



FRM - FRT

SINGLE THREE-PHASE LINE FILTERS



FRM - FRT

Complete range of EMI single or three-phase filters, that are required by Axor servodrives (all models and types) in order to meet the CE marking standards, in accordance with CEI EN 61800 regulation.

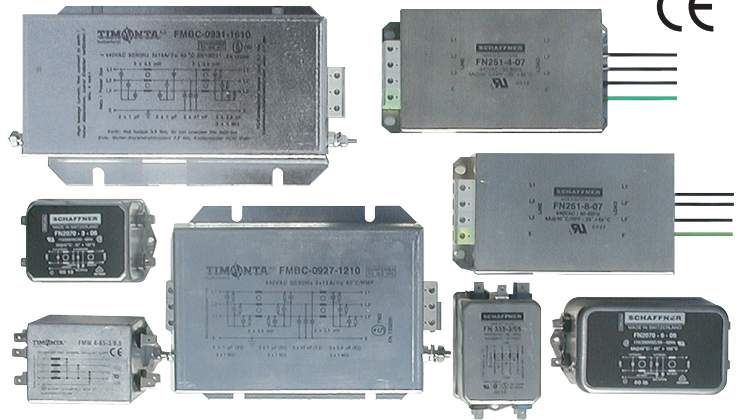
Typical Applications are :
 Coupled with power supply transformers (TM/TT series), the FRM or FRT net filters are to be connected before the transformer on the line side.

STANDARD FEATURES

- ✓ Only best name brands on the market
- ✓ Single and three-phase models
- ✓ Compact sizes
- ✓ Panel mount
- ✓ Metal casing
- ✓ approvals
- ✓ Very low leakage current
- ✓ FRM single phase range 3÷6 Arms, 250 VAc, 50/60 Hz
- ✓ FRT three phase range 3÷16 Arms, 440 VAc, 50/60 Hz

SPECIFICATIONS

- ✓ Operating temperature 0÷40°C (32÷104°F)
- ✓ Protection category IP20
- ✓ Humidity (without condensation) 95% max



DESCRIPTION

The Axor servodrives (brushless and D.C.) require EMI filtering of the input power leads to block conducted-type emissions from exiting onto the power supply line. The size of filter must be based on the size of transformers (single or three-phase) used to supply the single or multiaxis servodrive control applications (see TM-TT transformer's data sheet for coupling). **The FRM-FRT filters have to be mounted and connected in accordance with the specific servodrive's service manual.**

ACCESSORIES

(see specific data sheets for details)

- ✓ TRANSFORMERS*
 - TM/TT: single/3ph 100÷8000 VA
- *= for coupling between FRM/FRT line filters and TM/TT power supply transformers see TM/TT transformer data sheet.

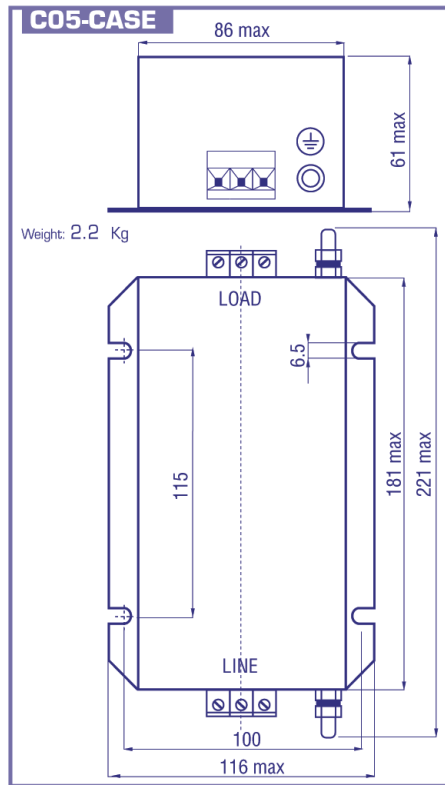
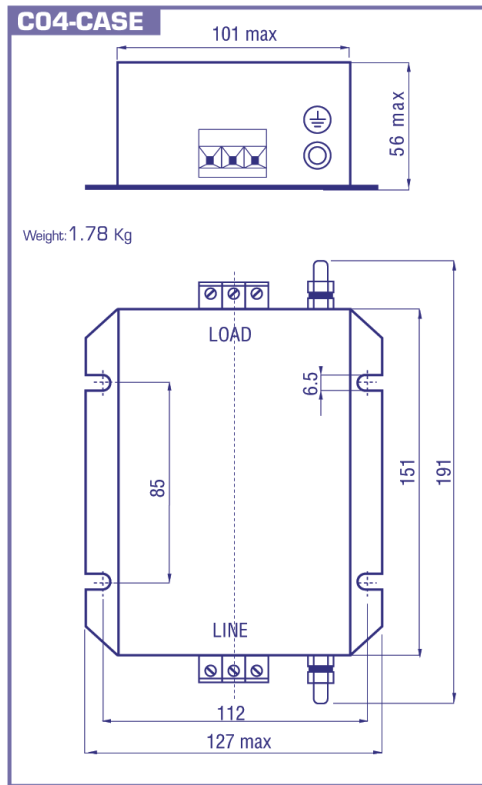
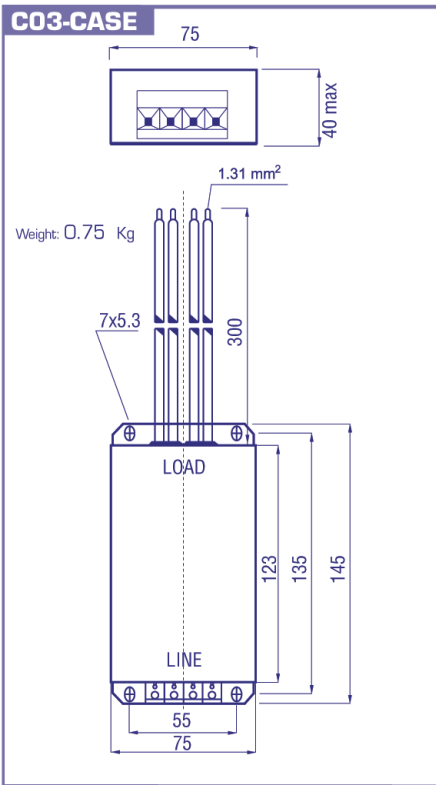
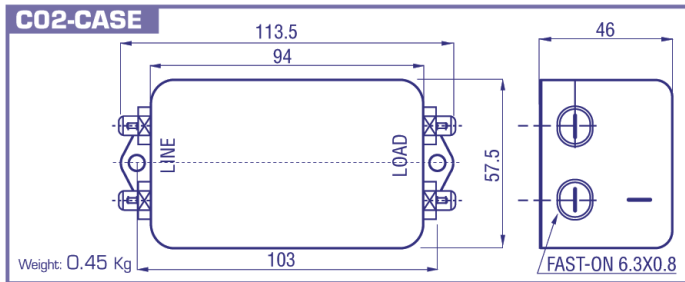
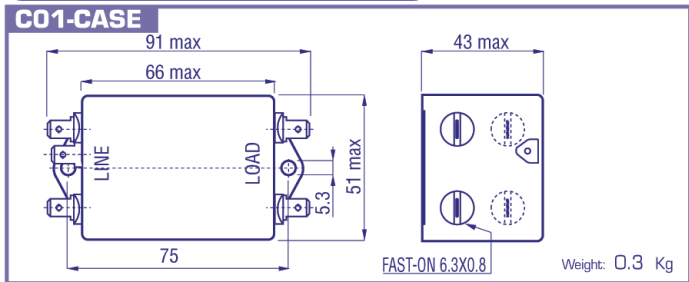
MODEL	MAXIMUM OPERATING VOLTAGE (VAc) 50/60 Hz	CURRENT RATING (Arms)	MAX. LEAKAGE (mA/phase)	SCHAFFNER PART NUMBER	TIMONTA PART NUMBER	COUPLING WITH DRIVES
FRM250-03C01FF	250 (single ph)	3	0.5	FN2070-3/06	FSS2-65-3/05*	all types °
FRM250-06C01FF	250 (single ph)	6	3	—	FSS2-65-6/3*	all types °
FRM250-06C02FF	250 (single ph)	6	0.4	FN2070-6/06	—	all types °
FRT440-03C01FF	440 (3 ph)	3	0.5	FN355-3/05	FMW4-65-3/0.5*	all types (except for B17 and B17 Box) °
FRT440-04C03TW	440 (3 ph)	4	0.5	FN251-4/07*	—	all types
FRT440-08C03TW	440 (3 ph)	8	0.5	FN251-8/07*	—	all types
FRT440-08C04TT	440 (3 ph)	8	5	—	FMBC-0927-0810	all types
FRT440-12C04TT	440 (3 ph)	12	5	—	FMBC-0927-1210*	all types
FRT440-16C05TT	440 (3 ph)	16	5	—	FMBC-0931-1610*	all types
FRT440-16C05TW	440 (3 ph)	16	0.5	FN251-16/07	—	all types

°: To be used only with transformer before the servodrives

*: Models in stock

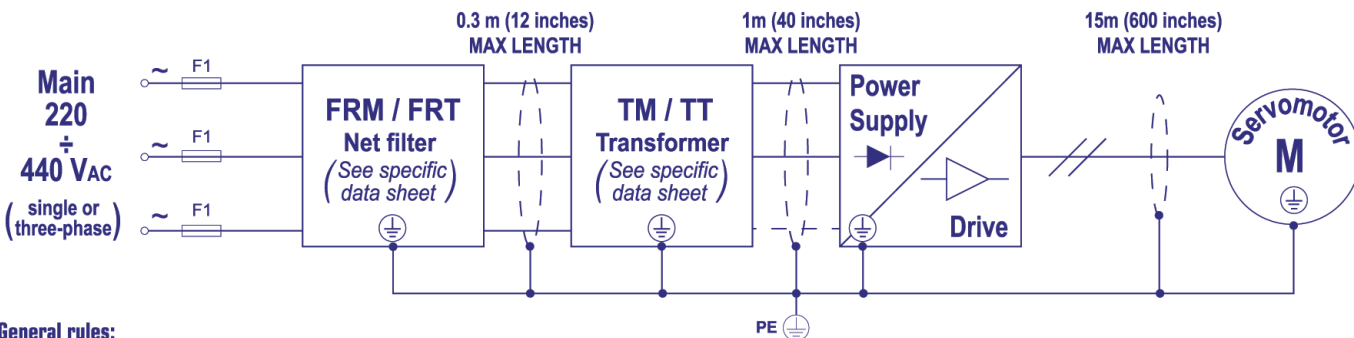
MECHANICAL DIMENSIONS

To obtain the dimensions in INCHES, divide mm by 25.4 Ex: 40 mm=1.57 Inches
25.4



ELECTRICAL CONNECTIONS

The wiring technique is essential for radio emitted disturbance suppression results!



General rules:

- 1- The filter must be placed before the transformer (main side).
- 2- All connections must be shielded and not longer than shown.
- 3- The cable shield must cover the entire length of the wire close to the connection terminals, and must be connected to the ground on the metallic panel where the filter is mounted.
- 4- Where possible pass cables using metallic channels connected to ground (keep signals cables separate).



ORDERING CODE

Example:

FRT - 440 - 08 - C03 - TW - SH

NAME: Line of net filters
FRM= single phase / FRT= three-phase

VOLTAGE (Vrms): 250 (FRM) - 440 (FRT)

SIZE: 03 - 06 (for FRM type)
03 - 04 - 08 - 12 - 16 (for FRT type)

CASE CODE:
see reverse

I/O CONNECTION:

FF = Fast-on (in) - Fast-on (out)
TW = Terminal block (in) - Wire leads (out)
TT = Terminal block (in) - Terminal block (out)
(M6 screw lead for ground)

CONSTRUCTOR:
SH = Schaffner
TM = Timonta