

SPECIFICATION		Specification No.		S-240900C11-15				
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Product Name	HEMP Filter HF-P Series	Enactment Date		18 May 2026	Revision Date			
		Drawing Section		Sales Engineering Department				

1. General

This product is a power supply filter that is installed on the walls of an electromagnetically shielded room to remove conductive noise caused by HEMP superimposed on power cables.

2. Environment

- 2.1 Location : indoor
- 2.2 Rated temperature : -20°C ~ +50°C
- 2.3 Rated humidity : ≤ 90% (non-condensing)
- 2.4 Storage temperature : -20°C ~ +50°C
- 2.5 Storage humidity : ≤ 90% (non-condensing)

3. Construction

3.1 Appearance, Construction, and Dimensions

The appearance, construction, and dimensions shall conform to Table 1.

Table 1

Model	Wiring method	Appearance
HF-P224020	Single-phase 2-wire	S-240900A02
HF-P340020	Single-phase 3-wire / 3-phase 3-wire	S-240900A12

3.2 Marking

Following particulars are marked on the body of this product;

- (1) Model
- (2) Manufacturer's name
- (3) Applicable circuit
- (4) Rated voltage and power supply frequency
- (5) Rated current
- (6) Identification of INPUT and OUTPUT side
- (7) Wiring identification
- (8) Manufacturing lot number
- (9) Recommended tightening torque
- (10) Two-dimensional code (Installation Instruction)

4. Applicable Standards

The applicable standards of this product are shown in Table 2.

Table 2

Item	Standard
HEMP protection performance	MIL-STD-188-125-1:1998

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5. Characteristics

The electrical characteristics of this product is Table 3.

Table 3

Item	Conditions	Performance	
1. Model		HF-P224020	HF-P340020
2. Applicable line		Single-phase 2-wire 120 V, 240 V	Single-phase 3-wire 120/240 V Three-phase 3-wire 400 V (Y) Three-phase 3-wire 230 V (Δ)
3. Maximum rated voltage		AC 250 V (L-E), AC 430 V (L-L)	
4. Power frequency		50/60 Hz	
5. Rated current		AC 20 A	
6. Shielding performance	MIL-STD-188-125-1:1998 Appendix A	Compliant	
7. Filter performance	MIL-STD-188-125-1:1998 Appendix B	Compliant	
8. Leakage current	AC250V, between L-E, per line	≤1.7 A	
9. Voltage drop	At rated current	≤500 mV	
10. Capacitor discharge time	Residual voltage ≤ 1 V	≥20 sec	
11. DC withstand voltage	With MOV removed between ground terminal and each input- side line	DC 1,200V 10 seconds	

Note 1) Test Conditions

Temperature 20±15°C, Humidity 65±20% (IEC 160-1963 (normal condition of test place)).

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6. Inspection

The inspection of electrical characteristics, protection characteristics and appearance shall be held as following Table 4.

Table 4

Item	Inspection type		How to check for characteristics
	In-process inspection	Product inspection	
1. Shielding performance	—	Type	MIL-STD-188-125-1:1998 Appendix A
2. Filter performance	—	Type	MIL-STD-188-125-1:1998 Appendix B
3. LCR	Total	Sampling	According to internal company standards
4. Varistor voltage	Total	—	According to internal company standards
5. Leakage current	—	Type	According to Section 5
6. Voltage drop	—	Type	According to Section 5
7. Capacitor discharge time	—	Type	According to Section 5
8. DC withstand voltage	—	Type	According to Section 5
9. Temperature cycle test	—	Type	The test shall be conducted in accordance with Table 5. After the test, the requirements of Section 5 shall be satisfied.
10. Vibration test	—	Type	The test shall be conducted in accordance with Table 5. After the test, the requirements of Section 5 shall be satisfied.
11. Appearance, construction, and marking	Total	Sampling	According to Section 3
12. Dimensions	Sampling	Sampling	According to Section 3

Note 1) Sampling inspections are, in principle, ISO 2859 (counting sampling inspection procedures and sampling), one-time sampling and normal inspections.

AQL=6.5 according to normal inspection level II.

Note 2) Type Inspection: This inspections are conducted on at least one unit for the first lot of products in the production process at the time of new manufacturing or when important materials or manufacturing methods are changed. However, items whose performance can be confirmed with the same type of product may be omitted.

Note 3) Test conditions

Temperature 20±15°C, Humidity 65±20% (IEC 160-1963 (normal condition of test place)).

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7. Environmental Tests

The environmental test conditions for this product are shown in Table 5.

Table 5

item	Test conditions	Test duration
1. Temperature cycle test	1 cycle	30 cycles
2. Vibration test	IEC 60068-2-6 · Vibration frequency: 10 to 150 Hz (logarithmic sweep) · Acceleration: 5 m/s ² · 1 oct/min · 20 cycles · 3 axes	7.5 hours / 3 axes

8. Packing

8.1 Packing

Each product shall be individually packaging box.

8.2 Marking

The following information shall be indicated on the box:

(1) Product name (2) Manufacture's name (3) Manufacturing lot number

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9. Quality Assurance Period and Content of Assurance

The warranty period for this product is generally one year (*) from the date of delivery. Failures that occur during this time will be repaired free of charge or replaced only with non-defective ones if the cause is clearly judged to be our responsibility.

The equipment protected by this product is not covered by the warranty. The cost of replacement is not covered by the warranty.

This product is shipped after strict in-house inspection. However, please contact the dealer or each branch office of purchase for any trouble caused by a malfunction or accident during transportation.

Purchased items are not covered by our warranty but are covered by the manufacturer's warranty.

*If you wish to extend the warranty, we will discuss the warranty separately.

However, the warranty does not apply in the following cases:

- (1) If the product arises from use that is contrary to the conditions or precautions stated in the specifications or instruction manual, etc.
- (2) Damage caused by HEMP exceeding the specified rating, fire, earthquake, typhoon, eruption, flood, tsunami, salt damage, snow damage, freeze, abnormal temperature, abnormal vibration, Cases caused by other natural disasters
- (3) When caused by changes in geology or topography, such as ground fluctuations or landslides
- (4) Cases resulting from external factors such as fire, explosion, collision, corrosive gas, or contact with flying objects
- (5) Cases arising from acts of a third party
- (6) If the product is modified irrespective of our company, or improper handling such as moving, transporting or dropping the installation site, Cases arising from secondary construction
- (7) Cases caused by damage or improper construction of foundation or mounting pole (outside our construction scope)
- (8) The failure or failure of the equipment connected to this product
- (9) If it occurs without performing inspection and action for maintenance items recommended by us

10. Precautions

10.1 Caution

When this product is inserted into a power circuit, a relatively large leakage current will flow. Use with an isolation transformer is recommended.

10.2 Direct Sunlight

Do not install the product in areas exposed to direct sunlight through windows or in locations subject to intense sunlight

10.3 Tightening Torque

The tightening torque is as shown in Table 6.

Table 6

Tightening Location	Tightening Torque
Cable Terminal Connection	Recommended: 1.5 N·m
Cover Mounting Screw	Recommended: 1.5 N·m

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