

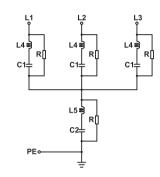


#### **RESPONSE TO CURRENT PULSE**



#### **ELECTRIC DIAGRAM**

Line

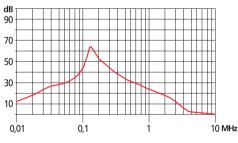


FIN230SP	Nominal Voltage 50/60 Hz	Nominal Voltage	Phase to Ground Test Voltage	Phase to Phase Test Voltage	C1 Rated Capacitance	Rated Resistance
.001.M	600 Vac	1000 VDC	3200 VDC	2400 VDC	10μF ±10% at 1kHz	$3.3 M\Omega \pm 20\%$ at $1 kHz$

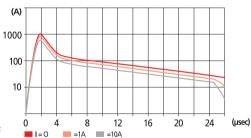
Leakage current for phase at 230 V phase to ground 50 Hz /  $40^{\circ}\text{C}$ 

< 25mA

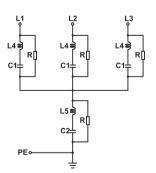
#### **RESONANCE CIRCUIT RESPONSE**



#### **RESPONSE TO CURRENT PULSE**



## **ELECTRIC DIAGRAM**





# FIN130SP / FIN230SP / FIN730 / FIN735 / FIN740

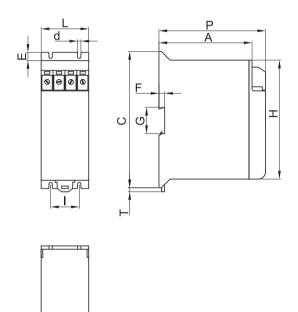
#### **MECHANICAL DIMENSIONS (mm)**

Model	L	d	E	I	P	A	C	T	G	F	Н	Weight Kg	Case
FIN130SP.001.M	59	4.5	10	35	130	112	166	4	37.5	7	146	1.15	1
FIN230SP.001.M	59	4.5	10	35	130	112	166	4	37.5	7	146	1.15	1
FIN730.001.M	59	4.5	10	35	130	112	166	4	37.5	7	146	1	1
FIN730.002.MC	59	4.5	10	35	130	112	166	4	37.5	7	146	1	1
FIN730.001.MLCP	59	4.5	10	35	130	112	166	4	37.5	7	146	1	1
FIN735.001.M	59	4.5	10	35	130	112	166	4	37.5	7	146	1	1
FIN740.068.M	59	4.5	10	35	130	112	166	4	37.5	7	146	1	2

#### CONNECTION

Rigid Cable (mm²)	Flexible Cable (mm²)	Torque (Nm)
1 - 4	1 - 4	1.8
1 - 4	1 - 4	1.8
1 - 4	1 - 4	1.8
1 - 4	1 - 4	1.8
1 - 4	1 - 4	1.8
1 - 4	1 - 4	1.8
1 - 4	1 - 4	1.8

#### CASE 1



## CASE 2

