

# Inverter Output Series Filters

## FSTL Series



### Product Introduction

- Rated current 5A-1600A optional
- Bolt and terminal block lead out methods are optional (copper bar lead out method for 300A and above)
- The FSTL series is a conventional product suitable for the vast majority of frequency converter brands
- Can be customized according to customer on-site interference requirements

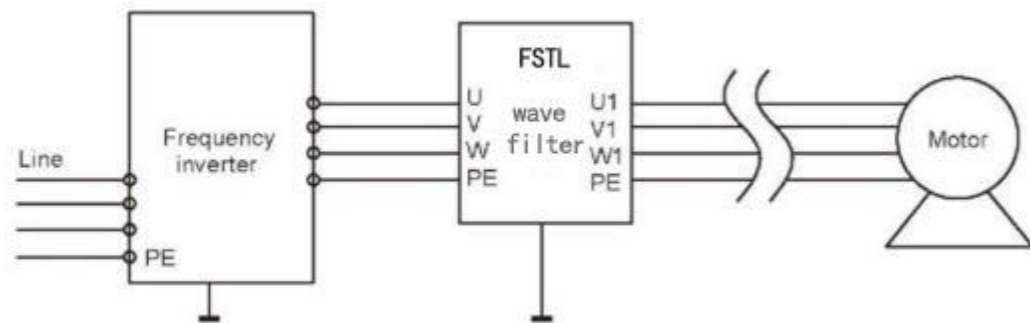
### Product Features

- The FSTL series is specially designed based on the frequency domain characteristics of the output end interfering with the load during the operation of the frequency converter
- Effectively solve the abnormal conditions such as load heating and whistling that are easily generated during long-distance transmission of frequency conversion devices, and use them in conjunction with reactors for better results
- For special customer groups, selecting terminal board products can ensure the safety of their products in special situations
- Above 300A, copper bar type lead out method is adopted, which is more consistent with international design standards, making customer connections convenient and safe

### Application area

- Frequency converter
- Variable frequency power supply
- Servo motor
- Industrial electronic equipment operating on the principle of frequency conversion

### Working principle



### Technical Parameter

Rated voltage	AC 220/380/440V
Operating Frequency	50/60Hz
testing voltage	P-E:2700VDC P-P:2250VDC
Rated current	5- 1600A
Operation temperature	-25-+85°C

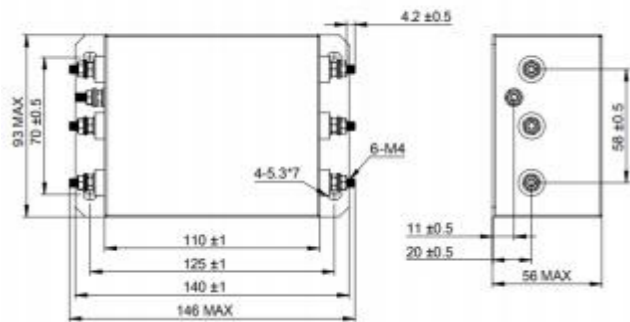
### Product List

Model no.	Rated current[A]	Power[kw]	Weight[g]
FSTL-5A-B	5	0.75/1.5	1000/1150
FSTL-8A-B	8	2.2/3.7	1100/1220
FSTL-10A-B	10	4	1120/1240
FSTL-16A-B	16	5.5/7.5	1420/1450
FSTL-30A-B	30	11/15	1650/1750
FSTL-45A-B	45	18.5/22	2610/2700
FSTL-60A-B	60	30	3180/3280
FSTL-75A-B	75	37	6100/6150
FSTL-100A-B	100	45	6200/6350
FSTL-120A-B	120	55	6450/6520
FSTL-150A-B	150	75	8200/8500
FSTL-200A-B	200	90	8500/8655
FSTL-250A-B	250	110	8800 /9000
FSTL-300A-B	300	132/150	11000/12000
FSTL-420A-B	420	160/220	11300/11500
FSTL-500A-B	500	250/260	17500/18000
FSTL-600A-B	600	280/315	18500/18800
FSTL-800A-B	800	375/400	18800/19000
FSTL-1000A-B	1000	450	19000/19300
FSTL-1200A-B	1200	560	19200/20000

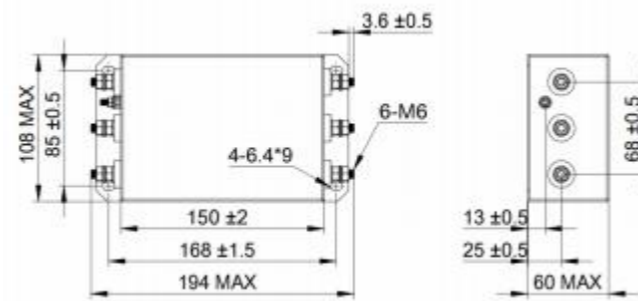
The suffix "- B" in the product model represents the actual factory serial number code  
 Outline dimension drawing (m m) (please check with the sales engineer when ordering, and no notice will be given if there is any update)

# Inverter Output Series Filters

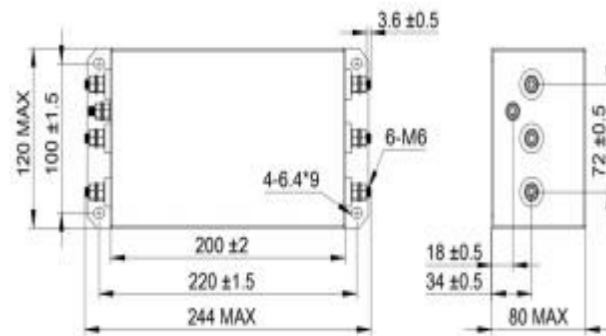
## Overall dimensions



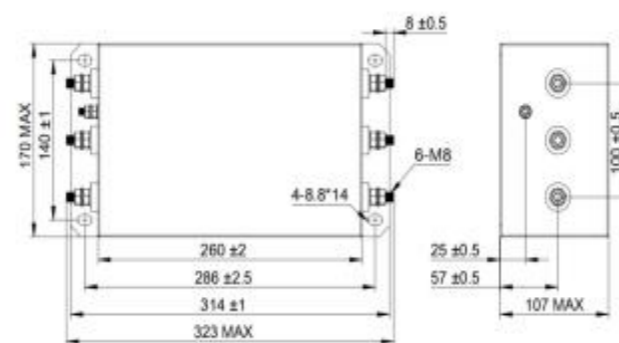
5A/8A/10A/16A



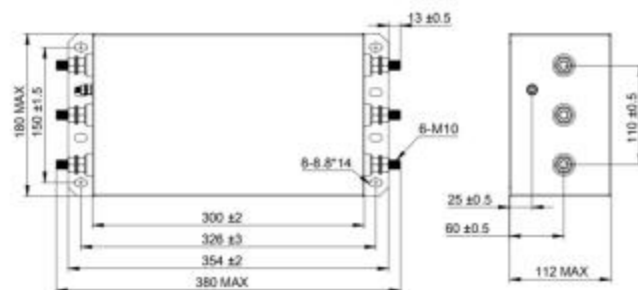
30A



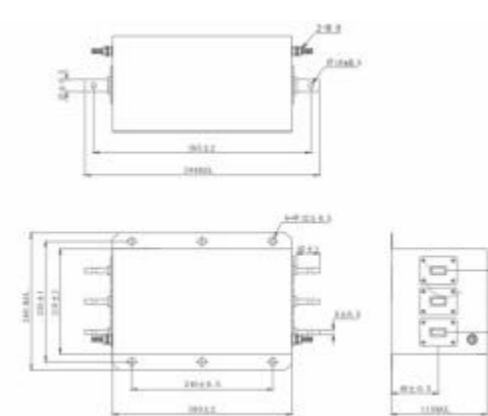
45A/60A/75A



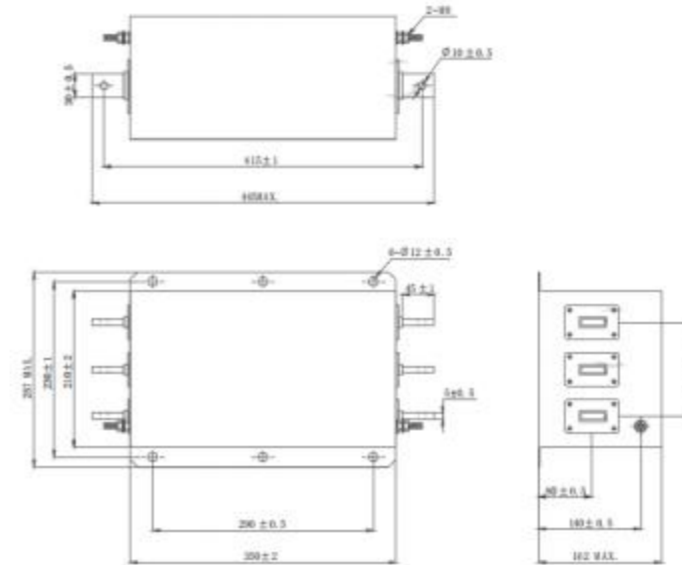
100A/120A/150A



200A/250A



300A/400A



500A/600A

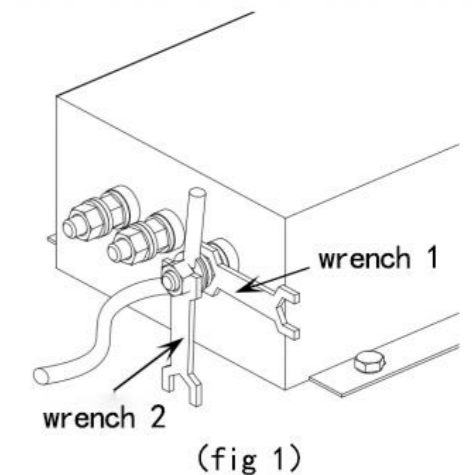
## Usage Guidelines

### 1. Filter storage and operating environment:

The Line filter shall not be exposed to the sun or rain, and shall be stored in the well ventilated environment with the ambient medium temperature of  $-30^{\circ}\text{C} \sim +65^{\circ}\text{C}$ . Store in a warehouse with a maximum relative humidity of no more than 90% (air temperature of  $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ) and no corrosive liquids or gases.

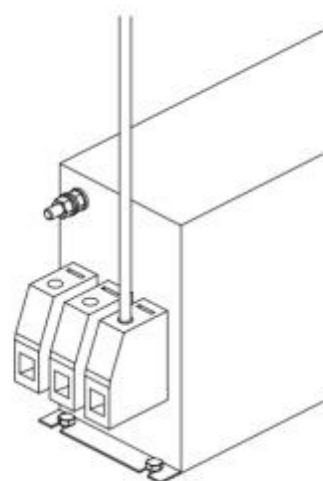
### 2. Installation of filters:

- ◆ The installation position of the filter should be selected at the power inlet, reducing the length of the input line inside the chassis and reducing radiation interference.
- ◆ The input and output lines of the filter cannot be crossed or tied with wires.
- ◆ The filter housing must be grounded extensively, and when connected to other devices, the grounding wire should be as short as possible.
- ◆ If the output terminal of the filter is a bolt, the user needs to use two wrenches to tighten the nut when wiring, so as to prevent the filter from sparking, short circuit, breakdown and degradation of the filter effect due to the change of the internal circuit caused by the rotation of the bolt. When tightening the screws, the root nut should be fixed with wrench 1 first, and then the outer nut should be tightened with wrench 2 (as shown in Figure 1), otherwise it may cause damage to the filter terminals. The connection method for other phases is the same.

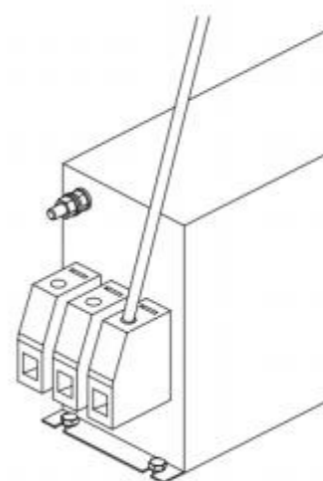


## Inverter Output Series Filters

- ◆ When installing the terminal block filter product, it is necessary to pay attention to the tool for screwing the screw as perpendicular as possible to the housing (as shown in Figure 2) and not tilt it (as shown in Figure 3) to avoid damage to the terminal block.



(fig 2)



(fig 3)

### 3. Reminders and Warnings:

**Please carefully read all safety warning instructions before installing the filter and putting it into operation:**

- ◆ Users should not use the output terminal of the filter as a support point when handling the filter, to avoid twisting, loosening, or falling of the terminal, which may affect the normal use of the filter.
- ◆ When installing filters, the grounding protection should be connected first and finally disconnected; The filter product has leakage current, please ensure good grounding before use; Filters greater than 50A: It is recommended to ensure that the filter grounding terminal is well grounded, not just through the filter casing grounding.
- ◆ Electric shock hazard: the Line filter is equipped with components that can store voltage, and there may still be dangerous voltage on the filter terminal 5 seconds or more after power failure.
- ◆ The working conditions of the filter should comply with the technical standards marked on the product trademark; Overvoltage or overload can cause damage to the filter, and it is recommended to take appropriate overcurrent protection measures.
- ◆ When the ambient temperature increases, current derating may occur. Failure to comply with the current derating requirements may cause the filter to overheat; Long term use can lead to shortened or damaged filter life.

## Inverter Input Series Filters FST series



### Product Introduction

- Rated current 5A-1600A optional
- Bolt and terminal block lead out methods are optional (copper bar lead out method for 300A and above)
- The FST series is a conventional product suitable for the vast majority of frequency converter brands
- Can be customized according to customer on-site interference requirements

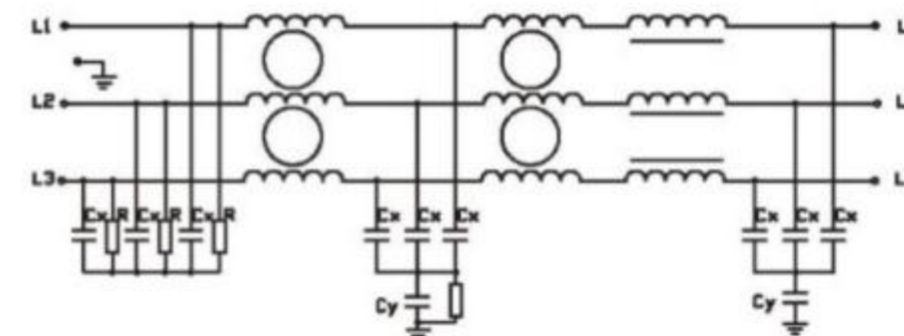
### Product Features

- The FST series is specially designed based on the frequency domain characteristics of the interference generated by the input end of the frequency converter on the power grid and other digital devices during operation
- Adopting a three-level filtering design, special magnetic materials can ensure high impedance characteristics over a wide frequency range
- The normal operation of electronic equipment that can effectively ensure the turnover of frequency converters and solve the problem of significant interference from frequency converters
- For special customer groups, selecting terminal board products can ensure the safety of their products in special situations
- Above 300A, copper bar type lead out method is adopted, which is more consistent with international design standards, making customer connections convenient and safe
- 660VAC/690VAC/1140VAC (included) and above high working voltage products are optional

### Application area

- Frequency converter
- Servo motor
- Variable frequency power supply
- Industrial electronic equipment operating on the principle of frequency conversion

### Working principle



# Inverter Input Series Filters

## Application area

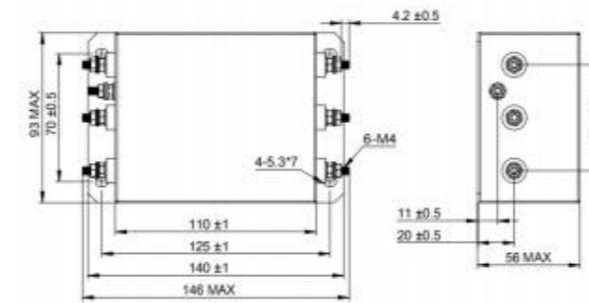
Rated voltage	AC 220/380/440V
Operating Frequency	50/60Hz
Testing voltage	P-E:2700VDC P-P:2250VDC
Rated current	5- 1600A
Operation temperature	-25 - +85°C

## Product List

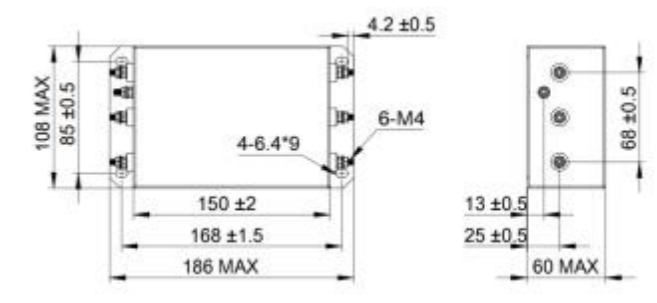
Model no.	Rated current[A]	Power [KW]	Weight[g]	Leakage current [mA]250VAC /50Hz@20°C
FST-5A-B	5	0.75/1.5	1000/1150	<10
FST-8A-B	8	2.2/3.7	1150/ 1200	<10
FST-10A-B	10	4	1180/ 1225	<10
FST-16A-B	16	5.5/7.5	1200/ 1250	<10
FST-30A-B	30	11/15	1700/ 1750	<10
FST-45A-B	45	18.5/22	2750/ 2850	<12
FST-60A-B	60	30	3250/ 3450	<12
FST-75A-B	75	37	6250/ 6450	<50
FST-100A-B	100	45	6350/ 6500	<50
FST-120A-B	120	55	6500/6700	<50
FST-150A-B	150	75	8350/8550	<50
FST-200A-B	200	90	8500/8655	<50
FST-250A-B	250	110	8900/9150	<60
FST-300A-B	300	132/150	11500/ 12000	<60
FST-420A-B	420	160/220	111800/12500	<60
FST-500A-B	500	250/260	18000/ 18500	<60
FST-600A-B	600	280/315	18500/ 19000	<60
FST-800A-B	800	375/400	19000/ 19500	<60
FST-1000A-B	1000	450	19500/ 20500	<70
FST-1200A-B	1200	560	21000/ 22000	<70

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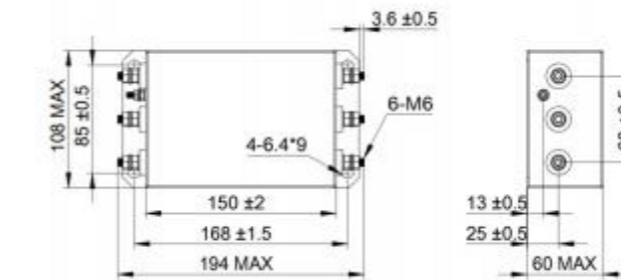
## Overall dimensions



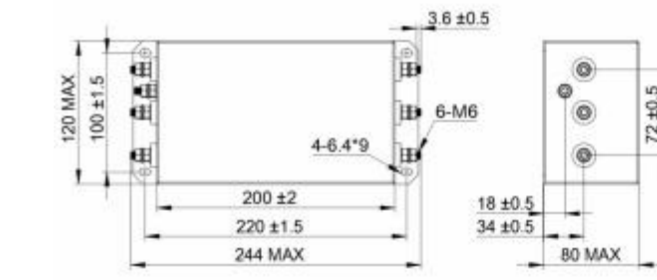
5A/8A/10A



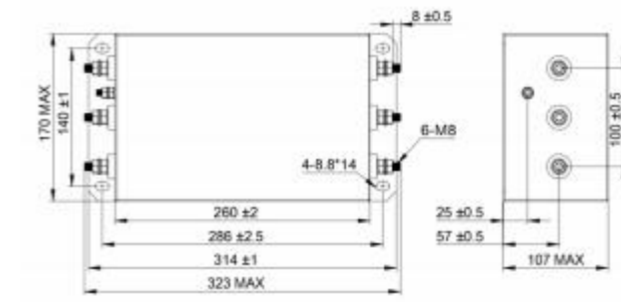
16A



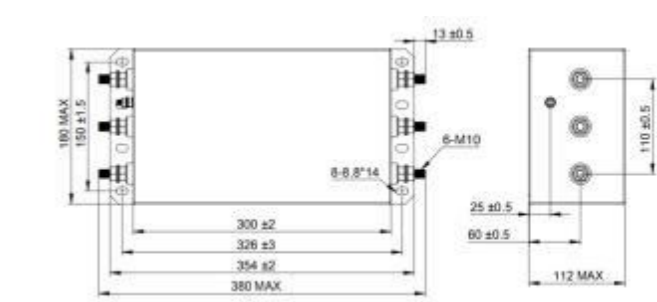
30A



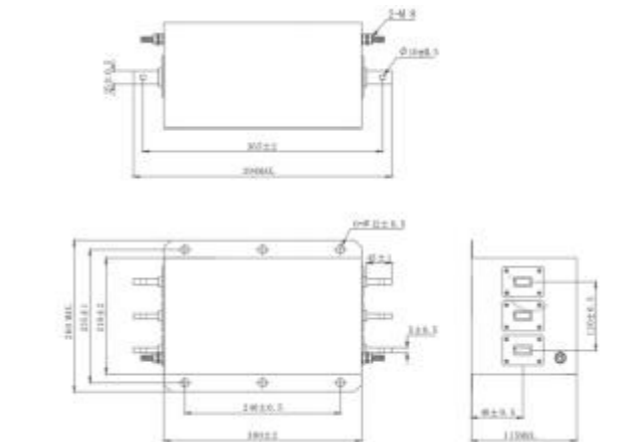
45A/60A



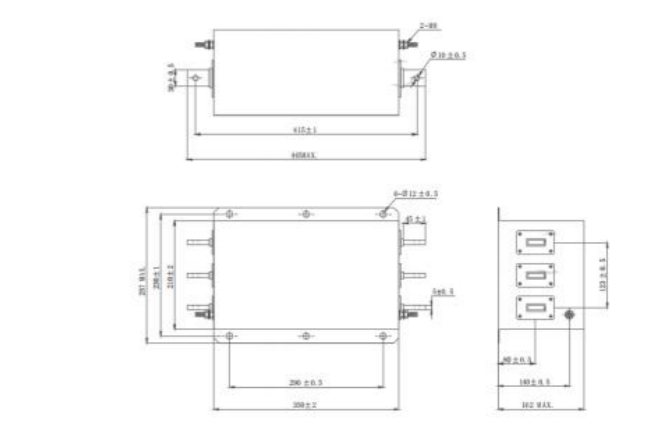
75A/100A/120A



150A/200A/250A



300A/400A



500A/600A

# Inverter Input Series Filters

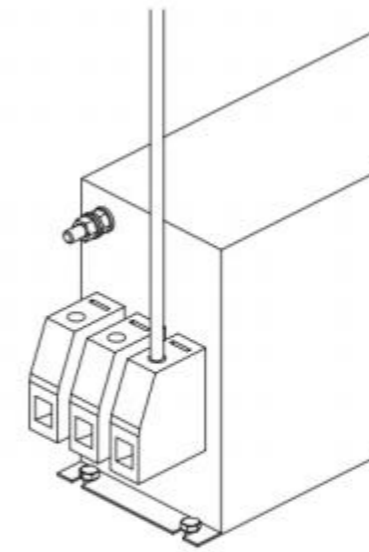
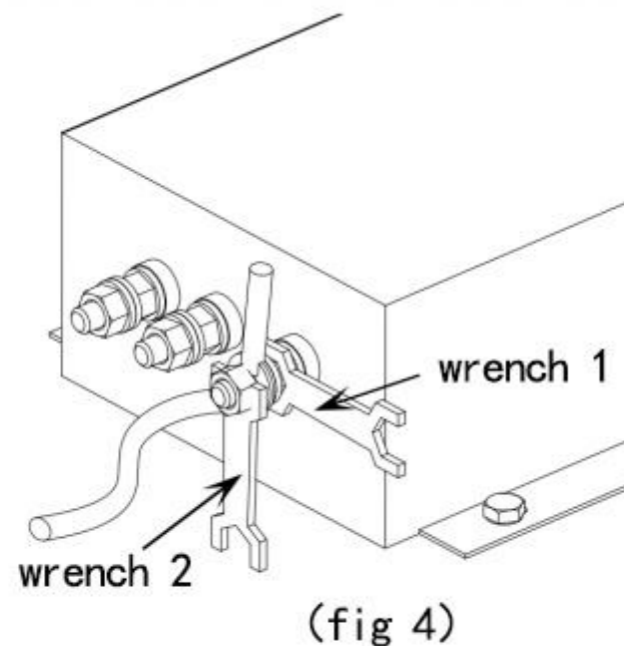
## Usage Guidelines

### 1. Filter storage and operating environment:

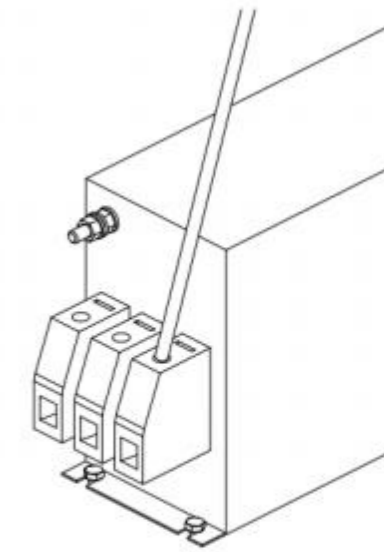
The Line filter shall not be exposed to the sun or rain, and shall be stored in the well ventilated environment with the ambient medium temperature of  $-30^{\circ}\text{C}\sim+65^{\circ}\text{C}$ . Store in a warehouse with a maximum relative humidity of no more than 90% (air temperature of  $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ) and no corrosive liquids or gases.

### 2. Installation of filters:

- ◆ The installation position of the filter should be selected at the power inlet, reducing the length of the input line inside the chassis and reducing radiation interference.
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- ◆ The filter housing must be grounded extensively, and when connected to other devices, the grounding wire should be as short as possible.
- ◆ If the output terminal of the filter is a bolt, the user needs to use two wrenches to tighten the nut when wiring, so as to prevent the filter from sparking, short circuit, breakdown and degradation of the filter effect due to the change of the internal circuit caused by the rotation of the bolt. When tightening the screws, the root nut should be fixed with wrench 1 first, and then the outer nut should be tightened with wrench 2 (as shown in Figure 4), otherwise it may cause damage to the filter terminals. The connection method for other phases is the same.
- ◆ When installing the terminal block filter product, it is necessary to pay attention to the tool for screwing the screw as perpendicular as possible to the housing (as shown in Figure 5) and not tilt it (as shown in Figure 6) to avoid damage to the terminal block.



(fig 5)



(fig 6)

### 3. Reminders and Warnings:

**Please carefully read all safety warning instructions before installing the filter and putting it into operation:**

- ◆ Users should not use the output terminal of the filter as a support point when handling the filter, to avoid twisting, loosening, or falling of the terminal, which may affect the normal use of the filter.
- ◆ When installing filters, the grounding protection should be connected first and finally disconnected; The filter product has leakage current, please ensure good grounding before use; Filters greater than 50A: It is recommended to ensure that the filter grounding terminal is well grounded, not just through the filter casing grounding.
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